

2002 Water Quality Report

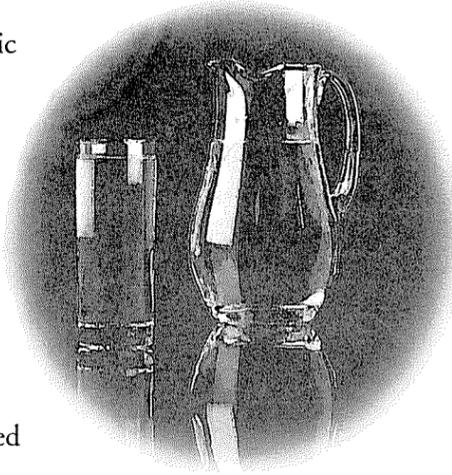
Water Quality Report

Fridley Residents:



Every year at this time, the City of Fridley Public Works Department publishes the city's Water Quality Report - a report card on the water based on federal and state standards for safe drinking water. Utilities staff is excited about this opportunity to better inform citizens about Fridley's outstanding water supply and treatment system.

This year's report again shows Fridley's water is better than federal standards set by the United States Environmental Protection Agency.



If after reviewing this year's report you have questions about Fridley's drinking water, water supply system, or drinking water regulations; or if you would like information about public meetings where decisions regarding drinking water standards are made, please contact Jim Saefke of the Fridley Water Department at 763-572-3561.

Jon H. Haukaas,
Director of Public Works

Water Monitoring Report Summary

In accordance with EPA and State of Minnesota regulations, our tap water is regularly tested—as it is pumped from the ground as well as from homes in the City. Results of this testing are shown below. Only the substances detected are listed; the water is tested for many other possible contaminants that were not detected.

Monitoring is not required for each substance every year; some things listed were detected in previous years' testing. Because some of Fridley's water is provided from the City of New Brighton, relevant test results of New Brighton's water are also included.

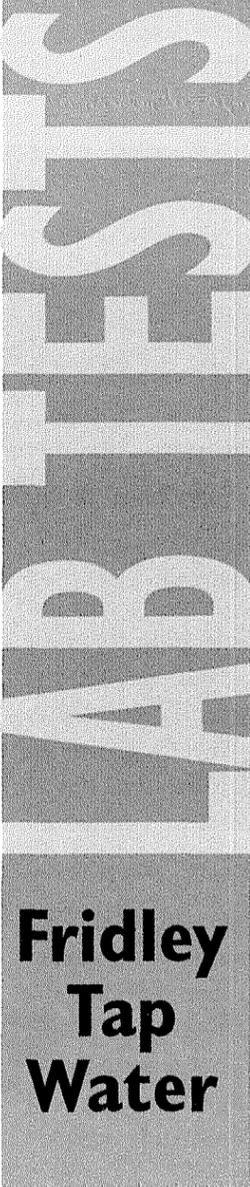
Limits have been set for about 80 substances that have been designated as potential contaminants to drinking water sources nationwide. These limits are known as Maximum Contaminant Levels (MCLs). Water provided by the City of Fridley has not violated any of these MCLs; nor did any other drinking water violations of any kind occur during the 2001 reporting year.

The water is also tested for many unregulated substances. These do not have established MCLs; they are evaluated using state standards known as health risk limits. EPA uses the data from this testing when considering future drinking water regulations.

Definitions of Terms in Table

- MCL: Maximum Contaminant Level (The highest amount allowed in drinking water. Set as close to MCLGs as feasible using the best available treatment technology).
- MCLG: Maximum Contaminant Level Goal. (The level below which there is no known or expected risk to health. MCLGs allow for a margin of safety).
- Action Level: the concentration which, if exceeded, triggers treatment or other requirement the system must follow.
- PPB: parts per billion. PPM: parts per million.
- pCi/L: Picocuries per liter, a measure of radioactivity.
- ND: not detected.
- Compliance Level: Sometimes the highest level of a substance detected, sometimes the average of all detected amounts, depending on the regulation for the substance.

