

## 2017 Drinking Water Report



### **Making Safe Drinking Water**

Your drinking water comes from a surface water source: surface water drawn from Budd Lake.

Fairmont works hard to provide you with safe and reliable drinking water that meets federal and state water quality requirements. The purpose of this report is to provide you with information on your drinking water and how to protect our precious water resources.

Contact Doug Rainforth, Water/Wastewater Superintendent, at 507-235-6789 if you have questions about Fairmont's drinking water. You can also ask for information about how you can take part in decisions that may affect water quality.

The U.S. Environmental Protection Agency sets safe drinking water standards. These standards limit the amounts of specific contaminants allowed in drinking water. This ensures that tap water is safe to drink for most people. The U.S. Food and Drug Administration regulates the amount of certain contaminants in bottled water. Bottled water must provide the same public health protection as public tap water.

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 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.

### **Fairmont Monitoring Results**

This document contains our monitoring results from January 1 to December 31, 2017.

We work with the Minnesota Department of Health to test drinking water for more than 100 contaminants. It is not unusual to detect contaminants in small amounts. No water supply is ever completely free of contaminants. Drinking water standards protect Minnesotans from substances that may be harmful to their health.

Learn more by visiting the Minnesota Department of Health's webpage:

[Basics of Monitoring and Testing of Drinking Water in Minnesota](http://www.health.state.mn.us/divs/eh/water/factsheet/com/sampling.html)  
(<http://www.health.state.mn.us/divs/eh/water/factsheet/com/sampling.html>).

### **Learn more about your Drinking Water**

Minnesota's primary drinking water sources are groundwater and surface water. Groundwater is the water found in aquifers beneath the surface of the land. Groundwater supplies 75 percent of Minnesota's drinking water. Surface water is the water in lakes, rivers and streams above the surface of the land. Surface water supplies 25 percent of Minnesota's drinking water.

Contaminants can get in drinking water sources from the natural environment and from people's daily activities. There are five main types of contaminants in drinking water sources.

**Microbial contaminants**, such as viruses, bacteria, and parasites. Sources include sewage treatment plants, septic systems, agricultural livestock operations, pets, and wildlife.

**Inorganic contaminants** include salts and metals from natural sources (e.g. rock and soil), oil and gas production, mining and farming operations, urban stormwater runoff, and wastewater discharges.

**Pesticides and herbicides** are chemicals used to reduce or kill unwanted plants and pests. Sources include agriculture, urban stormwater runoff, and commercial and residential properties.

**Organic chemical contaminants** include synthetic and volatile organic compounds. Sources include industrial processes and petroleum production, gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants** such as radium, thorium, and uranium isotopes come from natural sources (e.g. radon gas from soils and rock), mining operations, and oil and gas production.

The Minnesota Department of Health provides information about your drinking water source(s) in a source water assessment, including:

- How Fairmont is protecting your drinking water source(s);
- Nearby threats to your drinking water sources;
- How easily water and pollution can move from the surface of the land into drinking water sources, based on natural geology and the way wells are constructed.

Find your source water assessment at [Source Water Assessments \(www.health.state.mn.us/divs/eh/water/swp/swa/\)](http://www.health.state.mn.us/divs/eh/water/swp/swa/) or call 651-201-4700 or 1-800-818-9318 between 8:00 am and 4:30 pm, Monday through Friday.

## Some People Are More Vulnerable to Contaminants in Drinking Water

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 from infections. The developing fetus and therefore pregnant women may also be more vulnerable to contaminants in drinking water. These people or their caregivers 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 microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

## Lead in Drinking Water

You may be in contact with lead through paint, water, dust, soil, food, hobbies, or your job. Coming in contact with lead can cause serious health problems for everyone. There is no safe level of lead. Babies, children under six years, and pregnant women are at the highest risk.

Lead is rarely in a drinking water source, but it can get in your drinking water as it passes through lead service lines and your household plumbing system. Fairmont provides high quality drinking water, but it cannot control the plumbing materials used in private buildings. Read below to learn how you can protect yourself from lead in drinking water.

**1. Let the water run** for 30-60 seconds before using it for drinking or cooking if the water has not been turned on in over six hours. If you have a lead service line, you may need to let the water run longer. A service line is the underground pipe that brings water from the main water pipe under the street to your home.

