

Water Quality Report



Water conservation tips are available on the City website at www.lakevillemn.gov.

Annual report on drinking water quality for Lakeville

The City of Lakeville is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2011. The purpose of the report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Sources of your drinking water

Lakeville provides drinking water to its residents from a groundwater source: 16 wells ranging from 460 to 864 feet deep, that draw water from the Prairie Du Chien/Jordan and the Franconia-Ironton-Galesville aquifers. Lakeville drinking water meets all drinking water standards, but the Minnesota Department of Health has also made a determination as to how vulnerable the source of water may be to future contamination. 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 online at www.health.state.mn.us/divs/eh/water/swp/swa. Call 952-985-2708 if you have questions about the City of Lakeville drinking water or would like information about opportunities for public participation in decisions that may affect the quality of water.

Results of monitoring

No substances were detected at levels that violated federal drinking water standards. However, some substances were detected in trace amounts that were below legal limits. The adjacent table shows the substances that were detected in trace amounts last year. (Some substances are sampled less frequently than once a year; as a result, not all substances were sampled in 2011. If any of these substances were detected the last time they were sampled for, they are included in the table along with the date the detection occurred.)

Key to abbreviations

MCLG - Maximum Contaminant Level Goal: The level of a substance 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 substance 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 substance 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).

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

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

N/A - Not applicable (does not apply).

Compliance with national regulations

The 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 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.

Substances that may be present in source water include:

Microbial substances, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic substances, 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 substances, 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 substances, 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 substances in water provided to public water systems. Food and Drug Administration regulations establish limits for substances 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 substances. The presence of substances does not necessarily indicate that water poses a health risk. More information about substances and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to substances 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 substances are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Meeting all federal standards

Contaminant (units)	MCLG	MCL	Level Found		Typical Source of Contaminant	Meets standards
			Range (2011)	Average/Result*		
Alpha Emitters (pCi/l) (01/08/2009)	0	15.4	N/A	7	Erosion of natural deposits.	✓
Barium (ppm)	2	2	N/A	.17	Discharge of drilling wastes, metal refineries, and erosion of natural deposits.	✓
Combined Radium (pCi/l) (01/08/2009)	0	5.4	N/A	2.3	Erosion of natural deposits.	✓
Fluoride (ppm)	4	4	.93-1.2	1.16	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 & aluminum factories.	✓
Haloacetic Acids (HAA5) (ppb)	0	60	N/A	6.5	By-product of drinking water disinfection.	✓
TTHM (Total trihalomethanes) (ppb)	0	80	N/A	9.7	By-product of drinking water disinfection.	✓

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

Contaminant (units)	MRDLG	MRDL	****	*****	Typical Source of Contaminant
Chlorine (ppm)	4	4	.01-.78	.32	Water additive used to control microbes.

****Highest and lowest monthly average.
*****Highest quarterly average.

Contaminant (units)	MCLG	AL	90% Level	# of sites over AL	Typical Source of Contaminant
Copper (ppm)	1.3	1.3	0.76	0 out of 30	Corrosion of household plumbing systems; erosion of natural deposits.
Lead (ppb)	0	15	1.1	0 out of 30	Corrosion of household plumbing systems; erosion of natural deposits

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. City of Lakeville 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 for drinking or cooking. If you are concerned about lead in your drinking 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 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. In the table that follows are the unregulated contaminants that were detected:

Contaminant (units)	Level Found		Typical Source of Contaminant
	Range (2011)	Average/Result	
Sodium (ppm)	N/A	4.82	Erosion of natural deposits.
Sulfate (ppm)	N/A	10.2	Erosion of natural deposits.

Monitoring of unregulated substances as required by the 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, 651-201-4656.