

2021 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. In January 2008 a Reverse Osmosis system was added to our water treatment system to assist with nitrate removal, as well as other contaminants. 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.

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 the Electric Generation Plant – 321 N. 1st St. 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	LRAA 34	3-31-21	25-39	No	By-products of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	N/A	60	LRAA 18	3-31-21	13-26	No	By-products of drinking water disinfection
Fluoride (ppm)	4	4	SGL .84	4-12-21	.62-.84	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A	N/A	SGL 24	4-12-21	N/A	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10	10	SGL 2.9	2021	ND-2.9	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
MRDL, Chlorine	4.0	4.0	RAA 2.6	12-31-21	2.18-2.85	No	Water additive used to control microbes.
Total Coliform Bacteria	TT (TT)	RTCR	1 sample positive	10-31-21	N/A	No	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water.
Dalapon	200	200	SGL .20	8-2-21	N/A	No	Runoff from herbicide used on rights of way
Barium	2	2	SGL .11	4-12-21	N/A	No	Discharge of drilling wastes Discharge from metal refineries; Erosion of natural deposits.

Contact Time Ratio	N/A	Must be greater than or equal to 1.0 on daily basis	1.56	1-21	1.56-7.58	No	
Carbon, Total Organic	N/A	TT 15% required removal	35.56%	1/2021-12/2021	35.56-91.80%	No	Naturally present in the environment.
Chlorite	.8	1.0	ND-.18	12-31-21	N/A	No	By-product of drinking water disinfection
Lead (ppb)	0	AL=15	1 (90 th percentile)	2020	ND-2	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3	AL=1.3	0.21 (90 th percentile)	2020	.01-.25	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Turbidity (NTU)	N/A	N/A	.22 100% compliance	3-2021	N/A	No	Soil Runoff
Nitrite	1	1	SGL <.250	6-7-21	ND - <.250	No	Runoff from fertilizer use; Leaching from septic tanks,sewage;Erosion of natural deposits
Cryptosporidium	N/A	N/A	.1	1/1/18-12/31/18	N/A	No	Soil Runoff

UNREGULATED CONTAMINATES TREATMENT PLANT

Contaminate	Sample date	Result (avg)	Range
Manganese (ppb)	2019	7.35	1.1-14

UNREGULATED CONTAMINATES DISTRIBUTION SYSTEM

Contaminate	Sample date	Result (avg)	Range
HAA5 (ppb)	2019	14.47	8.97-26.64
HAA6 (ppb)	2019	7.24	4.7-10.3
HAA9 (ppb)	2019	21.01	15.26-34.51

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminate monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

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.

- 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).

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. Winterset Water Utility 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants, and small children, and the elderly are at greater risk of developing life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

CONTAMINANT Violations

No violations

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.

Nitrite in drinking water at levels above 1 ppm is a health risk for infants of less than six months of age. High nitrite 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.

SOURCE WATER ASSESSMENT INFORMATION

The Winterset water supply obtains its water from the Cedar Lake. Cedar Lake has a high susceptibility to contamination from within our drainage basin. 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

In 2019 our system monitored for several unregulated contaminants as part of an EPA study. The results of the study are available for review at the Water Treatment Plant located at 3301 Cedar Bridge Road.

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

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?

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 the Electric Generation Plant 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.

**COPIES OF THE REPORT ARE AVAILABLE AT CITY HALL AND THE WATER TREATMENT PLANT.
THIS CONSUMER CONFIDENCE REPORT WILL NOT BE MAILED TO CUSTOMERS.**

**This information and more is available on our website:
<http://cityofwinterset.org>**