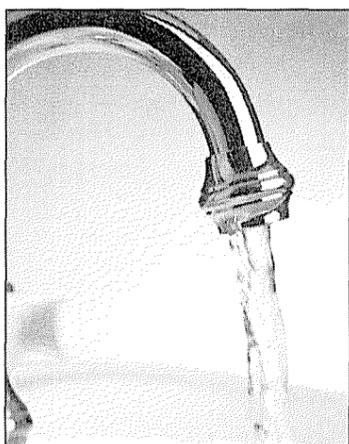
Detected Substance (units) MCL (highest level allowed in water by EPA) MCLG (level where there is no known health risk)	Amount Found in Fridley Tap Water		Amount Found in New Brighton Tap Water		Meets Federal and State Regulations	Typical Source of Substance in Drinking Water
	Compliance Level	Range of Detections	Compliance Level	Range of Detections		
Detected Regulated Substances						
Total Trihalomethanes (ppb) MCL: 100 MCLG: not established	0.2	—	0.35	—	Yes	By-product of drinking water chlorination
Barium (ppm) 1/26/99 MCL: 2.0 MCLG: 2.0	0.1	—	0.07	—	Yes	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate as Nitrogen (ppm) MCL: 10 MCLG: 10	0.79	ND-0.79	0.79	ND-0.79	Yes	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride (ppm) MCL: 4.0 MCLG: 4.0	1.13	0.77-1.2	1.13	1.1-1.2	Yes	State-required additive; erosion of natural deposits; fertilizer and aluminum factory discharge
Radium 226/228 (pCi/L) 4/15/99 MCL: 5.0 MCLG: 0	0.56	—	not detected	—	Yes	Erosion of natural deposits.
Alpha Emitters (pCi/L) 4/15/99 MCL: 15.0 MCLG: 0	2.2	—	not detected	—	Yes	Erosion of natural deposits.
Lead (ppb) AL: 15 (90% of samples tested must be <15 ppb)	90% of samples were <3.0	0 out of 30 homes tested >15 ppb	not applicable	—	Yes	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm) AL: 1.3 (90% of samples tested must be <1.3 ppm)	90% of samples were <1.05	1 out of 30 homes tested >1.3 ppm	not applicable	—	Yes	Corrosion of household plumbing systems; erosion of natural deposits
Detected Unregulated Substances						
Sulfate (ppm) 8/31/99 No established MCL or MCLG	24	—	24	—	Yes	Erosion of natural deposits
Sodium (ppm) 8/31/99 No established MCL or MCLG	6.5	—	6.5	—	Yes	Erosion of natural deposits.
Perchlorate (ppb) No established MCL or MCLG	2.27	ND-4.54	2.27	ND-4.54	Yes	Oxygen additive in solid fuel propellant for rockets, missiles, and fireworks.



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How Drinking Water Safety is Monitored

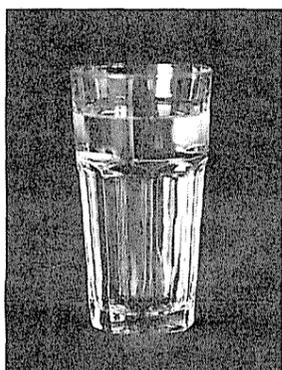
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can



pick up substances resulting from the presence of animals or humans.

In order to ensure that drinking water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that

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 that must provide the same protection for public health.



According to EPA, 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 EPA's Safe Drinking Water Hotline (800-426-4791).

Why does EPA allow anything in water?

All drinking water sources contain some natural substances. Water is a good solvent, and many substances are dissolved by water on contact. At low levels, most are not harmful in our drinking water. Removing everything from drinking water would be extremely expensive and would not necessarily improve water quality. In fact, it could result in an inferior product. Many naturally-occurring minerals are essential nutrients and actually improve the taste of your water.

Information for People with Special Health Requirements

Some people may be more vulnerable to contaminants found 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/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Fridley Water Supply Sources

All water delivered to residents comes from underground aquifers. Aquifers are areas of sand and gravel saturated with water. We operate 13 wells, as shown in the table below.

