



Burnsville Water Surpasses All State and Federal Quality Requirements

The drinking water supplied by the City of Burnsville meets and/or exceeds all state and federal requirements. This annual report, required by the Environmental Protection Agency, provides results of the annual water quality test and additional information on the Burnsville water delivery system.

Source of Water

Burnsville's drinking water originates from ground water sources. A total of 16 wells, located along Cliff Road and Burnsville Parkway, burrow 264 feet to 1030 feet into the earth. The wells take their water from the Jordan Aquifer, the Mt. Simon Aquifer, the Prairie Du Chien-Jordan Aquifer, and the Franconia-Mt. Simon Aquifer. Burnsville only uses ground water and does not utilize any surface water from lakes or rivers. This eliminates the need to treat water for surface water quality and contamination issues, such as Cryptosporidium. Call 952-895-4552 if you have questions about the City of Burnsville drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

Burnsville's Water System

Drinking water originates from a water system that includes 300 miles of waterlines, three water towers, and two underground reservoirs. The system has eleven pressure zones, which are necessary to maintain the appropriate pressure to homes and businesses located at extreme elevation differences from the Minnesota River bottoms to near the top of Buck Hill. As a result, the City of Burnsville has one of the most complex water systems in the State of Minnesota.

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 throughout the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, 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 treatments plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater 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 stormwater 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 stormwater 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 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 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 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 are available from the Safe Drinking Water Hotline at 800-426-4791.

More Information

More information about contaminants and potential health effects can be obtained by calling the EPA's safe drinking water hotline at 800-426-4791 or the City of Burnsville at 952-895-4552.

City Internet Site: www.burnsville.org
 Water Department Phone: 952-895-4550
 Utility Billing Phone: 952-895-4480

RESULTS OF WATER QUALITY TESTING

Water quality testing was completed in 2002 as required by the Federal government as part of the Safe Drinking Water Act. No contaminants at a level close to or exceeding the federal standards were identified. Voluntary testing, conducted every week, confirms that Burnsville's water remains safe to drink. It is important to note that Burnsville City water, like all other large volume water sources, contains trace amounts of chemicals and contaminants.

No contaminants were detected at levels that violated federal drinking water standards. However, some 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 2002. 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.)

Contaminants (units)	MCLG	MCL	Level Found		Typical Source of Contaminant
			Range	Average/Result*	
Alpha Emitters (pCi/l)	0	15.4	N/A	13.0	Erosion of natural deposits
Barium (ppm)	2.0	2.0	N/A	0.2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Combined Radium (pCi/l)	0	5.4	N/A	4.7	Erosion of natural deposits
Fluoride (ppm)	4.0	4.0	0.94-1.1	1.01	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
Mercury (inorganic) (ppb)	2.0	2.0	N/A	0.01	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate (as Nitrogen) (ppm)	10.0	10.0	N/A	0.18	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
TTHM (Total trihalomethanes) (ppb)	N/A	100.0	N/A	0.4	By-product of drinking water disinfection

Contaminants (units)	MCLG	AL	90% Level	# Sites Over AL	Typical Source of Contaminant
Lead (ppb) (11/22/2000)	N/A	15	4.2	0 out of 30	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm) (11/22/2000)	N/A	1.3	0.232	1 out of 30	Corrosion of household plumbing systems; erosion of natural deposits

*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.

Unregulated Contaminants

Some contaminants do not have Maximum Contaminant Levels established for them. These "unregulated contaminants" are assessed using state standards known as health risk limits to determine if they pose a threat to human health. If unacceptable levels of an unregulated contaminants are found, the response is the same as if an MCL has been exceeded; the water system must inform its customers and take other corrective actions. In the table that follows are the unregulated contaminants that were detected.

Contaminants (units)	Level Found		Typical Source of Contaminant
	Range (2002)	Average/Result*	
Sodium (ppm)	N/A	8.0	Erosion of natural deposits
Sulfate (ppm)	N/A	20.0	Erosion of natural deposits

Monitoring for unregulated contaminants as required by U.S. Environmental Protection Agency rules (40 CFR 141.40) was conducted in 2002. Results of the unregulated contaminant monitoring are available upon request from Pat McKasy, Minnesota Department of Health at 651-215-0759

Radon

Radon is a radioactive gas which is naturally occurring in some groundwater. It poses a lung cancer risk when gas is released from water into air (as occurs during showering, bathing, or washing dishes or clothes) and a stomach cancer when it is ingested. Because radon in indoor air poses a much greater health risk than radon in drinking water, an Alternative Maximum Containment Level (AMCL) of 4,000 pCi/l may apply in states that have adopted an Indoor Air Program, which compels citizens, homeowners, schools, and communities to reduce the radon threat from indoor air. For states without such a program, the Maximum Containment Level (MCL) of 300 pCi/l may apply. Minnesota plans to adopt an Indoor Air Program once the Radon Rule is finalized.

Contaminants (units)	Level Found		Typical Source of Contaminant
	Range (2002)	Average/Result*	
Radon (pCi/l)	N/A	124.5	Erosion of natural deposits

Key to Abbreviations:			
R - Regulated	AL - Action level	MCLG - Maximum contaminant level goal. If below level, there is no known or expected health risk.	ppm - Parts per million. Units of a substance, in pure form, found in every million units of water.
NR - Not regulated, but monitoring required by State. No limits set for this compound.	TT - Treatment technique	MCL - Maximum contaminant level allowed in drinking water. MCLs set as close to MCLGs as feasible.	pCi/l - Picocuries per liter. Measures radioactivity.
N/A - Not applicable	MCL - Maximum contaminant level allowed in drinking water. MCLs set as close to MCLGs as feasible.	ppb - Parts per billion. Units of a substance, in pure form, found in every billion units of water.	NTU - Nephelometric turbidity unit

Iron: the Most Common Concern

The most common concern about water is the occasional iron or discolored water which results from iron deposits in the water mains and/or individual service lines. There is no health risk from iron in the water. Even though water is treated to remove iron, a small amount remains and collects in the pipes. Hydrants are flushed on a regular basis to break iron loose and flush it out of the system. The City of Burnsville flushes hydrants and adds Potassium Permanganate to minimize the impact.

What to do if you have iron the water

First, please refrain from doing the laundry. To clear the lines, run all cold water taps at the same time for 5-10 minutes. If this does not clear the lines, please call the Water Department at 952-895-4550. Should clothes get stained by rust, call this same phone number and the City of Burnsville can provide you with a bottle of iron remover free of charge.