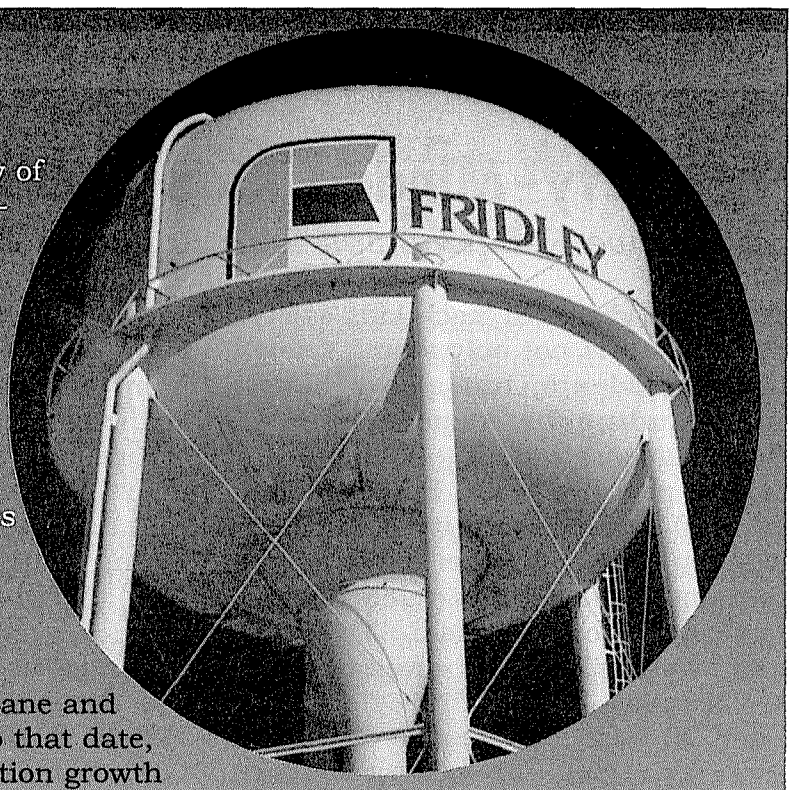
2000 Water Quality Report

Dear Fridley Water Customers,

This is Fridley's Second Annual Water Quality Report - a summary of the water quality testing and analysis required by the federal government along with additional data of interest about the City's water system. We are excited about this opportunity to better inform citizens about Fridley's outstanding water supply and treatment system.

All test results show Fridley's water is better than federal standards set by the United States Environmental Protection Agency.

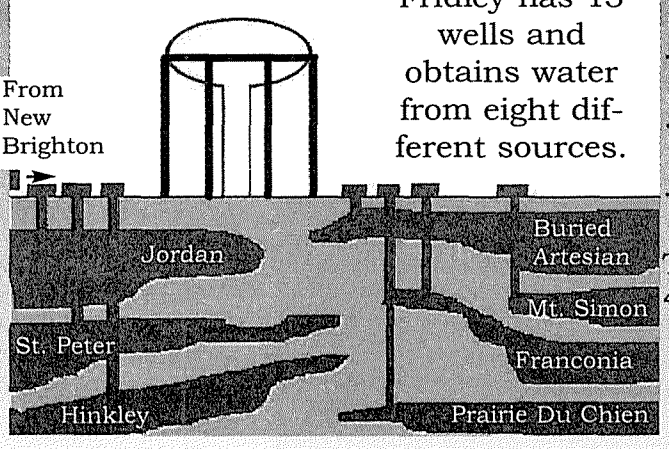
John G. Flora, Director of Public Works



Fridley Water History

The Fridley Water Utility began with Well #1 at Madison & Cherri Lane and the Marion Hills Reservoir at 53rd & Matterhorn in 1957. Prior to that date, the city purchased water from the City of Minneapolis. Rapid population growth necessitated the creation of an independent city water supply. Continued population growth resulted in the water utility expansion:

- 1960s: Construction of the iron removal treatment plant at Commons Park; drilling of well numbers 2,3,4,5,6,7,8, and 9.
- 1970s: Construction of a second iron removal plant at Locke Park; drilling of wells 10, 11, 12, and 13.
- 1980s: Treatment processes upgraded at both plants to remove both iron and manganese.
- 1996: Construction of the third treatment plant at Highway 65 & 73rd ½.



Fridley has 13 wells and obtains water from eight different sources.

