Fridley 2009 Drinking Water Quality Report

Water Monitoring

The City of Fridley (PSWID 1020031) is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2009. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Your Drinking Water Meets Federal and State Standards

We are proud to report that no contaminants were detected at levels that violated state and federal drinking water standards. This special City of Fridley mailing includes details on results of recent water quality testing in 2009 and news relating to your City's water system.

What You Need to Know About Drinking Water Regulations

In order to ensure that tap water is safe to drink, the U. S. Environmental Protection Agency (EPA) prescribes regulations which 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 which must provide the same protection for public health.

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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Source of Water

All drinking water supplied by the City of Fridley is treated groundwater. The City operates 11 wells plus 2 standby wells ranging in depth from 199 to 870 feet that draw water from the Quaternary Buried Artesian, Jordan-Mt. Simon, Mt. Simon, Prairie Du Chien-Jordan, and Prairie Du Chien Group aquifers.

A portion of Fridley's water is supplied to its system through an interconnection with the City of New Brighton. This water is treated groundwater from the Mt. Simon, Prairie Du Chien Group, Prairie Du Chien-Jordan, and Mt. Simon-Hinckley aquifers. The interconnection between the two cities provides a backup supply for both cities in the case of a severe emergency that interrupts water service in one of the communities.

The Jordan and Mt. Simon formations are deep bedrock aquifers. Water in these units is located in the spaces between the rock or sand grains and in bedrock fractures. Artesian aquifers are shallower and store water amid glacial sand and gravel beneath a confining layer of clay or clay till.

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

While Fridley's drinking water meets all Environmental Protection Agency limits for particular contaminants, the Minnesota Department of Health has also made a determination as to how vulnerable the source of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 or 1-800-818-9318 (and press 5) during normal business hours. Also, you can view the assessment online at: www.health.state.mn.us/divs/eh/water/swp/swa.

Water Conservation

On average, an American household uses about 260 gallons per day, but this amount climbs to around 1,000 gallons per day during peak water use season with some households using as much as 3,000 gallons a day. Tips and information on saving water are available at the EPA's WaterSense website: http://www.epa.gov/watersense/

Source Water Protection

The City of Fridley is currently implementing its Source Water Protection Plan. The purpose of this plan is to mitigate risks to the City's groundwater through controls, coordination, and education. The plan includes goals for implementation over several years. You can help by keeping litter and yard waste out of storm drains, and by properly storing and disposing of hazardous materials. The City of Fridley prohibits the depositing or placing of hazardous material in a manner that causes those materials to drain into a storm sewer drain or waterway or any other unpaved ground surface within the City. For more information on proper storage and disposal of hazardous or disposal of other materials, contact us at (763) 572-3594.

Water System Update

Since our last water quality report, the City has completed projects to repair and maintain its treatment and storage systems. These projects are made possible by funding from water rates that Fridley residents and businesses pay.

As you may have noticed, repairs were completed and a new coating system was installed on the 500,000 gallon elevated storage tower at Commons Park. Much more than just paint, the new coating system protects the structure of the tower similar to the way that shingles protect the roof of your home. This coating system needs occasional replacement to protect the tower's steel structure.

At the Locke Park Water Treatment Plant, preliminary planning is underway and funding is being sought to construct a new backwash water reclamation system, which will reduce energy, increase process efficiency, and conserve source water.

The City of Fridley also completed installation of a new segment of water main on the West University Service Drive south of Osborne Road. This summer, reconstruction of water main on Mississippi Street from Anoka Street to McKinley Street will be completed, and lining of a large diameter water main on North Innsbruck Drive is planned to be completed by the fall of 2010. These projects are intended to reduce costs and customer inconvenience relating to emergency repairs by replacing water mains that have shown to be prone to breaking. Additional water main reconstruction projects are planned for 2011. For information, contact the City of Fridley Engineering Division at (763) 572-3552.

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Results of Monitoring No contaminants were detected at levels that violated federal drinking water standards. However, some contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2009. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.)

