

# WaterQuality REPORT



*This report is a requirement of the Safe Drinking Water Act. It provides our customers a summary of the tests performed on your drinking water in 2013 so you can assess for yourself how clean your water is.*

## Our community's commitment to a clean, protected Lake Whatcom Reservoir



**By Mayor Kelli Linville and City Council President Cathy Lehman**

This is an important year for our community's commitment to a clean, protected Lake Whatcom Reservoir, as local governments and others sharpen their focus on its long-term health.

The Lake Whatcom Reservoir is the drinking water source for 100,000 people – over half of all residents of Whatcom County – and has irreplaceable ecological, recreational and aesthetic value.

The City of Bellingham, Whatcom County and the Lake Whatcom Water and Sewer District have worked together on three five-year plans since entering into a joint agreement in 1998. The next work plan is being prepared this year for 2015-2019.

We are beginning the next five-year plan with much greater knowledge, experience and success than ever before.

Our investments have resulted in measurable successes, reducing phosphorus and protecting our watershed. We have learned to design and build effective stormwater facilities for our unique urban environment, to provide meaningful incentives that leverage private investments, and to deliver targeted messages to residents who can make the biggest impact.

And we have done this together: the city, the county, the water and sewer district, watershed residents and concerned citizens throughout our Whatcom County communities, with the support of our state government funding partners.

Our determination is paying off. We ask the citizens of Bellingham and greater Whatcom County to honor and embrace this leadership on this vital community resource and support a forever clean and protected Lake Whatcom Reservoir.

## Your drinking water quality

At the City of Bellingham, providing high-quality drinking water to you and your family is a top priority. Because our number one job is the quality of water we provide to our customers, we monitor the water constantly to guarantee its purity. Not only did your drinking water meet all standards for purity in 2013, for the past 15 years the City has also received the Partnership for Safe Water's Director Award for exceeding safe drinking water quality standards.

Water quality starts with the Lake Whatcom Reservoir, the City's drinking water source, located east of Bellingham. From there, water travels 1.5 miles to the City's filtration plant where water is coagulated, filtered, and lightly disinfected. From our treatment plant, clean, safe drinking water is delivered by pipes to 100,000 residential and business customers.

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## State-mandated water metering project update

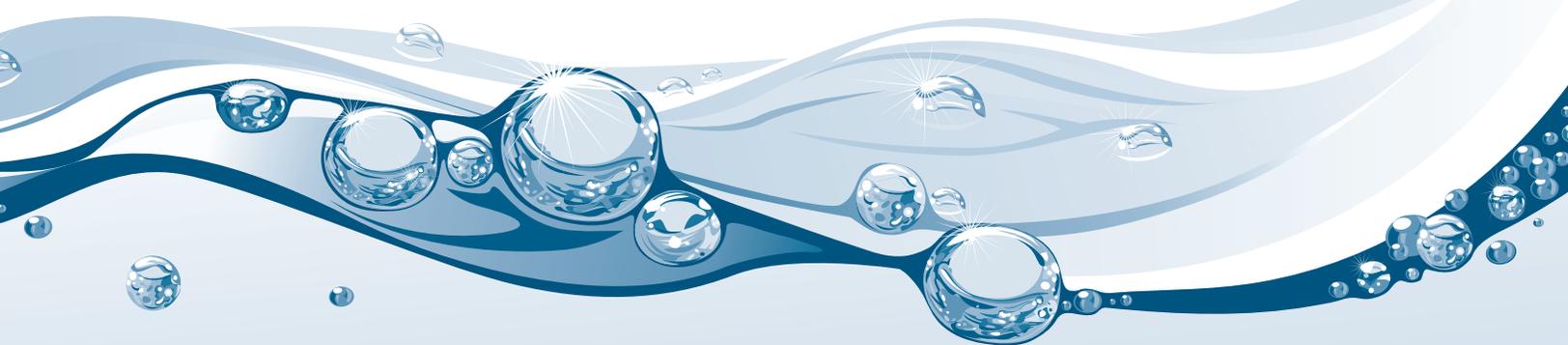
Nearly 4,000 newly metered water customers were converted to a bi-monthly metered water utility bill in March.

Preliminary consumption data shows that 53% of these customers are using 12 hundred cubic feet (ccf) or less per billing cycle, saving them money. Since the city started

the state-mandated water metering project in 2012, water department crews have stayed on schedule, due in part to the cooperation of our water customers. WE THANK YOU! For more information about the program visit [www.cob.org](http://www.cob.org) and search 'water metering'.

