

WATER QUALITY REPORT CITIZEN'S GUIDE



VBT WATER SEWER | publicservices@vanburen-mi.org | 734.699.8925

Every year, Van Buren Township, like all other community water suppliers in Michigan, must develop an annual Water Quality Report to reach consumers in the Township. **This Citizen's Guide is meant to share easy to digest information "bites" from Van Buren Township's Water Quality Report.** It is not intended to replace the full report. Consumers are encouraged to read the full Water Quality report. Van Buren Township's official 2020 Water Quality Report is included after this Citizen's Guide in the Van Buren Today and is available for the public to read or download at vanburen-mi.org under Public Services.



Where does my water come from?

Your source water comes from the Detroit River, situated within the Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, watersheds in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. It is transported from Great Lakes Water Authority water treatment plants in transmission lines into Township distribution mains. Van Buren Township is served primarily from the Southwest Treatment Plant in Allen Park.

What's in my water?

We are pleased to report that your drinking water meets or exceeds all government standards set for water quality and safety.

Why would there be contaminants in my 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 Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.



SAFE DRINKING WATER IS ALL OUR RESPONSIBILITY

Safe drinking water is a shared responsibility. The water that GLWA delivers to our community does not contain lead. Lead can leach into drinking water through home plumbing fixtures, and in some cases, customer service lines. Corrosion control and proper maintenance of home or business plumbing fixtures reduces the risk of lead and copper from leaching into your water. The Charter Township of Van Buren performs.

If at any time you notice a change in the look, smell or taste of your drinking water, please contact the Van Buren Township Department of Public Services-Water & Sewer Division at (734) 699-8925 or at publicservices@vanburen-mi.org



VAN BUREN
CHARTER TOWNSHIP

2020 Water Quality Report



The Charter Township of Van Buren is proud to present the 2020 Water Quality Report. In complying with Federal legislative requirements, this report has been developed to provide you with valuable information about your drinking water. State and federal regulations require us to test our water on a regular basis to ensure its safety. During the 2020 calendar year, the township fulfilled all monitoring, testing and sampling requirements and found our water to have met all federal and state requirements for water quality. You will see as you review this report that your drinking water meets or exceeds all government standards set for water quality and safety. This report will explain where your water comes from, lists the results of testing conducted at the water treatment plant and in the water distribution system, and contains important information about water and health. The report also provides information on how you can minimize contaminants in our source water. Please help us to preserve the quality of our drinking water supply. If at any time you notice a change in the look, smell or taste of your drinking water, please contact the Van Buren Township Department of Public Services – Water & Sewer Division at (734) 699-8925.

Drinking water quality is important to

our community and the region. The Charter Township of Van Buren and the Great Lakes Water Authority (GLWA) are committed to meeting state and federal water quality standards including the Lead and Copper Rule. With the Great Lakes as our water source and proven treatment technologies, the GLWA consistently delivers safe drinking water to our community. The Charter Township of Van Buren operates the system of water mains that carry this water to your home's service line. This year's Water Quality Report highlights the performance of GLWA and the Charter Township of Van Buren water professionals in delivering some of the nation's best drinking water. Together, we remain committed to protecting public health and maintaining open communication with the public about our drinking 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 surface of the land or through the ground, it can dissolve naturally occurring minerals and, in some cases, radioactive materials, 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 discharge, 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 systems.
- Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the number of certain contaminants in the water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for human health.

Where does my water come from?

Your source water comes from the Detroit River, situated within the Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, watersheds in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of GLWA's Detroit River source water for potential contamination. The susceptibility rating is based on a seven-tiered scale and ranges from very low to very high – determined primarily using geologic sensitivity, water chemistry, and potential contaminant sources. The report described GLWA's Detroit River intakes as highly susceptible to potential contamination. However, all four GLWA water treatment plants that service the city of Detroit and draw water from the Detroit River have historically provided satisfactory treatment and meet drinking water standards.

