

CITY OF WATERVILLE

DRINKING WATER CONSUMER CONFIDENCE REPORT FOR 2017



**FOR MORE INFORMATION ON
THIS REPORT, PLEASE CALL
419-878-8101**

**In 1998, a new Federal rule was
passed to ensure that consumers
community drinking water supplies
receive annual documentation of
their water's quality.**

**Lori Brodie, Mayor
James Bagdonas, Municipal Administrator
Ken Blair, Public Works Director**

The City of Waterville Water Supply has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

WHERE DOES YOUR WATER COME FROM?

In January and February of 2017, the City of Waterville's water was supplied by the city of Toledo and came from Lake Erie. This means that the water you drank came from a surface water supply, not a well. The raw water was collected by an intake crib, located approximately nine miles off shore. The intake crib is a circular concrete structure, 83 feet in diameter, extending 24 feet below the surface of the lake. Water flows into the crib through sixteen ten-foot square openings called ports. The water then flows by gravity through a nine-foot diameter pipe to the Low service pumping station located in Jerusalem Township. From there it is pumped to the Collins Park Water Treatment Plant in East Toledo for processing. On February 21, 2017 the city of Waterville started receiving it's water from the City of Bowling Green Water Treatment Plant. The City of Bowling Green draws surface water from the Maumee River during periods when the river supply is of high water quality. The water is then stored in their 170 million gallon above-ground reservoir to be used at times when the river water quality is less desirable. The reservoir storage provides a means to supply consistently high quality water to its customers. Their water plant operators work around the clock, 7 days a week to assure the quality of water delivered meets or exceeds all Federal and State requirements. Your drinking water goes through a continuously monitored 10-step multi-barrier treatment process, which takes several hours to complete. Bowling Green also uses Reverse Osmosis Membrane Treatment for a portion of your drinking water.

SOURCE WATER ASSESSMENT REPORT:

For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature surface waters are accessible and can be readily contaminated by chemicals and pathogens with relatively short travel times from the source to the intake. Based on the information compiled for this assessment, the Toledo Public Water System, which supplied water to Waterville in January and February of 2017 and the Bowling Green Public Water System that currently supplies water to Waterville are susceptible to contamination from accidental spills or releases associated with commercial shipping and recreational boating, sediments from river dredging disposal operations, air contaminated deposition, point and nonpoint source discharges from industrial and agricultural operations along the shore, the Maumee River and along streams that empty into the lake, contamination from oil and gas production and mining operations, natural processes such as erosion, contaminated storm water runoff from urban areas, gas stations, feed lots, airports, landfills, above ground storage tanks, railroads, roadways, municipal sewage treatment system and home sewage disposal system discharges, and combine sewer

overflows (CSOs). The City of Toledo and the City of Bowling Green both treat their water to meet and even surpass drinking water quality standards, but no single treatment protocol can address all potential contaminants. The potential for water quality impacts can be further decreased by implementing measures to protect the Maumee River and Lake Erie. More detailed information is provided in the City of Toledo's Drinking Water Source Assessment Report, which can be obtained by calling 419-936-3021 and the City of Bowling Green's Drinking Water Source Assessment Report, which can be obtained by calling 419-878-6986.

HEALTH AND SAFETY INFORMATION

Drinking water, including bottled water, may contain small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline, 800-426-4791. The sources of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive materials, and can also pick up substances resulting from animal or 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 and residential use; Pesticides and herbicides, which may come from a variety of sources such as agriculture 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, septic systems, and agricultural and urban runoff; or Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

To ensure that tap water is safe, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) establishes limits for contaminants in bottled water, which must provide the same protection for public health.

“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 City of Waterville 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 Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>. A lead service line location map is available on the city’s web site at [waterville.org](http://www.waterville.org)

For more information call EPA’s Safe Drinking Water Hotline at 800-426-4791



Cryptosporidium

The City of Toledo completed the second round of source water monitoring required by the Long Term 2 Enhanced Surface Water Treatment Rule. Forty-eight (48) samples were collected and tested for Giardia and Cryptosporidium. Only one cell of Cryptosporidium was detected during the testing period from April 2015 to March 2017. It was not detected in the finished water. In 2005, 21 samples were taken from Toledo’s raw water supply. Cryptosporidium was not detected in any of these samples. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring of source water indicates the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease.

Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease. However, immune-compromised people are at greater risk of developing life-threatening illness. We can encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.

Nitrate

Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six weeks of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

Revised Total Coliform Rule (RTCR) Information

All water systems were required to begin compliance with a new rule, the Revised Total Coliform Rule, on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the Public Water System.

Information for Vulnerable Populations

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those undergoing chemotherapy, who have organ transplants, with HIV/AIDS or other immune system disorders, and some elderly with infections. These people should seek advice about drinking water from their health care providers. Federal guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from the EPA’s Safe Drinking Water Hotline at 800-426-4791.

License to Operate (LTO) Status Information

In 2017 The City of Waterville had an unconditioned license to operate our water system.

Test Results for 2017

Here are the contaminants that were detected in our water. ALL ARE BELOW ALLOWED LIMITS.

Not listed are the hundreds of contaminants tested for, but not detected in our water.

Parameter:	Sample Year	Unit	Level Found	Range Detected	MCLG	MCL	Violation	Likely Sources
Regulated Inorganic Parameters (sampled at the plant tap)								
Fluoride	2017	ppm	1.12	0.80 – 1.22	4	4	No	Water additive to promote strong teeth
Chlorite	2017	ppm	0.18	0.06 – 0.19	0.5	1.0	No	Byproduct of drinking water disinfection
Nitrate	2017	ppm	8.61	ND – 48.61	10	10	No	Fertilizer runoff; septic tank leaching, sewage; erosion of natural deposits
Barium	2017	ppm	0.016	nd-0.016	2	2	No	Erosion of natural deposits, discharge from Drilling wastes and metal refineries
Regulated Organic Parameters (TTHM and HAA5 sampled in the distribution system)								
TTHM	2017	ppb	27.8	20.5 – 36.4	0	80	No	Byproducts of drinking water disinfection
HAA5	2017	ppb	10.0	2.7 – 17.8	none	60	No	Byproducts of drinking water disinfection
Synthetic Organic Parameters including Pesticides and Herbicides –								
Atrazine	2017	ppb	0.18	na	3	3	No	Runoff from herbicide used on row crops
Regulated Microbiological Parameters (sampled at the plant tap)								
Turbidity	2017	ntu	0.90	0.05 – 0.90	none	TT	No	Soil runoff, suspended matter in lake water
TOC	2017	see note 3	2.82	2.52 – 3.86	none	TT	No	Naturally present in the environment
Residual Disinfectants								
Total Chlorine	2017	ppm	1.21	0.55 – 1.94	4	4	No	Additive used to control microbes
Chlorine Dioxide	2017	ppm	0.4	0.2 – 0.4	0.8	0.8	No	Additive used to control microbes
Copper and Lead Testing (sampled in the distribution system at individual taps)								
Copper	2017	ppm	<.37	nd – 0.37	1.3	AL=1.3	No	Corrosion of household plumbing system
Lead	2017	ppb	<15	nd - <15	15	AL=15	No	Erosion of natural deposits
Radioactive Testing								
Alpha	2017	piC/L	8	na	na	15	No	Erosion of natural deposits
Unregulated Parameters (sampled at the plant tap)								
Sodium*1	2017	ppm	32.2	8.7-32.2	na	na	No	Naturally occurring
*1. This information is provided for those concerned with sodium in their diet; 32.2 ppm of sodium equates to 7.6 milligrams of sodium per 8 ounce glass of water.								
Parameter:	Sample Year	Unit	Level Found	Range	Threshold		Likely Sources	
Microcystin*2	2017	ppb	nd	nd	0.3 children 5 & younger 1.6 anyone 6 or older		Toxin produced by harmful algal blooms	
*2. Microcystin is a toxin produced by harmful algal blooms. The following thresholds were established by the USEPA (United States Environmental Protection Agency) and Ohio Department of Public Health. The 0.3 ppb Do Not Drink Advisory Threshold is for children 6 and younger. While the 1.6 ppb Do Not Drink Advisory Threshold is for anyone 6 and older. For information on Harmful Algal Bloom Response Strategy go to http://epa.ohio.gov/Portals/28/documents/HABs/PWS_HAB_Response_Strategy_2017.pdf .								