- You can find out if you have a lead service line by contacting your public water system, or you can check by following the steps at: [Are your pipes made of lead? Here's a quick way to find out \(https://www.mprnews.org/story/2016/06/24/npr-find-lead-pipes-in-your-home\)](https://www.mprnews.org/story/2016/06/24/npr-find-lead-pipes-in-your-home).
- The only way to know if lead has been reduced by letting water run is to check with a test. If letting the water run does not reduce lead, consider other options to reduce your exposure.

**2. Use cold water** for drinking, making food, and making baby formula. Hot water releases more lead from pipes than cold water.

**3. Test your water.** In most cases, letting the water run and using cold water for drinking and cooking should keep lead levels low in your drinking water. If you are still concerned about lead, arrange with a laboratory to test your tap water. Testing your water is important if young children or pregnant women drink your tap water.

- Contact a Minnesota Department of Health accredited laboratory to get a sample container and instructions on how to submit a sample at: [Environmental Laboratory Accreditation Program \(https://apps.health.state.mn.us/eldo/public/accreditedlabs/labsearch.seam\)](https://apps.health.state.mn.us/eldo/public/accreditedlabs/labsearch.seam)

The Minnesota Department of Health can help you understand your test results.

**4. Treat your water** if a test shows your water has high levels of lead after you let the water run.

- Read about water treatment units at: [Point-of-Use Water Treatment Units for Lead Reduction \(http://www.health.state.mn.us/divs/eh/water/factsheet/com/poulead.html\)](http://www.health.state.mn.us/divs/eh/water/factsheet/com/poulead.html)

### Learn more:

- Visit [Lead in Drinking Water \(http://www.health.state.mn.us/divs/eh/water/contaminants/lead.html#Protect\)](http://www.health.state.mn.us/divs/eh/water/contaminants/lead.html#Protect)
- Visit [Basic Information about Lead in Drinking Water \(http://www.epa.gov/safewater/lead\)](http://www.epa.gov/safewater/lead)
- Call the EPA Safe Drinking Water Hotline at 1-800-426-4791.
- Visit [Lead Poisoning Prevention: Common Sources \(http://www.health.state.mn.us/divs/eh/lead/sources.html\)](http://www.health.state.mn.us/divs/eh/lead/sources.html) to learn how to reduce contact with lead from sources other than drinking water.

## How to Read the Water Quality Data Table

The table on the additional sheet shows the contaminants we found last year of the most recent time we sampled for that contaminant. It also shows the levels of those contaminants and the Environmental Protection Agency's limits. Substances that we tested for but did not find are not included in the table.

We sample for contaminants less than once a year because their levels in water are not expected to change from year to year. If we found any contaminants the last time we sampled for them, we would include that information below the table with the detection date.

We may have done additional monitoring for contaminants that are not included in the Safe Drinking Water Act. To request a copy of these results, call the Minnesota Department of Health at 651-201-4700 or 1-800-818-9318 between 8:00 am and 4:30 pm, Monday through Friday.

## Definitions

- **AL (Action Level):** The concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow.
- **EPA:** Environmental Protection Agency
- **MCL (Maximum Contaminant Level):** 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.
- **MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allows for a margin of safety.
- **MRDL (Maximum Residual Disinfectant Level):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a 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 disinfectant to control microbial contaminants.
- **N/A (Not applicable):** Does not apply.
- **NTU (Nephelometric Turbidity Unit):** A measure of the cloudiness of the water (turbidity).
- **oocysts/L (Oocysts/Liter):** A measurement of the number of Cryptosporidium or Giardia spores.
- **ppb (parts per billion):** One part per billion in water is like one drop in one billion drops of water, or about one drop in a swimming pool. ppb is the same as micrograms per liter (ug/l).
- **ppm (parts per million):** One part per million in water is like one drop in one million drops of water, or about one cup in a swimming pool. ppm is the same as milligrams per liter (mg/l).
- **PWSID:** Public water system identification.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
- **Variances and Exemptions:** State of EPA permission not to meet an MCL or a treatment technique under certain conditions.

