

Water – Essential to our Existence

Contaminants that may be present in source water:

- ◆ **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**, which may occur in various 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 water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-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 infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

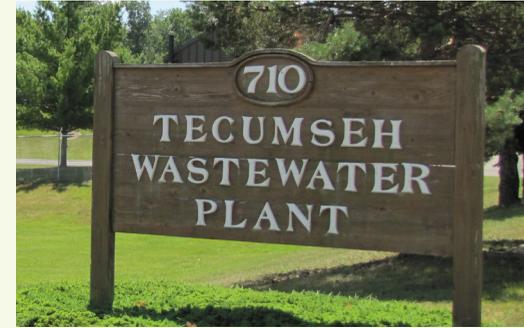
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead in drinking water is primarily from materials and components associated with services lines and home plumbing. The City of Tecumseh 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 at 1-800-426-4791 or at <http://www.epa.gov/drink/lead/index.cfm>.

This report will not be mailed to each individual customer, but the entire report can be obtained at the Public Utilities Department, 710 East Chicago Blvd. or at City Hall, 309 East Chicago Blvd. or via the City of Tecumseh website at www.mytecumseh.org.

Please call City Hall or the Public Utilities office if you have questions.

City of Tecumseh Utilities Department staff work tirelessly to provide top quality water to every tap. We ask that all of our customers help to protect our water resources, which are the heart of our community, our way of life and our future.

Respectfully submitted,
Todd Knepper
Utilities Superintendent City of Tecumseh



City of Tecumseh Utilities Department

BILLING DEPARTMENT

Located in City Hall
309 East Chicago Boulevard
Tecumseh, MI 49286
Phone: 517-424-6545
Fax: 517-423-6292

Business Office Hours:

Monday – Thursday
7:00 a.m. – 6:00 p.m.
Closed Friday

PLANT LOCATION

710 East Chicago Boulevard
Tecumseh, MI 49286
Phone: 517-423-0402

Plant Hours:

7:00 a.m. - 3:30 p.m.
Monday - Friday

www.mytecumseh.org

City of *Tecumseh* CONSUMER CONFIDENCE WATER QUALITY REPORT 2018



Utilities Department
517-423-0402 Plant
517-424-6545 Billing

CITY OF TECUMSEH PUBLIC UTILITIES DEPARTMENT
Consumers Confidence Report - Water Quality
May 1, 2019

The City of Tecumseh is pleased to present the Annual Water Quality Report for 2018. This report is designed to inform our customers of the quality water and services being delivered every day. The City's goal is to provide a consistently safe and dependable supply of drinking water, and the wish is for our customers to have a better understanding of the effort made to continually improve the water production and treatment process while protecting our water resources. We are committed to ensuring the quality of your water.

The City of Tecumseh's water is delivered from seven wells, ranging from 80- to 260-feet below the surface. Chlorine is introduced for disinfection, fluoride for the promotion of strong teeth and polyphosphate to inhibit corrosiveness in the water. The wells draw from the glacial outwash deposit known as the Adrian Drainage System. The outwash deposit that our wells draw from dissects the Defiance Moraine System with the Inner Defiance Moraine east of Tecumseh and the Outer Defiance Moraine to the west.

The City has developed a ground water protection program at the federal, state, and local levels. As a result, the Wellhead Protection Program (WHPP) was created. The ten-year well delineations have been identified, and are available for review.

The objective of the WHPP is to define an area surrounding a public water supply well or well field and to control potential sources of contamination within the designated area known as the wellhead protection area (WHPA). The WHPA has been defined as the surface and subsurface area surrounding a public water supply well or well field through which contaminants, if spilled or deposited, will most likely pass and eventually reach the well field.

We are pleased to report that our drinking water for the City of Tecumseh is safe and meets federal and state requirements. This annual report displays the water quality and what it means to you as a customer.

If you have any questions about this report or the City's water utility system in general, please contact Todd Knepper, Utilities Superintendent at (517) 423-0402. You may also attend a Tecumseh City Council meeting on the first or third Monday of each month and ask questions during the public comment period of the agenda. It is important that our customers to be informed about their water utility system.

The City of Tecumseh routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows

the results of our monitoring for the period of January 1st to December 31st, 2018. 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 a year old. The most recent results of these analysis' are listed in the table.

TEST RESULTS

Date Tested	Contaminant	Violation Y/N	Level Detected	Unit Measurement	Range Detected	MCLG	MCL	Likely Source of Contamination
Detected Contaminants from the Well House								
8/2018	Fluoride	N	0.65	ppm	0.22 - 0.65	4	4	Erosion of natural deposits; additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
8/2018	Sodium	N	29	ppm	17 - 29	N/A	N/A	Naturally present in ground water. Sodium does not have an associated MCL.
6/2018	Nitrate	N	0.7	ppm	0 - 0.7	N/A	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
7/2018	Barium	N	0.1	ppm	0 - 0.1	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Detected Contaminants from the Distribution/Consumers' Tap								
2017	Lead ¹	N	4	ppb	1 out of 21 homes exceeded the action level	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits;
2017	Copper ¹	N	0.3	ppm	0 out of 20 homes exceeded the action level	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives;
2018	TTHM	N	4.3	ppb	0-4.3	80	N/A	By-product of drinking water disinfection
2018	Chlorine	N	0.2	ppm	0.15 - 0.27	MRDL 4	MRDLG 4	Disinfectant used to control microbes;

¹ Lead and copper results list the number of samples that exceeded the AL, rather than the range detected.

REPORT DEFINITIONS

- ♦ **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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- ♦ **Non-Detects (ND)** – laboratory analysis indicates that the constituent 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 (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- ♦ **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.
- ♦ **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. MCLG's allow for a margin of safety.

Contaminants	Susceptible Vulnerable Subpopulation	Level of Concern
Fecal Coliform/E. Coli	Infants, young children, and people with severely compromised immune systems	Confirmed presence (any confirmed detect)
Copper	People with Wilson's Disease	1.3 mg/l (ppm)
Fluoride	Children	4.0 mg/l (ppm)
Lead	Infants and children	15.0 ug/l (ppb)
Nitrate	Infants below the age of 6 months.	10.0 mg/l (ppm)
Nitrite	Infants below the age of 6 months	1.0 mg/l (ppm)

The MDEQ has done a susceptibility determination on each of the City's two well fields, and copies of the assessments for all the City's wells are available at the Public Utilities Department office. Susceptibility determination is based on source geology, well construction, water chemistry and potential contamination sources.

Determination results are as follows:

North Well Field – Low
 South Well Field – Moderately High

As you can see by the table above, our system had no violations. Utilities Department staff work hard to ensure that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is safe at these levels.

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 EPA's Safe Drinking Water Hot line (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.