



2018 Water Quality Report

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

What's the source of your drinking water?

The Village of Whitehouse receives Lake Erie water from the City of Toledo, through an agreement with the City of Toledo and Lucas County. During 2018, 180.355 million gallons (MG) passed through the Village. This was approximately 1.7% higher than 2017. Our peak use day was July 24th, at 1.028 MG.

Source water

Protecting drinking water is a top priority in Ohio. A 1995 statewide survey of citizens indicated that Ohioans rank drinking water quality as one of the top three environmental concerns facing Ohio. Another statewide survey conducted in 1998 indicated that 90% of Ohioans consider the quality of drinking water to be a "very important" water resource issue. This was the highest ranking of any water resource issue rated in the survey. Beginning in the 1970s, federal environmental laws were passed to address the need for reliable supplies of safe drinking water, primarily by cleaning up contaminated air, soil, and water. In 1986 the Safe Drinking Water Act established health and treatment standards for public drinking water systems. Environmental goals at the national, state, and local levels are now shifting to protecting resources from potential future damage. Because safe drinking water is a necessity to everyone, protecting this valuable resource is a primary goal. Thanks in part to drinking water treatment, design of treatment systems, certification of plant operators, and regulations on contaminants, public water systems in this country set the world standard for providing safe drinking water to the public.

The Village of Whitehouse uses surface water drawn from Lake Erie as the source of our drinking water. Lake Erie is a part of the Great Lakes watershed. Ninety-five percent of the water entering Lake Erie comes from the upstream Great Lakes – Superior, Michigan, and Huron as well as all the rivers and streams that flow into these Lakes. The remaining 5% comes from rain and snow in the Lake Erie drainage basin which includes the various streams and rivers that flow into Lake Erie. By their nature, surface waters, such as lakes and rivers, are accessible and can be contaminated by chemicals and disease causing organisms. Since the City of Toledo intake system is located at a considerable distance offshore, potential contamination from rivers, streams, and other nearby sources is greatly minimized, but no single treatment process can address all possible contaminants. The City of Toledo's Source Water Protection plan can be found at: <http://wwwapp.epa.ohio.gov/gis/swpa/OH4801411.pdf>

Additionally, implementing measures to protect Lake Erie may improve our water quality. More information can be found at: <http://water.epa.gov/lawsregs/lawsguidance/cwa/criteria/gli/index.cfm>

Source Water Protection Tips

Protection of drinking water is everyone's responsibility.

There are several key ways that area residents and businesses can help protect Lake Erie.

- Remove trash and debris from sewers and storm sewers.
- Prevent soil erosion by planting trees, grass or shrubs along streams and rivers.
- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. The watershed protection organization in your community is The Swan Creek Watershed. Information on the watershed can be found at: <http://www.epa.ohio.gov/dsw/tmdl/MaumeeRiver.aspx> volunteer to help.
- Organize a storm drain education project with your local government or water supplier. Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.
- Toledo Metropolitan Area Council of Governments (TMACOG) Stormwater Coalition members and other local partners have launched Clear Choices, Clean Water - Greater Toledo Lake Erie educational campaign.

Clear Choices, Clean Water – Greater Toledo Lake Erie is a campaign to increase awareness about choices we make and the impact we have on our streams and lakes. Water friendly practices such as using phosphorus-free fertilizer, landscaping with native plants, managing yard and pet wastes, and volunteering to clean up our waterways help make clear clean water available to us. By educating individuals on these important actions and providing citizens with water-focused volunteer opportunities, we empower everyone to do their part for water quality and conservation.

For additional information and ideas on lawn fertilizers, pet waste, native plants, volunteer opportunities, and other ways you can help, visit <http://toledolakeerie.clearchoicescleanwater.org/>

For more information, visit U.S. EPA's website at: <https://www.epa.gov/sourcewaterprotection>

Why are there contaminants in my drinking water?

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: (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 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; (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, USEPA 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.

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 Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Who needs to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Water Distribution System Security- REPORT SUSPICIOUS ACTIVITY

The Village of Whitehouse takes the security of our community water distribution and waste water collection system seriously, however the very nature of these systems leaves them vulnerable to numerous threats, both intentional and unintentional, which have the potential to impact water quality and waste water processes. Tampering with the distribution system or collection system, including unauthorized use of fire hydrants, is a violation of Federal, State and local laws. Only authorized Village of Whitehouse Public Works and Fire Department employees are authorized to operate fire hydrants. Only Village of Whitehouse Public Works personnel or appointed representatives are authorized to perform repairs and/or maintenance duties on the distribution or collection systems. This includes in the water distribution system; all valve stations, water towers, distribution mains, service lines, curb stops and water meters, in the collection system; all pumping stations, man holes, sewer mains and sewer taps or connections to sewer mains.

PLEASE REPORT SUSPICIOUS ACTIVITY IMMEDIATELY BY CALLING 911

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of Whitehouse Village Council which meets on the first and third Tuesday of every month at 7:00 p.m. in Council chambers at the Village Hall located at 6925 Providence Street, Whitehouse Ohio.