Fridley Water Supply Wells

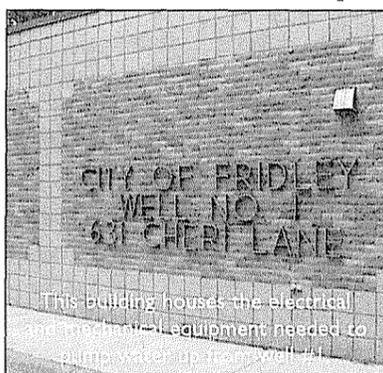
Well #	Depth (ft)	Year Installed	Water-bearing formation
1	925	1957	Hinckley-Jordan
2	842	1961	Mt. Simon-Hinckley
3	840	1961	Mt. Simon-Hinckley
4	830	1961	Mt. Simon-Hinckley
5	845	1961	Hinckley-Franconia
6	250	1964	Shakopee
7	262	1966	Shakopee
8	265	1966	Shakopee
9	262	1966	Shakopee
10	199	1969	Drift
11	669	1970	Franconia-Jordan
12	276	1970	Jordan
13	332	1970	Shakopee

How did aquifers form?

The aquifers were formed thousands of years ago by the glaciers that covered this area. The glaciers carved out and piled up sand and gravel where water could collect.

How does water get to the aquifers?

Most of the water in the aquifers got there from rain and snow melt. Some of the water may take months or years to travel from the surface to the aquifer. In some places, however, water from the surface can travel down quickly. Seepage through wetlands, riverbeds, and direct flow via underground streams can take only hours or days. But, at least some of the water molecules you drink in your next glass of water came from the melted glaciers of previous ice ages.



Some of Fridley's water is supplied to the system through an interconnection with the City of New Brighton. This water is also ground water from wells similar to our own. The interconnection between the two cities provides a back-up supply in case of a natural disaster that interrupts water service in one of the two communities.



Our water source, along with all public water source supplies in the country, is tested to screen for the following contaminants:

Microorganisms, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agriculture, and wildlife.

Inorganic contaminants, like salts and metals, which occur naturally or come from stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from agriculture, urban stormwater runoff, and residential uses.

Organic chemicals, 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 occur naturally or result from oil and gas production and mining activities.

Radon Testing Radon is a radioactive gas that can move up through the ground and into a home through cracks and holes in the foundation. It can also get into indoor air from tap water during showering, washing dishes, and other household tasks. Radon poses a lung cancer risk when it is inhaled and a stomach cancer risk when ingested. Compared to radon entering a home through the ground, the amount entering through tap water is usually small.

In 2001, radon was found from 155 to 904 pCi/L in Fridley water, with an average reading of 613.25 pCi/L. While there is currently no EPA radon standard, it is expected that they will adopt a 4000 pCi/L limit for states that have an Indoor Air Program that address the radon issue. Minnesota plans to adopt an Indoor Air Program once the Radon Rule is finalized. For states without such a program, a limit of 300 pCi/L may apply. Remember, the best way to reduce your exposure to radon is to fix cracks in your foundation. An easy, inexpensive test can determine if radon is a problem in your home.

Delivering Quality Water

The City of Fridley Public Works Department strives to deliver high quality water and water service. To this end, we have identified the following areas that are critical to this goal:

- 1. Water Treatment**
 - Filtration** for iron and manganese removal
 - Fluoridation** to enhance dental health
 - Disinfection** to kill any possible microorganisms
- 2. Water Monitoring**

Regular lab testing is the only way to make sure residents are getting the safest and highest quality water possible. Tests performed on a daily basis include fluoride, alkalinity, disinfectant, hardness and pH.
- 3. Staff Training**

Water utility operators are Minnesota Department of Health-certified and take regular refresher courses to maintain their proficiency in drinking water distribution. Staff are members of professional organizations like the American Water Works Association and the Minnesota Rural Water Association. These groups provide expertise and technical resources if problems occur.
- 4. Distribution System Integrity**

Water mains are regularly flushed to ensure hydrants are working, to remove mineral deposits, and to freshen up the water during low demand periods. Excellent water pressure is provided through division of the system into three separate pressure zones. Thorough inspection of water mains minimizes breaks and maintains system integrity.