

2020 ANNUAL DRINKING WATER QUALITY REPORT

VILLAGE OF MILFORD

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We're pleased to present to you the 2020 Annual Quality Water Report. This report is designed to inform you about the quality water and services the Village of Milford delivers to you every day. Our goal is to provide you with a safe and dependable supply of high-quality drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our main water sources are from a 12-inch diameter and a 16-inch water well, both are 114 feet deep, and owned by the Village of Milford. Our wells draw water from an underground aquifer that extends north towards Moore Lake in Milford Township. The water is then pumped from the wells, to the Iron Removal Plant where it is filtered to remove the iron naturally present in the water. Once filtered, Chlorine is added to disinfect the water as it leaves the plant. Fluoride is also added to the water as it leaves the plant to help prevent tooth decay.

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 geologic sensitivity, well construction, water chemistry, and contamination sources. The susceptibility of our source water is moderate. Through our Well Head Protection Plan (WHPP) approved by EGLE, we are making efforts to protect our source water supply. This is an important tool for the protection of our community's drinking water source. Educating the public and our water customers on the proper disposal of chemicals, water conservation, and being informed of the source of our drinking water are important educational tools of a WHPP. One program provided to the residents of our community is the annual Household Hazardous Waste Collection Event (HHWCE) 7 of which are held in the area annually run through RRRASOC. This program helps to reduce the chance of these chemicals contaminating the groundwater.

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 U.S. 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. 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. U.S. EPA/Center for Disease Control 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 stormwater 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 stormwater runoff, and septic systems.

In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2020 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2020. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the current water quality however some data listed is more than one year old. The table below represents the most current testing information available.

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): A required process intended to reduce the level of a contaminant in drinking water.
- N/A: Not applicable
- ND: not detectable at testing limit
- ppm: parts per million or milligrams per liter. One part per million is the equivalent of one minute in two years or a single penny in \$10,000.
- ppb: parts per billion or micrograms per liter. One part per billion is the equivalent of one minute in 2,000 years, or a single penny in \$10,000,000.
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

1 Monitoring Data for Regulated Contaminants

Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Nitrate (ppm)	10	10	ND	N/A	2020	NO	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	0.7	0.16-1.12	2020	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium ¹ (ppm)	N/A	N/A	76	N/A	2020	N/A	Erosion of natural deposits
TTHM Total Trihalomethanes (ppb)	80	N/A	0.6	N/A	2020	NO	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	60	N/A	ND	N/A	2020	NO	Byproduct of drinking water disinfection
Chlorine ² (ppm)	4	4	0.48	0.1-0.96	2020	NO	Water additive used to control microbes
Total Coliform (total number or % of positive samples/month)	TT	N/A	N/A	N/A	2020	NO	Naturally present in the environment
cis-1,2-Dichloroethene (ppb)	70	70	0.75	0.6-0.9	2020	NO	Discharge from industrial chemical factories

¹ Sodium is not a regulated contaminant.

² The chlorine "Level Detected" was calculated using a running annual average.

Per- and polyfluoroalkyl substances (PFAS)							
Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt)	370	N/A	ND	N/A	2020	NO	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	ND	N/A	2020	NO	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	ND	N/A	2020	NO	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	ND	N/A	2020	NO	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	ND	N/A	2020	NO	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	ND	N/A	2020	NO	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	ND	N/A	2020	NO	Discharge and waste from industrial facilities; stain-resistant treatments
Inorganic Contaminant Subject to Action Levels (AL)	Action Level	MCLG	Your Water ³	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	3	ND-5	2020	0	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.21	ND-0.36	2020	0	Corrosion of household plumbing systems; Erosion of natural deposits

³ Ninety (90) percent of the samples collected were at or below the level reported for our water.

The following list contains 58 additional VOCs (Volatile Organic Chemicals) that the Village of Milford tests for every three months.

The following VOCs were all ND (not detectable at testing limit) and are not found in your drinking water.

Benzene	Hexachlorobutadiene
Bromobenzene	Isopropylbenzene
Bromochloromethane	4-Isopropyltoluene
Bromodichloromethane	Methylene chloride
Bromoform	Methyl(tert)butyl ether (MTBE)
Bromomethane	Naphthalene
Carbon tetrachloride	n-Butylbenzene
Chlorobenzene	n-Propylbenzene
Chloroethane	sec-Butylbenzene
Chloroform	Styrene
Chloromethane	tert-Butylbenzene
4-Chlorotoluene	1,1,2,2-Tetrachloroethane
2-Chlorotoluene	1,1,1,2-Tetrachloroethane
cis-1,3-Dichloropropene	Tetrachloroethene
Dibromochloromethane	Toluene
1,2-Dibromoethane	trans-1,2-Dichloroethene
Dibromomethane	trans-1,3-Dichloropropene
1,2-Dichlorobenzene	1,2,3-Trichlorobenzene
1,3-Dichlorobenzene	1,2,4-Trichlorobenzene
1,4-Dichlorobenzene	1,1,1-Trichloroethane
Dichlorodifluoromethane	1,1,2-Trichloroethane
1,2-Dichloroethane	Trichloroethene
1,1-Dichloroethane	Trichlorofluoromethane
1,1-Dichloroethene	1,2,3-Trichloropropane
2,2-Dichloropropane	1,2,4-Trimethylbenzene
1,3-Dichloropropane	1,3,5-Trimethylbenzene
1,2-Dichloropropane	TTHM, Total
1,1-Dichloropropene	Vinyl chloride
Ethylbenzene	Xylenes(total)

VOCs are man-made chemicals such as paint thinner, dry cleaning fluid, solvents, and components of gasoline, other petroleum products and plastics.

Information about lead: 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 Milford 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 have a lead service line it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. 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>.

Our water supply has no known lead service lines and currently has 56 service lines of unknown material out of a total of 2,481 service lines. Investigation into service line materials located in the system is ongoing.

Monitoring and Reporting to the Department of Environment, Great Lakes, and Energy (EGLE) Requirements: The State of Michigan and the U.S. EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2020.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. **Individual copies of this report will not be distributed**; however, copies are available at the Village offices located at 1100 Atlantic Street, Milford, MI 48381 and a copy may also be found on the Village website, www.villageofmilford.org/waterquality You may also request a copy by calling the Department of Public Services offices at 248-685-3055.

We invite public participation in decisions that affect drinking water quality. Village Council meetings are held monthly on the first and third Monday at 7:30 P.M. at 1100 Atlantic Street, Milford, MI 48381. For more information about your water, or the contents of this report, contact the Department of Public Services at 248-685-3055. For more information about safe drinking water, visit the U.S. EPA at <http://www.epa.gov/safewater>.