

Annual Drinking Water Quality Report

RAE Water & Sewer

Pure and Fresh

We are pleased to present this Water Quality Report for the 2016 sampling year. We want to inform you about the water we deliver to you every day.

Is my Water Safe to Drink?

Absolutely! We are proud that RAE Water and Sewer's drinking water meets, or exceeds, all federal and state requirements. We test your drinking water for over 140 substances. This year we had two positive coliform samples. We flushed and chlorinated the system and all samples since have been good. A listing of detected substances is provided below.

Water Sources

The water supply comes from six groundwater wells located within the District. The wells are screened below 80 feet in the lower aquifer. The first well was drilled in 1971.

The water comes from semi-confined aquifers that provide protection from surface-borne contaminants. At this time we do not continuously use chlorine, as our bacteria levels are below the requirements of the EPA and the State. We hope to continue to provide chlorine-free water to our customers. Monthly testing helps us ensure high quality.

Water and your Health

As water travels through the ground, it dissolves naturally occurring minerals. The water can also pick up man-made contaminants. These contaminants can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 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.

The groundwater contains the following naturally-occurring mineral constituents in milligrams per liter or parts per million (ppm):

Calcium	60
Barium	0.1
Magnesium	16
Sodium	9
Bicarbonate	270
Sulfate	18
Chloride	7
Fluoride	0.12
Iron	0.01
pH	7
Total Alkalinity	221

Listed in the Table below are all of the detected contaminants found in RAE Water and Sewer's drinking water (listed in milligrams per liter (mg/l or ppm)).

Substance	Detected Level	Detected Range	MCL ⁽¹⁾ or AL ⁽⁴⁾	MCLG ⁽²⁾	Typical Source of Substance
Nitrate +Nitrite as N	1.09	0.98 – 1.23	10	10	Runoff from fertilizer use; leaching from septic tanks, erosion of natural deposits
Copper	0.35	0.098 – 0.51	1.3	1.3	Corrosion of household plumbing systems, erosion of natural deposits.
Lead	0.002	<0.001- 0.002	15	0	Corrosion of household plumbing systems, erosion of natural deposits.

(1) MCL = Maximum Contaminant Level - The "Maximum Allowed". MCL is 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. (2) MCLG = Maximum Contaminant Level Goal (3) mg/l = Milligram per liter. (4) AL = Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Ninety percent of samples must be at or below this level. Lead and copper are measured at the 90th percentile.

Water Quality Report

We issue this annual water quality report to comply with the Safe Drinking Water Act. The purpose of this report is to advance consumers understanding of drinking water and heighten awareness of the need to protect precious water resources.

Some people may be more vulnerable to substances 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. RAE Water 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>.

RAE Water & Sewer District

10 RAE Water Lane

Bozeman, MT 59718

More on Lead and Copper

Your drinking water comes from groundwater, and because of this, the water is hard. This means there is plenty of Alkalinity in the water (buffering capacity). The water will form scales in tea kettles and leaves a white film on windows hit by sprinklers. One advantage to hard water is that Lead and Copper remain stable in the plumbing fixtures and hence, our drinking water has very low concentrations of Lead and Copper. Unlike the Flint, Michigan water, which had low alkalinity and the water was aggressive in stripping Lead and Copper from the old plumbing in that area. You may have heard of this incident in the news.

If you have any questions or need additional information, please contact David King, Manager at 586-3930.

What about my Wastewater. How is this handled?

Your wastewater is treated using an activated sludge, wastewater treatment plant. The wastewater is screened and then treated using microorganisms to degrade the waste. The final effluent is disinfected using ultraviolet light, and then infiltrated back into the ground.

We request you not flush plastics and other non-degradable items down the toilet, but instead place them in your trash can. These items clog up the screen in the plant and are difficult and costly to remove. Please do not flush non-organic solid material such as: feminine hygiene applicators, latex birth control products, cigarette butts, and paper towel products. When in doubt don't flush it down.

Thank you for your cooperation! Your assistance helps us to maintain a cleaner environment and reduce costs.

