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 2023 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** *on the Water & Sewer Department's page.*

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*

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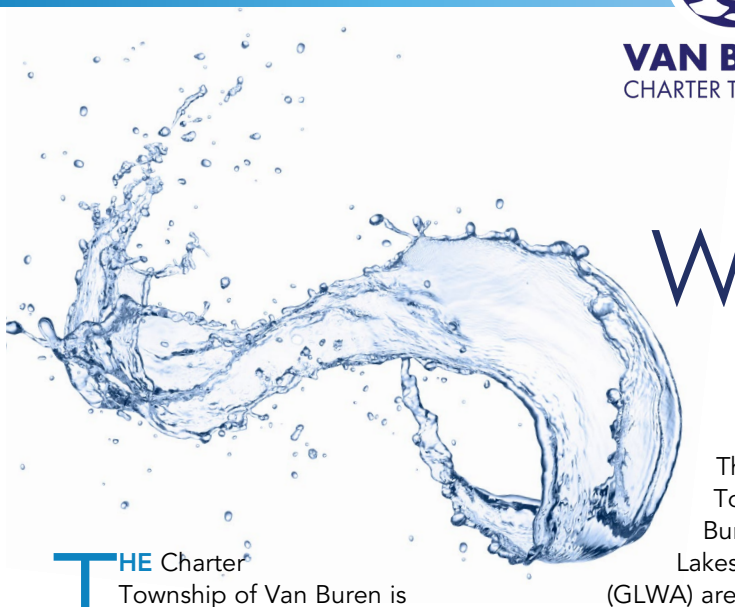


2023 Water Quality Report

THE Charter Township of Van Buren is proud to present the 2023 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 2023 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 Town-ship 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 ab

Health Considerations

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno- compromised persons such as person 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 Safe Drinking Water Hotline (800-426-4791).

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 be 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 amount 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.

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.

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)

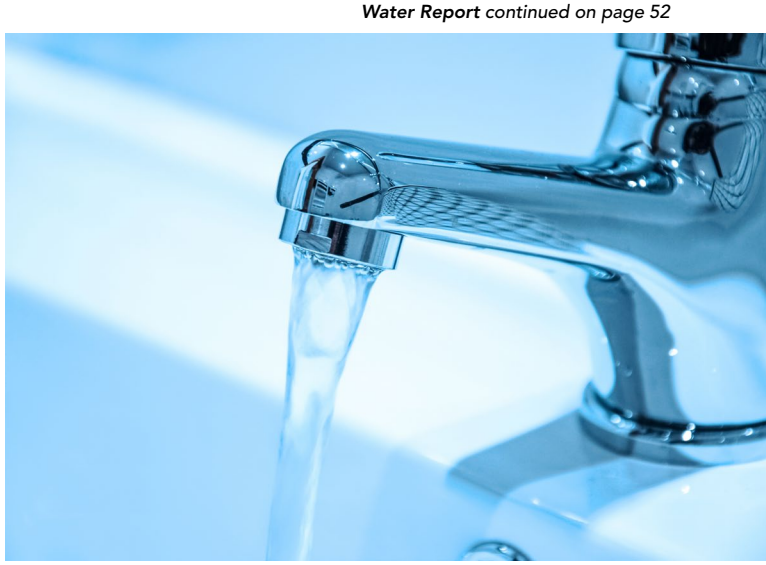
What's In My Water?

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 detect-ed and how much of the substances were present in the water.

Regulatory Compliance

During the 2023 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.

***Water Report** continued on page 52*



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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.

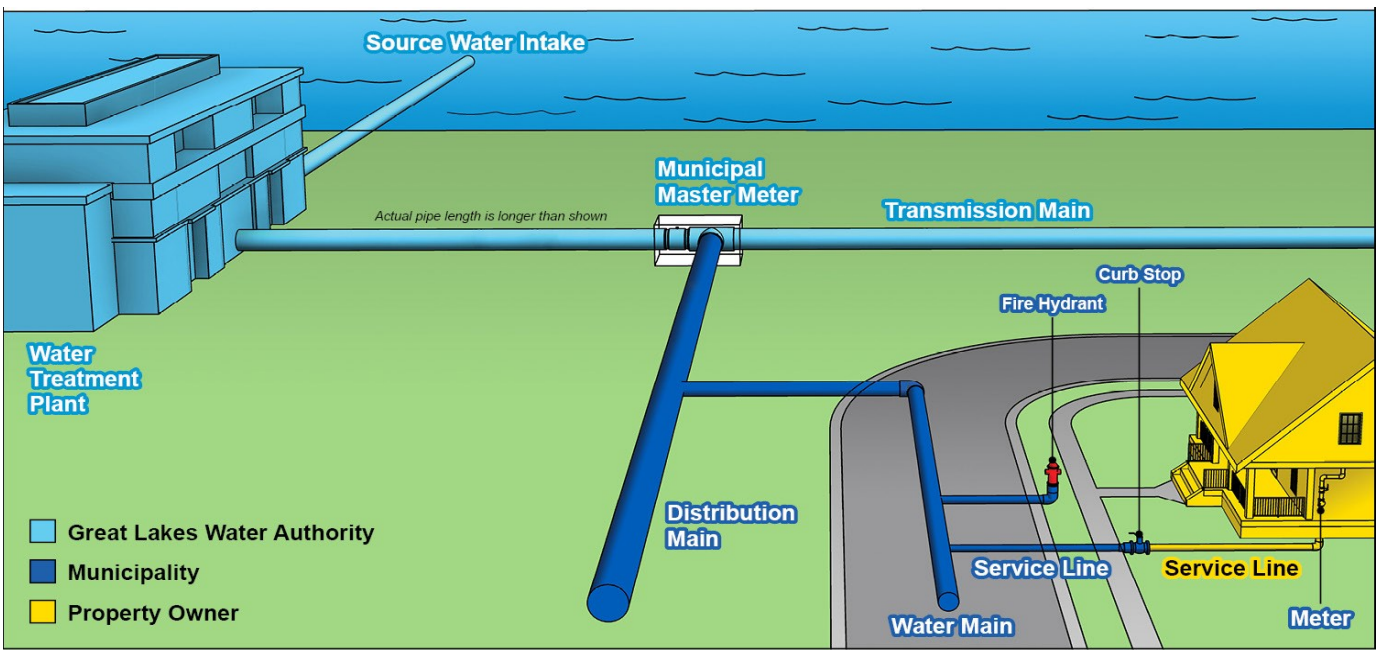
Important information regarding sewer backup or basement flooding claims

