



## WATER QUALITY REPORT FOR 2019 RIGA WATER SYSTEM



This report will provide you with information relative to your drinking water source and types of treatment it receives before it reaches your tap. The report will also list all of the contaminants detected in your water and an explanation of all violations in the past year.

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 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.

Your drinking water source originates from the Village of Blissfield. The Village has a full treatment plant which treats the water from the River Raisin.

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 the contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general populations. 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 the infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

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. Riga Twp Water System 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>.

The Blissfield water supply originates from surface water. As water travels along the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. These include:

**MICROBIAL** contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock and wildlife.

**INORGANIC** contaminants, such as salts and metals which can be natural or may result from storm runoff, wastewater discharge, oil, and gas production.

**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 assure that tap water is safe; the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

Table "A" shows all the drinking water contaminants that we detected during the 2019 year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. 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 is more than one year old.

# Riga Water quality data table 2019.

## TERMS AND ABBREVIATIONS:

**Maximum Contaminate Level Goal (MCLG):**

The level of contaminant in drinking water below which there is no known or expected health risk.

**Maximum Contaminate Level (MCL):** The highest level of contaminant allowed in drinking water, MCL's are set as close to the MCLG's as possible using the best available treatment technology.

**Maximum Residual Disinfectant Level Goal (MRDLG):**

Means the level of disinfectant in drinking water below which there is no known or expected health risk.

**Maximum Residual Disinfectant Level (MRGD):** Is the highest level of disinfectant allowed in drinking

water. Disinfectant is necessary for control of microbial contaminants.

**RAA** – Running Annual Average

**Action Level (AL):** The level of contaminant, which, if exceeded, triggers treatment or other requirements, which the water treatment system must follow.

**ppb** – parts per billion or microgram per liter

**ppm** – parts per million or milligram per liter

**NTU** – Nephelometric Turbidity Units

**pC/l** – Picocuries per liter

**ND** – not detected    **N/A** – not applicable

**TT** – treatment technique (a required process intended to reduce the level of contaminant in drinking water)

Contaminate	MCL	MCLG	Riga Water	Range of Detection	Sample Date	Violation	Typical Source of Contaminate
<b>Microbial Contaminates</b>							
*							
Turbidity	TT	N/A	Single Highest Measurement 0.15 NTU	0.07 - 0.15 NTU	2019	No	Soil Runoff
Lowest month % of samples meeting turbidity limit 100% - Annual average 0.10 NTU							
<b>Inorganic Contaminates</b>							
**							
Nitrate	10 ppm	10 ppm	Single Highest Measurement 5.85 ppm	0.73 – 5.85 ppm	2019	No	Fertilizer runoff; septic tank leaching
Fluoride	4 ppm	4 ppm	Single Highest Measurement 1.24 ppm	0.21 -1.24 ppm	2019	No	Water additive-promotes strong teeth
***							
Sodium	N/A	N/A	Single Highest Measurement 89 ppm	80 - 89 ppm	2019	No	Naturally present in groundwater
Barium	2 ppm	2 ppm	Single Highest Measurement 0.04 ppm	0.04 ppm	August. 2018	No	Discharge from refineries or drilling & natural erosion
Arsenic	10 ppb	0 ppb	Single Highest Measurement ND ppb	ND ppb	August. 2018	No	Runoff from orchards, glass & electronics wastes. Natural erosion
Selenium	50 ppb	50 ppb	Single Highest Measurement ND ppb	ND ppb	August. 2018	No	Discharge from petroleum & metal refineries Natural erosion
<b>Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System</b>							
Total Trihalomethanes	80 ppb RAA	N/A	Locational RAA 76.0 ppb	65-76 ppb	2019	No	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	60 ppb RAA	N/A	Locational RAA 30.0 ppb	29-30 ppb	2019	No	By-product of drinking water disinfection.
Chlorine Disinfectant	4 ppm	4 ppm	Annual Average 0.65 ppm	0.23 – .99 ppm	2019	No	Disinfectant used to control microbes.
<b>Organic Contaminates</b>							
Atrazine	3 ppb RAA	3 ppb	Highest Annual Average ND	ND	2019	No	Runoff from herbicide used on row crops
<b>Annual Average % Removal</b>							
Regulated Contaminant	Treatment Technique	Running Annual Average	Minimum %	Maximum %			
Total Organic Carbon	% Removal 63.50	% Removal Required 26.25	49.09	76.47	2019 Monthly	No	Naturally present In the environment
The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts.							
COPPER / LEAD	ACTION	LEVELS		0 out of 5 homes exceeded action level	9/24/2019	NO	Corrosion of household plumbing systems, Erosion of natural deposits.
Lead	15 ppb	0	ND				
Copper	1.3 ppm	1.3 ppm	0.31 ppm	0 out of 5 homes exceeded the action level	9/24/2019	NO	Corrosion of household plumbing systems; erosion of natural deposits.

\* Turbidity must be less than or equal to 0.3 NTU in at least 95% of the measurements taken throughout the month. Turbidity must never exceed 1.0 NTU.

