



Village of Mayville

2018 Consumers Annual Water Quality Report

The Consumers Annual Water Quality Report provides important information about your drinking water. This report includes information about the source of the water, related health information, charts summarizing regulatory required testing results, and a table giving explanations of important terms and abbreviations to help in understanding this report. The Village of Mayville Department of Public Works (DPW) is dedicated to providing quality drinking water to the residents of the community. The Village of Mayville DPW is committed to prompt and thorough notification to our consumers if there is any reason for concern about the quality of the drinking water. Information about your drinking water is also available on the Village of Mayville web page at www.villageofmayville.org or by calling the Village of Mayville DPW at 989-843-6621. General drinking water information can also be found on the USEPA web site at www.epa.gov/safewater/.

Water Source

The Village of Mayville currently utilizes two wells located within the Village as a raw water source. The average depth of the wells is 380 ft and the wells draw from the Michigan Formation watershed. The State performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six-tiered scale from “very-low” to “high” based primarily on geologic sensitivity, water chemistry and contaminate sources. The Wells scored “Moderately High” on the contamination susceptibility scale. The results of assessment are available at this time. You may get a copy of the source water assessment at the Village of Mayville DPW garage 5950 Fox St.

General Information

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public systems. The Food & Drug Administration (FDA) regulations establish limits for contaminants in bottled water. Water samples are regularly collected and analyzed by DPW staff, or sent to the Michigan Department of Environmental Quality (MDEQ) Drinking Water Laboratory for analysis. 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 EPA's Safe Drinking Water Hotlink (800-426-4791).

General Information (cont)

The sources of drinking water (both tap 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 other substances resulting from the presence of animals, or human activity. Contaminants that may be present 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 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 storm water runoff, and septic tanks.
- *Radiological contaminants*, which can be naturally occurring or be the result of oil and gas production and mining activities.

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).

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 Mayville 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, 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>. The next round of Lead & Copper sampling for the Village will take place in the months June thru September 2021.

The Village of Mayville routinely monitors for constituents in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2018. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

In the following table you will find many terms and abbreviations to help you better understand the contaminant testing results on the chart on the following page.

| Common Abbreviations for Understanding Testing Results | | |
|---|--|--|
| Symbol | Abbreviation for | Definition / Explanation |
| AL | Action Level | The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow. |
| HAA5 | Halo-acetic acids | The total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total. |
| LRAA | Locational Running Annual Average | Average of the previous 12 months, at a specific location. |
| MCL | Maximum Contaminant Level | The highest level of a contaminant that is allowed in water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology. |
| MCLG | Maximum Contaminant Level Goal | The of contaminant in drinking water below which there is no known or expected risk to health. |
| mg/L | Milligrams per Liter | A milligram = 1/1000 gram, and is equal to 1 part per million. |
| MRDL | Maximum Residual Disinfectant Level | The highest level of disinfectant allowed in drinking water. |
| MRDLG | Maximum Residual Disinfectant Level Goal | The level of drinking water disinfectant below which there is no known or expected risk to health. |
| n/a | Not applicable | |
| ND | Not Detected | |
| ppb | Parts per Billion | One in one billion and is equal to 1 microgram per liter. |
| ppm | Parts per Million | One in one million and is equal to 1 milligram per liter. |
| RAA | Running Annual Average | Average based on the previous 12 months of results. |
| TTHM | Total Trihalomethanes | Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane, and bromoform. Compliance is based on the total. |
| ug/L | Micrograms per Liter | A microgram = 1/1,000,000 gram and is equal to 1 part per billion. |

