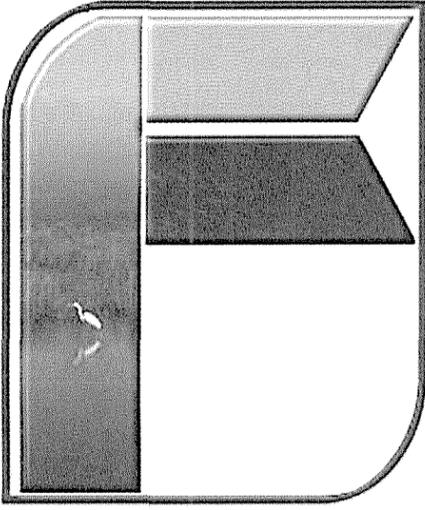


## 2003 Water Quality Report



### Fridley Residents:

In order to ensure that tap 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. This annual report is a guide that can be used to compare Fridley drinking water with standards established by the Safe Drinking Water Act. It fulfills the cities obligation to report accurate and timely information about its water and water system. The results described here are from monitoring that was conducted between January 1 - December 31, 2003. This year's report again delivers good news: **no contaminants have been found that exceed levels set by EPA for safe drinking water.**

If you have questions about Fridley drinking water, or if you would like information on opportunities to participate in public meetings where decisions regarding water quality are made, please contact Jim Saefke at 763-572-3561.



**Jon H. Haukaas,**  
Director of Public Works

### Fridley Water Supply Sources

All water supplied by the City of Fridley is groundwater. The City operates 11 wells, ranging in depth from 199 to 870 feet, that draw water from the Quaternary Buried Artesian aquifer, the Jordan-Galesville aquifer, the Jordan aquifer, the Mt. Simon aquifer, and the Prairie Du Chien-Jordan aquifer. The Jordan and Mt. Simon formations are deep, bedrock aquifers. Water in these units is located in the spaces between the rock grains (such as sand grains) or in the fractures within the more solid rock. Buried artesian aquifers are shallower aquifers composed of glacial sand and gravel, over which a confining layer of clay or clay till was deposited.

Some of Fridley's water is supplied to the system through a interconnection with the City of New Brighton. This water is also groundwater from the Mt. Simon, Jordan, and Prairie Du Chien formations. 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.

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.

While Fridley's drinking water generally meets all EPA limits for particular contaminants, the State Department of Health has determined that one or more sources of your drinking water is susceptible to contamination. If you wish to obtain the entire source water assessment regarding your drinking water please call 651-215-0800 (press 5) during normal business hours. Also you can view it online at ([www.health.state.mn.us/water/swp/swa](http://www.health.state.mn.us/water/swp/swa).)

Before a water source is used for a drinking water supply, it is tested for contaminants that may possibly be present. These test results for Fridley water are in the Laboratory Results table on page 3.

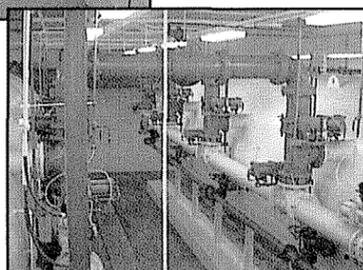
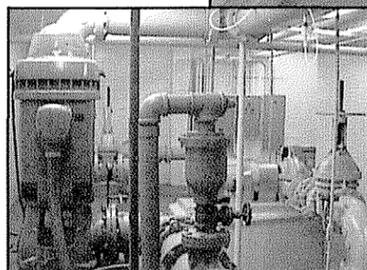
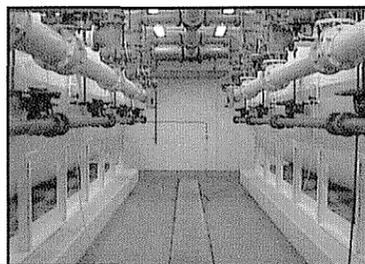
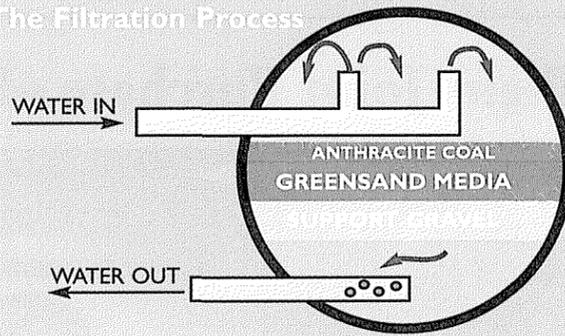
### Bottled Water

Food and Drug Administration regulations establish limits for bottled water that must provide the same protection for public health. Studies repeatedly show that bottled water is no safer than conventional tap water.

### Water Treatment

Fridley water undergoes a number of treatment processes before distribution. The water is filtered to remove iron and manganese, disinfected to keep the pipes free of harmful bacteria, and fluoridated for strong teeth according to State of Minnesota regulations. All chemical additions are precisely controlled by closely-monitored electronic pumps so that safe dosages are always used. The focus of the water treatment process is filtration. The City operates several filters at the three treatment plants. Specially-formulated sand and gravel remove iron and manganese as the water passes through the filter. This reduces the possibility that water will cause staining, and it helps improve the taste of the water.

The Filtration Process



### Explanation of this Report

In the past concerns have been raised as to the language in this report. We would like you to know that the EPA and Minnesota Department of Health mandates specific language that must be included in the report.

As we present this report, we would like to take a moment to explain that before the City of Fridley can deliver water to your home, it must first be analyzed in certified laboratories that can detect trace amounts of contaminants. The Fridley test results for 2003 are shown in the table on page 3.

**No contaminants were detected that exceeded EPA limits in drinking water.** This means that the water you are drinking is in compliance with the **Safe Drinking Water Act**. Since the City of Fridley supplements its own supply with water from the City of New Brighton, New Brighton results are also listed in the table.