The Fridley system now includes over 1500 hydrants, 120 miles of pipe, 4500 valves, and 6.5 million gallons of storage capacity.

Monitoring Ensures Water Safety

The City of Fridley, the Minnesota Department of Health, and independent laboratories are routinely testing and monitoring the Fridley water supply to ensure the water is **safe** and **aesthetically pleasing**. Testing includes analyses for over a hundred regulated and unregulated substances that can affect the water's safety and quality. The table below lists substances detected during water monitoring for the 1999 calendar year. Levels of regulated substances are enforced through Maximum Contaminant Levels (MCLs) set by Congress through the Safe Drinking Water Act. Unregulated substances are assessed by Minnesota standards known as Health Risk Limits. If the level of a contaminant ever exceeds a drinking water standard, the City of Fridley will inform residents immediately and take corrective action to eliminate the source of contamination.

Regulated Substances Detected in Fridley Water

Substance (units)	Highest Guidelines Allow (MCL)	Highest Level Detected	Lowest Level Detected	Advised Maximum (MCLG)	Below Guidelines	Typical Source of Substance
Nitrate as Nitrogen (ppm)	10.0	0.27	ND	10.0	✓	Fertilizer, natural deposits, sewage
Alpha Emitters (pCi/L)	15	2.4	2.2	0	✓	Natural deposits
Fluoride (ppm)	4.0	1.3	0.89	4.0	✓	Additive, natural deposits
Barium (ppm)	2.0	0.12	---	2.0	✓	Drilling waste, natural
Toluene (ppm)	1.0	0.002	ND	1.0	✓	deposits, metal refineries
Ethylbenzene (ppb)	700	0.2	ND	700	✓	Petroleum refineries
Xylene (ppm)	10	0.0019	ND	10	✓	Petroleum refineries, factories
Combined Radium (pCi/L)	5.0	1.8	0.56	0	✓	Natural deposits
Total Trihalomethanes (ppb)	100	3.4	---	0	✓	Disinfection byproduct
Total Coliform Bacteria	Present in one sample	Present in one sample*	Present in no samples	Present in no samples	✓	Naturally present in the environment
Inorganic Mercury (ppb) 11/16/95	2.0	0.01	---	2.0	✓	Natural deposits, refineries, factories, landfills, cropland runoff

Lead and Copper in Fridley Distribution System in 1999

Substance (units)	AL: 90% of samples must be below this level	# of samples over AL	90% of samples were below this level	Below Guidelines	Typical Source of Substance
Lead (ppb)	15	1 out of 30	6.4	✓	Plumbing corrosion
Copper (ppm)	1.3	3 out of 30	1.2	✓	Plumbing corrosion

Unregulated Substances

Substance (units)	Recommended Maximum or HRL	Highest Level Detected	Lowest Level Detected	Below Guidelines	Typical Source of Substance
Sodium (ppm)	200	13	5.6	✓	Erosion of natural deposits
Chloroform (ppb)	60	1.9	ND	✓	Disinfection byproduct
Sulfate (ppm)	250	23	---	✓	Erosion of natural deposits
1,1-Dichloroethane (ppb)	70	0.3	ND	✓	Discharge from industrial sites

Key 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). **AL**: Action Level (the concentration which, if exceeded, triggers treatment or other requirement the system must follow). **PPM**: parts per million. Equivalent to one penny in $10,000 or one minute in 2 years. **PPB**: parts per billion. Equivalent to one penny in $10,000,000 or one minute in 2000 years. **ND**: not detected. **HRL**: Health Risk Limit. **pCi/L**: Pico curies per liter (a measure of radioactivity). *Follow up sampling showed no contamination present.

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Monitoring Report Summary

For the calendar year of 1999, **no contaminants were detected at levels above federal standards**. The table on page 10 lists the substances that were detected. Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. Their presence 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.

Water Testing

Water Utility Staff continually analyze the city's water. This guarantees that the water not only will be safe, but also maintains a product that is pleasurable to use. Eight different sites scattered throughout the city are evaluated on a weekly basis for coliform bacteria. Parameters evaluated on a daily basis include pH, hardness, alkalinity, fluoride, and disinfectant. Listed below are values for parameters that are important for the aesthetic quality of Fridely's water.

