2005 WATER QUALITY REPORT
FOR
Winterset Water Utility

The Winterset Municipal Water Utility is pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Our water source is Cedar Lake; a man-made reservoir located northeast of Winterset. Built in 1938, Cedar Lake has 10,700 acres of watershed north and west of town. We also have, as an emergency supply, a groundwater under the influence of surface water well along Middle River south of town.

In 2002 the Cedar Lake Watershed Steering Committee was formed to work with landowners to educate and plan watershed structures and projects needed to implement source water protection. This committee is made up of representatives from landowners, NRCS, County Soil and Water Conservation Board, Winterset Utilities and the City of Winterset. A Watershed Coordinator was also hired to work with the Steering Committee and other groups on Cedar Lake Watershed projects and to increase public awareness.

If you have any questions about this report or questions concerning your water utility, please contact Steve Benshoof, Water Superintendent, at 462-3601. The Winterset Municipal Water Department wants our customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second or third Monday of each month at City Hall – 124 W. Court at 8:30am.

This report contains important information regarding the water quality in our water system. The source of our water is surface water. Our surface water is drawn from Cedar Lake.

Our water quality testing shows the following results:

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
TTHM (ppb) [Total Trihalomethanes]	N/A	80	60	12/12/2005			By-products of drinking water disinfection
			46	12/12/2005			
			77	12/12/2005			
			44	12/12/2005			
			90	09/13/2005			
			95	09/13/2005			
			81	09/13/2005			
			91	09/13/2005			
			68	06/13/2005			
			77	06/13/2005			
			69	06/132005			
			71	06/13/2005			
			58	03/14/2005			
			46	03/14/2005			
			47	03/14/2005			
			46	03/14/2005			
Haloacetic Acids (HAA5) (ppb)	N/A	60	6	12/12/2005			By-products of drinking water disinfection
			25	12/12/2005			
			27	12/12/2005			
			33	12/12/2005			
			7	09/13/2005			
			31	09/13/2005			
			37	09/13/2005			
			26	09/13/2005			
			16	06/13/2006			
			35	06/13/2005			
			21	06/13/2005			
			45	06/13/2005			
			34	03/14/2005			
			43	03/14/2005			
			42	03/14/2005			
			40	03/14/2005			

Fluoride (ppm)	4	4	1.01 1.12 1.09 1.19 1.14 1.18 1 1 0.94 0.94 0.89 0.94	12/12/2005 11/14/2005 10/11/2005 09/13/2005 08/15/2005 07/11/2005 06/13/2005 05/23/2005 04/12/2005 03/14/2005 02/14/2005 01/10/2005			Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
1,1,1-Trichloroethane (ppb)	200	200	0.7 0.7 0.6 0.7	09/22/2003 09/22/2003 06/03/2003 06/03/2003			Discharge from metal degreasing sites and other factories
1,2,4-Trimethylbenzene (ppb)	N/A	N/A	0.006	03/09/2004			N/A
1,3,5-Trimethylbenzene (ppb)	N/A	N/A	0.0016	03/09/2004			N/A
Dibromoacetic Acid	N/A	N/A	.001 .002 .001 .001 .002 .001 .002 .003 .004	12/12/2005 12/12/2005 12/12/2005 09/13/2005 09/13/2005 06/13/2005 03/14/2005 03/14/2005 03/14/2005			N/A
Dichloroacetic Acid	N/A	N/A	.004 .015 .015 .023 .004 .01 .021 .016 .004 .026 .006 .022 .018 .025 .025 .025	12/12/2005 12/12/2005 12/12/2005 12/12/2005 09/13/2005 09/13/2005 09/13/2005 09/13/2005 06/13/2005 06/13/2005 06/13/2005 06/13/2005 03/14/2005 03/14/2005 03/14/2005 03/14/2005			N/A
Monochloroacetic Acid Monobromoacetic Acid	N/A N/A	N/A N/A	.002 .001	06/13/2005 09/13/2005			N/A N/A
Trichloroacetic Acid	N/A	N/A	.002 .009 .011 .01 .003 .016 .013 .014 .012 .015 .013 .016 .016 .014 .014 .013	12/12/2005 12/12/2005 12/12/2005 12/12/2005 09/13/2005 09/13/2005 09/13/2005 09/13/2005 06/13/2005 06/13/2005 06/13/2005 06/13/2005 03/14/2005 03/14/2005 03/14/2005 03/14/2005			N/A
Arsenic (ppb)	N/A	50	1	04/15/2003			Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes
Barium (ppm)	2	2	.09	04/15/2003			Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Sodium (ppm)	N/A	N/A	16	04/12/2005			Erosion of natural deposits; Added to water during treatment process

