

## 2011 Annual Drinking Water Report Village of Mukwonago

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. The Village Board directed that the water and wastewater utilities be combined into a single utility. The consolidation actually enables utility to serve the residents in a more efficient and cost-effective way. That's consistent with our goal to "provide good customer service and protect the environment at the lowest long-term cost."

The benefit of this consolidation was apparent after the Village prepared the Public Service Commission annual report. We were able to reduce the overall operating expense in 2011 by over \$58,000 in the first year, while completing more work.

### GENERAL INFORMATION:

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

**Source of Water:** The Village currently operates 4 groundwater wells, and is planning to complete a 5<sup>th</sup> well to provide water to the Village. 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 blends water from both wells, to provide the best water possible and minimize the issues of each type of well.

**Groundwater Protection Program and System Improvements:** A Well Head Protection Plan (WHPP) was prepared to identify any potential contaminants to the wells and to project the area surrounding each well. The enforcement aspect of the WHPP is achieved by an Ordinance which identified the permitted and prohibited uses for the area surrounding the wells.

**Hydrant Flushing:** The Village flushes hydrants twice a year to help remove iron deposits from the system. The dates are published on the Village's website and in the local paper. When we do flush, customers may experience rusty water. Avoid doing laundry when the flushing process is occurring. In the event you have a problem with the rust, stop at Village Hall to get a bottle of chemical to help remove it.

**Sprinkling sewer credit:** The most common period of sprinkling lawns and summer water use is from June thru August. The Village uses the March thru May billing period to establish the "maximum billable sewer volume" for issuing bills for the summer quarter. If a pool needs to be filled, wait until after June 5th, to avoid the sewer charge.

**Water Conservation:** The Village does have a water conservation ordinance to control sprinkling from May 1 thru September 15. Residents with odd numbered addresses can sprinkle on odd numbered days of the month. Residents with even numbered addresses can sprinkle on the even numbered days of the week.

**Check your meter:** To see if you have a water leak, turn off all uses for water and look at your water meter. If everything is off, the meter should not be recording any flow. If it is, you're paying for water that's being wasted. If it's moving, look for the source. If you can't find it, call us at 262.363.6416 and we'll try to help find the problem.

**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	80 (average)	78-85	2011	No	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits.
Copper (ug/l)	AL= 1.3	AL= 1.3	90 (average)	36-172	2011	No	Corrosion of household plumbing, erosion of natural deposits, leaching from wood preservatives.
Fluoride (mg/l)	4	4	1.07	0.9-1.04	2011	no	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories.
Lead (ug/l)	AL- 15	0	3.1 (average)	N.D-8.9	2011	No	Corrosion of household plumbing systems; erosion of natural deposits.
Nickel (ug/l)	100		<1	<1.0-2.0	2011	No	Nickel occurs naturally in soils, ground water and surface water and is often used in electroplating stainless steel and alloys.
Nitrate (NO3-N (mg/l))	10	10	0.40(average)	0.33-0.44	2011	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Sodium (mg/l)	N/A	N/A	39	36.1-39	2011	No	N/A
Gross Alpha Excl. R&U ((pCi/l)	15	0	12.5 (average)	10.1-14.2	2011	No	Erosion of natural deposits.
Gross Beta Particle Activity (pCi/l)	N/A	N/A	4.92 (average)	4.14-6.7	2011	No	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	3.81 (average)	2.5-4.2	2011	No	Erosion of natural deposits.
HAA5 (ug/l)	60	60	.04 (average)	N.D.-1.0	2010	No	By-product of water disinfection
TTM (ug/l)	80	0	2.5 (average)	1.0-4.1	2010	No	By-product of water disinfection.
Bromodichloro-Methane (ug/l)	N/A	N/A	0.7 (average)	0.18-1.4	2011	No	N/A.
Bromoform (ug/l)	N/A	N/A	1.20 (average)	0.4-2.3	2011	No	N/A
Chloroform (ug/l)	N/A	N/A	0.12 (average)	ND-0.23	2011	No	N/A.
Dibromochloromethane (ug/l)	N/A	N/A	1.6 (average)	0.37-3.1	2011	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.

**Special Health Concerns:** Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer and 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. The USEPA and the Center for Disease Control and Prevention (CDC) Guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Hotline at 1-800-426-4791.