Aesthetic Water Quality Parameters

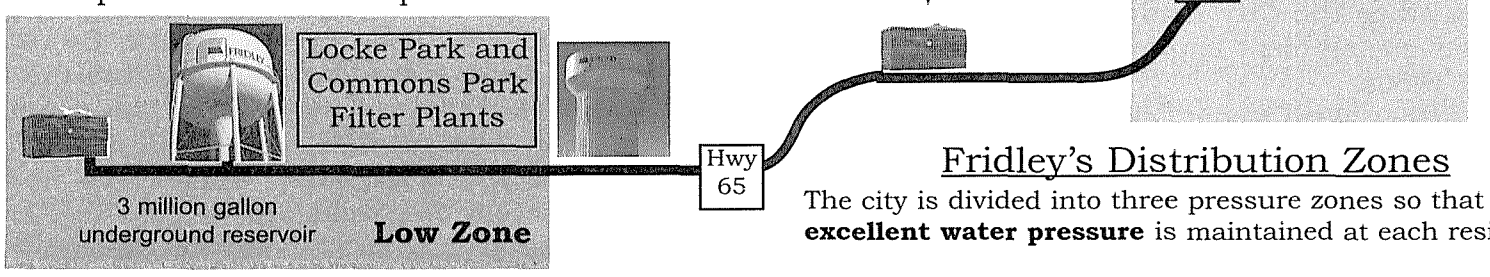
Parameter	Fridley Water
pH	7.2
Total Hardness	15 grains/gallon
Alkalinity	210 mg/L

Iron and Manganese Removal

Iron and manganese are minerals found in abundant quantities in groundwater throughout Minnesota, and Fridley's water supply wells are typical of the region. While not a threat to human health, these minerals can affect the aesthetic quality of the water. Iron can leave rust-colored stains on laundry, porcelain, and fixtures. Manganese can cause a bitter metallic taste and discolor the water. Fridley's water supply is treated at three-sophisticated filtration plants that remove iron and manganese, ensuring that the water is pleasurable to use.

Disinfection

To guarantee that the water supply is free of disease-causing microorganisms, the water is disinfected using chlorimation technology. This alternative to chlorine disinfection results in a constant and persistent level of disinfectant throughout the distribution system. Fridley was one of the first communities in Minnesota to use this technology and the city is recognized as a leader in its use. St. Paul and Minneapolis now both use this disinfection technique.



Fridley's Distribution Zones

The city is divided into three pressure zones so that **excellent water pressure** is maintained at each residence.

Fridley Water Supply Sources

Fridley residents are fortunate to have drinking water supply sources that are safe and aesthetically pleasing. The drinking water supply originates from thirteen wells, ranging in depth from 199 to 960 feet, that draw water from the Quaternary Buried Artesian aquifer, the Jordan aquifer, the Mt. Simon aquifer, the St. Peter aquifer, the Franconian aquifer, the Hinkley Aquifer and the Prairie Du Chien-Jordan aquifer. In addition, the City of New Brighton provides approximately 25% of the Fridley supply from the same aquifers.

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 material, and can pick up substances resulting from the presence of animals or human activity. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain substances in water provided by public water systems. Fridley water is regularly monitored for hundreds of regulated and unregulated contaminants so we all can be confident of its quality. Levels of regulated substances are enforced through Maximum Contaminant Levels (MCLs). Unregulated substances do not have established MCLs, they are assessed through state standards known as Health Risk Limits. The water is regularly evaluated for the following contaminant groups:

- *Microbes* like viruses and bacteria, which may come from sewage, septic systems, agriculture and wildlife.
- *Inorganics*, such as salts and metals, which can occur natually or result from runoff, wastewater discharges, or farming.
- *Pesticides and herbicides*, which may come from agriculture, urban storm water runoff, and residential uses.
- *Organic chemicals* like synthetic and volatile organic chemicals, which are industrial by-products and can come from gas stations, urban storm water runoff, and septic systems.
- *Radioactive constituents*, which can be naturally occurring.

Special Information Available

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. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hot-Line (800-426-4791). Groundwater sources like Fridley's are unlikely to have Cryptosporidium contamination.

Synopsis

The staff of the Fridley water utility takes pride in providing a safe, aesthetically pleasing drinking water as well as high quality service to you, the customers and stakeholders. In pursuit of that mission, we consistently keep contaminants far below all federal and state standards for safe water. Our success is due in large part to the human and capital investments the community has made in our system.

The City provides free services to residents, such as on-site leak detection for consumers with high monthly water bills and home water quality testing for consumers with serious concerns about water quality. If you have questions or need more information, contact the Fridley Water Department at 572-3561.