

Fridley Announces Upgrades to Commons Park Filtration

Due to aging at the main water treatment plant, which serves eight of the City's thirteen wells, the City of Fridley has made significant upgrades to improve water treatment. We are proud to announce the following upgrades:

A major project was replacing and improving the water filters. The City of Fridley has always met the Safe Drinking Water Standards set by the Environmental Protection Agency (EPA). Upgraded filters have since improved the removal of iron and manganese from the drinking water causing the taste to improve and reducing odor and staining.

Another upgrade was to the electrical system and SCADA control system. SCADA is a monitoring system within the water treatment and distribution process and was outdated.

The City conducted a pilot study in 2003 to determine the best way to treat our water supply to the reduced maximum allowable levels of radionuclides. The existing chemical feed equipment was found to be outdated and in need of replacement. This new feed equipment along with adjustments to the process enabled us to remedy this situation as well as to assure more dependable application of chlorine, fluoride, and ammonia to the City's water supply.

Lastly, the filtration plant's roof was leaking and in dire need of a replacement. The interior needed to be completely repainted as well.

Keep in mind, no significant improvements have been made to the main water filter plant since 1988. Citizens should not have seen any interruption in their water service through the construction period, but should have noticed improvements in their water quality. The improvements and upgrades started in October of 2005 and were completed in Spring 2006. The architects and engineers working on the project are Bonestroo, Rosene, Anderlik and Associates.

Water Division Completed Hydrant Flushing

A Water Division crew of two began hydrant flushing on May 1, 2006. The purpose of the flushing was to reduce mineral build-up in the city's water lines. During the three-week flushing period some residents may have found that their water was discolored during the time the crew was in their neighborhood. If you experience discoloration that lasts longer than two days, we suggest that you call the Public Works Department at 572-3566 during regular business hours. Alternatively, you may email Kory Jorgensen, Water Division Supervisor, at jorgensenk@ci.fridley.mn.us.

Since the flushing program has been completed, we suggest that residents flush their hot water heaters. This can eliminate the build-up of iron, calcium and manganese sediment in the bottom of your water heater and help it run more efficiently. For instructions on how to flush your water heater you may call the Public Works Department, or visit the "Quick Links" section of Fridley's Home page, www.ci.fridley.mn.us.

Questions or concerns regarding this or other water projects may be directed to Kory Jorgensen, Water Division Supervisor, at the City of Fridley 572-3546.

Fridley Water Supply Sources

All water supplied by the City of Fridley is groundwater. The City operates 13 wells ranging in depth from 199 to 870 feet that draw water from the Quaternary Buried Artesian aquifer, the Jordan-Mt. Simon aquifer, the Prairie Du Chien group, 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 an interconnection with the City of New Brighton. This water is also ground water 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 meets all EPA limits for particular contaminants, the State Department of Health has determined that one or more sources of your drinking water is potentially susceptible to contamination. If you wish to obtain the entire source water assessment regarding your drinking water please call 651-201-4670 during normal business hours. You can also view it online at www.health.state.mn.us/water/swp/swa.

Before a water source is used for a drinking water supply, it is tested for contaminants. These test results for Fridley water are in the Laboratory Results table in this report.



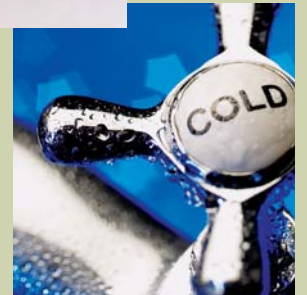
Bottled Water

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.

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. The table at the bottom of page 3 enables the reader to view levels of contamination in Fridley drinking water and to compare these levels with standards set by the Safe Drinking Water Act. The results listed in the table were gathered between January 1 and December 31, 2005.

If you have questions about Fridley drinking water or would like information on opportunities to participate in public meetings where decisions regarding water quality are made, please contact Kory Jorgensen at 572-3546.



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 mandate 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 2005 are shown in the table on the next page.

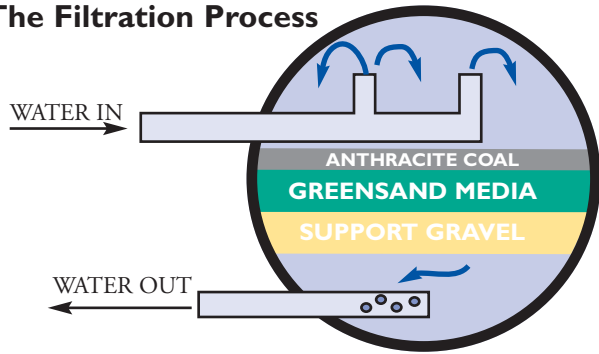
No contaminants were detected that exceeded EPA limits in drinking water in the Fridley systems testing. However, contaminants were detected over the EPA limits in the New Brighton system. As of the publication of this report, New Brighton was contesting these limits with the Minnesota Department of Health. 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).

