2016 ANNUAL WATER QUALITY REPORT

Water quality reports are to inform you, the consumer, about water quality, characteristics, and treatment procedures of the City of Woodland’s drinking water. This annual publication complies with Federal law requiring all water utilities to provide water quality information to customers each year and is provided in addition to other notices required by law.

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

This report includes mandatory information regulated by State Department of Health (DOH) as well as the Environmental Protection Agency (EPA), and also facts and details unique to the City of Woodland’s water system. We support the consumer’s right to know the results of our water quality monitoring and encourage public participation in decisions which affect your drinking water. More extensive information of water quality testing results is available at the Public Works Department Office at 300 East Scott Avenue.

The State-regulating agency is the Department of Health (DOH) and the Federal agency is the Environmental Protection Agency (EPA). Our water is monitored and tested daily by certified water treatment personnel and also regularly tested through certified laboratories. DOH and EPA regulators routinely monitor our compliance and testing procedures to ensure safe delivery of water to our customers.

Woodland’s drinking water meets or exceeds EPA water quality requirements!

Security and emergency response are essential in proper management of our drinking water system. We have complied with the required system vulnerability assessment and have submitted an emergency water system response plan to the Environmental Protection Agency (EPA).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems disorders, and 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 and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791 or on the web at http://www.epa.gov/safewater.

SOURCE AND TREATMENT OF WOODLAND’S WATER

The source of Woodland’s water supply is the aquifer beneath the North Fork of the Lewis River. The water collection system, called a horizontal collector well, is located below the river bottom and is relatively safe from any potential contamination or flooding damage which may take place in the river. The Lewis River watershed is fed by glacier melt from Mt. Adams and smaller tributaries such as Cedar Creek. The Lewis River is one of the cleanest and most pristine rivers in the region; however, the source is naturally high in iron.

The City of Woodland Water Filtration Plant began operation in late May of 1999. The filtration plant uses chlorine for disinfection and to remove iron. Soda ash is also used in the iron removal process, as well as for corrosion control in the distribution system. The treatment plant is designed for a 24-hour peak flow of 3,000,000 gallons per day (3 MGD). During 2016 Gray & Osborne, Inc. hired to design plant improvements. Construction is planned for 2017. In addition to iron removal, the treatment process also reduces turbidity, color, and disinfects potential contaminants which may include the following:

- Microbial contaminants, such as viruses, bacteria, giardia, and cryptosporidium, which may come from wildlife.
- Inorganic contaminants, such as salts and metals, which can occur in nature.
- Pesticides and herbicides, come from a variety of sources such as farming, home or business, and storm water runoff.
- Radioactive contaminants which can occur naturally.
- Organic chemical contaminants, including synthetic and volatile organic chemicals which are by-products of industrial processes, solvents, petroleum production, or from gas stations, storm water runoff and septic systems.
- (DBP’s). The most common DBP’s formed when chlorine is used are trihalomethanes (THM’s) and haloacetic acids (HAAS’s).

- QUESTIONS? PLEASE CONTACT THE WOODLAND WATER TREATMENT PLANT AT 360-225-6174
- OR THE PUBLIC WORKS DEPARTMENT AT 360-225-7999.
- ADDITIONAL INFORMATION MAY ALSO BE FOUND ON OUR WEBSITE AT WWW.CI.WOODLAND.WA.US
processes. Petroleum products; man-made contaminants from industrial microbial pathogens while insuring decreasing health risks to the population from disinfection byproducts (DBP's). The most is how to balance the risks from microbial pathogens and disinfection byproducts. It is important to provide protection from water to form unintended organic and inorganic byproducts, which may pose health risks. A major challenge for water suppliers and it is an essential part of drinking water treatment. However, disinfectants can react with naturally occurring materials in the typhoid and cholera epidemics were common throughout American cities. Disinfection was a major factor in reducing epidemics the handle and relatively easy to replace. It does require that water be shut off under the faucet. Check with local hardware store or home centers. If you don't feel comfortable making the repair yourself, a plumber may be your best option. Remember, even if you have to pay a plumber to fix the leak, you will end up saving money in the long run.

