

Village of Tekonsha Water Quality Report - 2023

This brochure is a snapshot of the drinking water quality for the Village of Tekonsha **for the calendar year 2022**. Included are details about where the water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information, because informed customers are our best allies.

Your water comes from two municipal wells. The Village owns the land around these wells and restricts any activity that could contaminate them. The well water supply is not treated. After the water comes out of the wells it is then pumped into the Village's distribution system and into our 200,000-gallon water tower then into your house. The water supply is not treated. The State performed an assessment of our source water in 2003 to determine the susceptibility to potential contamination. The susceptibility rating is a six-tiered scale from "very low" to "high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. The susceptibility of our two wells is "moderately low". To obtain a copy of the assessment report please contact the Village Office. The Village completed a Water System Reliability Study and was updated and approved by the State in 2018. The reliability study determines the adequacy of the water system existing and in the future for pressure, flow capacity, and water demands. The Safe Drinking Water Act requires that we do this Water Reliability Study every 5 years. In 2019 a sanitary survey of the water system was done by EGLE.

Our Village Board meets on the second Monday of each month at 7:00 PM in the Village Office, 537 North Church Street. Please feel free to participate in these meetings.

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 found at <https://www.epa.gov/report-environment/drinking-water>

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplant, 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 (1-800-426-4791).

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 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, urban stormwater runoff, and residential uses.

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

VILLAGE OF TEKONSHA WATER QUALITY DATA

The tables below lists all the drinking water contaminants that were detected. The detected concentration can be either below or above the state/federal safe drinking water standard (also known as the Maximum Contamination Level). If the detected concentration is above the safe drinking water standard a violation has occurred and a "YES" in bold will be indicated in the violation column. EPA requires that water suppliers to report the most recent sampling results within a five-year period from 2009 to 2014. The state requires 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.

Terms & Abbreviations Used Below:

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

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.

N/A: not applicable

ND: not detectable at testing limit

mg/L milligrams per liter or parts per million

ppm: parts per million or milligrams per liter

ppb: parts per billion or micrograms per liter

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

Positive: There is detect for total coliform bacteria.

Level 1 Assessment: A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Regulated Monitoring:

Inorganic Contaminants	MCL	MCL G	Our Water	Range of Detections	Sample Date	Violation	Typical Source of Contaminant
Nitrate as N (ppm)	10	10	6.8	0.5 – 6.8	9-12-2022	No	Erosion of Natural Deposits
Lead/Copper	AL			No. of Sites Exceeding AL			
Lead (ppb)	15		*1 ppb	0	8/6-8/11 2020	No	Corrosion of Household Plumbing
Copper (ppm)	1.3	1.3	*0.2 ppm	0	8/6-8/11 2020	No	Naturally occurring element

*For lead and copper this result is the 90th percentile. This means that 90 percent of the samples we collected are less than or equal to this value.

This table outlines PFAS substances.

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		6/15/2022		Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	ND		6/15/2022		Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	ND		6/15/2022		Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	ND		6/15/2022		Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	ND		6/15/2022		Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	ND		6/15/2022		Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	ND		6/15/2022		Discharge and waste from industrial facilities; stain-resistant treatments

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 Tekonsha 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. We test for lead and copper every 3 years at several sites around town. **The Village of Tekonsha has no lead service lines.** Plumbing **within** households can vary significantly though. Visit <https://www.michigan.gov/mileadsafe> for more information.

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 www.epa.gov/safewater/lead

To learn more about lead and how it effects your health go to <https://www.michigan.gov/mileadsafe/learn/lead-and-your-health> Many other services regarding lead in drinking water can also be found at this site.

Fluoride was ND for 2022

Hardness

Concentrations ranged from 259 mg/L to 299 mg/L or 15.1 – 17.4 grains per gallon (GPG). These numbers may be used to help with the selection of water softeners.

Nitrate

Nitrate levels above 10 mg/L is a health risk and can cause a disease called methemoglobinemia or blue baby syndrome which is a blood disorder primarily affecting infants under six months of age. Also, because nitrate contamination can be related to human, animal, or industrial waste practices, excessive levels of nitrate in drinking water may indicate potential for the presence of other types of contaminants. Nitrate levels may rise quickly for short periods of time due to rainfall or agricultural activity. If you are caring for an infant, you are encouraged to ask advice from your health care provider. The highest Nitrate level in our drinking water was 6 mg/L. Below the MCL level of 10. The range of detections was 0.5 – 6.8.

Sodium

Concentration ranged from 2.5 to 4.4 mg/L. There is no State Safe Drinking Water Standard for these contaminants. The EPA has issued guidance that the concentration of sodium in drinking water not exceed 20 milligrams per liter (mg/L) for people who are on low sodium diets because of health-related issues.

Iron

There is no MCL level for Iron. Iron is not hazardous to health, but it is considered a secondary or aesthetic contaminant. Essential for good health, iron helps transport oxygen in the blood. Most tap water in the United States supplies approximately 5 percent of the dietary requirement for iron. No iron was detected in our water.

Chloride

There is no MCL level for chloride but our water ranged from 6 to 10 mg/L. The EPA Secondary Drinking Water Regulations recommend a maximum concentration of 250 mg/L for chloride. Chloride is one of the most common anions found in tap water. It generally combines with calcium, magnesium, or sodium to form various salts: for example sodium chloride (NaCl) is formed when chloride and sodium combine. Chloride occurs naturally in ground water, but is found in greater concentrations where seawater and run-off from road salts (salts used to de-ice icy roads) can make their way into water sources.

Sulfate

There is no MCL level for Sulfate but our water ranged from 22 to 25 mg/L. The EPA Secondary Drinking Water Regulations recommend a maximum concentration of 250 mg/L. Sulfates are a combination of sulfur and oxygen and are a part of naturally occurring minerals in some soil and rock formations that contain groundwater. The mineral dissolves over time and is released into groundwater.

Magnesium

There is no MCL level for magnesium. Our water ranged from 21 to 25 mg/L.

Calcium

There is no MCL level for calcium. Our water ranged from 69 to 80 mg/L.

Chlorination

The Village, with permission from EGLE (Michigan Dept. of Environment, Great Lakes, and Energy) has put in place a system to chlorinate the drinking water during our fall flushing program. Since we do not chlorinate our water on a daily basis, it is vital that a good flushing and cross connection program be in place. To supplement this, we began adding chlorine to the water during flushing. Chlorine levels are kept between .2 - .8 ppm during the flush (the same as typical city water). A newsletter is sent out to everyone connected to the public water supply prior to flushing with dates and other information.

The Village of Tekonsha also tests for many other chemicals not on this list, they all meet the State Safe Drinking Water Standards.

For more information about your water or the contents of this report, contact Gary White at 517-767-4288. Also, for more information about safe drinking water, visit the U.S. Environmental Protection Agency at <http://water.epa.gov/drink/index.cfm>