2019 Consumer Confidence Report
South Bainbridge Water System; ID #81451M

This is the 2019 Consumer Confidence Report for the South Bainbridge Water System. This report, which is required by the United States Environmental Protection Agency and Washington State Department of Health, is meant to educate consumers on their water system, their water quality and the steps we take to ensure drinking water is safe and meets established regulatory requirements. The report is broken into three sections. The first section will describe the water system. The second section will discuss water quality and monitoring requirements. The final section will contain definitions and “mandatory language” that is required by the U.S. EPA and Washington DOH.

About your water system

The South Bainbridge Water System is a Group A Community Water System as classified by Washington Department of Health.

The water system’s service area is shown at right.

The South Bainbridge Water System is owned and operated by Kitsap Public Utility District.

Kitsap PUD’s Board of Commissioners meets on the second and fourth Tuesday of every month at our office in Poulsbo (1431 Finn Hill Road). Meetings begin at 9:30 AM. The public is welcomed.

Customer Service: 360-779-7656.

This report was prepared by Mark Morgan.

Source Information

<table>
<thead>
<tr>
<th>Source Number</th>
<th>Source Name</th>
<th>Water Type</th>
<th>Depth (feet)</th>
<th>Location</th>
<th>Susceptibility Assessment</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>S13</td>
<td>Lynnwood Well 7</td>
<td>Groundwater</td>
<td>169</td>
<td>24N/02E-Section 4</td>
<td>High</td>
<td>Chlorine</td>
</tr>
<tr>
<td>S14</td>
<td>South Bainbridge Well 8</td>
<td>Groundwater</td>
<td>158</td>
<td>24N/02E-Section 4</td>
<td>High Sources regulated as Lynnwood Wellfield, S19</td>
<td>Chlorine</td>
</tr>
<tr>
<td>S16</td>
<td>South Bainbridge Well 9</td>
<td>Groundwater</td>
<td>119</td>
<td>24N/02E-Section 4</td>
<td>High</td>
<td>Chlorine</td>
</tr>
<tr>
<td>S20</td>
<td>South Bainbridge Well 10</td>
<td>Groundwater</td>
<td>313</td>
<td>24N/02E-Section 4</td>
<td>High</td>
<td>Chlorine</td>
</tr>
</tbody>
</table>

Source Water Assessment Program

Washington Department of Health Office of Drinking Water has compiled source water assessment data for all public water systems in Washington. This assessment shows wellhead protection zones and inventories potential contaminants as part of a coordinated effort to protect drinking water sources in Washington.

Washington DOH’s Source Water Assessment Program is online at https://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/SourceWater/SourceWaterProtection#intro
# Table of Detected Compounds

The U.S. EPA and Washington DOH determines the frequency and scope of water quality sampling by public water systems. Data in this table is from testing conducted in 2019. The table will also include data going back five years for tests that were not required in 2019.

