

Water Quality Report 2016



Village of Grand Rapids



Customer Service and Administrative Offices:

419-832-5305

Information@GrandRapidsOhio.com

The Village of Grand Rapids encourages public interest and participation in our community's decisions affecting drinking water. We have a current, unconditioned license to operate our water system. Regular Village Council meetings are held at 7 pm at the Town Hall located at 24282 Front Street. Find out more about the Village Council Meeting dates and the Village of Grand Rapids on the internet at

www.grandrapidsohio.com.

Lead in Drinking Water

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 Bowling Green 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 levels in your home's water, you may wish to have your water tested.

Although there is no detectable lead in our drinking water as it leaves the treatment plant, by the time it reaches your tap, lead levels may increase as a result of materials used in your home's plumbing. Infants and young children are typically more vulnerable to lead in drinking water than the general population. Additional information is available from the **Safe Drinking Water Hotline at 1-800-426-4791 or at <http://water.epa.gov/drink/hotline/index.cfm>**

Water Treatment Improvements

Two significant improvements have been designed and one constructed at the Bowling Green Water Treatment Plant. A second reservoir pumping station has been completed and has been placed in service which allows the City to get maximum production out of the plant during high demand periods. The other major project underway and ready for construction bids is refurbishing the rapid sand filters. The existing plant has 6 rapid sand filters that are scheduled to be completely rebuilt this coming year. Three of the sand filters were constructed in 1951 and the other three were added in 1968 plant expansion.



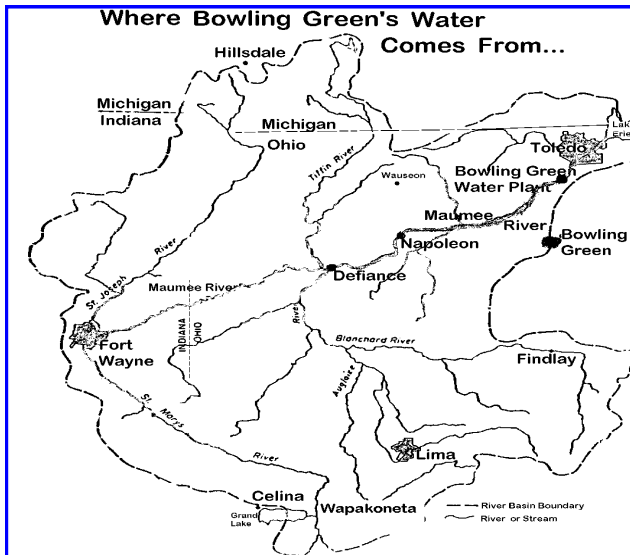
Source Water Assessment

The City of Bowling Green public water system uses surface water drawn from an intake on the Maumee River. For the purposes of source water assessments, in Ohio, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens which may rapidly arrive at the public drinking water intake with little warning or no time to prepare. The City of Bowling Green's drinking water source protection area contains potential contaminant sources such as runoff from agriculture, industrial storm water, gas stations, home construction, feed lots, wastewater treatment discharges, airports, cemeteries, auto repair shops, landfills, above ground storage tanks, railroads, roadways, and oil and gas wells.

The City of Bowling Green's public water system treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for quality impacts can be further decreased by implementing measures to protect the Maumee River.

More detailed information is provided in the City of Bowling Green's Drinking Water Source Assessment report, which can be obtained by calling **419-878-6986**.

The Village of Grand Rapids and the City of Bowling Green Water Treatment Plant has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included in this report is general health information, water quality test results, how to participate in decisions concerning your drinking water, and water system contacts. The Village of Grand Rapids will notify you immediately if there is any reason for concern about the water.



Source of Bowling Green's Water

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 the City's 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 the consumer. The water plant's operators work around the clock, 7 days a week to assure the quality of your drinking water

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.

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.

The source of drinking water and bottled water includes 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 pick up substances from the presence of animals or human activity.

Contaminants that may be present in source water include:

- A). Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- B). 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.
- C). Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

D). Organic chemicals contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

E). 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. It's important to remember that the presence of certain contaminants does not necessarily indicate that the water poses a health risk.

Nitrates in drinking water at levels above 10 ppm is a health risk for infants of less than six months 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.

More information about contaminants and potential health effects can be obtained by calling the **Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.**

The following table shows the results of our water-quality analysis. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual source of such contaminants, and a key to the units of measurement. This table does not show the numerous other contaminants we tested for, and did not detect in our water.