\*\* Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

If you should ask for advice from your health care provider. Pregnant women and infants less than six months old are advised to seek an alternative source of drinking water if nitrate levels exceed 10 ppm.

. \*\*\* Sodium is considered special monitoring – there is no established EPA drinking water standard for sodium. Sodium monitoring is required to inform the residents and the local health department of sodium levels in the community.

Terms and abbreviations used in Table “A”

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

NA: Not applicable

ND: Not detectable at testing limit

PPB: Parts per billion or micrograms per liter

PPM: Parts per million or milligrams per liter

TT: Treatment technique (a required process intended to reduce the level of a contaminant in drinking water).

NTU Nephelometric Turbidity Units

AL: Action Level (the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

RAA Running Annual Average

LRAA Locational Running Annual Average

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.

We routinely monitor for the presence of drinking water contaminants. Testing results from quarterly samples collected in 2018 and 2019 show that our system exceeds the standard, or maximum contaminant level (MCL), for Trihalomethane. The standard for Trihalomethanes is 80 micrograms per liter ( $\mu\text{g/L}$ ). *The level of Trihalomethanes in our system was determined by averaging the sample results collected at the sampling location for the past 12 months. The average levels of Trihalomethanes at 7817 Riga Highway was 84  $\mu\text{g/l}$  in (June, 2019.)*

We have increased the flushing frequency in the distribution to help maintain a fresh supply of water. As a result of the increased flushing, the *Trihalomethanes* maximum contaminant level (MCL) was back in compliance during the following quarterly testing results (September, 2019).

*People who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.*

## Health Affects

Health Affects of Chlorine: Eye and Nose irritation and Stomach discomfort.

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

Additional information is available from the Safe Drinking Water Hotline (800-426-4791)

The 1996 amendments to the Federal Safe Drinking Water Act( SDWA) requires each State to develop and implement a source water assessment program (SWAP) to assess the susceptibility of all public water supply sources to contamination. This program requires the Michigan Department of Environmental Quality to analyze source sensitivity (natural protection available), delineate source water areas, inventory contaminant sources, determine susceptibility, and assure the public is notified of this determination. The Source Water Assessment Score (SWAS) is a process that factors geologic and water well attributes, water chemistry, and potential contaminant sources for each drinking water source into a ranking system to determine the relative potential for contamination. Sources with low scored are considered to be less susceptible to contamination than those with high scores. If you would like more information on Source Water Assessment, you can call the Lenawee County Drain Commission at 517-264-4696

## **SOURCE WATER ASSESSMENT**

The Michigan Department of Environmental Quality, Water Division completed a source water assessment in 2003 determining the source water very highly sensitive to potential contaminants and then issued the SWA report results in 2004.

We invite public participation in decisions that affect drinking water quality. Riga Township holds meetings on 2<sup>nd</sup> Monday of each month at 7:00 P.M.

If you have additional questions concerning this report, please call Lenawee County Drain Commission at (517) 264-4696 or (517) 264-4699 and ask for Tom Gillenwater, Sewer & Water Systems Superintendent or write to (Lenawee County Drain Commission, 320 Springbrook Ave. Adrian, Mich. 49221).

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Monitoring Requirements Not Met for Riggs Township**

We are required to monitor your drinking water for specific analytes on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During October 1<sup>st</sup> to December 31, 2019, we did not monitor or test for Water Quality Parameters and, therefore, cannot be sure of the quality of our drinking water during that time. However, this violation **does not** pose a threat to your supply's water.

**What should I do?** There is nothing you need to do at this time. This is not an emergency. You do not need to boil water or use an alternative source of water at this time. Even though this is not an emergency, as our customers, you have a right to know what happened and what we did to correct the situation.

The table below lists the analyte(s) we did not properly test for, how often we are supposed to sample for this analyte, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date we will collect follow-up samples.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	Date samples were (or will be) taken
WQP <sup>1</sup> List parameters missed	1 samples/ quarterly	0	October 1 <sup>st</sup> to December 31 <sup>st</sup>	3/10/2020
WQP List parameters missed	— samples/ quarterly	—	—	—

**What happened? What is being done?** We failed to analyze samples for one of the required parameters, WQP, within this required sampling period. Sampling of Water Quality Parameters are required after an action level exceedance to help us to determine the best way to reduce the amount of lead in the water. We will continue to work with the Michigan Department of Environment, Great Lakes and Energy to resolve this issue as quickly as possible.

For more information, please contact: *Tom Gillemwater 517-264-4699*

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by *Lapeer County Drain Commissioner*

<sup>1</sup> WQP are a group of analytes that are indicators of corrosivity. They include pH, alkalinity, calcium, conductivity, temperature, sulfate, chloride, and orthophosphate

CERTIFICATION:

WSSN: 05675

I certify that this water supply has fully complied with the public notification regulations in the Michigan Safe Drinking Water Act, 1976 PA 399, as amended, and the administrative rules.

Signature: *Tom Gillemwater* Title: *SUPPLANT* Date Distributed: *6-10-2020*