<table>
<thead>
<tr>
<th>Contaminant (units)</th>
<th>MCLG</th>
<th>MCL</th>
<th>Result</th>
<th>Range of results (if applicable)</th>
<th>Sample date</th>
<th>Violation?</th>
<th>Common Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inorganics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic (ppb)</td>
<td>0</td>
<td>10</td>
<td>1</td>
<td>NA</td>
<td>3/19/2019</td>
<td>No</td>
<td>Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes</td>
</tr>
<tr>
<td>Nitrate (ppm)</td>
<td>10</td>
<td>10</td>
<td>0.56</td>
<td>NA</td>
<td>3/19/2019</td>
<td>No</td>
<td>Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits</td>
</tr>
<tr>
<td>Asbestos (MFL)</td>
<td>7</td>
<td>7</td>
<td>5.86</td>
<td>NA</td>
<td>10/8/2019</td>
<td>No</td>
<td>Decay of asbestos cement water mains; Erosion of natural deposits</td>
</tr>
<tr>
<td><strong>Radionuclides</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radium 228 (pCi/L)</td>
<td>0</td>
<td>5</td>
<td>0.2</td>
<td>NA</td>
<td>8/23/2017</td>
<td>No</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td><strong>Disinfection By-Products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Halo Acetic Acids (ppb)</td>
<td>0</td>
<td>60</td>
<td>3.5</td>
<td>NA</td>
<td>9/10/2019</td>
<td>No</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Total Trihalomethane (ppb)</td>
<td>0</td>
<td>80</td>
<td>10.38</td>
<td>NA</td>
<td>9/10/2019</td>
<td>No</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td><strong>Lead and Copper</strong></td>
<td>MCLG</td>
<td>AL</td>
<td>90th percentile</td>
<td># of samples tested</td>
<td>Sample date</td>
<td>Violation?</td>
<td>Common Sources</td>
</tr>
<tr>
<td>Lead (ppb)</td>
<td>0</td>
<td>15</td>
<td>7</td>
<td>10 (zero sites exceeded AL)</td>
<td>7/2018</td>
<td>No</td>
<td>Corrosion of household plumbing systems; erosion of natural deposits</td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>0</td>
<td>1.3</td>
<td>1.04</td>
<td>10 (zero sites exceeded AL)</td>
<td>7/2018</td>
<td>No</td>
<td>Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives</td>
</tr>
<tr>
<td><strong>Disinfectant</strong></td>
<td>MRDLG</td>
<td>MRDL</td>
<td>Range of results</td>
<td># of samples tested</td>
<td>Sample date</td>
<td>Violation?</td>
<td>Common Sources</td>
</tr>
<tr>
<td>Chlorine (ppm)</td>
<td>4</td>
<td>4</td>
<td>0.01—0.54</td>
<td>36</td>
<td>Jan-Dec</td>
<td>No</td>
<td>Water additive used to control microbes</td>
</tr>
</tbody>
</table>

**Secondary Maximum Contaminant Level (SMCL):** These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

<table>
<thead>
<tr>
<th>Contaminant (units)</th>
<th>MCLG</th>
<th>SMCL</th>
<th>Result</th>
<th>Range of results (if applicable)</th>
<th>Sample date</th>
<th>Noticeable effects above SMCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese (ppm)</td>
<td>NA</td>
<td>0.05</td>
<td>Average</td>
<td>0.01—0.02</td>
<td>Mar, Aug 2019</td>
<td>black to brown color; black staining; bitter metallic taste</td>
</tr>
</tbody>
</table>
Waiver Information  Washington State grants monitoring waivers for various test panels/analytes. Department of Health has granted complete waivers for dioxin, endothal, glyphosate, diquat and insecticides. For this water system, DOH has reduced monitoring requirements for several monitoring groups. This is because the source has sufficient monitoring data to warrant a reduced frequency or DOH has determined the source is not vulnerable to contamination by that particular set of contaminants. The following table shows these reduced schedules.

<table>
<thead>
<tr>
<th>South Bainbridge S19 (Lynnwood Wellfield)</th>
<th>South Bainbridge Well 10 S20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Panel</td>
<td>Test Panel</td>
</tr>
<tr>
<td>9 year</td>
<td>New Source. Samples submitted for source approval. Monitoring Schedule to be developed by Washington Department of Health.</td>
</tr>
<tr>
<td>3 Year</td>
<td></td>
</tr>
<tr>
<td>Complete Inorganic</td>
<td>Complete Inorganic</td>
</tr>
<tr>
<td>Volatile Organics</td>
<td>Volatile Organics</td>
</tr>
<tr>
<td>Herbicides</td>
<td>Herbicides</td>
</tr>
<tr>
<td>Pesticides</td>
<td>Pesticides</td>
</tr>
<tr>
<td>7/14/2016</td>
<td></td>
</tr>
</tbody>
</table>

Definitions

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


**EPA** (Environmental Protection Agency): The United States Environmental Protection Agency administers the Safe Drinking Water Act.

