

Cottage Grove's Water Source

The City of Cottage Grove provides drinking water to its residents from a groundwater source: Eleven wells ranging from 284 to 427 feet deep, which draw water from the Jordan and Prairie du Chien-Jordan aquifers.

The water provided to customers may meet 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 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 Foreman Rick Alt at 651-458-2808 if you have any questions about the City of Cottage Grove drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.



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.

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.



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 at (1-800-426-4791).

Cottage Grove Water Quality

Chlorine: .4 mg/L
Fluoride: 1.1 mg/L
Alkalinity: 236 mg/L
pH: 7.6
Hardness: 298 mg/L (17 grains per gallon)
mg/L= milligrams per liter or parts per million

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 (1-800-426-4791).



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 below 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 2010. 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.)



Water Conservation

Conservation involves protection, upkeep, maintenance, management, and preservation of the water supply. Using water wisely will help protect this vital resource. Implement these water conservation techniques in your daily routine:

- ◆Water lawns early in the day and only when needed.
- ◆Position sprinkler so water lands on lawn or garden.
- ◆Broom off driveway instead of washing.
- ◆Turn water off to outside faucets.
- ◆Repair irrigation system leaks promptly.

For water conservation information check out these websites:

www.epa.gov/water/kids.html
www.drinktap.org/consumerdnn/

Stormwater Management

Stormwater management is an important component of maintaining a safe drinking water supply. As an area develops, land that once allowed rain to soak into the ground is covered with impervious surfaces such as pavement and roofs. Running over these surfaces, water warms up, picks up pollutants, and reaches streams quickly, causing thermal and chemical pollution as well as erosion and sedimentation.

Pollutants washed into streams can quickly infiltrate underground aquifers—that's why managing stormwater effectively helps keep our drinking water free from pollutants. The management practices the City of Cottage Grove uses to control stormwater include ponds, wetlands, infiltration areas, vegetation buffer strips around water bodies, and erosion and sediment prevention. The goals for stormwater management include:

- ◆Maintain Ground Water Quality and Quantity
- ◆Reduce Stormwater Pollutant Loads
- ◆Protect Wetlands and Habitats
- ◆Prevent or Reduce Flooding
- ◆Education

Cottage Grove Water Quality Report 2011

The City of Cottage Grove 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 heighten awareness of the need to protect precious water resources.





How to Read the Water Quality Table

Average Result - 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 from the previous year.

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.

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 where only 5 samples are taken, the average of the 2 highest samples is taken to determine the 90th percentile level.

pCi/l - PicoCuries per liter (a measure of radioactivity).

ppb - Parts per billion.

ppm - Parts per million.

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

nd - No detection.

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.

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 Cottage Grove 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 the 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>.



2010 COTTAGE GROVE WATER TESTING RESULTS

Contaminant (units) <i>date tested</i>	MCLG	MCL	Range	Average/ Result	Source of Contaminant
Alpha Emitters (pCi/l)	0	15.4	nd-5	5	Erosion of natural deposits.
Arsenic (ppb) <i>6/1/09</i>	0	10	N/A	4.8	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Combined Radium (pCi/l)	0	5.4	nd-1.8	1.8	Erosion of natural deposits.
Fluoride (ppm)	4	4	1.1-1.2	1.13	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)	10.4	10.4	nd-1.1	1.1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite (as Nitrogen) (ppm) <i>1/30/06</i>	1	1	N/A	0.06	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Total Trihalomethanes (TTHM) (ppb)	0	80	N/A	3.86	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	0	60	N/A	1.3	By-product of drinking water disinfection.
Xylenes (ppm)	10	10	N/A	0.001	Discharge from petroleum factories; Discharge from chemical factories.
Chlorine (ppm)	MRDLG: 4	MRDL: 4	Highest and Lowest Monthly Avg.: nd-0.2	Highest Quarterly Avg.: 0.04	Water additive used to control microbes.
Copper (ppm)	1.3	AL: 1.3	90% Level: 0.09	0 out of 30 samples were >1.3	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0	AL: 15	90% Level: 2.4	0 out of 30 samples were >15	Corrosion of household plumbing systems; Erosion of natural deposits.
Nickel (ppb) <i>6/1/09</i>	No EPA Limit Set	No EPA Limit Set	N/A	20.2	Erosion of natural deposits; Discharge from industrial sites.
Sodium (ppm) <i>6/1/09</i>	No EPA Limit Set	No EPA Limit Set	N/A	4.8	Erosion of natural deposits.
Sulfate (ppm) <i>6/1/09</i>	No EPA Limit Set	No EPA Limit Set	N/A	33	Erosion of natural deposits.