

Drinking Water Report 2016



The City of Fairmont is issuing the results of monitoring done on its drinking water by the Minnesota Department of Health for the period from January 1 to December 31, 2016. The purpose of this report is to advance consumers' understanding of drinking water and to heighten awareness of the need to protect precious water resources.

Source of Water

The City of Fairmont provides drinking water to its residents from a surface water source: Budd Lake.

The Minnesota Department of Health has made a determination as to how vulnerable our systems' source(s) of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please visit or call:

www.health.state.mn/divs/eh/water/swp/swa
651-201-4700 or 1-800-818-9318 (option #5)

Contact Doug Rainforth, Water/Wastewater Supervisor, at 507-235-6789 if you have any questions about the City of Fairmont's drinking water.

2016 Monitoring Results

The results contained in the table, on the reverse side, indicate an exceedance of a federal standard. Some other contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2016. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.)

Compliance with National Primary Drinking Water Regulations

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, radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

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

In order to ensure that tap water is safe to drink, the U.S. 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 for public health.

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.

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 microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

2016 TREATED WATER QUALITY ROUNDUP

CONTAMINANT (UNITS)	MAXIMUM CONTAMINANT LEVEL GOAL	MAXIMUM CONTAMINANT LEVEL	LEVEL FOUND		TYPICAL SOURCE OF CONTAMINANT
			RANGE (2016)	AVERAGE/RESULT *	
REGULATED CONTAMINANTS					
FLUORIDE (ppm)	4	4	.23 - .92	.65	STATE OF MINNESOTA REQUIRES ALL MUNICIPAL WATER SYSTEMS TO ADD FLUORIDE TO THE DRINKING WATER TO PROMOTE STRONG TEETH; EROSION OF NATURAL DEPOSITS; DISCHARGE FROM FERTILIZER AND ALUMINUM FACTORIES
NITRATE (as Nitrogen) (ppm)	10.4	10.4	2 - 12	11★	RUNOFF FROM FERTILIZER USE; LEACHING FROM SEPTIC TANKS, SEWAGE; EROSION OF NATURAL DEPOSITS
CHLORINE (ppm)	MRDLG OF 4	MRDL OF 4	2.11 - 2.98 *****	2.69 *****	WATER ADDITIVE USED TO CONTROL MICROBES
TURBIDITY (NTU) **	N/A	TT	100***	0.30****	SOIL RUNOFF
CRYPTOSPORIDIUM (oocysts/L)	N/A	N/A	Nd-.053	N/A	HUMAN AND ANIMAL FECAL WASTE
TTHM (Total trihalomethanes) (ppb)	0	80	19.6-43.4	36.43	BY-PRODUCT OF DRINKING WATER DISINFECTION
HALOACETIC ACIDS (HAA5) (ppb)	0	60	17.2-33.9	32.43	BY-PRODUCT OF DRINKING WATER DISINFECTION

	UNIT	% REMOVAL REQUIRED	% REMOVAL ACHIEVED	# OF QUARTERS OUT OF COMPLIANCE	NATURALLY PRESENT IN THE ENVIRONMENT
TOTAL ORGANIC CARBON	% REMOVED	25 %	2.7 - 74.2%	0	

REGULATED AT THE CUSTOMERS TAP	ACTION LEVEL	90TH% LEVEL	# OF SITES OVER AL	CORROSION OF HOUSEHOLD PLUMBING SYSTEMS; EROSION OF NATURAL DEPOSITS
LEAD (ppb)*****	0	15	5.3	
COPPER (ppm)	1.3	1.3	.1	0 OUT OF 30

★ On May 20, 2016, we had a violation for Nitrate (as Nitrogen). Infants below the age of six month who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath, and blue-baby syndrome. Our system returned to compliance on June 3, 2016 and has developed a Minnesota Department of Health-approved Nitrate Action Plan.

* This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year. ** Turbidity is a measure of the clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. ***Lowest monthly percentage of samples meeting the turbidity limits. ****Highest single measurement. *****Highest and lowest monthly average. *****Highest quarterly average. *****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. The City of Fairmont 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 cooking or drinking. 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 by calling 800-426-4791 or by visiting <http://www.epa.gov/safewater/lead>.

Table Key AL-Action Level: The concentration of a contaminant which if exceeded, triggers treatment of other requirements which the water system must follow. **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 allows for a margin of safety. **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. **MRDLG**-Maximum Residual Disinfectant Level Goal. **MRDL**-Maximum Residual Disinfectant Level. **N/A**-Not applicable. **Ntu**-Nephelometric turbidity unit: Used to measure clarity in drinking water. **oocysts/L**-Oocysts/Liter: A measurement of the number of Cryptosporidium or Giardia spores. **ppb**-Parts per billion: Also expressed as micrograms per liter (ug/l). **ppm**-Parts Per Million: Also expressed as milligrams per liter (mg/l). **TT**-Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water. **90th Percentile Level:** This is the value obtained after disregarding 10% of the samples taken that had the highest levels. For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10% of the samples. In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.