**Lead and Copper 90th Percentile**: Out of every ten sites sampled, nine were at or below this level.

**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 available treatment technology.

**MCLG** (Maximum Contaminant Level Goal): 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.

**MFL**: Million fibers per liter

**MRDL** (Maximum Residual Disinfectant Level): 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.

**MRDLG** (Maximum Residual Disinfectant Level Goal): 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.

**ND** (Not Detected): The contaminant was not detected in laboratory analysis.

**NTU**: Nephelometric turbidity units

**ppm**: Parts per million. Equal to milligrams per liter.

**ppb**: Parts per billion. Equal to micrograms per liter.

**pCi/L**: Picocuries per liter. A measure of radioactivity.

**Umhos/cm**: Micromhos per centimeter. A measure of conductivity.
Mandatory language from U.S. EPA and Washington Department of Health

The following language is required by the United States Environmental Protection Agency and Washington Department of Health:

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).

Some people may be more vulnerable to contamination 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).

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:

**Microbial contaminants**, such as viruses, parasites, and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife.

**Inorganic contaminants**, such as salts and metals, which can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.

**Pesticides and herbicides**, which may come from various sources such as agriculture, urban stormwater runoff, and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. They can also come from gas stations, urban stormwater runoff, and septic systems.

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

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.

In Washington State, **lead in drinking water** comes primarily from materials and components used in household plumbing. The more time water has been sitting in pipes, the more dissolved metals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children.

To help reduce potential exposure to lead: for any drinking water tap that has not been used for six hours or more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes, or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water is available from EPA’s Safe Drinking Water Hotline at 1-800-426-4791 or online at http://www.epa.gov/safewater/lead.
Water Use Efficiency
Annual Performance Report - 2019

WS Name: SOUTH BAINBRIDGE  Water System ID#: 81451  WS County: KITSAP
Report submitted by: David Vasquez

Meter Installation Information:
Estimate the percentage of metered connections: 100%
If not fully metered - Current status of meter installation:

Production, Authorized Consumption, and Distribution System Leakage Information:
12-Month WUE Reporting Period: 01/01/2019 To 12/31/2019
Incomplete or missing data for the year? No
If yes, explain:

Distribution System Leakage Summary:
Total Water Produced and Purchased (TP) – Annual Volume 125,262,632 gallons
Authorized Consumption (AC) – Annual Volume 96,190,480 gallons
Distribution System Leakage – Annual Volume TP – AC 29,072,152 gallons
Distribution System Leakage – Percent DSL = [(TP – AC) / TP] x 100 23.2 %
3-year annual average 22.6 %

Goal-Setting Information:
Date of Most Recent Public Forum: 12/11/2019 Has goal been changed since last performance report? Yes
Note: Customer goal must be re-established every 6 years through a public process

WUE Goals:
Customer Goal (Demand Side):
Decreased Peak Billing period usage by 3 % as calculated on a three year average.

Describe Progress in Reaching Goals:
Customer (Demand Side) Goal Progress:

Kitsap PUD invest in 1- Education and community outreach throughout classes, events, field trips and quarterly newsletters regarding using water efficiently and the importance of water conservation.
2- We offer virtual information and videos to help customers locate leaks and use water efficiently.
3- Our bills show previous consumption data for a better understanding of water usage.
4- Tier billing based on the amount of water used to promote conservation.
5- We offer low flow shower heads and aerators at no cost.
6- Free dye tablets and water audit kits.
7- Notify customers for possible leaks within their properties.

Additional Information Regarding Supply and Demand Side WUE Efforts
Include any other information that describes how you and your customers use water efficiently:

Ongoing efforts are in progress to reduce distribution system leakage to 10% as calculated on a three year average.
2- Implementing studies for a Meter replacement program throughout the system.