Michigan statute, Act 222 Public Acts of 2001*, clarifies municipal liability for sewer backups. A key provision of the statue 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, Van Buren Township, 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 (734) 699-8930.

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



2023 Southwest Regulated Detected Contaminants Table

2023 Inorganic Chemicals - Annual Monitoring at Plant Finished Tap								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation	Major Sources in Drinking Water
Fluoride	4-11-2023	ppm	4	4	**0.46**	**n/a**	**no**	Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	4-11-2023	ppm	10	10	**0.63**	**n/a**	**no**	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Lead and Copper Monitoring at the Customer's Tap in 2023								
Regulated Contaminant	Unit	Year Sampled	Health Goal MCLG	Action Level AL	90th Percentile Value*	Range of Individual Samples Results	Number of Samples Over AL	Major Sources in Drinking Water
Lead	ppb	2023	0	15	**0.0**	**0-1**	**0**	Lead services lines, corrosion of household plumbing including fittings and fixtures; erosion of natural deposits.
Copper	ppm	2023	1.3	1.3	**.1**	**0.0-0.3**	**0.0**	Corrosion of household plumbing systems; Erosion of natural deposits.
* 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.								

2023 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	2023	ppm	4	4	**0.69**	**0.55-0.77**	**no**	Water additive used to control microbes

2023 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
Total Trihalomethanes (TTHM)	2023	ppb	n/a	80	**47**	**13-47**	**no**	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2023	ppb	n/a	60	**32**	**11-32**	**no**	By-product of drinking water chlorination

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2023 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**
0.09 NTU	**100%**	**no**	Soil Runoff
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system			

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

2023 Special Monitoring						
Contaminant	**Test Date**	**Unit**	**MCLG**	**MCL**	**Highest Level Detected**	**Source of Contaminant**
Sodium	4-11-2023	ppm	n/a	n/a	**6.3**	Erosion of natural deposits

These tables are based on tests conducted by GLWA in the year 2023 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. The data is representative of the water quality, but some are more than one year old.

2023 Southwest Tap Water Mineral Analysis

Parameter	Units	Max.	Min.	Avg.	Parameter	Units	Max.	Min.	Avg.
Turbidity	NTU	**1.80**	**0.01**	**0.22**	**Phosphorus**	ppm	**0.73**	**0.41**	**0.52**
Total Solids	ppm	**174**	**120**	**139**	**Free Carbon Dioxide**	ppm	**13.9**	**6.0**	**9.5**
Total Dissolved Solids	ppm	**165**	**97**	**127**	**Total Hardness**	ppm	**166**	**103**	**120**
Aluminum	ppm	**0.084**	**0.021**	**0.045**	**Total Alkalinity**	ppm	**94**	**70**	**80**
Iron	ppm	**0.5**	**0.2**	**0.3**	**Carbonate Alkalinity**	ppm	**0**	**0**	**0**
Copper	ppm	**0.001**	**ND**	**0.001**	**Bi-Carbonate Alkalinity**	ppm	**94**	**70**	**80**
Magnesium	ppm	**8.8**	**7.4**	**7.9**	**Non-Carbonate Hardness**	ppm	**72**	**19**	**41**
Calcium	ppm	**33.3**	**25.2**	**27.4**	**Chemical Oxygen Demand**	ppm	**11.7**	**2.0**	**4.4**
Sodium	ppm	**9.4**	**4.7**	**5.6**	**Dissolved Oxygen**	ppm	**14.9**	**8.0**	**10.5**
Potassium	ppm	**1.3**	**0.9**	**1.1**	**Nitrite Nitrogen**	ppm	**ND**	**ND**	**0.0**
Manganese	ppm	**0.002**	**ND**	**0.000**	**Nitrate Nitrogen**	ppm	**1.47**	**0.29**	**0.50**
Lead	ppm	**ND**	**ND**	**0.000**	**Fluoride**	ppm	**0.84**	**0.10**	**0.62**
Zinc	ppm	**0.002**	**ND**	**0.000**	**pH**		**7.37**	**7.05**	**7.23**
Silica	ppm	**2.7**	**1.3**	**2.0**	**Specific Conductance @ 25 °C**	µmhos	**297**	**182**	**213**
Sulfate	ppm	**36.0**	**23.4**	**26.3**	**Temperature**	°C	**23.2**	**2.3**	**12.6**
Chloride	ppm	**14.5**	**7.5**	**10.3**					

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 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.
µmhos	Micromhos	Measure of electrical conductance of water