



City of Kalama, Washington

Drinking Water Quality 2016 Annual Report

This report covers drinking water delivered during the year 2016.

The quality of your Kalama water is excellent.

Your City's Water System

To provide water for public supply, the City of Kalama currently obtains groundwater from sands and gravels below the Kalama River. The City's well site is located approximately 2 miles east of the confluence of the Kalama and Columbia rivers. The water is withdrawn via a Ranney Well collection system which consists of three horizontal collection pipes extending below the Kalama River at a depth of 15 feet. The Kalama River watershed is mainly forest land. The City's water is now classified as groundwater under the influence of surface water, which requires filtration and disinfection. The Ranney Well system has been producing high-quality water for the City since the 1970s.

The City operates a diatomaceous earth water filtration plant. All drinking water sent to our customers is treated by this facility. In addition, the City of Kalama operates 12 reservoirs and 11 booster stations to store and move water.

General Health Effects Information

Groundwater travels through various types of soil strata, dissolving naturally occurring minerals. During the subsurface movement, water may "pick up" substances resulting from the presence of animal or human activity. Contaminants that may be present in the soil strata include microbes, inorganic and organic chemicals, pesticides and herbicides, and radioactive materials. To ensure that your tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection as public drinking water systems.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised individuals such as persons with cancer who are undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. Guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants have been created by the EPA and the Center for Disease Control. Copies of these guidelines are available from the Safe Drinking Water Hotline - (800-426-4791) and at their website: <http://www2.epa.gov/learn-issues/learn-about-water>

Lead and Copper Testing

The City of Kalama's Ranney Well source contains very low concentrations of lead and copper (see Water Quality Data, page 2). However, lead and copper can leach into residential water at higher concentrations from building plumbing systems. Therefore, testing for these two contaminants is conducted at homes categorized as high risk under worst-case conditions. Homes or buildings that were built or re-plumbed with copper pipes and lead-based solder are considered to be high risk. This type of solder was used prior to 1985.

Continued on Page 2....

Worst-case conditions are typically early morning when water has been stagnant in pipes for over six hours. Chemicals are now added at the Drinking Water Treatment Plant to raise pH which reduces plumbing fixture corrosion. The 2015 testing for copper and lead showed the City was in compliance with copper and lead levels. It was evident that the pH control at the water plant was effective.

Water Resource Protection Programs

The City is committed to supplying its customers with high quality and aesthetically pleasing drinking water. The City has adopted the following practices to ensure that the drinking water supplied to its customers meets or exceeds all federal and state standards:

- ◆ Every six years the City prepares a **Water System Comprehensive Plan** that analyzes all aspects of the water system to identify current and future needs for improvements. The most recent plan was completed and approved by the Department of Health in 2009. The City is currently in the process of updating the water system comprehensive plan.
- ◆ Part of the Comprehensive Plan is a **Water Conservation Program** that sets specific goals for reducing water use to maximize water resources.
- ◆ The City maintains all **required water quality monitoring** cycles as set by the Washington State Department of Health and the USEPA.

The City welcomes input from its residents on ways to protect and conserve its water supply and would be happy to supply you with additional information on ways you can help protect our water resources. To comment on water issues or this report, residents may contact Public Works staff at (360) 673-3706.

Water Quality Monitoring Results

The table below lists the primary contaminants that were detected by an independent laboratory in the City of Kalama's water during water quality tests in 2016. All samples satisfactorily met state guidelines.

Eighty-three routine coliform samples were taken from throughout the water system over the year, and sent to an independent laboratory for bacteriological testing. All eighty-three samples tested satisfactory with no presence of coliform bacteria.

Contaminant	Highest Level Allowed (MCL)	Highest Level Detected	Goal (MCLG)	In Compliance Yes or No	Possible Sources of Contamination
Primary Contaminants					
Turbidity	5.0 NTU	0.96 NTU	N/A	YES	Soil erosion/rust from pipes
Copper	1.3 mg/L	0.23 mg/L	1.3 mg/L	YES	Corrosion of plumbing fixtures
Fluoride	4 mg/L	1.1 mg/L	4 mg/L	YES	Equipment Calibration
Lead	.015 mg/L	.006 mg/L	0 mg/L	YES	Corrosion of plumbing fixtures
Nitrate	10 mg/L	0.41 mg/L	10 mg/L	YES	Natural deposits, fertilizers
Haloacetic Acids	60 ug/L	6.7ug/L	N/A	YES	By-product of drinking water chlorination
Total Trihalomethanes	80 ug/L	30ug/L	N/A	YES	By-product of drinking water chlorination
Chlorine Residual	4.0 mg/L	1.18 mg/L	4 mg/L	YES	Measure of disinfectant added to water

Reading the Table

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 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 to allow for a margin of safety.

Nephelometric turbidity unit (NTU): The unit of measure for turbidity, which is how cloudy water is.

Micrograms per liter (ug/L): One microgram per liter or one part per billion corresponds to one penny in \$10,000,000.

Milligrams per liter (mg/L): One milligram per liter or one part per million corresponds to one penny in \$10,000.

FAQs - Frequently Asked Questions

- ◆ Where can I find out more information about my drinking water?