GLWA has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in the National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. In 2016, the Michigan Department of Environmental Quality approved the GLWA Surface Water Intake Protection Program plan. The programs include seven elements that include the following: roles and duties of government units and water supply agencies, delineation of a source water protection areas, identification of potential sources of contamination, management approaches for protection, contingency plans, siting of new water sources, public participation and public education activities. If you would like to know more information about the Source Water Assessment report, please contact GLWA at (313) 926-8102.

What's in my water?

We are pleased to report that during the past year, the water delivered to your homes or businesses complied with, or did better than, all state and federal drinking water requirements. For your information, we have compiled a list in the following tables showing what substances were detected in our drinking water and the last year in which the test was conducted. Although all of the substances listed are under the Maximum Contaminant Level (MCL) set by the U.S. EPA, and therefore not expected to cause any health risk, we feel it is important that you know exactly what was detected and how much of the substances were present in the water.

Health Considerations

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons – persons undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders and 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).

Regulatory compliance

During the 2020 calendar year, the township fulfilled all monitoring, testing and sampling requirements and found our water to have met all federal and state requirements for water quality. While we met all the previously noted requirements, Van Buren Township did not meet the reporting requirements for the lead/copper and corrosion control of the Michigan Safe Drinking Water Act. 1976 PA399, specifically R 325.1071d. and was cited to be out of compliance. Van Buren Township responded by completing the required form and resubmitted it to EGLE with all the required information missing in the headers on pages 2 and 3 of the form. The acceptance by EGLE of the resubmitted forms with the completed headers returned Van Buren Township to compliance and no further action was required.

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 Charter Township of Van Buren 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>.

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SAFE DRINKING WATER IS ALL OUR RESPONSIBILITY

Safe drinking water is a shared responsibility. The water that GLWA delivers to our community does not contain lead. Lead can leach into drinking water through home plumbing fixtures, and in some cases, customer service lines. Corrosion control reduces the risk of lead and copper from leaching into your water. Orthophosphates are added during the treatment process as a corrosion control method to create a protective coating in service pipes throughout the system, including in your home or business. The Charter Township of Van Buren performs required lead and copper sampling and testing in our community. Water consumers also have a responsibility to maintain the plumbing in their homes and businesses, and can take steps to limit their exposure to lead. Below is a diagram illustrating who owns and is responsible for each part of the system.

Important information regarding sewer backup or basement flooding claims

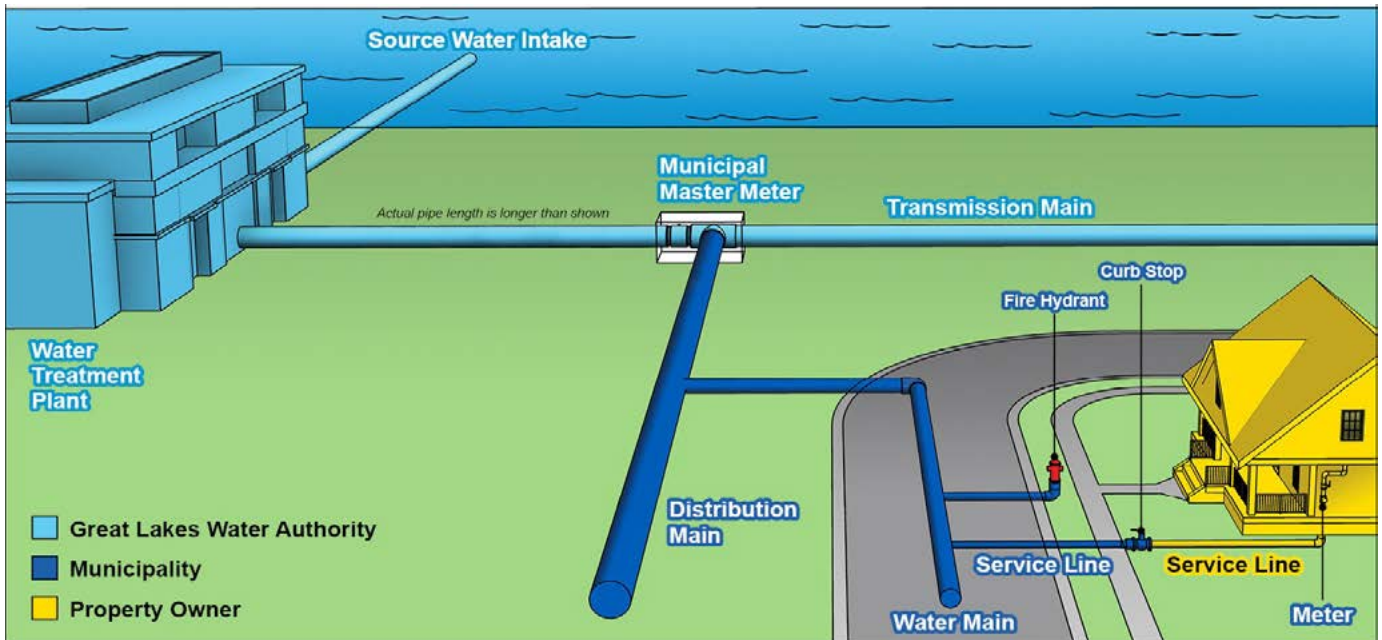
Michigan statute, Act 222 Public Acts of 2001*, clarifies municipal liability for sewer backups. A key provision of the

