

2016 Quality Water Report for The Village of Mattawan



This report covers the drinking water quality for Village of Mattawan for the calendar year 2016. This information is a snapshot of the quality of the water that we provided to you in 2016. 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 2014 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 to Moderately High susceptibility to contamination. The Moderately High was due to the lack of a defined clay layer for Well 4.

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 the French Tower, and will be replacing water mains over the next several years in conjunction with road projects. We have subcontracted 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.

In August of 2016 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 Total Trihalomethanes and Haloacetic Acids (a possible disinfectant byproduct). This year we also completed Lead and Copper testing. 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 most importantly 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/.

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.
- *Treatment Technique (TT)

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 2009 to 2016. 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.

Inorganic Contaminants	MCL	MCLG	Our Water	Range of Detection's	Sample Date	Violation	Typical source of Contaminant
Fluoride (ppm)	4	4	0.20	0.17-0.22	2016	No	Erosion of Natural Deposits
Arsenic (ppb)	10	0	4.625**	4-5	2015	No	Erosion of Natural Deposits
Barium (ppm)	2	2	0.29	0.13-0.29	2009	No	Erosion of Natural Deposits
Lead / Copper	AL	90th Percentile		No. of sites exceeding AL			
Lead (ppb)	15	0	4.7	0	2015	No	Corrosion of household plumbing
Copper (ppb)	1300	1300	282	0	2015	No	Corrosion of household plumbing
Total Trihalomethanes	MCL	MCLG	Our Water	Range of Detection's	Sample Date	Violation	Typical source of Contaminant
TTHM (ppb)	80	NA	14.35	11.7-17	2016	No	Disinfection Bi Product
Total Haloacetic Acids 5	MCL	MCLG	Our Water	Range of Detection's	Sample Date	Violation	Typical source of Contaminant
HAA5 (ppb)	60	NA	2	2	2016	No	Disinfection Bi Product
Special Monitoring	MCL	MCLG	Our Water	Range of Detection's	Sample Date	Violation	Typical source of Contaminant
Sodium (ppm)	N/A	N/A	27	15-38	2016	No	Erosion of Natural Deposits
Radiological Samples	MCL	MCLG	Our Water	Range of Detection's	Sample Date	Violation	Typical source of Contaminant
Radium226/228 pCi/l	5	0	1.76	1.36-1.76	2014	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

*HAA5 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 at 1-800-426-4791 or at <http://water.epa.gov/drink/info/lead>.