

**2012 Quality Water Report  
for  
The Village of Mattawan**

**Quality  
On Tap!**

**Our Commitment**



**Our Profession**

This report covers the drinking water quality for Village of Mattawan for the calendar year 2012. This information is a snapshot of the quality of the water that we provided to you in 2012. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from 4 groundwater wells located within the village. In September of 2008 we completed construction and start up for our Iron/Arsenic Removal Plants. With that process we now add Chlorine and Sodium Permanganate to the water, run them through pressurized filters to remove the Iron and Arsenic. In 2003 the State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven tiered scale from "very-low" to "very-high" based on the geologic sensitivity, well construction, and water chemistry and contamination sources. Copies of the reports are available from Superintendent Tom Anthony. Our wells were determined to have Moderate susceptibility to contamination.

The Village has been moving forward with a plan for system improvements. In the distribution system we have replaced several fire hydrants, installed a new well which gives us a total of 4 and a treatment capacity of 2.8 MGD, painted our Concord Ave Water Tower, and will be painting the French tower this year, and we completed the final large water main loop from East McGillen to Freedom Lane last summer. We have been diligently working on our Cross Connection program, this program makes sure that any backflow preventer on the water system is tested to keep contaminants from entering the water system.. We have received yet another grant from the State of Michigan to further our efforts in the village's Well Head Protection Program. This year we did our first annual calendar contest in conjunction with our 7<sup>th</sup> grade students. All village water customers should be receiving the 2014 calendar soon. We have added a variety of information and a cute movie to the web site as well as information on how to dispose of chemicals, prescriptions, and the addition of rain gardens. As always if you would like more information on this program visit

[www.mattawanwellhead.com](http://www.mattawanwellhead.com).

In June of 2012 the village collected a full gamete of routine samples on our drinking water system. They range from Partial Chemistry (that test for Chloride, Fluoride, Hardness, Iron, Nitrate, Nitrite Sodium and Sulfate) to Pesticides, Herbicides Carbamates, and Volatile Organic Compounds. We are also required to monitor for bacteriological samples every month and Arsenic samples every quarter. With our water system we strive to provide not only great fire protection and economic development opportunities but clean safe drinking water.

\* Contaminants and their presence in water: 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 EPA's Safe Drinking Water Hotline (800-426-4791).

\* Vulnerability of sub-populations: Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 Safe Drinking Water Hotline (800-426-4791).

\* Sources of drinking water: The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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 and residential uses.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

### **CONTACT INFORMATION:**

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. We invite public participation in decisions that affect drinking water quality.

Meeting Location: Mattawan Village Hall 24221 Front Ave

Meeting Time: 2nd and 4th Monday of every month.

For more information about your water, or the contents of this report, contact Tom Anthony at 269-668-2300.

For more information about safe drinking water, visit the U.S. Environmental Protection Agency at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).

Village of Mattawan routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2009. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

### **TERMS AND ABBREVIATIONS USED BELOW:**

\* 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.

\* 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 Residual Disinfectant Level (MRDL): 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.

\* Maximum Residual Disinfectant Level Goal (MRDLG): 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.

<b>Inorganic Contaminants</b>	<b>MCL</b>	<b>MCLG</b>	<b>Our Water</b>	<b>Range of Detection's</b>	<b>Sample Date</b>	<b>Violation</b>	<b>Typical source of Contaminant</b>
Fluoride (ppm)	4	4	0.185	.16-.21	2012	No	Erosion of Natural Deposits
Arsenic (ppb)	10	0	4.75**	4-6	2012	No	Erosion of Natural Deposits
Barium (ppm)	2	2	0.21	0.13-0.29	2009	No	Erosion of Natural Deposits
<b>Lead / Copper</b>	<b>AL</b>	<b>90<sup>th</sup> Percentile</b>		<b>No. of sites exceeding AL</b>			
Lead (ppb)	15	0	2	0-1	2012	No	Corrosion of household plumbing
Copper (ppb)	1300	180	140	0-180	2012	No	Corrosion of household plumbing
<b>Total Trihalomethanes</b>	<b>MCL</b>	<b>MCLG</b>	<b>Our Water</b>	<b>Range of Detection's</b>	<b>Sample Date</b>	<b>Violation</b>	<b>Typical source of Contaminant</b>
TTHM (ppm)	.08	.08	.010	.0098-.0120	2012	No	Disinfection Bi Product
<b>Total Haloacetic Acids 5</b>	<b>MCL</b>	<b>MCLG</b>	<b>Our Water</b>	<b>Range of Detection's</b>	<b>Sample Date</b>	<b>Violation</b>	<b>Typical source of Contaminant</b>
HAA5 (ppm)	0.060	0.060	0.0005	ND-0.001	2012	No	Disinfection Bi Product
<b>Special Monitoring</b>	<b>MCL</b>	<b>MCLG</b>	<b>Our Water</b>	<b>Range of Detection's</b>	<b>Sample Date</b>	<b>Violation</b>	<b>Typical source of Contaminant</b>
Sodium (ppm)	N/A	N/A	15.5	13-18	2012	No	Erosion of Natural Deposits

\* N/A: not applicable ND: not detectable at testing limit ppb: parts per billion or micrograms per liter ppm: parts per million or milligrams per liter pCi/l: picocuries per liter (a measure of radioactivity). RAA: running annual average

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

\*TTHM is Total Trihalomethanes

\*HAA is Haloacetic Acids

\*RAA is Running Annual Average

\*\*While your drinking water meets EPA's standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

## HEALTH EFFECTS:

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. The Village of Mattawan 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 <http://www.epa.gov/safewater/lead>.

## EXPLANATIONS:

Some people who drink water-containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

The table shows that our system uncovered some problems this year. The duration of the violation was January through September. With the completion of our Iron Removal Plants we have corrected the problem. .

All sources of drinking water including bottled 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.

MCL's are set at very stringent levels. The MCL's are set such that out of every 10,000 or 1,000,000 people (depends upon how the MCL was developed) drinking 2 liters of water every day for a lifetime, only 1 of those people may experience the described health effect.

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. Village of Mattawan 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 <http://www.epa.gov/safewater/lead>.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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).

Please call our office if you have questions. We at Village of Mattawan 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.