

# 2006 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 groundwater and surface water. Our groundwater is drawn from the alluvial aquifer(s). Our surface water is drawn from Lake Greenfield and Greenfield Municipal Utilities.

Our water quality testing shows the following results:

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
Atrazine (ppb)	3	3	0.4	12/20/2006		No	Runoff from herbicide used on row crops
Barium (ppm)	2	2	0.13	5/10/2004		No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Carbon tetrachloride (ppb)	0	5	2.8	2/10/2004		No	Discharge from chemical plants and other industrial activities
Chlorine (ppm)	MRDLG = 4.0	MRDL = 4.0	1.6	RAA	1.14 – 2.08	No	Water additive used to control microbes
Copper (ppm)	1.3	AL=1.3	0.87	2005	0.14 – 1.12	No	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	1.06	5/10/2004		No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Haloacetic Acids (HAA5) (ppb)	N/A	60	45	2005	32 - 51	No	By-products of drinking water disinfection
Lead (ppb)	0	AL=15	6	2005	0 - 10	No	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate [as N] (ppm)	10	10	1	2006	1	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	N/A	N/A	21	4/24/2006		No	Erosion of natural deposits; Added to water during treatment process
Sulfate (ppm)	N/A	N/A	32	5/10/2004		No	Erosion of natural deposits
Total Organic Carbon (TOC) (ppm)	N/A	TT	4.8	Monthly	2.8 – 4.8	No	Naturally present in the environment
TTHM (ppb) [Total trihalomethanes]	N/A	80	84	2005	66 – 100	Yes	By-products of drinking water disinfection
Turbidity (NTU)	N/A	TT	0.87 – 99.5%	7/25/06	0.16 – 0.87	No	Soil runoff

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

## 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).

## CONTAMINANT VIOLATIONS

Turbidity is an indicator of treatment filter performance and is regulated as a treatment technique.

TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. SIRWA was in violation 1st quarter of 2006. Corrective action was taken immediately and the water supply is back in compliance with DNR standards.

## ADDITIONAL HEALTH INFORMATION

Our water utility is making every effort to protect the water system from potential security threats. You, as a customer, can also help. If you see any suspicious activity near the water tower, treatment plant, wells, or fire hydrants, please contact us at (641) 782-5744 or the local police/sheriff department. We appreciate your assistance in protecting the water system.

## 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 overlying materials. 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.