Cross Connection Control - Backflow Prevention

Backflow is a serious threat to all water systems, public or private. Backflow occurs when an apparatus attached to a distribution system becomes submerged, and the distribution system suddenly loses pressure. This drop in pressure could allow chemicals or bacteria to enter into a distribution system potentially causing severe illness or even death.

The Village of Whitehouse encourages all residents to follow these simple backflow prevention measures:

- Never submerge hoses in buckets, pools, tubs or sinks. Keep the end of the hose clear of possible contaminants.
- Do not use spray attachments without a backflow prevention device.
- Purchase and install inexpensive backflow prevention devices for all threaded faucets around your home. They are available at hardware stores and home-improvement centers.

Additionally the Village of Whitehouse requires all residential or commercial water accounts with irrigation systems to install a backflow prevention device immediately after the water meter, and may require a backflow prevention device on any water service line, commercial or residential as deemed necessary by the Director. Ohio Administrative Code 3745-95-06 2 states:

It shall be the duty of the water consumer to maintain any backflow prevention device required by rules 3745-95-04 and 3745-95-05 of the Administrative Code in proper working order and in continuous operation.

(1) The supplier of water shall retain authority over any backflow prevention device required by rules 3745-95-04 and 3745-95-05 of the Administrative Code.

(2) It shall be the duty of the supplier of water to see that the tests and inspections required under this paragraph are made.

(3) The consumer shall, on any premises on which backflow prevention devices required by rules 3745-95-04 and 3745-95-05 of the Administrative Code are installed, have thorough inspections and operational tests made of the devices at the time of installation or repair, and as may be reasonably required by the supplier of water or the director, but in all cases at least once every twelve months. These inspections and tests shall be at the expense of the water consumer and shall be performed by the supplier of water or a person approved by the supplier as qualified to inspect and test backflow prevention device.

(4) These devices shall be repaired, overhauled or replaced at the expense of the consumer whenever they are found to be defective.

(5) Records of such inspections, tests, repairs and overhaul shall be kept by the consumer and made available to the supplier of water.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can

absorb it and during the cooler parts of the day to reduce evaporation.

- Teach your children about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Encourage young minds to learn where their drinking water comes from. <http://water.epa.gov/learn/kids/drinkingwater/index.cfm>
- Visit www.epa.gov/watersense for more information.

Water Emergency Number - 911

The Village has established an emergency phone number to call for after hours, weekends and holidays. **The emergency number to call for non-business hours is 911.** This will put you in contact with a dispatcher from Lucas County, who will in turn contact the proper personnel to respond to the emergency. Reminder stickers are available at the Village of Whitehouse.

Additional Information for 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. Village of Whitehouse 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 or at <http://www.epa.gov/safewater/lead>.

Enforcement Actions

In 2018, the Village of Whitehouse was issued a Notice of Violation in the first quarter of testing for Trihalomethanes, for exceeding the Maximum Contaminant Level (MCL) which is 80 mg/L. The Villages' water tested at 55.7 mg/L and is required to report on a running annual average which was 81.4 mg/L.

The Village worked with OEPA to remediate the high levels of Trihalomethanes in the drinking water by installing treatment in the water towers. The installation was completed in December of 2018.

The Village of Whitehouse operates under a Green License to Operate (LTO) issued by the Ohio Environmental Protection Agency (OEPA). A green license means it was issued without any special conditions. The license number between the dates of January 1, 2018 and January 30, 2019 was #4801612-1200413-2018.

For more information please contact:

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Website: www.whitehouseoh.com



Water Quality Data Table

The table below lists all of the drinking water contaminants that were detected by the Toledo Water Treatment Plant and/or the Village of Whitehouse during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The Ohio EPA requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Regulated Contaminants								
Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfectant By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Inorganic Parameters								
Chlorite (ppm)	0.5	1	0.15	0.05	0.59	2018	No	By-product of drinking water disinfection
Fluoride (ppm)	4	4	1.05	0.88	1.18	2018	No	Water additive which promotes strong teeth.
Nitrate [measured as Nitrogen] (ppm)	10	10	4.35	<0.2	4.35	2018	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Synthetic organic Parameters including pesticides and herbicides								
Atrazine (ppb)	3	3	0.18	NA	NA	2017	No	Runoff from herbicide used on row crops
Simazine (ppb)	4	4	ND	NA	NA	2016	No	Herbicide runoff
Volatile Organic Parameters								
TTHMs [Total Trihalomethanes] (ppb) ¹	0	80	81.4	48.5	125	2018	No	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb) ¹	0	60	17.1	7.3	23.8	2018	No	By-product of drinking water chlorination
<p>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 in the distribution system.</p>								
<p>Total Trihalomethanes In 2017 the Village of Whitehouse received a Notice of Violations for failing to meet MCL standards set for Total Trihalomethanes during the second, third and fourth quarters of monitoring. 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. The Village has implemented changes in the distribution flushing program and is in the process of installing aeration in the water towers to mitigate the formation of trihalomethanes.</p>								