statute requires that a person seeking compensation for property damage or physical injury must file a written claim within 45 days of the event.

If you experience an overflow or backup of a sewage disposal system or storm water system, you must file a written claim with the Van Buren Township Water & Sewer Division within 45 days after the overflow or backup was discovered. Notice must be mailed to Van Buren Township Water & Sewer Division, 46425 Tyler Road, Belleville, MI 48111. Failure to provide the required notice will prevent recovery of damages.

Contact the Van Buren Department of Public Services at (734) 699-8925 immediately upon discovery of an overflow or backup. Like you, the Department of Public Services considers a sewer backup or basement flooding an emergency, and will respond to your call day or night, holidays and weekends.

*the full text of P.A. 222 of 2001 is available on our web site: www.vanburen-mi.org under Departments, Public Services.



2020 Southwest Regulated Detected Contaminants Table

2020 Inorganic Chemicals - Annual Monitoring at Plant Finished Tap								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Level Detected	Range of Detection	Violation	Major Sources in Drinking Water
Fluoride	3-10-2020	ppm	4	4	0.71	n/a	no	Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	3-10-2020	ppm	10	10	0.61	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	5-16-2017	ppm	2	2	0.01	n/a	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

2020 Disinfection Residual - Monitoring in the Distribution System								
Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest Level RAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
Total Chlorine Residual	2020	ppm	4	4	0.62	0.49-0.72	no	Water additive used to control microbes

2020 Disinfection By-Products - Stage 2 Disinfection By-Products Monitoring in the Distribution System								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level LRAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
(TTHM) Total Trihalomethanes	2020	ppb	n/a	80	59	25-59	no	By-product of drinking water chlorination
(HAA5) Haloacetic Acids	2020	ppb	n/a	60	28	8.6-28	no	By-product of drinking water chlorination

2020 Turbidity - Monitored Every 4 Hours at the Plant Finished Water Tap				
Highest Single Measurement Cannot Exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)		Violation	Major Sources in Drinking Water
0.13 NTU	100%		no	Soil Runoff
Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.				

Regulated Contaminant	Treatment Technique	Typical Source of Contaminant
Total Organic Carbon ppm	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC is measured each quarter and because the level is low, there is no requirement for TOC removal.	Erosion of natural deposits

Radionuclides - Monitored at the Plant Finished Tap in 2014							
Regulated Contaminant	Test Date	Unit	MCLG	MCL	Level Detected	Violation	Major Sources in Drinking Water
Combined Radium Radium 226 and 228	5-13-14	pCi/L	0	5	0.65 ± 0.54	no	Erosion of natural deposits



Lead and Copper Monitoring at the Customer's Tap in 2020									
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Action Level AL	90 th Percentile Value*	Number of Samples Over AL	Range of Individual Samples Results	Violation	Major Sources in Drinking Water
Lead	2020	ppb	0	15	0.0	0	0-6.82	no	Lead services lines, corrosion of household, plumbing including fittings and fixtures; erosion of natural deposits"
Copper	2020	ppm	1.3	1.3	0.03	0	0-0.18929	no	Corrosion of household plumbing system; Erosion of natural deposits; leaching from wood preservatives.

