



Annual Drinking Water Quality Report

For Customer of Menasha Water Utility

June 2017

We are pleased to present you with this year's **Annual Drinking Water Quality Report**. This report is designed to keep you and/or your family informed about the quality of water and services we deliver to you every day. **Our water is safe and meets all federal and state requirements**, our goal is to continuously provide you with a safe and dependable supply of drinking water. We want you to know Menasha Water Utility continues to work to improve the water treatment process and protect our natural water resources. We are committed to ensuring the quality of your drinking water.

If you have any questions about this report or other concerns about your water utility, please call our Water Utility Manager Timothy Gosz at 920.967.3451. You can learn more about our Water Utility by visiting the Menasha Utilities web site at www.menashautilities.com. We want you, our valued customer, to be informed about your water utility. We also welcome you to provide public input at the Menasha Utilities Commission meetings the fourth Wednesday of each month at 8:00 a.m. at our Office and Operations Complex, 321 Milwaukee Street.

Our water supply source is taken from Lake Winnebago, filtered, treated, and disinfected at our Water Filtration Plant. It is then distributed to our customers through our water distribution system. A summary of the source water assessment for Menasha Utilities is available at: www.dnr.state.wi.us/org/water/dwg/swap/surface/menasha.pdf

The water we deliver to you is continuously monitored and tested according to Federal and State laws. Currently we monitor and test for over one hundred chemical element and compound constituents. All sources of water are subject to some elements or compounds that are naturally occurring or manmade. These can be microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It is important to remember that the presence of any of these constituents does not necessarily pose a health risk. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the Maximum Contaminant Level (MCL) level for a lifetime to have a one-in-a-million chance of having the described health effect. We have learned through monitoring and testing our water that some constituents have been detected at levels below the MCL. The MCL is the highest level allowed in drinking water for each constituent, and set by the EPA at very stringent levels to protect public health.

From the entire list of over 100 elements and compounds we monitor and test for, small detectable amounts were found for only 15. Included in this report is a table of these test results for our water for the period of January 1 to December 31, 2016. Dates and results for less frequent testing are also included in this table.

In summary, the DNR and EPA have determined that our water is safe at these low levels. **We are proud that our quality drinking water meets or exceeds all federal and state requirements**. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency Safe Drinking Water Hotline at 1.800.426.4791 or www.epa.gov/safewater.

Menasha Utilities upgraded its treatment facilities in 2007 to include UV Disinfection and Granular Activated Carbon Contactors. With the upgrade, we meet or exceed the level of treatment required for cryptosporidium by the EPA's Long Term 2 Enhanced Surface Water Treated Rule which took effect September 2013, therefore we did not monitor for cryptosporidium nor were we required to.

Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. 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, especially if the home is older. 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. All potential sources of lead in the household should be identified and removed, replaced, or reduced. Additional information is available from the 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 microbiological contaminants are available from the Safe Drinking Water Hotline. (800) 426-4791

The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally- occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Definitions

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL	Maximum Contaminant Level: 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.
MCLG	Maximum Contaminant Level Goal: 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.
MFL	million fibers per liter
MRDL	Maximum residual disinfectant level: 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.
MRDLG	Maximum residual disinfectant level goal: 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.
mrem/year	millirems per year (a measure of radiation absorbed by the body)
NTU	Nephelometric Turbidity Units
pCi/l	picocuries per liter (a measure of radioactivity)
ppm	parts per million, or milligrams per liter (mg/l)
ppb	parts per billion, or micrograms per liter (ug/l)
ppt	parts per trillion, or nanograms per liter
ppq	parts per quadrillion, or picograms per liter
TCR	Total Coliform Rule
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water

Disinfection Byproducts

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2015)	Violation	Typical Source of Contaminant
HAA5 (ppb)	D31	60	60	22	17 - 25		No	By-product of drinking water chlorination
TTHM (ppb)	D31	80	0	26.5	20.1-31.1		No	By-product of drinking water chlorination
HAA5 (ppb)	D35	60	60	21	15-25		No	By-product of drinking water chlorination
TTHM (ppb)	D35	80	0	26.0	20.3-29.1		No	By-product of drinking water chlorination
HAA5 (ppb)	D44	60	60	22	17-25		No	By-product of drinking water chlorination
TTHM (ppb)	D44	80	0	27.8	22.3 – 34.4		No	By-product of drinking water chlorination
HAA5 (ppb)	D45	60	60	20	14-22		No	By-product of drinking water chlorination
TTHM (ppb)	D45	80	0	24.8	19.4-26.8		No	By-product of drinking water chlorination

Inorganic Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2015)	Violation	Typical Source of Contaminant
BARIUM (ppm)		2	2	0.016	0.016		No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
CYANIDE (ppb)		200	200	8	8	4/8/2014	No	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
FLUORIDE (ppm)		4	4	0.8	0.8		No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
NICKEL (ppb)		100		1.100	1.100		No	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
NITRATE (N03-N) (ppm)		10	10	0.57	0.57		No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
NITRITE (N02-N) (ppm)		1	1	0.008	0.008		No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
SODIUM (ppm)		n/a	n/a	46.00	46.00		No	n/a
Contaminant (units)	Action Level	MCLG	90th Percentile Level Found	# of Results	Sample Date (if prior to 2015)	Violation	Typical Source of Contaminant	
COPPER (ppm)	AL=1.3	1.3	0.1600	0 of 31 results were above the action level.	6/18/2014	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	
LEAD (ppb)	AL=15	0	11.00	4 of 31 results were above the action level.	6/18/2014	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Radioactive Contaminants

Contaminant (units)	Site	MCL	MCLG	Level Found	Range	Sample Date (if prior to 2015)	Violation	Typical Source of Contaminant
RADIUM, (226 +		5	0	1.5	1.5	4/8/2014	No	Erosion of natural deposits

Unregulated Contaminants

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

Contaminant	Site	MCL	Level Found	Range Found	Sample Date (prior to 2016)	Violation	
Hexavalent Chromium	EP81	N/A	0.13 ug/L	.12-.14 ug/L	2014	N	
Chlorate	EP81	N/A	570 ug/L	310 – 870 ug/L	2014	N	
Strontium	EP81	N/A	80 ug/L	75 – 84 ug/L	2014	N	
Vanadium	EP81	N/A	0.57 ug/L	0.53 – 0.63 ug/L	2014	N	

Health effects for any contaminants with MCL violations/Action Level Exceedances

Contaminant Health Effects

LEAD 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.

Additional Health Information

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. Menasha Utilities 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 www.epa.gov/safewater/lead.

Information on Monitoring for Cryptosporidium and Radon

Our water system did not monitor our water for cryptosporidium or radon during 2015. We are not required by State or Federal drinking water regulations to do so.

Monitoring and Reporting Violations

None

Description	Contaminant Group	Sample Location	Compliance Period Beginning	Compliance Period Ending

Turbidity Monitoring

In accordance with NR 810.29, Wisconsin Administrative Code, the treated surface water is monitored for turbidity to confirm the filter is less than 0.3 NTU. Turbidity is a measure of the cloudiness of the water. We monitor for it because it is a good indicator of the effectiveness of our filter system. During the year the highest single entry point turbidity measurement was 0.283 NTU. The lowest percent of samples meeting the turbidity limit was 100 percent.