



# City of Fridley

## 2011 Drinking Water Quality Report

### Water Monitoring

The City of Fridley (PWS ID 1020031) is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2011. 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 report includes details on results of recent water quality testing in 2011 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 EPA's Safe Drinking Water Hotline at 1-800-426-4791. Another helpful resource is the EPA's Ground Water and Drinking Water website at <http://water.epa.gov/drink/index.cfm>.

### Concerns About Cancer Risk and Fridley Drinking Water

Data recently provided by the Minnesota Department of Health indicated a 7.6% higher rate of cancer reported from several Fridley census tracts greater than those reported on average in Minnesota. The data for this cancer rate were collected between 2000 and 2009. There are many factors that can affect a cancer rate in any community. The age of the population and smoking rates are two of the biggest variables.

Some recent concerns have been expressed whether higher cancer rates have a connection to the City of Fridley water supply. The cancer data provided by the Minnesota Department of Health does not indicate drinking water in Fridley as a source of environmental exposure.

The Minnesota Department of Health regularly monitors water quality produced by City of Fridley wells and plants as part of the Federal Safe Drinking Water Act. The City of Fridley has never had a violation of these standards for cancer causing agents.

On April 5, 2012, the Fridley City Manager held a question and answer discussion regarding cancer concerns in Fridley with staff from the Department of Health and Minnesota Pollution Control Agency. The program airs on Fridley Municipal Television, or you can view the Fridley Cancer Questions discussion on the City of Fridley website at <http://bit.ly/NrYZri>.

The Minnesota Department of Health has several publications on their website relating to cancer, including Cancer and the Environment (<http://bit.ly/OjJuru>), which is written for people who are concerned about cancers that they have experienced themselves or in members of their family or community. See <http://www.health.state.mn.us> for additional documents and reports.

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**Water Supply Sources** All 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. 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.

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, Jordan, and Prairie Du Chien-Jordan formations. 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.

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 it on line at [www.health.state.mn.us/divs/eh/water/swp/swa](http://www.health.state.mn.us/divs/eh/water/swp/swa).

The City of Fridley is currently implementing its wellhead protection plan. This plan is an effort to protect the groundwater resources that the City of Fridley depends on as its source of drinking water from contaminants. Activities underway in implementing this plan in coordination with the Anoka County Municipal Wellhead Protection Group include education of Fridley residents and businesses relating to what they can do to protect groundwater resources, and private well assessment and closure assistance. For more information on these efforts, see the Anoka County Municipal Wellhead Protection Group website at [www.knowtheflow.us](http://www.knowtheflow.us). If you know of sealed or unsealed wells on your property, we encourage you to take our well survey at <http://svy.mk/fridleywell>.

## Wellhead Protection

In 2011, the City of Fridley began installation of new meters and transmitters that can be read remotely. To date, approximately 1,000 meters have been replaced under this multi-year program. The new meters do not require you to call in readings, and will save time in collection of readings. You will be notified when your neighborhood is going to receive the new meters. Call the City of Fridley Utility Billing at (763) 572-3529 for further information.

## 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.

In 2011, there was extensive rehabilitation of Water Filtration Plant 3. Filter media was exchanged for new media, and chemical storage and pump equipment were replaced. We are proud that this project was completed on time and under budget.

Hydrant markers were installed and old markers were replaced citywide by Water Division staff at the end of 2011. This work ensures the most expedient countermeasures are available to the Fridley Fire Department in the event of a fire emergency.

A half mile of large diameter water main on Innsbruck Drive was rehabilitated in 2011 using trenchless lining technology new to Minnesota. This method of repair was selected to minimize costly impacts of open trench construction to the concrete street and utilities located near the water main. This project received an award due to its innovative repair method and cooperative bidding with the cities of Golden Valley and Hutchinson.

The City of Fridley is continuing on rehabilitation of its water distribution system with several projects in process for 2012 and 2013. Water main repair projects are selected to repair or replace old water main where water main breaks are frequent, where difficult emergency repair conditions exist, and where the system pressure can be improved.

The City of Fridley is also planning for a major rehabilitation of its Locke Park Water Filtration Plant in 2013 to keep the plant operating efficiently. Upgrades are proposed to include a new filter backwash basin, replacement filter media, and upgraded control system.

For additional information, contact the City of Fridley Engineering Division at (763) 572-3552.