Nitrate [as N] (ppm)	10	10	0.4 0.8 1.6 4.3 8.7 9.7 10.0 11 12 12 7.2 5 3.4 3.6 .7	11/02/2005 10/03/2005 09/06/2005 08/08/2005 07/06/2005 06/27/2005 06/20/2005 06/13/2005 06/06/2005 05/23/2005 05/16/2005 05/10/2005 05/04/2005 03/08/2005 02/07/2005		 Violation Violation Violation	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Atrazine (ppb)	3	3	0.4	09/04/2003			Runoff from herbicide used on row crops
Dicamba	N/A	N/A	.0002	08/02/2003			N/A
MRDL, Chlorine			1.07 .72 .77 .73 .35 .79 .56 .66 .76 .89 1.45 .87	12/01/2005 11/01/2005 10/01/2005 09/01/2005 08/01/2005 07/01/2005 06/01/2005 05/01/2005 04/01/2005 03/01/2005 02/01/2005 01/01/2005			
Carbon, Total Organic	N/A	TT		12/06/2005 11/02/2005 10/03/2005 09/06/2005 08/08/2005 07/06/2005 06/06/2005 05/10/2005 04/04/2005 03/08/2005 02/07/2005 01/03/2005	3.4-5.0 3.6-8.3 2.6-5.6 2.9-6.4 2.3-5.8 2.3-4.7 2.4-5.0 2.9-6.1 3.3-4.9 3.7-4.8 4.0-5.7 4.0-6.5		Naturally present in the environment.
Chlorite	.8	1.0	.15 .18 ..19 .21 .22 .13 .17 .1 .14 .11 .23 .23 .22 .27 .35 .35 .18 .24 .24 .22 .23 .2	12/12/2005 12/12/2005 12/12/2005 11/14/2005 11/14/2005 10/11/2005 10/11/2005 06/13/2005 05/23/2005 05/23/2005 04/12/2005 04/12/2005 04/12/2005 03/14/2005 03/14/2005 03/14/2005 02/14/2005 02/14/2005 02/14/2005 01/10/2005 01/10/2005 01/10/2005			
n-Propylbenzene	N/A	N/A	.0008	03/09/2004			N/A
Xylenes	10	10	.0006	03/09/2004			Discharges from petroleum factories; Discharge from chemical factories

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.

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).

LEAD AND COPPER REPORT

Lead (ppb) MCL/AL = 15 MCLG = 0
Typical source of contaminant: Corrosion of household plumbing systems; erosion of natural deposits.
Copper (ppm) MCL/AL = 1.3 MCLG = 1.3
Corrosion of household plumbing systems; Erosion of natural deposits

Lead and Copper monitoring status for compliance period 06/01/2003 to 09/30/2005 – Complete – No exceedance.
90^{th} percentile: Lead 10.0 ppb – Copper 0.30 ppb.

Infants and children who drink water-containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or, high blood pressure.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

CONTAMINANT Violations

06/01/2005-06/30/2005 - MCL Violation – Nitrate, Violation ID 200502953
05/01/2005-05/31/2005 - MCL Violation – Nitrate, Violation ID 200502924
Infants below the age of six months who drink water-containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

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

12/01/2005-12/31/20005 – Monitoring Violation – Total Coliform Violation ID 200601150

SOURCE WATER ASSESSMENT INFORMATION

The Winterset water supply obtains its water from the Cedar Lake. A copy of the Cedar Lake Watershed Assessment is available for viewing at the Water Treatment Plant located at 3301 Cedar Bridge Road.

OTHER INFORMATION

Our water utility is making every effort to protect the water system from potential security threats. You, as customers, can also help. If you see any suspicious activity near the water tower, treatment plant, wells or fire hydrants, please contact us at 462-3601. We appreciate your assistance in protecting the water system.

WHAT DOES THIS ALL MEAN?

The test results show that our system had problems with nitrates in 2005. The duration of the violation was 05/01/2005 to 06/30/2005. The potential adverse health effects are as follows; Infants below the age of six months who drink water-containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and 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.

We are correcting this problem by looking at different options to reduce or eliminate nitrate from our drinking water. These include establishing practices in the watershed to reduce the amount of nitrate that enters the lake and a reverse osmosis unit to remove nitrates at the treatment plant. The reverse osmosis unit should be completed by the spring of 2007.

In addition as a precaution we will always notify the public if there is ever a higher than normal level of nitrates in the water supply, in addition to any notification should we exceed the MCL for nitrates or any other contaminant. As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.
We continue with our efforts in the watershed and are pursuing various sources of funding for an anticipated lake expansion. We are confident we can achieve both goals thereby improving the quality of water we receive and pass on to our customers.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 the 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 at 1-800-426-4791.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

We at the Winterset Municipal Water Utility work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

CONTACT INFORMATION

For questions regarding this information, please contact Steve Benshoof at 462-3601 during the following hours: 7:00am to 4:00pm Monday through Friday.

Decisions regarding the water system are made at the Winterset Utility Board meetings held on the second or third Monday of every month at 8:30 a.m. at City Hall and are open to the public.

Copies of this report will be available at the Water Treatment Plant and City Hall. This report will also be posted at various locations around the city.

This information and more is available on our website:
http://winterset.govoffice.com