1. TTHM stands for Total Trihalomethanes. HAA5 stands for Haloacetic Acids. MCL compliance for both TTHM and HAA5 is based on the highest annual average (shown as level found). The range shows the highest and lowest single detects from quarterly compliance monitoring at four different sites in the distribution system.
2. Turbidity is a measure of the cloudiness of the water and is an indication of effectiveness of the filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of samples analyzed each month and shall not exceed 1 NTU at any time. As reported above, the Waterville Water Supply's highest recorded turbidity result for 2017 was 0.90 NTU and lowest monthly percentage of samples meeting the turbidity limits was 99.95%.
3. TOC stands for Total Organic Carbon. The value reported under "Level Found" for TOC is the lowest running annual average ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1.0) indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements. The value reported under the "Range" for TOC is the lowest monthly ratio to the highest monthly ratio. Toledo and Bowling Green remained in compliance with TOC removal requirements.
4. Compliance for copper and lead is based on the 90th percentile, where 9 out of 10 samples must be below the action level (AL).

Our system also monitors our supply on a continuing basis for the following:

1. **Bacteria** – Six samples per month.
2. **Chlorine** – Daily tests to verify the proper residual is maintained.

This table shows results from 2013 Unregulated Contaminants Monitoring Rule 3 (UCMR3) results. These test results will assist USEPA in developing new regulatory requirements to protect the public health and safety. Any contaminant found in the UCMR3 quarterly sampling will not have an MCLG or MCL and will be listed below:

Parameter:	Sample Year	Units	Level Found	Range	MCLG	MCL	Violation
Unregulated Contaminants in Drinking Water							
Chromium, Hexavalent	2013	ppb	0.232	0.19 – 0.232	na	na	No
Chromium, Total	2013	ppb	0.24	0.20 – 0.24	na	na	No
Chlorate	2013	ppb	100.0	39.6 – 100.0	na	na	No
Molybdenum, Total	2013	ppb	2.11	nd – 2.11	na	na	No
Strontium, Total	2013	ppb	151.0	0.086 – 151.0	na	na	No
Vanadium, Total	2013	ppb	0.850	0.423 – 0.850	na	na	No
Unregulated Contaminants in Distribution System							
Chromium, Hexavalent	2013	ppb	0.26	0.21 – 0.26	na	na	No
Chromium, Total	2013	ppb	0.389	0.21 – 0.389	na	na	No
Chlorate	2013	ppb	111.0	43.4 – 111.0	na	na	No
Molybdenum, Total	2013	ppb	3.0	1.20 – 3.0	na	na	No
Strontium, Total	2013	ppb	200.0	98.0 – 200.0	na	na	No
Vanadium, Total	2013	ppb	0.820	0.502 – 0.820	na	na	No

For more information on UCMR3 go to: <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/basicinformation.cfm>.

DRINKING WATER QUALITY RESULTS

The City of Toledo and The City of Bowling Green continuously monitors your drinking water and it remains above and beyond Federal and State laws. The included contaminant tables will show our monitoring results for the period of January 1 to December 31, 2017, unless otherwise noted. **The test results show that your drinking water meets all Federal and State requirements.**

TERMINOLOGY DEFINITIONS

Parts per million (ppm) and parts per billion (ppb)- One ppm can be equated to a single penny in \$10,000. One ppb is a single penny in \$10,000,000.

Maximum contaminant Level Goal (MCLG) – The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk, to health, MCLs allow for a margin of safety.

Maximum Contaminant Level (MCL) – The 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. MCLs are set at very stringent levels by the State and Federal government.

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 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.

Nephelometric Turbidity Unit (ntu) – measures clarity.

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

Thresholds – Recommended levels of unregulated contaminants not to exceed. If levels are exceeded, this will generate a form of response or course of action.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

nd – not detectable.

na – not applicable.

Public Participation

For any customer questions or concerns, please call the Waterville Public Works at 419-878-8108 Monday – Friday between the hours of 7:30 am – 4:00 pm.

If you wish to express your concerns to Waterville’s mayor and council, meetings are held the Second and Fourth Monday of the month at 7:30 pm in the Council Chambers at 25 N. Second St. Meeting schedules are listed on the monthly calendar on the city’s web site at waterville.org or you can call 419-878-8100 to check on the status of these meetings.