2013 System Updates

2013 was a busy year for the Langley Water Department. Below is a list of the accomplishments we are most proud of!

◊ Updated our billing system. You can now pay online and you have an option for auto pay! Visit www.langleywa.org/whats-new to sign up.
◊ Replaced water main on 1st street from Debruyun to Wharf Street and installed 4 new hydrants. This project was a major element in replacing degrading 4" diameter mains with new 8-inch diameter mains to improve water circulation, and fire flows in the city center.
◊ Assisted Fire District #3 with field testing for the Washington Surveying and Ratings Bureau which resulted in a better score and possible reduction in insurance rates for residents!
◊ Abandon a leaky undersized water line on Saratoga road which resulted in a water savings of approximately 6 gallons per minute!

Source Protection Information

Source Water Assessment Program data for the City’s water system is available online at http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/SourceWaterProtection/Assessment.aspx
If you don’t have access to the web, we encourage you to use the Internet service available through the public library system.

Brown Water

The brown color occasionally seen in your water is caused by iron and manganese. These metallic elements found in nature dissolve as our water percolates through soil and rock and subsequently enter into our groundwater supply.

Iron deposits build-up in pressure tanks, water heaters and pipelines over time. The deposits cause decrease capacity, reduce pressure and increase maintenance over time.

If you experience brown water in your home system you should flush COLD water through an outdoor faucet or bath tub and report it to the water department. We recommend that you regularly flush your hot water tank as recommended by the tank manufacturer.

The City systematically flushes the distribution mains to reduce build-up. We flush approximately 589,000 gallons annually to maintain clear water.

Iron and manganese are considered to be primarily nuisance chemicals. These minerals have staining properties and are regulated by secondary drinking water standards established by the U.S.EPA. high levels of iron and manganese do not pose any known adverse health risks.
The City of Langley is pleased to present the 2013 Annual Water Quality Report. This report informs you about the quality of the water that the City of Langley provided last year. Included are details on where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. This report covers state required information and is a valuable service to our water customers who depend on the City's water system.

Your drinking water is highly regulated by the EPA and is tested regularly. Keeping pace with upgraded water testing and more stringent federal standards is a challenge but one that the City of Langley strongly supports. Our constant goal is to provide you with a safe source of drinking water.

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**Our Water System**

The City of Langley (ID # 45950) is a water utility of 993 connections. Our water system consists of 3 wells, an additional emergency well and a storage tank, which are located west of Island County Fairgrounds, in our watershed area well field. After the water is drawn from the wells we add disinfectant (chlorine) to protect you against microbial contaminants. The Mayor, City Council Members, and Director of Public Works work with the Utility Supervisor and three certified water operators, to bring you good quality water.

If you have any questions or concerns regarding the City’s water utility, your water, or this report, please contact the Public Works Department at 221-4246 x13. In a water emergency, please call 911.

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**Presence of Contaminants in 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 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 at 1-800-426-4791 or looking on the website at http://www.epa.gov/safewater/

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, radio-active material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before it is chlorinated 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 be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture and residential uses.
- Radioactive contaminants, which are naturally occurring.
- 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.

In order to ensure that tap water is safe to drink, the Department of Health (DOH) and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. We treat our water according to DOH and EPA’s regulations. 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.

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. 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).
**Water Quality Data**

The table below lists all the drinking water contaminants that we detected during the 2013 calendar year. The presence of these contaminants does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2013. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

<table>
<thead>
<tr>
<th>Disinfection Residual</th>
<th>MCL</th>
<th>MCGL</th>
<th>Langley Water</th>
<th>Range of Detection</th>
<th>Sample Date</th>
<th>Violation</th>
<th>Typical Sources of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine (as Cl₂) (mg/l)</td>
<td>4</td>
<td>4</td>
<td>.26</td>
<td>.01-.2.2</td>
<td>2013</td>
<td>NO</td>
<td>Water additive to control microbes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Microbiological Contaminants</th>
<th>MCL</th>
<th>MCGL</th>
<th>Langley Water</th>
<th>Number of samples</th>
<th>Sample Date</th>
<th>Violation</th>
<th>Typical Sources of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform Bacteria</td>
<td>Does not apply</td>
<td>0</td>
<td>Positive</td>
<td>2</td>
<td>2013</td>
<td>YES*</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inorganic Contaminants</th>
<th>MCL</th>
<th>MCGL</th>
<th>Langley Water</th>
<th>Range of Detection</th>
<th>Sample Date</th>
<th>Violation</th>
<th>Typical Sources of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrate as nitrogen (ppm)</td>
<td>10</td>
<td>10</td>
<td>2.08</td>
<td>ND-1.97</td>
<td>2013</td>
<td>NO</td>
<td>Runoff from fertilizer use</td>
</tr>
<tr>
<td>Arsenic (ppb)</td>
<td>7</td>
<td>7</td>
<td>ND</td>
<td>0-.72</td>
<td>2013</td>
<td>NO</td>
<td>Decay of asbestos cement water mains; erosion of nature deposits</td>
</tr>
<tr>
<td>Total Trihalomethanes</td>
<td>MCL/AL</td>
<td>MCLG</td>
<td>Langley Water</td>
<td>Range of Detections</td>
<td>Sample Date</td>
<td>Violation</td>
<td>Typical Sources of Contaminant</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>N/A</td>
<td>2.1</td>
<td>2.1</td>
<td>2013</td>
<td>NO</td>
<td>By-product of drinking water disinfection</td>
</tr>
</tbody>
</table>

