

# 2008 WATER QUALITY REPORT FOR SIRWA's Greenfield Source Area

This report contains important information regarding the water quality in our water system. The source of our water is both surface water and groundwater. Our water is purchased from Greenfield Municipal Utilities whose groundwater is drawn from the alluvial aquifer(s) and their surface water is drawn from Lake Greenfield.

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	12	6/01/06-9/30/08	ND-13	NO	Corrosion of household plumbing systems; erosion of natural deposits
TTHM (ppb) [Total trihalomethanes]	N/A	80	50	RAA	29-61	No	By-products of drinking water disinfection
Copper (ppm)	1.3	AL=1.3	.82 1 Sample exceeded	6/01/2006-9/30/2008	ND-1.4	No	Corrosion of household plumbing systems; Erosion of natural deposits
Haloacetic Acids (HAA5) (ppb)	N/A	60	36	RAA	25-43	No	By-products of drinking water disinfection
Turbidity (NTU)	N/A	TT	.627	Daily	.052-.627	Yes	Soil runoff
Total Organic Carbon (TOC) (ppm)	N/A	TT	5.9	2008	2.4-5.9	No	Naturally present in the environment
Barium (ppm)	2	2	.13	05/10/04	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	1.20	Daily	85-1.20	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A	N/A	21	05/20/2008	NA	No	Erosion of natural deposits; Added to water during treatment process
Sulfate (ppm)	N/A	N/A	32	05/10/04	NA	No	Erosion of natural deposits
Nitrate [as N] (ppm)	10	10	2.3	05/20/08	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Atrazine (ppb)	3	3	.4	12/20/06	NA	No	Runoff from herbicide used on row crops
Di (2-ethylhexyl)phthalate (ppb)	0	6	.6	12/20/06	NA	No	Discharge from rubber and chemical factories
Chloramines (ppm)	MRDLG=4.0	MRDL=4.0	1.73	RAA	1.42-2.03	No	Water additive used to control microbes
Carbon tetrachloride (ppb)	0	5	2.8	2/10/04	NA	No	Discharge from chemical plants and other industrial activities

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

- 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.
- NTU-Nephelometric Turbidity Units
- RAA-Running Annual Average

## **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. SIRWA 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**

Turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. For the month of August 2008, increased levels of manganese in Lake Greenfield added a yellow tint to the water post chlorination. Pre-chlorinated water leaving the filters did not exceed limits.

## **SOURCE WATER ASSESSMENT INFORMATION**

Greenfield Municipal Utilities obtains some of its water from shallow wells in alluvial aquifers along Nodaway River West of Greenfield. These alluvial aquifers have been determined to be highly susceptible to contamination because of the characteristics of the aquifers and the overlaying materials. A detailed evaluation of your source water (wells) was completed by the Iowa Department of Natural Resources and is available from the General Manager (641)783-2914. Greenfield Municipal Utilities obtains the remainder of its water from Lake Greenfield and Nodaway Lake. A Source Water Assessment of these lakes has determined that both lakes are highly susceptible to contamination because they are surface water supplies. The Howard R. Green Company has completed a detailed evaluation of these surface water supplies, and is available from the General Manager of Greenfield Municipal Utilities at (641) 743-2914.

## **CONTACT INFORMATION**

For questions regarding this information, please contact Matt Schultz at (641) 782-5744 during the following hours: Monday through Friday 8:00 a.m. to 4:00 p.m. or via e-mail at [mschultz@sirwa.org](mailto:mschultz@sirwa.org).

Decisions regarding the water system are made at the SIRWA board meetings. Please call the office for date and time as they are open to the public.

Este informe contiene informacion muy importante sobre su agua bebar. Traduzcalo o hable con alguien que lo entienda bien.