Microbiological Parameters								
Total Coliform Bacteria	0	0*	0	0	0	2018	No	Naturally present in the environment
*Systems that collect fewer than 40 samples per month, 1 monthly positive sample.								
Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Microbiological Parameters (Cont.)								
Turbidity (ntu) ²	None	TT	0.39	0.02	0.39	2018	No	Soil runoff, suspended material in lake water.
Total Organic Carbon ³ (% Removal)	NA	TT	3.10	3.10	3.86	2018	No	Naturally present in the environment
Residual Disinfectants								
Chlorine (as Cl ₂) (ppm)	4	4	1.02	.87	1.30	2018	No	Water additive used to control microbes
Chlorine Dioxide (ppm)	0.8	0.8	0.2	< 0.2	0.2	2018	No	Water additive used to control microbes

2 - Turbidity is a measure of the cloudiness of the water. Toledo Water Treatment Plant monitors this daily because it is a good indication of the effectiveness of the filtration system. The turbidity limit set by the EPA states that all samples must be below 1 ntu and that 95% of the daily samples must be lower than 0.3 ntu. In 2017, 99.95% of treatment plant samples were below 0.3 ntu.

3 - TOC stands for Total Organic Carbon. The value reported under “Level Found” for TOC is the running annual average ratio between the percentages of TOC actually removed to the percentage of TOC required to be removed. A value of great 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 Water Treatment Plant remained in compliance with TOC removal requirements.

Cryptosporidium

The City of Toledo Water Department has 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, immuno-compromised people are at greater risk of developing life-threatening illness. We 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.

Radioactive Testing								
Contaminants	MCLG	MCL	Your Water	Range		Sample Date	Violation	Typical Source
				Lo	High			
Alpha (piC/L)	NA	15	< 3	NA		2018	No	Erosion of natural deposits
Radium (piC/L)	NA	5	< 1	NA		2018	No	Erosion of natural deposits

			Your	Sample	# Samples	Exceeds	
<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>Water</u>	<u>Date</u>	<u>Exceeding AL</u>	<u>AL</u>	<u>Typical Source</u>

Copper and Lead Testing

Copper - action level at consumer taps (ppm)	1.3	1.3	0.052	2017	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
	Zero out of twenty samples was found to have copper levels in excess of the copper action level of 1.3 ppm. .						

Lead - action level at consumer taps (ppb)	0	15	0	2017	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
	Zero out of twenty samples was found to have lead levels in excess of the lead action level of 15 ppm. .						

Copper and lead testing is only required every three years. Compliance for copper and lead is based on the 90th percentile, where 9 out of 10 samples must be below the action level (AL). Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791) or:

<https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

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Unregulated Contaminants Monitoring (City of Toledo)

Parameter	Sample Year	Units	Level Found	Range	Violation	Likely Sources
Sodium (ppm) ⁴	2018	ppm	38.6	10.6 – 38.6	No	Naturally occurring

4 - This information is provided for those concerned with sodium in their diet; 26.6 mg/l of sodium equates to 6.3 milligrams of sodium per 8 ounce glass of water.

Parameter	Sample Year	Units	Level Found	Range	Threshold	Likely Sources
Microcystin ⁵	2018	ppb	ND	ND	0.3 Children under age 6 1.6 Anyone 6 or older	Toxins produced by harmful algal blooms

5 - Microcystin is a toxin produced by harmful algal blooms. The following thresholds were developed by the United States Environmental Protection Agency (USEPA). The 0.3 ppb Do Not Drink Advisory Threshold is for children 5 and under; while the 1.6 ppb Do Not Drink Advisory Threshold is for anyone 6 years of age and older. For more information on Harmful Algal Bloom Response Strategy go to:

http://epa.ohio.gov/Portals/28/documents/habs/2017_PWS_HAB_Response_Strategy_5-15-17-FINAL.pdf

Unregulated Contaminates in Distribution System (City of Toledo)

Parameter	Sample Year	Units	Level Found	Range	MCLG	MCL	Violation
Manganese	2018	ppb	0.478	< .04 -0.777	NA	NA	No
Halocetic acid (HAA5)	2018	ppb	12.9	5.26-17.54	NA	NA	No
Halocetic acid (HAA6Br)	2018	ppb	11.22	1.72 -14.37	NA	NA	No
Halocetic acid (HAA9)	2018	ppb	20.81	9.4 – 26.47	NA	NA	No

For more information on UCMR4 go to: <https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule>

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L) or one ounce in 7,350 gallons of water.
ppb	ppb: parts per billion, or micrograms per liter ($\mu\text{g/L}$) or one ounce in 7,350,000 gallons of water.
NA	NA: Not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
ntu	Neophelometric Turbidity Unit – A measurement of scattered light particle in water. Used to measure the quantity of particles (cloudiness) in a given amount of water. (A measure of water clarity.)

Important Drinking Water Definitions	
Term	Definition
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL	MCL: Maximum Contaminant Level: 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.
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
MRDL	MRDL: Maximum residual disinfectant level. 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.

MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
Thresholds	Recommended levels of unregulated contaminants not to exceed. If levels are exceeded this will generate a form of response or course of action.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
Variations and Exemptions	Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
Picocuries per liter (pCi/l)	Common measurement of radioactivity.
CT	Contact Time required to deactivate microbes with chlorine.