

City of Richfield

Water Quality Report 2010



This report contains very important information. Translate, or ask someone who understands it.

Spanish: Información importante. Si no la entiende, haga que alguien se la traduzca ahora.

Hmong: Daim ntawv no qhia xov xwm tseem ceeb heev. Yog koj tsis to taub, nrhiav tus neeg pab txhais rau koj.

Somali: Warbixintan waxay wadataa macluumaad muhiim ah ee la xiriira biyaha aad cabtid. Cid ha kuu tarjunto ama la hadl cid fahmaysa.

Important Information About Wellhead Protection

In an effort to safeguard public water supply systems from contamination, the federal government amended The Safe Water Drinking Water Act in 1986 to include wellhead protection. A Wellhead Protection Plan's guidelines help communities protect their drinking water by identifying sources of contamination within that area, and developing methods to cooperatively manage the area and minimize the threat to the public water supply system. This includes actions such as source water assessments, vulnerability assessments, wellhead protection plans and well abandonment.

◆ Richfield Undertaking Efforts to Protect Groundwater Aquifers

The City of Richfield has recently completed the development of their Wellhead Protection Plan. This plan is designed to protect the groundwater aquifers that supply the Richfield municipal wells. An aquifer is an underground geologic formation (usually a sand deposit or bedrock layer) that is capable of storing and supplying water to a well.

Water supply wells can become polluted when substances that are harmful to human health infiltrate from the surface down to the groundwater aquifers. Wells that pump from these aquifers can become unusable when the level of contamination rises above health standards. Fortunately, the City of Richfield's water supply currently meets or exceeds all State and Federal drinking water standards. The City regularly samples the water from their wells and provides this annual Consumer Confidence Report to residents.

The Wellhead Protection Plan identifies potential sources of contamination that could pollute local groundwater aquifers and enter the community's water supply wells. The ultimate goal of this plan is help ensure that Richfield continues to provide its residents with a safe and abundant supply of clean drinking water for generations to come.

In order for the Wellhead Protection Plan to be successful, the citizens of Richfield need to become environmentally aware.

There are several steps that you can take to help our planning efforts succeed:

- Help identify possible sources of contamination on your property (wells, tanks, septic systems, hazardous wastes, etc.)
- Make sure any potential sources of contamination under your control meet all local, state, and federal regulations.
- Use potentially hazardous products only as directed and dispose of them properly when done.
- Practice proper turf management and avoid over-fertilization of your lawn.
- Seal any unused wells on your property, according to Minnesota Well Code.
- Report any spills you observe; spills as small as 5 gallons of fuel can contaminate millions of gallons of water.

Please report any illegal dumping or illicit discharge to the Utility Department at (612) 861-9165.

If you have any questions about management of potential contamination sources or you wish to view a copy of Richfield's Wellhead Protection Plan, contact Robert Hintgen at (612) 861-9165.

This list includes some items that homeowners should be aware of:

◆ Groundwater wells:

While only public water supply wells fall under the requirements of the wellhead protection program, individual residential wells can also potentially transmit contamination to the aquifer. A residential well that is poorly constructed, not maintained, or improperly abandoned could potentially cause contamination to enter the aquifer. All homeowners with their own wells should monitor the health of that well through water quality sampling.

While the City of Richfield does not have the resources to test each residential well for contaminants, we highly recommend property owners take on this relatively inexpensive process. You can receive more information about private well testing from the Minnesota Department of Health:

<http://www.health.state.mn.us/divs/eh/wells/lwc/index.php>

Additionally, Minnesota Well Code states that any private well no longer in use must either have a permit for continual maintenance or have a licensed well contractor seal the well. If your property has an inactive well, it may be in violation of Minnesota Well Code and should be sealed. You can receive more information about well sealing from the Minnesota Department of Health:

<http://www.health.state.mn.us/divs/eh/wells/construction/handbook.pdf>

<http://www.health.state.mn.us/divs/eh/wells/sealing/index.php>

◆ Household Hazardous Wastes:

The average home contains a wide variety of chemicals that can, over time, have an adverse impact to the groundwater if improperly stored or disposed.