Additional questions or comments about the City’s water supply or other general drinking water issues can be directed to the following contacts:

City of Kalama	Environmental Protection Agency	State Department of Health
PO Box 1007 Kalama, WA 98625 (360) 673-3706 www.cityofkalama.com	Safe Drinking Water Act Hotline 1-800-426-4791 www2.epa.gov/learn-issues/learn-about-water	243 Isreal Road SE, 2nd Floor Tumwater, WA 98501 (360) 236-3100 www.doh.wa.gov/communityandenvironment/drinkingwater

- ◆ How can I get more involved in decisions affecting my drinking water?

You can make an appointment to discuss decisions affecting your drinking water with Superintendent Kelly Rasmussen at 673-3706 or at 6315 Old Pacific Hwy (public works shop). Also, the Office of Drinking Water has an internet website: <http://www4.doh.wa.gov/sentryinternet/Intro.aspx> where you can look up monitoring results for the water system.

- ◆ Is bottled water cleaner and safer than tap water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Since the Federal Food and Drug Administration regulates contaminants in bottled water and is responsible for providing the same levels of public health protection, bottled water is not necessarily cleaner or safer than tap water.

- ◆ Since drinking water contains small amounts of contaminants, is it good for me?

The presence of contamination does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at 1-800-426-4791, or by visiting their website - www.epa.gov/safewater.

- ◆ Why is chlorine added to my water?

Pursuant to state and federal laws, very small amounts of chlorine are added to your water as a disinfecting agent to protect you from disease-causing microorganisms. If you are bothered by the chlorine taste, keep a pitcher of tap water in the refrigerator. The chlorine will dissipate rapidly if the water is allowed to sit for a time.

- ◆ What are the health effects of copper?

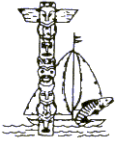
Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor.

- ◆ What are the health effects of lead?

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink water containing lead in excess of the action level over many years could develop kidney problems or high blood pressure.

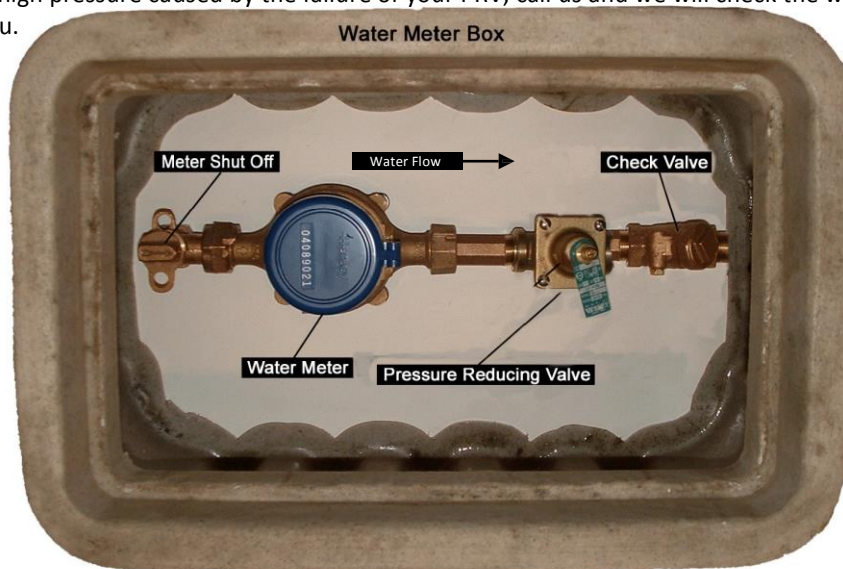
- ◆ Is Kalama water hard or soft?

The water in Kalama is soft. The hardness of the water is 19.2.



WARNING: WATER PRESSURE REDUCING VALVES

- ◆ The plumbing code requires that building or home owners install a pressure reducing valve (PRV) if the water supply to their building or home exceeds 80 pounds per square inch (PSI).
- ◆ The steep Kalama slopes mean that there are water pressures exceeding 80 PSI at the majority of Kalama water services. Most of these services have a PRV installed near the water meter.
- ◆ Failure of the PRV will result in high pressures on the water fixtures in the home or business. The first symptom is usually a dripping hot water heater pop off valve or faucets.
- ◆ If you suspect high pressure caused by the failure of your PRV, call us and we will check the water pressure at your building for you.



ALERT: Some new styles of water heaters heat water so rapidly that excessive pressure builds up in the home's waterlines, often popping hot water heater relief valves. **If replacing your hot water heater, ask the supplier if an expansion tank should be installed.**

Water Conservation for You

- ◆ Take shorter showers or shallow baths.
- ◆ Wash full loads of laundry and dishes.
- ◆ Repair all plumbing leaks promptly.
- ◆ Don't use the toilet as a wastebasket.
- ◆ Don't run the faucet water while brushing teeth or shaving. Use a cup of water instead.
- ◆ When purchasing a new toilet, consider a low-flow model or use a tank water displacement device.
- ◆ When purchasing a new clothes washer, consider a front-loading unit, which can be up to 30% more efficient.
- ◆ Water lawns in early morning; consider not watering at all; or landscape with native plants (xeriscaping).

The leading cause of water waste in the home is a running toilet.