

# 2015 Water Quality Report

## Village of Mukwonago Water Utility Consumer Confidence Report for the Year 2015

*"Provide good customer service and protect the environment at the lowest long-term cost."*

The Mukwonago Utilities has prepared this Annual Drinking Water Quality Report to keep you informed on the utility related services and water quality we provide on a daily basis.

### Health 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 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 (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 systems 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 Environmental Protection Agency's safe drinking water hotline (800) 426-4791.



### Source of Water

The Village Utility currently operates 5 groundwater wells to provide water to the Village. The Village Utility operates 2 deep wells, and 3 shallow wells. Deep groundwater wells have great tasting water, but do contain naturally occurring radium. Shallow wells avoid the radium issue, but do contain iron which will cause "rusty water". The Village Utility blends water from both wells, to provide the best water possible and minimize the issues of each type of well.

### Educational Information

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 storm water 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 storm water runoff and residential users.
- 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 storm water runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

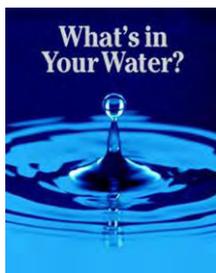
In order to ensure tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

### Customer Questions

If you have any questions about this report or concerning your utility, contact the Utility office, Dave Brown or Ivan Zaremba at (262) 363-6416. We want our customers to be informed about their utility.

### Board/Public Works Meetings:

Village Board Meetings are scheduled for the 3<sup>rd</sup> Tuesday of every month, while the Public Works Committee meets the 1<sup>st</sup> Monday of every month. For specific dates and times of each meeting, please see the Village of Mukwonago website.



## Water Sample Test Results

The Utility follows the sampling and testing requirements established by the Wisconsin Department of Resources. The water supplies are tested, to insure that the water provided to the community complies with safe drinking water standards. More information about materials in the water and potential health effects is available by calling the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov>.

We are proud to report that the Mukwonago water met all USEPA standards.

Test Parameter	MCL	MCLG	Level Found	Range over time	Sample Date	Violation	Typical source of the material
Coliform	>5% of Samples	0	1	---		No	Natural bacteria present in the environment.
Barium (ug/l)	2000	2000	84 (Avg)	78-85	2014	No	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits.
Copper (ug/l)	AL= 1300	AL= 1300	96 (Avg)	36-172	2014	No	Corrosion of household plumbing, erosion of natural deposits, leaching from wood preservatives.
Fluoride (mg/l)	4	4	0.56 (Avg)	0.9-1.04	2014	No	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Lead (ug/l)	AL- 15	0	3.2 (Avg)	ND-8.9	2014	No	Corrosion of household plumbing systems; erosion of natural deposits.
Nickel (ug/l)	100		<1	<1.0-2.0	2014	No	Nickel occurs naturally in soils, ground water and surface water and is often used in electroplating stainless steel and alloys.
Nitrate (NO <sub>3</sub> -N (mg/l)	10	10	.65 (Avg)	0.33-0.97	2015	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Sodium (mg/l)	N/A	N/A	44 (Avg)	36.1-39	2014	No	N/A
Gross Alpha Excl. Activity (pCi/l)	15	0	2.88 (Avg)	11.2-12.9	2015	No	Erosion of natural deposits.
Gross Beta Particle Activity (pCi/l)	N/A	N/A	4.5 (Avg)	4.71-5.11	2015		Decay of natural and man-made deposits; MCL units are in millirem/year. Calculation for compliance with MCL is not possible unless level found is greater than 50 pCi/l.
Radium (226+228) (pCi/l)	5	0	1.13 (Avg)	3.16-3.21	2015	No	Erosion of natural deposits.
HAA5 (ug/l)	60	60	3.95 (Avg)	ND-4.0	2015	No	By-product of water disinfection.
TTHM Total (ug/l)	80	0	14	1.0-14	2015	No	By-product of water disinfection.
Bromodichloro-Methane (ug/l)	N/A	N/A	2.75 (Avg)	0.18-2.75	2015	No	N/A
Bromoform (ug/l)	N/A	N/A	1.15 (Avg)	0.4-2.3	2015	No	N/A
Chloroform (ug/l)	N/A	N/A	2.01 (Avg)	ND-0.23	2015	No	N/A
Dibromochloro-methane (ug/l)	N/A	N/A	2.9 (Avg)	0.37-3.1	2015	No	N/A
Chrome 6+			ND		2011	N/A	
Natural Fluoride (mg/l)	N/A	N/A	0.4	0.28-0.47		N/A	Natural fluoride in wells.
Natural Iron (mg/l)	N/A	N/A	0.3	0.0-0.9		N/A	Natural iron in wells.
Hardness (grains)	N/A	N/A		22-25		N/A	N/A