## Potential Health Effects and Corrective Actions (If Applicable)

**Fluoride:** Fluoride is nature's cavity fighter, with small amounts present naturally in many drinking water sources. There is an overwhelming weight of credible, peer-reviewed, scientific evidence that fluoridation reduces tooth decay and cavities in children and adults, even when there is availability of fluoride from other sources, such as fluoride toothpaste and mouth rinses. Since studies show that optimal fluoride levels in drinking water benefit public health, municipal community water systems adjust the level of fluoride in the water to a concentration between 0.5 to 1.5 parts per million (ppm), with an optimal fluoridation goal between 0.7 and 1.2 ppm to protect your teeth. Fluoride levels below 2.0 ppm are not expected to increase the risk of a cosmetic condition known as enamel fluorosis.

**Nitrate:** Nitrate is a compound that occurs naturally and has many human-made sources. Nitrate is in some lakes, rivers, and groundwater in Minnesota. Nitrate in drinking water at levels above 10 parts per million is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider. In addition to our regular drinking water testing, we have been working with state agencies to monitor our sources of drinking water for nitrate, explore source water protection activities, and engage residents and neighbors to reduce nutrient flow into our source waters.

*Water is life's matter and matrix, mother and medium.*

*There is no life without water.*

*Albert Szent-Gyorgyi*



## Water Quality Data Tables

### LEAD AND COPPER - Tested at customer taps.

Contaminant (Date, if sampled in previous year)	EPA's Action Level	EPA's Ideal Goal (MCLG)	90% of Results were less than	Number of Homes with High Levels	Violation	Typical Sources
<b>Copper (06/23/16)</b>	90% of homes less than 1.3 ppm	0 ppm	0.1 ppm	0 out of 30	NO	Corrosion of household plumbing.
<b>Lead (06/23/16)</b>	90% of homes less than 15 ppb	0 ppb	5.3 ppb	1 out of 30	NO	

### INORGANIC & ORGANIC CONTAMINANTS - Tested in drinking water.

Contaminant (Date, if sampled in previous year)	EPA's Limit (MCL or MRDL)	EPA's Ideal Goal (MCLG OR MRDLG)	Highest Average or Highest Single Test Result	Range of Detected Test Results	Violation	Typical Sources
<b>Nitrate</b>	10.4 ppm	10 ppm	6.1 ppm	0.50 - 6.10 ppm	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

### CONTAMINANTS RELATED TO DISINFECTION - Tested in drinking water

Substance	EPA's Limit (MCL or MRDL)	EPA's Ideal Goal (MCLG OR MRDLG)	Highest Average or Highest Single Test Result	Range of Detected Test Results	Violation	Typical Sources
<b>Total Trihalomethanes (TTHMs)</b>	80 ppb	N/A	29.4 ppb	9.10 - 25.30 ppb	NO	By-product of drinking water disinfection.
<b>Total Haloacetic</b>	60 ppb	N/A	23.5 ppb	7.20 - 16.60 ppb	NO	
<b>Total Chlorine</b>	4.0 ppm	4.0 ppm	2.89 ppm	2.43 - 3.20 ppm	NO	Water additive use to control microbes.

### OTHER SUBSTANCES - Tested in drinking water

Substance	EPA's Limit (MCL)	EPA's Ideal Goal (MCLG)	Highest Average or Highest Single Test Result	Range of Detected Test Results	Violation	Typical Sources
<b>Fluoride</b>	4.0 ppm	4.0 ppm	0.81 ppm	0.61 - 0.93 ppm	NO	Erosion of natural deposits; Water additive to promote strong teeth.

### TREATMENT INDICATOR - Tested during treatment.

Substance	Removal Required	Lowest Monthly Percent of Results in Compliance	Highest Test Result	Violation	Typical Sources
<b>Turbidity</b>	TT	100	0.26 NTU	NO	Soil Runoff.

### DETECTED IN RAW SURFACE WATER - Tested before treatment.

Substance	Highest Level Allowed	Highest Level Detected (oocysts/L)	Range Detected	Average Level (oocysts/L)	Violation	Typical Sources
<b>Cryptosporidium</b>	N/A	0.026 oocysts/L	0.026 - 0.026	0.026	NO	Human and animal fecal waste

### DISINFECTION BYPRODUCT INDICATOR - Tested in source water and in drinking water.

Substance	Removal Required	Range of Percent Removal Achieved	Average of Percent Removal Achieved	Violation	Typical Sources
<b>Total Organic Carbon</b>	Variable	28-100	55	NO	N/A

The percentage of Total Organic Carbon (TOC) removal was measured each month. The system met all TOC removal requirements, unless there is a "YES" in the Violation column.