The Filtration Process



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 throughout the year. 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 waste-

water 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 occur naturally or be the result of oil and gas production and mining activities.

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 risk when it is ingested. Because radon in indoor air poses a much greater health risk than radon in drinking water, an Alternative Maximum Contaminant Level (AMCL) of 4000 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 MCL of 300 pCi/L may apply. Minnesota plans to adopt an Indoor Air Program once the Radon Rule is finalized.

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: picoCuries per liter, a measure of radioactivity.
- ppm: parts per million (milligrams per liter).
- ppb: parts per billion (micrograms per liter).
- nd: Not Detected
- MRDL: Maximum Residual Contaminant Level
- MRDLG: Maximum Residual Contaminant Level Goal



Detected Substance (units) year tested- <i>MCL (highest level allowed in water by EPA)</i> <i>-MCLG (level where there is no known health risk)</i>	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		
Total Trihalomethanes (ppb) 2005 <i>MCL: 80 MCLG: 0</i>	1.5	—	1.3	—	Yes	By-product of drinking water disinfection.
Haloacetic Acids (ppb) 2005 <i>MCL: 60 MCLG: 0</i>	2.2	—	—	—	Yes	By-product of drinking water disinfection.
Barium (ppm) 2002 <i>MCL: 2 MCLG: 2</i>	0.13	—	0.1 (2003)	—	Yes	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Nitrate as Nitrogen (ppm) 2005 <i>MCL: 10 MCLG: 10</i>	—	—	0.45	nd-0.45	Yes	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Fluoride (ppm) 2005 <i>MCL: 4 MCLG: 4</i>	1.34	0.94-1.5	1.25	1.0-1.2	Yes	State-required additive; erosion of natural deposits; fertilizer and aluminum factory discharge.
Mercury (inorganic) (ppb) 2002 <i>MCL: 2 MCLG: 2</i>	0.02	—	—	—	Yes	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland.
Lead (ppb) 2004 <i>AL: 15 (90% of samples tested must be <15 ppb)</i>	90% of samples were <4.0	0 out of 30 homes tested >15 ppb	90% of samples were <3.0	0 out of 30 homes tested >15 ppb	Yes	Corrosion of household plumbing systems; erosion of natural deposits.
Copper (ppm) 2004 <i>AL: 1.3 (90% of samples tested must be <1.3 ppm)</i>	90% of samples were <1.1	2 out of 30 homes tested >1.3 ppm	90% of samples were <0.35	0 out of 30 homes tested >1.3 ppm	Yes	Corrosion of household plumbing systems; erosion of natural deposits.
Sulfate (ppm) 2002 <i>No established MCL or MCLG</i>	14	—	22 (2003)	—	Yes	Erosion of natural deposits.
Sodium (ppm) 2002 <i>No established MCL or MCLG</i>	8.5	—	12 (2003)	—	Yes	Erosion of natural deposits.
Alpha Emitters (pCi/L) 2002 <i>MCL: 15.4 MCLG: 0</i>	2.3	—	13.6 (2005)	12.2-17.6	Yes	Erosion of natural deposits.
Combined Radium (pCi/L) 2005 <i>MCL: 5 MCLG: 0</i>	—	—	6.2	6.3-6.8	No****	Erosion of natural deposits.
Total Coliform Bacteria (samples) 2005 <i>MCL: >5% present MCLG: found in no samples</i>	3% Present	—	1 sample present*	—	Yes	Naturally present in the environment. * Follow-up sampling showed no contamination present.
Trichloroethylen (ppb) 2005 <i>MCL: 5 MCLG: 0</i>	0.2	nd-0.2	—	—	Yes	Discharge from metal degreasing sites and other factories.
***Radon (pCi/l) 2001	672	—	7900 (2002)	—	Yes	Erosion of natural deposits.
Chlorine (ppm) 2005 <i>MRDL: 4 MRDLG: 4</i>	1.4	1.2-1.7	0.2	0.1-0.4	Yes	Water additive used to control microbes.

****During the year, New Brighton had a violation for Combined Radium. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer. New Brighton is studying alternatives for corrective action.