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Maximum Contaminant Limit (MCL):** The maximum allowed level of a contaminant in drinking water. The limit is set as close to the MCLG as feasible using the best available treatment technology.

**Milligrams per liter (mg/l):** One part per million is equivalent to a penny in \$10,000.

**Microgram per liter (ug/l):** One microgram per liter is equivalent to one penny in \$10,000,000.

**No Detect (N.D.):** No trace of the compound was found.

**Not Applicable (N/A):** Does not apply.

**Picocuries per liter (pCi/l):** A measure of radioactivity in water.



**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. Mukwonago Waterworks 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 and 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](http://www.epa.gov/safewater/lead).

**OTHER COMPLIANCE**

**Monitoring and Reporting Violations**

Description	Contaminant Group	Sample Location	Compliance Period Beginning	Compliance Period Ending
Bacti M/R MIN Routine - Too few Routine samples	Microbiological Contaminants	Distribution System	10/1/2015	10/31/2015
Chem M/R - Reg - No Regular samples	Fluoride	Distribution System	10/1/2015	10/31/2015

**Educational Information**

We are required by the Wisconsin Department of Natural Resources to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards.

Between 10/1/2015 and 10/31/2015, the Utility completed all required daily in house fluoride tests. The average fluoride residual was .68 ppm, but the Utility overlooked collecting a spilt sample for analysis.

Between 10/1/2015 and 10/31/2015 the Utility maintained an average free chlorine residual of .91 ppm and an average total chlorine residual of 1.10 ppm. During this period the Utility only completed half of our required coliform bacteria samples, and therefore cannot be sure of the quality of your drinking water during that time.

The Wisconsin Department of Natural Resources requires the Utility to collect eight (8) coliform bacteria samples and one (1) fluoride split sample per month. Unfortunately, at one of our busiest times of the year the Utilities had one employee retire and another unexpectedly resign making things quite busy.

The Utility generally splits up the sample collections to four (4) samples at a time two (2) to three (3) weeks apart. The Utility overlooked the collection of the final four (4) samples at the end of October.

There are no special precautions you need to take at this time.

Resolution to the missed samples was immediately corrected on 11/1/2015 and the Utility continues to follow the required monitoring program.

As an organization, the Utility and its operators discussed and implemented procedures to ensure that the required amount of samples are collected.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER  
Monitoring Requirements Not Met for Mukwonago Waterworks

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If you have any questions regarding the safety of our drinking water, please contact:

Mukwonago Utilities                      1200 Holz Parkway                      Mukwonago      WI      53149  
Office Number      262-363-6416

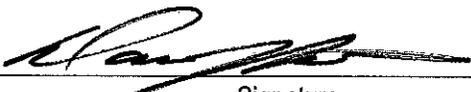
Dave Brown-Utilities Director

Email: [dbrown@villageofmukwonago.com](mailto:dbrown@villageofmukwonago.com)

Ivan Zaremba-Assistant Utilities Director

Email: [waterdept@villageofmukwonago.com](mailto:waterdept@villageofmukwonago.com)

I certify that the information and statements contained in this public notice are true and correct and have been provided to consumers in accordance with the delivery, content, format, and deadline requirements in Subchapter VII of ch. NR 809, Wis. Adm. Code.

X   
Signature

8-19-16  
Date

X   
Signature

8-19-16  
Date