* The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

2020 Special Monitoring						
Contaminant	Test Date	Unit	MCLG	MCL	Highest Level Detected	Source of Contaminant
Sodium	3-10-2020	ppm	n/a	n/a	6.81	Erosion of natural deposits

These tables are based on tests conducted by GLWA in the year 2020 or the most recent testing done within the last five calendar years. GLWA conducts tests throughout the year only tests that show the presence of a substance or require special monitoring are presented in these tables. 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.

About Unregulated Contaminant Monitoring

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where these contaminants occur and whether it needs to regulate those contaminants.

UCMR 4 – CHARTER TOWNSHIP OF VAN BUREN

PARAMETERS / UNITS	AVERAGE LEVEL DETECTED	RANGE	YEAR SAMPLED	COMMENTS
Anatoxin / ug/l	>0.010	0-0.10	2020	RESULTS OF MONITORING AVAILABLE UPON REQUEST
Cylinrospermopsin / ug/l	>0.030	0-0.30	2020	RESULTS OF MONITORING AVAILABLE UPON REQUEST
Total Microcystins / ug/l	>0.10	0-0.10	2020	RESULTS OF MONITORING AVAILABLE UPON REQUEST

2020 Southwest Mineral Analysis

Parameter	Units	Max.	Min.	Avg.
Turbidity	NTU	0.50	0.04	0.17
Total Solids	ppm	167	46	142
Total Dissolved Solids	ppm	162	89	127
Aluminum	ppm	0.172	0.022	0.072
Iron	ppm	0.183	ND	0.114
Copper	ppm	ND	ND	ND
Magnesium	ppm	8.36	6.88	7.54
Calcium	ppm	34.8	24.6	28.4
Sodium	ppm	7.78	4.51	5.35
Potassium	ppm	1.31	0.93	1.04
Manganese	ppm	ND	ND	ND
Lead	ppm	ND	ND	ND
Zinc	ppm	ND	ND	ND
Silica	ppm	2.7	1.6	2.0
Sulfate	ppm	37.5	19.7	26.1

Parameter	Units	Max.	Min.	Avg.
Chloride	ppm	13.9	8.3	9.6
Phosphorus	ppm	1.24	0.12	0.48
Free Carbon Dioxide	ppm	16.7	6.0	8.6
Total Hardness	ppm	118	95	104
Total Alkalinity	ppm	78	66	73
Carbonate Alkalinity	ppm	ND	ND	ND
Bi-Carbonate Alkalinity	ppm	78	66	73
Non-Carbonate Hardness	ppm	40	25	31
Chemical Oxygen Demand	ppm	6.0	ND	2.7
Dissolved Oxygen	ppm	12.6	7.8	10.3
Nitrite Nitrogen	ppm	ND	ND	ND
Fluoride	ppm	0.76	0.56	0.68
pH		7.39	6.97	7.25
Specific Conductance @ 25 °C.	µohms	274	213	231
Temperature	°C	24.1	1.8	12.6

Key to the Detected Contaminants Table

Symbol	Abbreviation	Definition/Explanation
AL	Action Level	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
>	Greater than	
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, chloroacetic, di-bromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
Level 1	Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our system.
LRAA	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
MCL	Maximum Contaminant Level	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.
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow a margin of safety.
MRDL	Maximum Residual Disinfectant Level	The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	not applicable	
ND	Not Detected	
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
pCi/L	Picocuries Per Liter	A measure of radioactivity
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ppm	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of all analytical results for all samples during the previous four quarters.
SMCL	Secondary Maximum Contaminant Level	
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.
µohms	Microohms	Measure of electrical conductance of water

FOR MORE INFORMATION

For more information about this report, to obtain extra copies of this report, or for any questions relating to your drinking water, please call the Van Buren Township Public Services Department at (734) 699-8925, the U.S. EPA's Safe Drinking Water Hotline at 1-800-426-4791 or visit the EPA web site at www.usepa.gov/safewater/. We are also on the web at www.vanburen-mi.org