2020 Annual Drinking Water Quality Report
Village of Shelby July 1, 2021

The Village of Shelby is pleased to present you with this year's Annual Drinking Water Quality Report, also known as the Consumers Confidence Report or CCR. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. The Village of Shelby routinely monitors for contaminants in your drinking water according to Federal and State laws. We are committed to ensuring the quality of your water and want you to understand the efforts we make to continually improve the water treatment process and protect our water resources.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the number 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.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over 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 animal or human activity.

The Village of Shelby's source of water comes from four (3) ground water wells all of which draw water from an aquifer located in glacial material. The depth of our ground water wells ranges from 135 feet to 330 feet deep. In 1995 the Village of Shelby voluntarily began a Wellhead Protection Program, which identifies where our water supply recharge area is located, educates the public about our water source and our water system and identifies possible contaminant sources. With the help of the Department of Environmental Quality (DEQ), Wellhead Protection Grants, the DEQ staff and various contractors, the Village of Shelby completed and received program approval in 2001. The Village completed updating its Wellhead Protection Program in 2006 which included all new delineation maps. If you would like additional information about Shelby's Wellhead Protection Program, contact the Shelby Water Department at 231-861-2500.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 microbial contaminants are available from the EPA Safe Drinking Water Hotline (l -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 Shelby 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead. "

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can be:

- 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 that may come from a variety of sources such as agriculture and residential uses. ● Radioactive contaminants that are 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.

All drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these 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.

You may find many terms and abbreviations that you may not be familiar with in this report. To help you better understand these terms we've provided the following definitions:

- Not-Detected (ND) - laboratory analysis indicates that the contaminant is not present.
- Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.
- Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.
- Action Level - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
- Maximum Contaminant Level Goal - The "Goal" (MCLG) is 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.
- Reporting Limit — (RL) The reporting limit is the level that a contaminant must exceed to be reported on the laboratory reports. Should the contaminant level be less than the RL the report shows (Not Detected)
- Maximum Contaminant Level - The "Maximum Allowed" (MCL) is 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.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one in-a-million chance of having the described health effect.

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 of the data is representative of the water quality, but some are more than one year old. The following tables represent the most current testing information available.

The tables in this report show the results of our monitoring for the period of January 1 st to December 31 st, 2020.

Inorganic Contaminants							
Contaminant	Violation YIN	Highest Level Detected	Unit of Measure	Average		MCL	Likely Source of Contamination
Fluoride, Range 0 - 0.17 ppm Tested, 8-11-2020	N	ND	ppm	ND		4.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrite Range 0 — 0.13 ppm Tested, 8-11-2020	N	ND	ppm	ND		1.0	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate (as Nitrogen), Range I .8-3.5 ppm Tested, 8-11-2020	N	3.0	ppm	2.47		10.0	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Lead & Copper Monitoring	Date Tested	Number of Sites Tested	Sites over Action Level	Action level/ units	90th Percentile		Likely Source of Contamination
Lead	Jan-June 2020 July-Dec 2020	20 20	0	15 ppb	4 ppb 4 ppb		Corrosion of household plumbing systems, erosion of natural deposits

Copper	Jan-June 2019 July-Dec 2020	20 20	0 0	1.3ppm	0.1 ppm 0.1 ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Note for Lead: Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight defects in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems of high blood pressure.

Arsenic: Beginning in January 2006, drinking water supplies must comply with the new arsenic maximum contaminant level (MCL) of 0.010 milligrams per liter, or 10 parts per billion (ppb). A likely source of arsenic comes from erosion of natural deposits; runoff from orchards and runoff from glass & electronics production wastes. NOTE: Shelby's water supply 2.4. were tested for arsenic in AUG. 2016 wells #1.#3 Were tested on June 2019 and the results were "negative"

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Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring them helps the EPA determine where these contaminants occur and whether it needs to regulate them. The following table shows the unregulated contaminants that have been detected in our samples.

Unregulated Contaminant	Highest level detected	Unit of measure	Average	Comments
Sodium Range 0-14 ppm Tested, 8-11-2020	13	ppm	6.7	Unregulated contaminants such as "Sodium" do not have a MCL/AL. The test shows only its presents.
Chloride Range 4-28 ppm Tested, 8-11-2020	21	ppm	10.53	Unregulated contaminants such as "Chloride" do not have a MCL/AL. The test shows only its presents.
Iron Range 0-0 ppm Tested, 8-11-2020	ND	ppm	ND	Unregulated contaminants such as "Iron" do not have a MCL/AL. The test shows only its presents.
Sulfate Range 11-21 ppm Tested 8-11-2020	23	ppm	20.66	Unregulated contaminants such as "Sulfate" do not have a MCL/AL. The test shows only its presents.
Hardness as CaC03 Range 195-205 ppm Tested 8-11-2020	230	ppm	210	Unregulated contaminants such as "Hardness" do not have a MCL/AL. The test shows only its presents.

