

1999 Water Quality Report

Dear Fridley Water Customers,

I'd like to introduce you to Fridley's first 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 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 meets or exceeds federal standards set by the United States Environmental Protection Agency. All water supply sources can be expected to contain at least small amounts of minerals and other substances that pose no health risk.

John G. Flora, Director of Public Works



Fridley Water History

The Fridley Water Utility began with Well #1 at Madison & Cherri Lane & 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 water utility expansion:



- 1960's: Construction of the iron removal treatment plant at Commons Park; drilling of well #'s 2,3,4,5,6,7,8, 9.
- 1970's: Construction of a second iron removal plant at Locke Park; drilling of well #'s 10, 11.
- 1980's: Treatment process upgraded to remove both iron and manganese.
- 1996: Construction of the third treatment plant at Highway 65 and 73rd 1/2.

The Fridley system now includes 1500 hydrants, 120 miles of pipe, 4500 valves, and 6.5 million gallons of storage capacity. The city is divided into three pressure zones so that **excellent water pressure** is maintained at each residence.

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Monitoring Report Summary

For the calendar year of 1998, **no contaminants were detected at levels that exceeded 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.

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**.

Water Testing

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

Aesthetic Water Quality Parameters

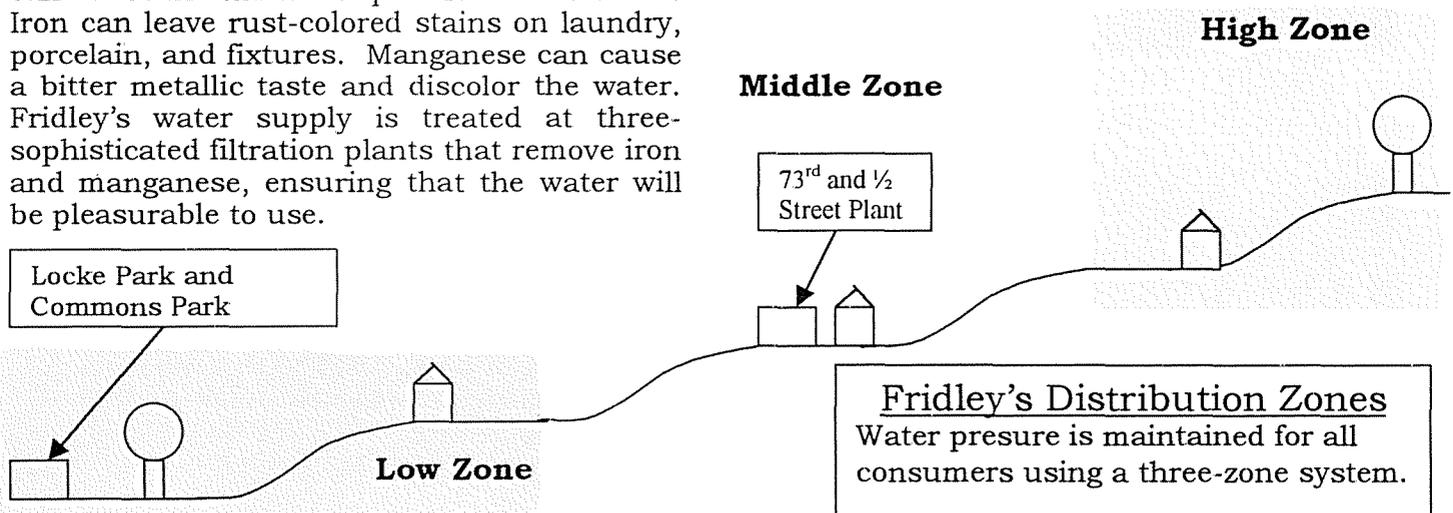
Parameter	Fridley Water
PH	7.2
Total Hardness	15 grains/gallon
Alkalinity	210 mg/L

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 qualities 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 will be pleasurable to use.

Disinfection

To guarantee that the water supply is free of disease-causing microorganisms, the water is disinfected using chlorination 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 both use this disinfection technique.



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Substances Detected in the Fridley Water Supply

<i>Regulated at the Treatment Plant</i>						
Substance (units)	MCLG	MCL	Range Detected	Highest Level Used for Compliance	Typical Sources of Substance	Meets or Exceeds Guidelines
Nitrate as Nitrogen (ppm)	10.0	10.0	ND-0.45	0.45	Fertilizer use; septic systems; sewage; wildlife	✓
Alpha Emitters (pCi/L)	---	15.0	ND-1.8	3.5	Erosion of natural deposits	✓
Combined Radium (pCi/L)	---	5.0	0.68-1.86	1.27	Erosion of natural deposits	✓
Total Trihalomethanes (ppb)	---	100.0	---	1.7	Disinfection by-product	✓
Fluoride (ppm)	4.0	4.0	---	1.4	State-required additive that promotes strong teeth; erosion of natural deposits	✓
Barium (ppm)	2.0	2.0	0.068-0.096	0.096	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	✓
Xylenes (ppm)	10.0	10.0	ND-0.0054	0.0054	Discharge from petroleum refineries and chemical factories	✓
Ethylbenzene (ppb)	700.0	700.0	ND-0.3	0.3	Discharge from petroleum refineries	✓
<i>Regulated in the Distribution System</i>						
Substance (units)	MCLG	AL	90% Level	# sites over Action Limit	Typical Sources of Substance	Meets or Exceeds Guidelines
Copper (ppm)	---	1.3	1.139	1 out of 30	Corrosion of household plumbing, erosion of natural deposits, wood preservatives	✓

Key: **MCLG:** Maximum Contaminant Level Goal (the level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety). **MCL:** Maximum Contaminant Level (the highest level of the contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology). **AL:** Action Level (the concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow). **pCi/L:** Pico curies per liter (a measure of radioactivity). **PPB:** parts per billion (equivalent to 1 shot glass in 78,000,000 fifths of gin). **PPM:** parts per million (equivalent to 1 shot glass in 78,000 bottles of vermouth). **ND:** Not Detected.

Unregulated Substances

Substance (units)	Range Detected	Highest Level Used for Compliance	Typical Sources of Substance
Sodium (ppm)	5.1-10.0	10.0	Erosion of Natural Deposits
Chloroform (ppb)	ND-4.3	4.3	Disinfection by-product
Sulfate(ppm) test date: 2/16/96	---	43	Erosion of natural deposits
Bromodichloromethane (ppb)	ND-0.4	0.4	Disinfection by-product

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Fridley Water Supply Sources

The residents of Fridley 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, 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 contaminants so we all can be confident of its quality. The water is regularly evaluated for the following contaminant groups:

- Microbials, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock and wildlife.
- Inorganics, such as salts and metals, which can be naturally occurring or result from urban storm runoff, wastewater discharges, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemicals, including synthetic and volatile organic chemicals, which are by-products of industrial processes, 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 uses, are unlikely to have *Cryptosporidium* contamination.

Synopsis

The staff at 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 meet and exceed 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. If you have questions or need more information, contact the Fridley Water Department at 572-3561.

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.