City of
WOODLAND
WASHINGTON

Water Quality Report 2018

HOW TO CONTACT US

Woodland Public Works Office:
(360-225-7999)
300 E Scott Road
Woodland, Washington

City of Woodland Website:
http://www.ci.woodland.wa.us/

EPA's Safe Drinking Water Hotline:
(1-800-426-4791)

EPA's Website:
https://www.epa.gov/ccr

Department of Health Website:
https://www.doh.wa.gov/

Attention Non-English Speaking Consumers

-Spanish

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

WOODLAND'S DRINKING WATER SURPASSES ALL STATE AND FEDERAL HEALTH STANDARDS

The city of Woodland's water quality report is here to inform you, the consumer, about the city of Woodland's public water system. This annual publication gives the consumer mandatory information regulated by State Department of Health (DOH) as well as the Environmental Protection Agency (EPA).

The city of Woodland supports the consumer's right to know the results of our water quality monitoring and encourages you to attend our city council meetings with any questions or ideas on how to help preserve our water resources. City council meetings are held at 200 East Scott Avenue on the 1st and 3rd Monday of every month at 7 P.M.

"We are proud to say our water treatment plant exceeds state regulatory requirements"
– Tracy Coleman, Woodland Public Works Director

Where Does Woodland's Public Water Come From?

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.

Lewis River, Woodland, WA

Important Health Information

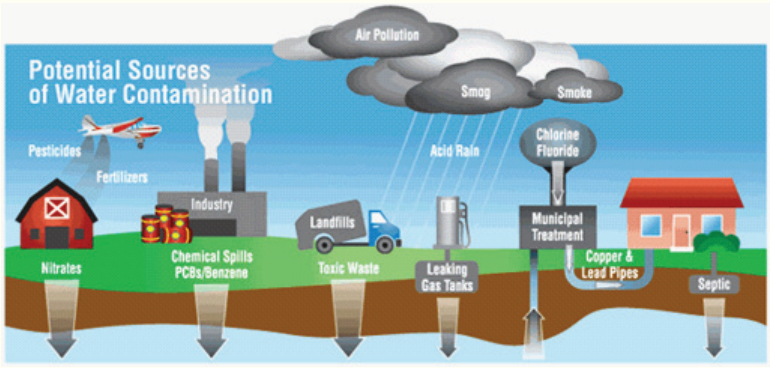
The sources of drinking water (both tap water and bottled water) include, rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and in some cases, radio-active material. It can also pick up substances resulting from the presence of animals or from human activity. All types of drinking water is expected to have a small amounts of contaminants within its molecules. 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.

Contaminants that may be present in water source BEFORE we treat it.

- Microbial contaminants: such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agriculture livestock operations and wildlife.
- Inorganic contaminants: such as salts and metals, which can be natural occurring or a result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, and mining or farming.
- Pesticides and herbicides: which may come from a variety of sources such as agriculture and residential uses.
- Radio-active contaminants: which are natural 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 storm runoff, and septic systems.

Some people may be vulnerable to contaminants in drinking water than the general population. Such as people with cancer undergoing chemotherapy, people who have undergone organ transplant, 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.

To ensure the 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).



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.*
-MFL (million fibers per liter): *A measure of the presence of asbestos fibers that are longer than 10 micrometers.*
-mg/L (Milligrams per liter): *Approximately equal to parts per million (PPM) or 1 milliliter per 1,000 liters of water.*
-ug/L (Micrograms per liter): *Approximately equal to parts per billion (PPB) or 1 milliliter per 1,000,000 liters of water.*
-pCi/L (Picocuries per liter): *A measure of radioactivity.*
-Ppb (Parts Per Billion): *One part substance per billion parts water.*
-PPM (Parts Per Million): *One Part substance per million parts water.*
-AL (Action Level): *The concentration of a contaminant which, if exceeded triggers treatment or other requirements that a water system must follow.*
-MCLG (Maximum Contaminant Level Goal): *The level of a contaminant in drinking water below which there is no known or expected risk to health. MCGLs allow for a margin of safety.*
-MRDL (Maximum Residential Disinfectant Level Goal): *The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of 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): *Indicates that the substance was not found by a laboratory analysis.*
-NTU (Nephelomatric Turbidity Units): *Measurements of clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.*
-Removal Ratio: *A ratio between the percentages of a substance actually removed to the percentage required to be removed.*
TI (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

