

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 meets 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. If you have any questions about the City of Cottage Grove's drinking water, please contact Utility Foreman Rick Alt at 651-458-2808.

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 2008. 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).

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 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.

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).

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).

2009 COTTAGE GROVE WATER QUALITY REPORT



How to Read the Water Quality Table

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 2008. Results of the unregulated contaminant monitoring are available upon request from Cindy Swanson, Minnesota Department of Health at 651-201-4656.

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, which can also be represented 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).

nd - No detection.

Arsenic

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Radon

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 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, 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 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 www.epa.gov/safewater/lead.

| Contaminant (units) | MCL G | MCL | Range | Average/ Result | Source of Contaminant |
|---|-------|-----------------------------|---------------------|-------------------------------|--|
| Alpha Emitters (pCi/l) 2006 | 0 | 15.4 | N/A | 5.8 | Erosion of natural deposits |
| Arsenic (ppb) 2006 | 0 | 10 | N/A | 8.11 | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| Combined Radium (pCi/l) 2006 | 0 | 5.4 | N/A | 1.8 | Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 1-1.5 | 1.15 | Additive for strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories |
| Nitrate (as Nitrogen) (ppm) 2008 | 10 | 10 | nd-0.98 | 0.98 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Nitrite (as Nitrogen) (ppm) 2006 | 1 | 1 | N/A | 0.06 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Total Trihalomethanes (ppb) | 0 | 80 | N/A | 3.2 | By-product of drinking water disinfection |
| Trichloroethylene (ppb) | 0 | 5 | nd-0.4 | 0.4 | Discharge from metal degreasing sites and other factories |
| Xylenes (ppm) | 10 | 10 | nd-0.0013 | 0.001 | Discharge from petroleum factories; discharge from chemical factories |
| Radon (pCi/l) 2005 | N/A | N/A | N/A | 479 | Erosion of natural deposits |
| Chlorine (ppm) | 4 | 4 | nd-1.4 | 0.63 | Water additive used to control microbes |
| Copper (ppm) 2007 | N/A | 90% of samples must be <1.3 | 90% of samples >0.1 | 0 out of 30 samples were >1.3 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead (ppb) 2007 | N/A | 90% of samples must be <15 | 90% of samples >3 | 2 out of 30 samples were >15 | Corrosion of household plumbing systems; Erosion of natural deposits |
| Sodium (ppm) | N/A | N/A | 6.4-8.7 | 8.7 | Erosion of natural deposits |
| Sulfate (ppm) | N/A | N/A | 31.6-51.9 | 51.9 | Erosion of natural deposits |