* Health Effects: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Coliforms were found in one routine sample and a repeat sample from the same location. Testing determined that the sample spigot was contaminated. The water was tested immediately after and no coliforms were found to be present.

*1 Your drinking water currently meets EPA's standard for arsenic. However, in does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory disease are due to factors other than exposure to arsenic. EPA’s standard balances the current understanding of arsenic’s health effects against the cost of removing arsenic from drinking water.

**Terminology**

MCL (Maximum Contaminant Level): the highest level of a contaminant that is allowed in drinking water. MCL’s are set as close as feasible using the best available treatment technology.

MCGL (Maximum Contaminant Level Goal): the level of a contaminant in drinking water below which there is no known or expected risk to health. MCGL’s allow for a margin of safety.

ppm (parts per million or milligrams per liter (mg/L)): about the same as 1/2 an aspirin tablet dissolved in a bathtub full (50 gallons of water).

ppb (parts per billion or micrograms per liter): about the same as 1 dissolved aspirin in a 100,000 gallon swimming pool.

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.

**Additional Information**

Why does the taste and odor of the water sometimes differ? Water naturally varies in taste and odor at different times of the year. Taste and odor problems can also come from new or old pipelines, plumbing fixtures or changes in water quality. Customers may notice changes during severe winter storms, when reservoirs are low, or during hot weather. The City of Langley closely monitors such changes to ensure they do not affect the safety of the water.

**Lead:** 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. The City of Langley 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.

**Conclusion**

Through water monitoring and testing we have learned that some elements have been detected. The EPA has determined that your water IS SAFE at these levels. Every month our system is tested for Fecal Coliform Bacteria. All water samples came back from the lab with a good report. Our system had a Non–acute Coliform violation which we identified, rectified and notified the public quickly.

We are proud that your drinking water meets or exceeds all Federal and State requirements.
Join the 2013 Water Saver Challenge!

The City of Langley’s single largest electric expense is to pump and treat water. Join this summer’s effort to reduce our city’s energy footprint by taking part in the **2013 Water Saver Challenge**. Save money on your water bill at the same time!

**Sign up for the challenge; here is how it works:**

**Sign up by Tuesday, July 15th** – Email your name and address to langleyutilities@whidbey.com or sign-up at the city hall front desk (M – TH, 9 AM – 5 PM).

Save as much water as possible using conservation tips provided via weekly email. The Public Works Department will analyze your water usage this summer (July 15th – August 31st) to calculate the percent reduction in gallons used from the previous year bill at the same time!

**Visit us on the Web**

www.langleywa.org

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**Public Works Crew**

Langley’s Water System is managed and operated by city personnel in the Public Works Department. The water utility maintains a commitment to provide safe, continuous, and quality service to our customers and the community we serve.

**STAN BERRYMAN,** Director of Public Works  
**RANDI PERRY,** Utilities Supervisor, Water Distribution Manager II  
**ROB DURR,** Utilities Maintenance Laborer, WDMI  
**BRYAN HAMILTON,** Maintenance Laborer, WDMI  
**TIM GROVE,** Maintenance Laborer, WDM OIT  
**JOE WIERZBOWSKI,** Laborer

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**Water Use Efficiency Program Update**

In 2010, The City Council established a water use efficiency goal of reducing residential water use by 2% in the summer months of July and August, by September 1st, 2016. This 2% would be a savings of 251,344 gallons. Since the goal has been established you’ve saved 1,319,347 gallons thereby achieving the goal years ahead of schedule!

The City Water Department continues to focus on system efficiency. Our goal is to reduce the amount of water lost between production and consumption to 10% or less. Our 3-year annual water loss average is 11.7%. In our effort to reduce loss we removed 500 lateral feet of leaky galvanized pipe on Saratoga Road. Calculations show over the course of the year we reduced loss from 18 gpm to 7.8 gpm. We anticipate our efforts will bring system average loss below 10% for 2014.

We will continue to replace old sections of piping and calibrate and replace aging water meters to minimize unaccounted for losses.

**Thank you water users for your continued conservation effort!**

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**STAN BERRYMAN,**     Director of Public Works  
**RANDI PERRY,**     Utilities Supervisor, Water Distribution Manager II  
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**Contact Cheryl by emailing frontdesk@langleywa.org or call (360)221-4246 x 0**