WATER QUALITY MONITORING RESULTS

CONTAMINENT	MOST RECENT TEST	UNIT	DETECTED LEVEL	MCL or MRDL	MRDLG or MCLG	MAJOR SOURCE(S)	VIOLATION
Lead*	8/2/2018	ppb	N/D	Action Level 15	0	Corrosion of household plumbing systems; erosion of natural deposits.	None
Copper*	8/2/2018	ppm	0.042	Action Level 1300	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	None
DISINFECTION BYPRODUCTS							
Haloacetic Acid**	11/8/2018	ppb	13	60	60	By-product of chlorination used for drinking water disinfection.	None
Total Trihalomethanes*	11/8/2018	ppb	23	80	N/A	By-product of chlorination used for drinking water disinfection.	None
RADIONUCLIDES							
Gross Alpha	6/30/2010	ppb	3	15	0	Erosion of natural deposits.	None
Combined Radium	6/30/2010	ppb	0.8	5	N/A	Erosion of natural deposits.	None
INORGANIC CHEMICALS							
Arsenic	10/11/2016	ppb	0.001	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.	None
Fluoride	10/11/2016	ppm	0.2	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.	None
Nitrate	3/28/2019	ppm	N/D	10	N/A	Runoff from ferilizer use; leaching from septic tanks; sewage; erosion of natural deposits.	None
UNREGISTERED VOLATILE ORGANIC COMPOUNDS							
Chloroform	11/5/2018	ppb	9	-	-	Unregulated contaminates are those for which EPA has not established drinking water standards. The purpose of unregulated contaminate monitoring is to help EPA determine their occurrence in drinking water and ptential need for future regulation.	
Bromodichloromethane	11/5/2018	ppb	7.6	-	-		
Dibromochloromethane	11/5/2018	ppb	5.4	-	-		

* Lead and copper samples are collected from homes rather than at the treatment plant. 20-samples were analyzed by an independent laboratory for both lead and copper. Violations are subject to action levels. An action level is the concentration of a contaminant that triggers additional treatment or other actions that a water system must perform.

** This value is the avrage of all samples at all sampling points during the year of the most recent test. The range of individual results for that year is shown below the average.

Water Treatment Process

The City of Woodland Water Filtration Plant began operation in late May of 1999. Our treatment process consists of two steps. First, chlorine is added as a precaution against any bacteria that may enter the system through line breaks or low pressure events. We carefully monitor the residential chlorine levels, adding the lowest quantity necessary to protect the safety of your water without compromising the taste. The second step is the addition of sodium carbonate (Soda Ash), to adjust the PH level to minimize the natural corrosion of pipes and plumbing fixtures. After treatment, the water is pumped to sanitized reservoirs, the distribution system, and into your home or business.

City of Woodland Water Plant

WATER SAVING TIPS

Water is a valuable resource to our city. Conserving our water supply to the best of our ability is of utmost importance to the city. Here are a few tips that can help our community sustain an efficient water supply.

- Run your dishwasher only when it is full.
- Only wash full loads of laundry, and use the proper water level setting.
- Fix leaky faucets immediately. A leaky faucet, dripping once per second wastes six gallons of water a day.
- Take shorter showers and use less water in baths.
- Check toilets for leaks
- Install water efficient toilets, faucets, and shower heads.
- Water your lawn in short, repeated intervals.
- Water the lawn in the early morning or evening to reduce evaporation.
- Use a broom to clean walkways and driveways.
- Use a hose with a shut-off nozzle along with a bucket of soapy water to wash the car.

Benefits of Chlorination

The chemical process of disinfecting drinking water from microorganisms is the most important step in delivering clean drinking water to our consumers. Chlorination is the most common method of disinfectant in North America.

Before cities in the United States began routinely treating drinking water with chlorine dangerous diseases such as Cholera, Typhoid Fever, Dysentery, and Hepatitis A, killed thousands of U.S. residents annually. Drinking water chlorination has helped us virtually eliminate these diseases in the United States. This simple process is one of the greatest advancements in human history.

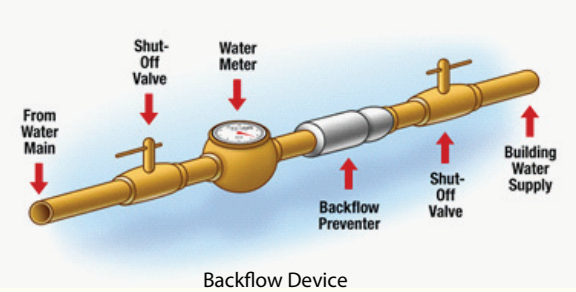
How Chlorination works

Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.

Taste and odor reduction of many disagreeable tastes and odors like foul-smelling algae secretions, sulfides, and odors from decaying vegetation.

Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.

Chemical removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant



Backflow Device

Cross Connection Concerns

How treated water contamination occurs…
Drinking water normally flows in one direction, from the City's Water system into the consumer's cold water plumbing to a hot water tank and various fixtures/faucets. A fixture is the end of the consumer's plumbing system, where the water is consumed or used.

Under certain conditions, water could flow in the reverse direction- this is known as backflow. Backflow may occur when there is a loss of pressure in the City's water system due to a high use in the community, firefighting activities, or a water main break, this creates a vacuum in the City's piping. Any fixture connected to an appliance or house could allow dirty or used water to be sucked back in the consumer's plumbing and water system. Pressurized systems or devices in the consumer's plumbing could also force dirty or used water into the City's water system.

How to protect the public water system…
In general, installation of plumbing in compliance with the plumbing code will provide adequate protection in your home's plumbing system to prevent contamination. However, many commercial and residential customers are required to install appropriate backflow prevention devices depending on the degree of hazard. To determine if a backflow assembly is required on your water service for protection of the public water system, please contact the City of Woodland's Public Works office.