**Leaky Faucets?** A leaky faucet is frequently the result of a bad washer. The washer on a sink is typically located under the handle and relatively easy to replace. It does require that water be shut off under the faucet. Check with local hardware store or home centers. If you don't feel comfortable making the repair yourself, a plumber may be your best option. Remember, even if you have to pay a plumber to fix the leak, you will end up saving money in the long run.

**Toilet Leaks?** Toilet leaks can range from small to large, constant to random. Many are even silent. Even a small, silent leak can easily cost $100 per year in water and sewer costs. Fortunately, most toilet leaks are relatively easy to fix. If you have a leak there are a number of possible causes. Toilet repair kits with instructions are available at hardware stores and home centers.

**Disinfection Byproducts (DBP, THM, & HAA5)**

The disinfection of drinking water is one of the major public health advances of the past century. One hundred-years ago typhoid and cholera epidemics were common throughout American cities. Disinfection was a major factor in reducing epidemics and it is an essential part of drinking water treatment. However, disinfectants can react with naturally occurring materials in the water to form unintended organic and inorganic byproducts, which may pose health risks. A major challenge for water suppliers is how to balance the risks from microbial pathogens and disinfection byproducts. It is important to provide protection from microbial pathogens while insuring decreasing health risks to the population from disinfection byproducts (DBP's). The most common DBP's formed when chlorine is used are total trihalomethanes (TTHM's), and haloacetic acids (HAA5's).

**Definitions & Abbreviations**

**Synthetic Organic Compounds (SOC's):** A class of man-made contaminants including herbicides, pesticides, and other chemicals that come from agriculture, urban storm water runoff, or industrial activities.

**Volatile Organic Compounds (VOC's):** Chemical solvents or cleaners (and their byproducts) that are derived from petroleum products; man-made contaminants from industrial processes.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water.

**mg/L (Milligrams per liter):** Approximately equal to parts per million (PPM) or 1 milliliter per 1,000,000 liters of water.

**ug/L (Micrograms per liter):** Approximately equal to parts per billion (PPB) or 1 milliliter per 1,000,000,000 liters of water.

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

**WATER QUALITY MONITORING RESULTS**

The EPA requires that public water systems report on contaminants detected in their water supply. Woodland monitors over 150 of these. In addition, the City also collects samples from sampling stations to monitor for chlorine and coliform. Lead and copper samples are taken from consumer taps. We also collect samples at our reservoirs, distribution system, and at the source. **All detected contaminants were below Environmental Protection Agency (EPA) maximum contaminant levels (MCL).**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Year of Test</th>
<th>Result</th>
<th>MCL</th>
<th>In Compliance</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Nitrate</td>
<td>2016</td>
<td>0.20 mg/L</td>
<td>10 mg/L</td>
<td>YES</td>
<td>Tests were not performed for 2nd quarter (April-June)</td>
</tr>
<tr>
<td>HAA5</td>
<td>2016</td>
<td>9.9 ug/L</td>
<td>60 ug/L</td>
<td>YES</td>
<td>Tests were not performed for 2nd quarter (April-June)</td>
</tr>
<tr>
<td>TTHM</td>
<td>2016</td>
<td>24.00 ug/L</td>
<td>80 ug/L</td>
<td>YES</td>
<td>Tests were not performed for 2nd quarter (April-June)</td>
</tr>
</tbody>
</table>

• No SOC's were detected in 2009 (24-tested).
• No SOC's were detected in 2013 (13-tested).
• No VOC's were detected in 2012 (25 tested).

• 118 Coliform bacteria tests in 2015 met EPA standards.
• 116 Coliform bacteria tests in 2016 met EPA standards.
• No Asbestos was detected in 2013.

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