Detected Substance (units)	Year Tested**	EPA Limit(s)	Fridley Level Found		New Brighton Level Found		Meets Federal and State Limits	Typical Source of Substance in Drinking Water	Notes
			Average / Result*	Range of Detections	Average / Result*	Range of Detections			
Barium (ppm)	2006	MCL: 2 MCLG: 2	0.07	N/A	0.1	N/A	Yes	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.	New Brighton sampling from 2003
Combined Radium (pCi/L)	2007	MCL: 5.4 MCLG: 0	1.1	N/A	2.1	nd - 2.1	Yes	Erosion of natural deposits.	New Brighton sampling from 2009
Fluoride (ppm)	2009	MCL: 4 MCLG: 4	1.38	1.1 - 1.6	1.08	1.0 - 1.2	Yes	State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.	
TTHM (Total Trihalomethanes) (ppb)	2009	MCL: 80 MCLG: 0	1.0	N/A	4.5	N/A	Yes	By-product of drinking water disinfection.	
Radon (pCi/L)	2009	See below^	41	31 - 51	41	31 - 51	Yes	Erosion of natural deposits.	See additional information below^
Total Coliform Bacteria	2009	MCL: >5% present MCLG: 0% present	3% present	N/A	—	—	Yes	Naturally present in the environment.	**Follow-up sampling showed no contamination present**
cis-1,2-Dichloroethylene (ppb)	2009	MCL: 70 MCLG: 70	0.4	nd - 0.4	—	—	Yes	Discharge from industrial chemical factories.	New Brighton sampling not required
Chlorine (ppm)	2009	MCL: 4 MCLG: 4	1.33 High Quarterly Avg	0.7 - 1.4 Low - High Monthly Avg	0.28 High Quarterly Avg	0.2 - 0.4 Low - High Monthly Avg	Yes	Water additive used to control microbes.	
Copper (ppm)	2007	AL: 1.3	90% of samples were < 0.96	0 out of 30 sites tested > AL (1.3)	90% of samples were < 0.43	0 out of 30 sites tested > AL (1.3)	Yes	Corrosion of household plumbing systems; erosion of natural deposits.	90% of samples tested must be below AL of 1.3.
Lead (ppb)	2007	AL: 15	90% of samples were < 5	0 out of 30 sites tested > AL (15)	90% of samples were < 3	0 out of 30 sites tested > AL (15)	Yes	Corrosion of household plumbing systems; erosion of natural deposits.	90% of samples tested must be below AL of 15. See additional information below.
Sodium (ppm)	2009	—	13	5.8 - 13	14	8.1 - 14	Yes	Erosion of natural deposits.	No established MCL or MCLG
Sulfate (ppm)	2009	—	56	39 - 56	17.9	2.29 - 17.9	Yes	Erosion of natural deposits.	No established MCL or MCLG

*This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year.

**Year when samples were taken, unless otherwise noted.

Some contaminants do not have Maximum Contaminant Levels established for them. These unregulated contaminants are assessed using state standards known as health risk limits to determine if they pose a threat to human health. If unacceptable levels of an unregulated contaminant are found, the response is the same as if an MCL has been exceeded; the water system must inform its customers and take other corrective actions. Unregulated contaminants that were detected include Sodium and Sulfate as shown in the table above.

Monitoring for unregulated contaminants as required by U.S. Environmental Protection Agency rules (40 CFR 141.40) was conducted in 2009. Results of the unregulated contaminant monitoring are available upon request from Cindy Swanson, Minnesota Department of Health, at (651) 201-4656.

Key to Abbreviations

MCLG—Maximum Contaminant Level Goal: The level of a 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 a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MRDL—Maximum Residual Disinfectant Level.
MRDLG—Maximum Residual Disinfectant Level Goal.
AL—Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow.
90th Percentile Level—This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the samples.) Note: In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.
pCi/L—PicoCuries per liter (a measure of radioactivity).
ppm—Parts per million, which can also be expressed as milligrams per liter (mg/l).
ppb—Parts per billion, which can also be expressed as micrograms per liter (µg/l).
nd—No Detection.
N/A—Not Applicable (does not apply).

^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 4,000 picoCuries per liter (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 Maximum Contaminant Level (MCL) of 300 pCi/l may apply. Minnesota plans to adopt an Indoor Air Program once the Radon Rule is finalized.

Lead If present, elevated levels of lead can cause serious health problems. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Fridley is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Some people may be more vulnerable to contaminants 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/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Compliance with National Primary Drinking Water Regulations

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 from human activity. Contaminants that may be present in source water include:

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 be naturally-occurring 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 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 be naturally-occurring or be the result of oil and gas production and mining activities.

Call (763) 572-3556 if you have questions about the City of Fridley drinking water or would like information about opportunities for public participation in decisions that may affect the quality of drinking water. 06/10