

# 2010 WATER QUALITY REPORT

## for the City of Cascade, Iowa

This report contains important information regarding the water quality in our water system. The source of our water is groundwater. Our groundwater is drawn from the Silurian Cambrian Jordan Sandstone aquifer(s). .  
Our water quality testing shows the following results:

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
Lead (ppb)	0	AL=15	7	06/01/2007 to 09/30/2009	0 to 9	no	Corrosion of household plumbing systems; erosion of natural deposits
Chlorine (ppm)	MRDLG=4.0	MRDL=4.0	1.21	2010	.52 to 1.62	no	Water additive used to control microbes
Copper (ppm)	1.3	AL=1.3	0.116	06/01/2007 to 09/30/2009	0.0131 to 0.174	no	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	1.05	Jan-2010	0.78 to 1.05	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrate [as N] (ppm)	10	10	8.2	01/01/2010 to 12/31/2010	6.6 to 8.2	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	N/A	N/A	67.9	2008	9.9 to 67.9	No	Erosion of natural deposits; Added to water during treatment process
Combined radium (pCi/L)	0	5	2.3	2008	na	No	Erosion of natural deposits

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

### DEFINITIONS

- Maximum Contaminant Level (MCL) – 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.
- Maximum Contaminant Level Goal (MCLG) -- 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.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- RAA – Running Annual Average
- IDSE – Initial Distribution System Evaluation
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

### GENERAL INFORMATION

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 posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 (800-426-4791).

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 Cascade 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>.

### **CONTAMINANT VIOLATIONS**

None.

### **ADDITIONAL HEALTH INFORMATION**

Nitrate in drinking water at levels above 10-ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

### **OTHER VIOLATIONS**

In Jan 2010, we failed to monitor for total coliform. Adverse health effects, if any, are not known. Monitoring procedures have been corrected to avoid future violations.

### **SOURCE WATER ASSESSMENT INFORMATION**

The City of Cascade water supply obtains its water from the Silurian and Cambrian Jordan Sandstone aquifer. The Silurian was determined to be highly susceptible to contamination because the characteristics of the aquifer and overlying materials allow contaminants to move through the aquifer fairly quickly. The wells will be most susceptible to activities such as dry cleaners, gas stations, industrial sites, and municipal wastewater dischargers. The City of Cascade water supply obtains its water from the Cambrian Jordan Sandstone aquifer. The Cambrian Jordan Sandstone aquifers was determined to be not susceptible to contamination because the characteristics of the aquifer and overlying materials prevent easy access of contaminants to the aquifer. The wells will not be susceptible to most contaminant sources except through pathways to the aquifer such as abandoned or poorly maintained wells. A detailed evaluation of your source water was completed by the IDNR, and is available from city hall at 563-852-3114.

### **CONTACT INFORMATION**

For questions regarding this information, please contact Phil Gehl at 563-852-3114 during the following hours: 8-4.

Decisions regarding the water system are made at the city council meetings held on 2<sup>nd</sup> and fourth Monday at 7 p.m. at city hall and are open to the public.