## Automatic Metering

Call the City of

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**Results of Monitoring** No contaminants were detected at levels that violated federal drinking water standards. There were no MCL violation, Action Level or Health Based Limit exceedance in 2011. 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 2011. 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.)

## Key to Abbreviations

<b>MCLG:</b>	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.
<b>MCL:</b>	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.
<b>MRDL:</b>	Maximum Residual Disinfectant Level.
<b>MRDLG:</b>	Maximum Residual Disinfectant Level Goal.
<b>AL:</b>	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow.
<b>90th Percentile Level:</b>	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.
<b>pCi/L:</b>	PicoCuries per liter (a measure of radioactivity).
<b>Ppm:</b>	Parts per million, which can also be expressed as milligrams per liter (mg/l).
<b>Ppb:</b>	Parts per billion, which can also be expressed as micrograms per liter ( $\mu\text{g/l}$ ).
<b>nd:</b>	No Detection.
<b>N/A:</b>	Not Applicable (does not apply).

## Notes

The City of Fridley produces its own water, and supplements this supply with excess water produced by the City of New Brighton. Data for both systems' water is therefore provided.

**\*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.**

**\*\*\*In respect to Combined Radium results for New Brighton, four quarterly samples are required to determine an average compliance value for this contaminant. At the end of 2011, only two samples had been taken. As a result, there is not a violation for this contaminant.**

**\*\*\*\*Follow-up sampling showed no contamination present.**

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 following.

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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
			Average / Result*	2011 Range of Detections	Average / Result*	2011 Range of Detections		
Alpha Emitters (pCi/l)	2011	MCL: 15.4 MCLG: 0.0	12	N/A	7.8	nd - 7.8	Yes	Erosion of natural deposits.
Arsenic (ppb)	2011	MCL: 10 MCLG: 0	1.1	nd - 1.1	—	—	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium (ppm)	2011	MCL: 2 MCLG: 2	0.12	0.0876-0.123	—	—	Yes	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Combined Radium (pCi/L)	2011	MCL: 5.4 MCLG: 0	2.6	N/A	5.7***	nd - 5.7***	Yes	Erosion of natural deposits.
Fluoride (ppm)	2011	MCL: 4 MCLG: 4	1.34	1.3 - 1.4	1.03	1.0 - 1.1	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.
Nitrate (as Nitrogen) (ppm)	2011	MCL: 10.4 MCLG: 10.4	—	—	nd - 0.09	0.09	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
TTHM (Total Trihalomethanes) (ppb)	2011	MCL: 80 MCLG: 0	1.8	N/A	28.3	N/A	Yes	By-product of drinking water disinfection.
Total Coliform Bacteria (number present)	2011	MCL: >1 MCLG: 0	—	—	1****	N/A	Yes	Naturally present in the environment.
cis-1,2-Dichloroethylene (ppb)	2011	MCL: 70 MCLG: 70	0.61	N/A	—	—	Yes	Discharge from industrial chemical factories.
Chlorine (ppm)	2011	MRDL: 4 MRDLG: 4	1.43	1.3 - 1.6	0.32	0.2 - 0.3	Yes	Water additive used to control microbes.
			High Quarterly	Low - High Monthly	High Quarterly	Low - High Monthly		
Copper (ppm)	2010	AL: 1.3 MCLG: 1.3	90% of samples were < 0.85	0 out of 30 sites tested > AL (1.3)	90% of samples were < 0.22	0 out of 30 sites tested > AL (1.3)	Yes	Corrosion of household plumbing systems; erosion of natural deposits.
Lead (ppb)	2010	AL: 15 MCLG: 0	90% of samples were < 7.9	1 out of 30 sites tested > AL (15)	90% of samples were < 1.9	0 out of 30 sites tested > AL (15)	Yes	Corrosion of household plumbing systems; erosion of natural deposits.
Sodium (ppm)	2009	—	13	N/A	14	N/A	Yes	Erosion of natural deposits.
Sulfate (ppm)	2009	—	56	N/A	3.18	N/A	Yes	Erosion of natural deposits.

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## Additional Information

### 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 storm water 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.

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.

### 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 EPA Safe Drinking Water Hotline at 1-800-426-4791.***

Call (763) 572-3566 if you would like to obtain a paper copy of this report, or if you have questions about this report, the City of Fridley drinking water, or if you would like information about opportunities for public participation in decisions that may affect the quality of drinking water.