Bowling Green's 2016 Water Quality Data

Contaminant (Units)	Violation Y/N	Sample Year	MCL	Detected Level	Range of Detections	MCLG	Likely Source of Contamination
Microbiological Contaminants							
Turbidity (NTU)	No	2016	TT = 0.3	0.16	.05 - 0.16	NA	Soil Runoff
Turbidity (% samples meeting standards)	No	2016	TT	100%	100%	NA	
Total Organic Carbon (TOC)	No	2016	TT	2.78	2.78-2.89	NA	Naturally Present in the Environment
Inorganic Contaminants							
Barium (ppm)	No	2016	2	0.013	NA	2	Discharges from metal refineries & of drilling wastes; Erosion of natural de-
Fluoride (ppm)	No	2016	4	1.23	0.79-1.23	4	Water additive which promotes stong teeth; Erosion of Natural Deposits
Nitrate (ppm) as Nitrogen	No	2016	10	6.91	0 - 6.91	10	Runoff from fertilizer use; sewage; erosion of natural deposits
Volatile Organic Contaminants							
Bromodichloromethane (ppb)	No	2016	NR	6.9	NA	0	EPA regulations require us to monitor for these contaminants while EPA considers setting a limit on them.
Bromoform (ppb)	No	2016	NR	4.4	NA	0	
Chloroform (ppb)	No	2016	NR	3.7	NA	0	
Dibromo-chloromethane (ppb)	No	2016	NR	9.7	NA	0	
Dichloroacetic Acid (ppm)	No	2016	NR	17.7	3.0 - 17.7	NA	
Trichloroacetic Acid (ppm)	No	2016	NR	8.9	2.4 - 8.9	NA	
Dibromoacetic Acid (ppm)	No	2016	NR	4.5	1.0 - 4.5	NA	
Monobromoacetic Acid (ppm)	No	2016	NR	1.4	1.4	NA	
Synthetic Organic Contaminants							
Atrazine (ppb)	No	2016	0.82				Runoff from herbicide used on row crops

Definitions

Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

IDSE - Initial Distribution System Evaluation is a one-time study conducted by water systems to identify distribution system locations with greater concentrations of trihalomethanes (THM's) and haloacetic acids (HAA's).

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is 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.

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.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of 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.

Maximum Residual Disinfectant Level (MRDL) - The level of drinking water disinfectant below which there is no known or expected risk to health.

Grand Rapids' 2016 Water Quality Data

Contaminant (Units)	Violation	Sample	MCL	Detected	Range of	MCLG	Likely Source of Contamination
Volatile Organic Contaminants							
Total Trihalomethanes	No	2016	80	47.7	33.8 - 63.7	0	By-product of drinking
Haloacetic Acids (HAA5)	No	2016	60	16.7	15.8 - 22.4	NA	Water chlorination
Residual Disinfectants							
Total Chlorine (ppm)	No	2016	MRDL 4.0	.85	.2 - 1.6	MRDLG 4.0	Water additive used to control microbes
Inorganic Contaminants							
Lead (mg/L)	No	2016	AL=.015	<.005	NA	NA	Corrosion of household plumbing systems
Copper (mg/L)	No	2016	AL=1.3	.01	<.005 - .055	1.3	

*** Unregulated contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.**
Data presented in this table is from the most recent monitoring done in compliance with regulations.

AL = Action Level	ppm = parts per million, or milligrams per liter	"<" Symbol - A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and that the contaminant in that sample was not detected.
MCL = Maximum Contaminant Level	ppb = parts per billion, or micrograms per liter	
MCLG = Maximum Contaminant Level Goal	TT = Treatment Technique	
MRDL = Maximum Residual Disinfectant Level	NTU = Nephelometric Turbidity Units	
MRDLG = Maximum Residual Disinfectant Level Goal	NR = Not regulated	
< = A symbol that means less than	NA = Not available	

Turbidity is a measure of the cloudiness of the water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above, Bowling Green's highest recorded turbidity result for 2016 was 0.16 and 100% of our samples met the turbidity limits.

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. At risk individuals 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 1-800-426-4791.

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

Bowling Green's drinking water contains small amounts of naturally-occurring minerals such as calcium and magnesium. Fluoride is added to protect teeth as required by law.

The value reported in the table under "Detected Level" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of TOC removal

The City of Bowling Green encourages public interest and participation in our community's decisions affecting drinking water. Board of Public Utilities meetings are held regularly at 5:00 p.m. the second and fourth Mondays of each month at the City Administrative Services Building located at 304 North Church Street in the City Council Chambers. The public is welcome to attend these meetings to ask questions or express concerns as a lobby visitation if desired. Find out more about the City of Bowling Green on the internet at <http://www.bgo.org>

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems were required to comply with the Total Coliform Rule from 1989 to March 31, 2016, and begin compliance with a new rule, the Revised Total Coliform, 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 detection. 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 (PWS).

NTU - A unit of measure to determine the concentration of particles in the water that affect clarity.

Parts per Million (ppm) - Units of measure for concentration of contaminant. A part per million corresponds to one second in approximately 115 days.

Parts per Billion (ppb) - Units of measure for concentration of contaminant. A part per billion corresponds to one second in approximately 31.7 years

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

Unregulated Contaminant Monitoring Rule (UCMR) - An EPA program to collect data for contaminants that do not have health based standards set under the safe drinking water act.