

2021 WATER QUALITY REPORT

We are very pleased to provide you with this year's Water Quality Report. Our goal is, and always has been, to provide our members a safe and dependable supply of drinking water.

How safe is Knappa water? Where does our water come from? What can I do to help protect my drinking water?

To help answer these questions, Knappa Water Association (KWA) has prepared this report to show you how our drinking water compares with nationally-established standards.

Our Sources

Knappa water is supplied by eight wells. All eight wells are south of Highway 30 and located on either state or private timber land. Each well was drilled through a confining layer of rock, which seals the aquifer from the influence of surface water.

Aquifer

Two aquifers supply our wells, the Columbia River Basalt and the Astoria Formation Sandstone. A copy of our source water assessment is available at our office. It contains detailed information about our wells and potential sources of contamination and states that our drinking water supply is not susceptible to viral contamination.

KWA is working on a Wellhead Protection Plan to ensure our sources remain free of contamination. Each patron can help in the protection effort by properly disposing of waste products, such as unused pesticides, solvents, and petroleum-based products.

Treating the Water

KWA disinfects with chlorine. No other treatment is provided or necessary. *We do not add fluoride.*

Water Quality Standards

The federal Safe Drinking Water Act of 1974, and the 1986 and 1996 amendments, were developed to ensure the quality and safety of the nation's drinking water. The federal government, through the U.S. Environmental Protection Agency (EPA), has the authority to regulate public water systems to protect public health. The EPA sets national drinking water standards and establishes drinking water testing methods. The

Oregon Health Authority administers the drinking water regulations for EPA in our state.

Currently, there are more than 120 water quality standards for potential contaminants in drinking water. More standards will be added in the coming years. A contaminant is defined as any substance in water. However, not all contaminants are harmful. Some contaminants are of concern only if they are detected above certain levels. In order to be in compliance with EPA regulations, Knappa drinking water must have contaminant levels at or below all drinking water quality standards.



OUR DRINKING WATER IS SAFE AND MEETS ALL FEDERAL AND STATE REQUIREMENTS

KWA routinely monitors for contaminants in your drinking water according to federal and state laws. The following table shows the results of our monitoring. This table includes terms and abbreviations with which you might not be familiar. To help you better understand these terms we've provided the following definitions:

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level Goal - The Goal (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level - The Maximum Allowed (MCL) is the highest level of a contaminant that is allowed in drinking water.

Contaminant	Violation?	Detect	Unit	MCLG	MCL
Source Composite from Wells 85-1, 85-3, 90-1, 97-1, 06-1 & 06-2					
Asbestos	N	ND	MFL >10um	n/a	7
Halooacetic Acids(HAA5)	N	ND		n/a	.060
Nitrate ⁽³⁾	N	.239	mg/l	n/a	10
Sodium ⁽²⁾	N	63.9	mg/l	n/a	20+
Trihalomethanes (THM)	N	ND		n/a	.080
Gun Club Well					
Sodium ⁽²⁾	N	15.0	mg/l	n/a	20+
Nitrate ⁽³⁾	N	ND	mg/l	n/a	10
Household Samples (Tested 2021; see note below)					
Copper ⁽¹⁾	N	0.079	ppm	1.3	AL=13
Lead ⁽¹⁾	N	0	ppb	0	AL=015

Test Results (January—December 2021)

** recommended*

(1) corrosion of household plumbing systems

(2)(3) erosion of natural deposits

Total Coliforms Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Coliform results are based on two samples-per-month, taken from the distribution system. No coliforms were detected. Source water coliforms at source water showed no detect in 2021.

Nitrates We test annually. (See test results table above).

Lead & Copper No home exceeded the AL. Household samples were taken in June 2021 and will be taken again in 2024.

Sodium Our wells vary from 15.0 to 63.9 ppm sodium. If you are on a low-sodium diet, consult your physician to see if this amount would be significant. A sample was taken in 2020 with detects. Next sampling will be in 2029.

Inorganic Chemicals are those found in nature, such as metals, minerals, and salts. Samples were taken in 2020 with detects but no violation. Samples will be collected again in 2029.

Synthetic Organic Chemicals (SOCs) include weed killers and insect sprays. We tested in 2020 with no detects. Next testing scheduled for 2023.

Volatile Organic Chemicals (VOCs) include petroleum-based chemicals, industrial byproducts, and dry-cleaning solvents. We sampled in 2020 with detects but no violation. Samples will be taken next in 2023.

2021 WATER QUALITY REPORT

Asbestos A system using any asbestos cement pipe is required to sample for asbestos fibers every nine years. A sample was taken in 2021 and no fibers were found. Next sampling date is 2030.

Disinfection Byproducts

Trihalomethanes and haloacetic acids can be precursors to cancer. Samples are taken at point(s) far from the source. Last tested 2021. There were no detects. Next sampling period is 2022.

Radionuclides We tested for radionuclides in 2017. We had a detect but no violations. Samples will be taken next in 2026, as required.

A Detect But No Violations... Though we had some detects, as you can see by the table or narrative above, our system had **no violations**. The EPA has determined that YOUR WATER IS SAFE at these levels. We are proud that our drinking water meets or exceeds all Federal and State standards.

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. KWA 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 sec.-two min. 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 www.epa.gov/safewater/lead.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals, and radioactive substances.

All drinking water (including bottled) may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the 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.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 for 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 microbiological contaminants are available from the Safe Drinking Water Hotline, (800)426-4791.

If you have any questions about this report, please call us at (503) 458-6461 or (503) 741-1096 (Chris' cell).

Our office hours are Monday through Thursday 9am to 1pm, but we check for messages throughout the day/week, 7am to 3pm.

We want our valued members to be informed about their water association. If you want to learn more, please attend any of our regularly scheduled meetings—the second Monday of each month at 7pm at the Knappa Water Association office.



Like us on Facebook for reminders and updates. Search "Knappa Water Association."



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This report is published and mailed to our members in accordance with state and federal laws.

Knappa Water Association is an equal opportunity provider and employer.