In 2003 the DEQ performed a source water assessment for the Village of Shelby. This assessment found that Wells 1 and 3 possessed a moderate susceptibility to contamination while Well 2 has a high susceptibility. A fourth well was added to our system in 2001 which draws its water from the same aquifers that Well's 1 & 3 do, therefore

Well 4 would have a moderate susceptibility same as Well's 1 & 3. For more information or a copy of this report please contact Greg MacIntosh, Distribution Operator at 231-861-2500 Monday through Friday 8am — 3pm.

Total Coliform Rule:

The Total Coliform Rule requires water systems to meet strict limits for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If the EPA limit is exceeded, the water supplier must notify the public by newspaper, television or radio.

PFAS

Per- and polyfluoroalkyl substances (PFAS), sometimes called PFCs, are a group of chemicals that are resistant to heat, water, and oil. PFAS have been classified by the United States Environmental Protection Agency (U.S. EPA) as an emerging contaminant on the national landscape. For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, fire-fighting foams, and metal plating. They are still used today. PFAS have been found at low levels both in the environment and in blood samples from the general U.S. population. **Shelby's wells were tested for PFAS in 2018 and the sample results came back as ND (Non detect.)** For information on PFAS, including possible health outcomes, you may visit these websites: https://www.epa.gov/pfas; https://www.atsdr.cdc.gov/pfas/; or http://www.michigan.gov/pfasresponse.

Thank you for allowing us to continue to provide your family with clean, quality water. In order to maintain a safe and dependable water supply, we continually need to make improvements that will benefit all of our customers. These improvements may affect how much you pay for your water but at the current rate of $2.52 for every 748 gallons of water delivered to your home it is still a very good value. Purchasing the same volume of bottled water by the gallon from a store may cost you more than $700.00 dollars and you have to go and get it.

Violations for 2020:

1)We received our sample results for lead and copper with no violations.

The Shelby Water Department personnel work around the clock to provide top quality water to every tap. We ask that all of our customers help us protect our water resources, which are the heart of our community, our way of life and our children's future. Following the directions for use and disposal of products that you use around your home will help protect our ground water from contamination.

If you have any questions about this report or your water utility, please contact Jeremiah Helenhouse DPW Supervisor at 231-861-2500 Monday through Friday 8am — 3pm.

Where can you find a copy of this report?

Copies of this report are available for your viewing at the:

- Shelby Village Offices, 218, N Michigan Ave, Shelby, Michigan. Ph. 231-861-4400

- Shelby Public Works, 88 West Sixth St., Shelby, Michigan. Ph. 231-861-2500
- Shelby Public Library, 189 Maple St., Shelby, Michigan. Ph. 231-861-4565
- Oceana County District 10 Health Department, 3986 North Oceana Drive, Hart, MI. Ph. 231-873-2193

Si usted quiere recibir esta informacion en espanol, por favor llame 231—861—4400.

Common Consumer Confidence Report (CCR) Errors

Dates: Ensure all dates have been updated to 2016, with the exception of contaminants sampled in the last five years, but prior to 2016. For those, the date sampled must be included.

CCR Units: Verify contaminants have been reported in the proper units. Maximum Contaminant Levels (MCL) and Action Levels (AL) must be reported as a value greater than or equal to 1.0. If a MCL or AL is converted to parts-per-billion (ppb) to be above 1.0, the sample results must also be converted.

Most results are reported in milligrams per liter (mg/L), which is the same as parts-per million (ppm). For contaminants such as arsenic and lead, you must convert the lab result to ppb. To do this, move the decimal point three places to the right (or multiply the lab result by 1 ,000). For examples a lab result of 0.004mg/L would-be 4 ppb-for the report. Please ensure that the MCL or AL units match the sample result units.

Reporting Contaminants Not Detected (ND): You may, but are not required to, report undetected contaminants. If you do, they must be in a separate table from detected contaminants. When you have a non-detect or a "< ", put a "0" for the result. If you write "ND," you must explain what ND means.

Violations: All violations incurred in 2017 must be reported on the CCR. If it is an MCL violation, the table must indicate it was a violation. Additionally, for all monitoring/reporting, MCL, or treatment technique violations, you must include an explanation of what happened, how long it lasted, the actions taken, and specific health effect language, depending on the contaminant involved. If you are utilizing your CCR to issue a Tier 3 Public Notice, you must attach the actual Public Notice to the CCR. For very small systems who usually post notice of the CCR, the CCR must be individually delivered to all customers.

Lead Health Statement: All water supplies must include standard language "About Lead." If you need assistance with this, please visit our website at www.michigan.gov/drinkingwater, or contact your district office.

Unrequlated Contaminant Monitorinq Rule (UCMR): If the U.S. Environmental Protection Agency (U.S. EPA) directed you to monitor for unregulated contaminants during 2016, you must report the average and range of each contaminant detected. Also, provide an explanation of this required monitoring, such as, "Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. We monitored for these contaminants and results of monitoring are available on request."