| Regulated Contaminant Testing Results | | | | | | | | |
|---|------------------------|---|-------------------|------------------------|--------------------------------|--------------------------------------|---------------|---|
| Regulated Contaminant | Test Date | Units of Measure | MCL | MCLG | Highest Level Detected | Range of Detection | Violation Y/N | Major Source of Contamination |
| Inorganic Chemicals – Monitored at the Water Treatment Plant | | | | | | | | |
| Barium | 08/14/17 | ppm | 2 | 2 | 0.10 | n/a | N | Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits. |
| Fluoride | 09/06/18 | ppm | 4 | 4 | 0.55 | n/a | N | Erosion of natural deposits |
| Nitrate | 09/06/18 | ppm | 10 | 10 | ND | n/a | N | Erosion of natural deposits, runoff from fertilizer use; Leaching from septic fields |
| Disinfectant By-Product Monitoring in Distribution system | | | | | | | | |
| Regulated Contaminant | Test Date | Units of Measure | MCL | MCLG | Level Detected (LRAA) | Range of Detection | Violation Y/N | Major Source of Contamination |
| TTHM's | 09/06/18 | ppb | 80 | n/a | 15.6 | n/a | N | By-product of drinking water disinfection |
| HAA5's | 09/06/18 | ppb | 60 | n/a | 2 | n/a | N | By-product of drinking water disinfection |
| Disinfectant (Total Chlorine Residual) | 01/05/18 thru 12/28/18 | ppm | MRDLG 4 | MRDL 4 | n/a | 0.5 -1.5 | N | Water additive used to control microbes. |
| Microbiological Contaminants – Monthly Monitoring in Distribution System | | | | | | | | |
| Regulated Contaminant | MCLG | MCL | | Highest Level Detected | Violation Y/N | Major Source of Contamination | | |
| Total Coliform Bacteria | 0 | One routine positive sample and one positive follow up sample | | 0 | N | Naturally present in the environment | | |
| <i>E. coli</i> or Fecal coliform bacteria | 0 | A routine sample and a repeat sample are total coliform positive , and one is also Fecal or <i>E. coli</i> positive | | 0 | N | Human and animal waste | | |
| Lead & Copper Monitoring – at Consumer Tap | | | | | | | | |
| Regulated Contaminant | Test Date | Units of Measure | Number of samples | Action Level (AL) | Number of samples exceeding AL | 90 th Percentile | Violation Y/N | Major Source of Contamination |
| Lead | June-Sept. 2018 | ppb | 10 | 15 | 0 | 4 | N | Corrosion of household plumbing; Erosion of natural deposits |
| Copper | June-Sept. 2018 | ppb | 10 | 1300 | 0 | 28 | N | Corrosion of household plumbing; Erosion of natural deposits |
| Unregulated Contaminant Testing Results | | | | | | | | |
| Contaminant | Test Date | Units of Measure | MCL | MCLG | Highest Level Detected | Range of Detection | Violation Y/N | Major Source of Contamination |
| Sodium | 09/06/18 | ppm | n/a | n/a | 7 | n/a | N | Erosion of natural deposits |
| Sulfate | 09/06/18 | ppm | n/a | n/a | 39 | n/a | N | Erosion of natural deposits |
| Total Hardness | 09/06/18 | ppm | n/a | n/a | 326 | n/a | N | Erosion of natural deposits |

Arsenic samples are collected and tested monthly. In 2018, arsenic was detected once in the month of February. The level of arsenic was 0.004 mg/L (4 parts per billion), which was below the maximum contaminant level.

In 2018, the Michigan Department of Environmental Quality (MDEQ) conducted sampling for Perfluoralkyl and Polyfluoroalkyl Substances (PFAS/PFOS) as a proactive measure to identify where these substances occur to help determine actions necessary to protect public health. Currently, there is no regulatory drinking water standard for any of the PFAS chemicals. However, the U.S. Environmental Protection Agency established a non-regulatory Lifetime Health Advisory (LHA) for PFOA and PFOS of 70 parts per trillion combined, or individually if only one of them is present. All community water supplies with their own source of water were sampled. Sampling was conducted in Mayville on October 11, 2018 and testing was completed on October 22, 2018. Testing consisted of analysis for 14 different chemicals, none of which were detected.