The Safe Drinking Water Act (SDWA), promulgated by Congress in 1974 and amended in 1986 and 1996, establishes a Federal program to monitor and increase the safety of the nation's drinking water supply. The SDWA authorizes the U.S. Environmental Protection Agency (EPA) to set and implement health-based standards to protect against both naturally occurring and man-made contaminants in drinking water. The EPA is also responsible for assessing and protecting drinking water sources; protecting wells and collection systems; making sure water is treated by qualified operators; ensuring the integrity of distribution systems; and making information available to the public on the quality of their drinking water.

### Are Contaminants in Drinking Water a Concern for Me?

*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).*

## 2003 Water Quality Report

### EPA Drinking Water Regulations

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).

EPA regulates about 90 substances that are potentially harmful to human health and have at least a reasonable possibility of being found in either water sources or finished drinking water. Our water is monitored for these regulated contaminants at one time or another. Tested substances fall into one of five different categories:

**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 occur naturally 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 chemicals**, including synthetic and volatile organic chemicals, which are byproducts 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 be the result of oil and gas production and mining activities.

### How to Interpret the Lab Data

**Regulated substances** have **Maximum Contaminant Levels (MCLs)** set by the EPA. This is the highest level of the substance allowed in drinking water. Some contaminants also have **MCL goals (MCLGs)**. This is the level of a substance where there is no known or expected health risk. MCLGs allow for a margin of safety. MCLs are set as close to MCLGs as feasible using the best available water treatment processes.

**Unregulated substances** do not have MCLs. They are assessed by comparing the detected amount to state standards known as health risk limits. If an unacceptable amount of any substance is ever found in the water, the City of Fridley will notify residents immediately of the problem.

While most contaminants are assigned a specific MCL, lead and copper are treated differently. Their MCL is called an **Action Level (AL)**. This is the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. Ninety percent of all samples tested must be

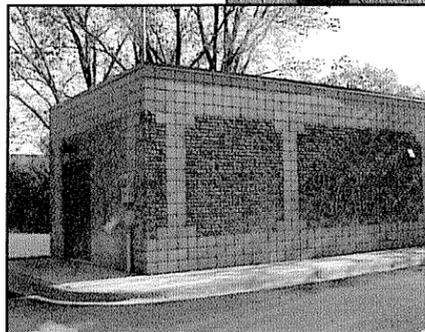
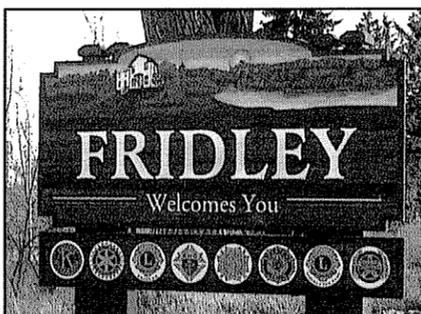
below the action level. City of Fridley water has been found to be in compliance for both lead and copper.

#### Units of Measurement

**pCi/L**: pico curies per liter, a measure of radioactivity.

**ppm**: parts per million (milligrams per liter).

**ppb**: parts per billion (micrograms per liter).



Detected Substance (units) MCL (highest level allowed in water by EPA) MCLG (level where there is no known health risk)	Results for Fridley Tap Water		Results for New Brighton Tap Water		Meets Federal and State Regulations	Typical Source of Substance in Drinking Water
	Level Found	Range of Detections	Level Found	Range of Detections		
<b>Organic Substances: Usually of man-made origin</b>						
Total Trihalomethanes (ppb) MCL: 100 MCLG: No limit set	1.23	0.3-1.9	1.0	0.2-1.6	Yes	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb) MCL: 60.0 MCLG: No limit set	1.6	0.5-2.9	0.15	nd-0.6	Yes	By-product of drinking water disinfection.
<b>Inorganic Substances: Salts and metals of natural or man-made origin</b>						
Barium (ppm) MCL: 2.0 MCLG: 2.0	0.1	0.06-0.1	0.1	0.06-0.1	Yes	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Nitrate as Nitrogen (ppm) MCL: 10 MCLG: 10	0.20	ND-0.20	0.20	nd-0.20	Yes	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Nitrite as Nitrogen (ppm) 2/11/00 MCL: 1.0 MCLG: 1.0	0.03	—	not detected	—	Yes	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Fluoride (ppm) MCL: 4.0 MCLG: 4.0	1.43	0.95-1.6	1.18	0.95-1.1	Yes	State-required additive; erosion of natural deposits; fertilizer and aluminum factory discharge.
Mercury (inorganic) (ppb) 06/02 MCL: 2.0 MCLG: 2.0	0.02	—	not detected	—	Yes	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland.
Lead (ppb) 6/25/01 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) 6/25/01 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.
Sulfate (ppm)	22	6.2-22.0	22.0	6.2-22.0	Yes	Erosion of natural deposits.
<b>Radiologicals: Naturally-occurring minerals that emit radiation</b>						
No established MCL or MCLG Sodium (ppm)	12	8.3-12.0	12.0	8.3-12.0	Yes	Erosion of natural deposits.
No established MCL or MCLG Alpha Emitters (pCi/L)	2.6	—	2.6	—	Yes	Erosion of natural deposits.
Combined Radium (pCi/L)	0.5	—	0.54	—	—	Erosion of natural deposits.
<b>Microorganisms</b>						
MCL: 5.0 MCLG: 0 Total Coliform Bacteria (samples) MCL: found in 1 monthly sample MCLG: found in no samples	Found in 1 monthly sample*	—	not applicable	—	—	Naturally present in the environment.

\*Follow-up sampling showed no contamination present.

ND: Not Detected