Examples of common household hazardous wastes include (but not limited to): Pesticides, Herbicides, Solvents, Cleaners, Pool Chemicals, Paint, Gasoline, Waste Oil, and Batteries. You can learn more about household hazardous waste at the Minnesota Pollution Control Agency website at:

<http://www.pca.state.mn.us/index.php/living-green/living-green-citizen/household-hazardous-waste.html>

Richfield residents can dispose of their household hazardous waste at the following location:

South Hennepin Recycling & Problem Waste Dropoff Center
1400 West 96th Street, Bloomington, MN. 55431
(612) 348-3777

◆ Lawn Chemicals and Fertilizers:

Improper use and over-application of certain lawn chemicals and fertilizers can lead to a degradation of groundwater quality. Excess fertilizer nutrients not absorbed by plant life can either infiltrate to groundwater or run off during rain or snowmelt events, degrading storm water quality. Storm water either infiltrates to the groundwater or runs off to local bodies of water. In either case, the impact to water quality from nitrates runoff leads to an undesirable result.

Therefore, we encourage homeowners to closely follow instructions on lawn chemicals and fertilizers to ensure the maintenance of proper application rates. You can receive specific recommendations for lawn fertilization rates and other useful lawn care information from the University of Minnesota Extension Service at:

<http://www.extension.umn.edu/topics.html?topic=5&subtopic=155>

The City of Richfield is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2010. The purpose of this report is to advance consumers' understanding of drinking water and to heighten awareness of the need to protect precious water resources.

The City of Richfield provides drinking water to its residents from a groundwater source: seven wells ranging from 405 to 1066 feet deep that draw water from the Jordan, Prairie Du Chien-Jordan, and Iron-ton-Mt. Simon aquifers.

The water provided to customers may meet drinking water standards, but the Minnesota Department of Health has also determined 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 (press 5) during normal business hours. Also, you can view it online at www.health.state.mn.us/divs/eh/water/swp/swa.

Call Utility Superintendent Robert Hintgen at (612) 861-9165 if you have questions about the City of Richfield's drinking water or would like information about opportunities for public participation in decisions that may affect water quality.

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 on this page shows the contaminants that were detected in trace amounts last year.

Sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through 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 the result of oil and gas production and mining activities.

Lead - If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Richfield 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 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>.

In order to ensure that tap water is safe to drink, the U.S. Environmental Agency (EPA) prescribes regulations that 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.

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 and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

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.

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. Monitoring for unregulated contaminants as required by U.S. Environmental Protection Agency rules (40 CFR 141.40) was conducted in 2010. Results of the unregulated contaminant monitoring are available upon request from Cindy Swanson, Minnesota Department of Health at (651) 201-4656.



Detected Substances (units)	MCLG	MCL	Average/ Result*	Range of Detections	Typical Source of Substance in Drinking Water	Meets Standard
Fluoride (ppm)	4	4	1.15	1.1-1.2	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.	✓
Total Trihalomethanes (ppb)	0	80	0.5	N/A	By-product of drinking water disinfection.	✓
Lead (ppb)	-	-	90% of samples < 1.8	0 out of 30 samples tested > 15 ppb	Corrosion of household plumbing systems; Erosion of natural deposits.	✓
Copper (ppm)	-	-	90% of samples < 0.06	0 out of 30 samples tested >1.3 ppm	Corrosion of household plumbing systems; Erosion of natural deposits.	✓
Sodium (ppm)	-	-	17.3	N/A	Erosion of natural deposits.	✓
Sulfate (ppm)	-	-	29.9	N/A	Erosion of natural deposits.	✓
Chlorine (ppm)	4 MRDLG	4 MRDL	1.23 Highest Quarterly Avg.	1.2-1.3 Highest and Lowest Monthly Avg.	Water additive used to control microbes.	✓

KEY TO ABBREVIATIONS

MCLG- Maximum Contaminant Level Goal: The level of a contaminant in drinking water below where 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 2 with the highest levels is taken to determine the 90th percentile level.

ppb- Parts per billion, which can also be represented as micrograms per liter (µ/l).

ppm- Parts per million, which can also be expressed as milligrams per liter (mg/l).

N/A- Not applicable - does not apply.

* 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.