### Installation timeline by neighborhood

	2013-2014
	Edgemoor, South Samish, Puget, Whatcom Falls
2014-2015	2015-2016
Sunnyland, Lettered Streets, Columbia, Cornwall, Birchwood, Meridian, Cordata	Fairhaven, South Hill, Happy Valley, WWU, Sehome, York



## Unregulated contaminants monitoring data available for City of Bellingham

To ensure that tap water is safe to drink, the Department of Health and U.S. Environmental Protection Agency (EPA) regulate the amount of contaminants in public water systems. The Food and Drug Administration and the Department of Agriculture regulate limits for contaminants in bottled water to provide similar protection for public health.

One rule requires all water systems in the country with more than 10,000 customers to test for a list of substances that either don't yet have a drinking water standard set by the EPA, or that the standard may be lowered. Collecting data about trace elements and select chemical compounds helps the EPA decide whether they should set a drinking water standard.

The City of Bellingham collects this data as required. Results from 2013 are shown in the chart to the right. For a copy of these results or more information, please contact Peg Wendling at (360) 778-7872 or [pwendling@cob.org](mailto:pwendling@cob.org).

Bellingham's water is very clean. The Unregulated Contaminants Rule asks water utilities to look for potential contaminants of concern at very low levels, measured in parts per trillion and parts per billion. With levels this low, we expect to see something.

When we detect substances at these low levels, it does not mean there is cause for concern. In fact, as noted in the chart below, the substances that were found in our water also are found widely in bottled water.

### Unregulated Contaminant Rule 3 Inorganics screen results

All units in ug/L or parts per billion

#### Bellingham drinking water:

	Vanadium	Molybdenum	Cobalt	Strontium	Total Chromium	Hexavalent Chromium
Bellingham tap water average	0.45	0	0	61	0	0.046
Bellingham tap water maximum value	0.45	0	0	61	0	0.052

#### Common brand of bottled water:

Natural artesian water - imported	1.0	0	0	160	0	0.374
Top selling brand - purified water w/ minerals	0	0	0	0.5	0.3	0.034
Natural spring water - imported	0	0	0	302	0.2	0.171
Popular brand vapor distilled w/ electrolytes	0	0	0	1.2	0.4	0.091

0 = below detection level

We have intentionally omitted the brand name of the bottled waters.

For more information on your drinking water go to: [www.cob.org/services/utilities/water.aspx](http://www.cob.org/services/utilities/water.aspx)

For information on how to get involved go to: [www.lakewhatcom.whatcomcounty.org](http://www.lakewhatcom.whatcomcounty.org)

## Watercraft inspections protect Lake Whatcom & Lake Samish

In 2014, inspections are required for all watercraft prior to launching on Lake Whatcom and Lake Samish. This new requirement includes non-motorized, hand-carried watercraft such as canoes and kayaks. Boat inspectors are checking to see if watercraft are cleaned, drained, and dried in an effort to prevent the spread of Aquatic Invasive Species (AIS)



to these lakes. AIS can cause serious impacts to drinking water supplies, shoreline properties, and lake ecosystems. The Lake Whatcom Management Program (LWMP) launched the second phase of watercraft inspection program in 2013, which required all motorized/or trailered watercraft to be inspected for AIS and to display a valid AIS permit sticker prior to launching on Lake Whatcom or Lake Samish. Between April 1 and October 30, LWMP staff conducted 3,192 inspections and four decontaminations

at Lake Whatcom and Lake Samish. See [www.lakewhatcom.whatcomcounty.org](http://www.lakewhatcom.whatcomcounty.org) for results from the 2013 boating season. Take the online AIS Awareness Certification course to learn more about AIS and how you can do your part to protect your drinking water. Complete the course and exam to receive a discount when purchasing permits. Visit [www.whatcomboatinspections.com](http://www.whatcomboatinspections.com) for more information on 2014 boating requirements including inspection locations and permit fees for Lake Whatcom and Lake Samish.

# Saving water saves energy

Every drop of treated drinking water saved, saves energy, and every unit of energy saved, saves water.

Water and energy are linked when it comes to utilities providing customers with electricity and drinking water. It takes water to produce energy and energy to produce drinking water and it takes energy to transport this water to your home.

Each time you take a shorter shower or wash a full load of laundry, you save water and energy through reduced hot water

use. Residential water heating creates the largest share of water-related carbon emissions. Conserving water outdoors by installing and using a rain barrel or cistern conserves energy, because less water needs to be treated and delivered.

The City's Water Conservation Program partners with the Community Energy Challenge, to offer water assessments and rebates on water conserving fixtures. For more information, visit [www.cob.org](http://www.cob.org) search "water and energy."



Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

<b>Detected Substances</b> <i>(Bellingham Water System ID WA 056003)</i>	<b>2013 Level Detected</b> <i>(or most recent)</i>	<b>EPA Maximum Contaminant Level (MCL) or Action Level</b>	<b>In Compliance?</b>
<b>Disinfection By-products (DBPs):</b> Total Trihalomethanes (THM) and Haloacetic Acids (HAA). THMs and HAAs are the most common types of DBPs. The City samples for DBPs at eight sites in the water distribution system each quarter.	<b>THM:</b> Average (all): 40.5 ppb Max single site average: 50.0 ppb Range: 16.8 to 66.0 ppb <b>HAA:</b> Average (all): 15.9 ppb Max single site average: 17.8 ppb Range: 11.9 to 22.5 ppb	For each site, the running annual average MCL must be: <b>THM:</b> Below 80 ppb and <b>HAA:</b> Below 60 ppb	<b>YES</b>
<b>Free Chlorine Residual:</b> Chlorine levels are monitored continuously at the water treatment plant and daily at many representative points throughout the water distribution system.	Of the 1,101 free available chlorine samples collected in the distribution system along with water purity samples, the average free chlorine was 0.41 ppm with a range of <0.01 - 1.56 ppm.	There is a requirement for a measurable chlorine residual at 95% of all routine monitoring sites each month.	<b>YES</b>
<b>Lead and Copper:</b> Lead and copper are monitored every three years in our customers' homes to assess the amount of corrosion occurring in home plumbing. Homes selected are those with leaded solder and copper pipe. The most recent sampling was in 2011. Sampling will be conducted again in 2014.	<b>Lead:</b> The 90th percentile value of the 44 homes sampled showed lead at the 6 ppb level. The range of values was <1 to 17 ppb. One of the homes sampled (2%) was above the lead AL. <b>Copper:</b> The 90th percentile value of the 44 homes sampled was 70 ppb. The range of values was 12 to 92 ppb. No sites were above the action level.	The allowable highest 90th percentile values are: <b>Lead:</b> 15 ppb <b>Copper:</b> 1300 ppb	<b>YES</b>
<b>Total and Fecal Coliform Bacteria:</b> The City samples a minimum of 90 sites in the water distribution system each month for indicator bacteria to ensure the water maintains its purity from the treatment plant to our customers.	Of the 1,101 samples collected for total and fecal coliform in 2013, none tested positive for total coliform bacteria. In addition, no sample was positive for fecal coliform bacteria in 2013.	Allowable highest percentage of total coliform-positive samples per month is 5%. The presence of any fecal coliform in drinking water samples for two consecutive samples would require public notification of this problem within 24 hours.	<b>YES</b>
<b>Turbidity:</b> Turbidity is a measurement of the clarity of the water. The City monitors turbidity continuously at the beginning, middle, and end of the treatment process. Turbidity reported for compliance is in the treated water.	Bellingham's single highest turbidity level for 2013 was 0.10 nephelometric turbidity units (NTU). The City met the 0.3 NTU requirement in 2013 100% of the time.	Compliance means filtered water turbidity shall be less than or equal to 0.3 NTU in at least 95% of the measurements made each month and shall never exceed 1.0 NTU.	<b>YES</b>
<b>Inorganics:</b> No inorganic substance with a maximum contaminant level (MCL) was detected at or above that level, but detections of three inorganics with a MCL were found at very low levels.	<b>Barium</b> = 0.007 ppm <b>Nitrate</b> = 0.35 ppm <b>Nitrite/nitrate</b> = 0.35 ppm	<b>Barium</b> = 2 ppm <b>Nitrate</b> = 10 ppm <b>Nitrite/nitrate</b> = 10 ppm	<b>YES</b>

WHERE: **ppm** = parts per million, **ppb** = parts per billion, **MCL** = maximum contaminant level, **AL** = Action 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. 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 contaminants 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. The 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 and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and 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 a variety of 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, and can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants**, which can be naturally occurring or the result of oil and gas production and mining activities.

In order 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 State Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Elevated levels of lead in drinking water can cause serious health problems, especially for pregnant women and young children. In Bellingham, fortunately, lead is not found in the treated water, but lead in drinking water can come from pipes and faucets in our customers' homes. The City of Bellingham is responsible for providing high quality drinking water, but

cannot control the variety of materials used in customers' plumbing. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for at least 30 seconds before using the water for drinking or cooking. You can capture this water to use on plants. If you are concerned about lead in your water, you may opt to have your water analyzed by a local laboratory. To learn more about lead in water, go to: <http://www.epa.gov/safewater/lead>.

## Definitions

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

**Maximum Contaminant Level (MCL):** 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.

**Maximum Residual Disinfectant Level (MRDL):** 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 (e.g., chlorine, chloramines, chlorine dioxide).

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

