

Regulated Substances which are subject to an action level, MCL, or a treatment technique							
Substances Found (units)	MCLG (ideal goal)	MCL (Level Allowed)	Compliance Level	Range of Detections	Is this a Violation?	Sample Year	Typical Source of Contaminants
<b>Microbiological contaminants</b>							
Turbidity (NTU)*	N/A	TT<1 NTU max and <0.3 NTU 95% of the time	0.25 100%< .03 NTU	0.03 – 0.25	No	2018	Soil runoff
Total Organic Carbon (ppm)	N/A	TT <sup>2</sup> (value >1 indicates Compliance)	2.07	1.85-3.34	No	2018	Naturally present in the environment
Total Coliform (% of positive samples)	0	5% of monthly samples in systems collecting 40 or more per month	0.98	0 - 0.98	No	2018	Naturally present in the environment
<b>Inorganic Contaminants</b>							
Fluoride (ppm)	4	4	0.95	0.20-1.29	No	2018	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm)	10	10	1.33	n/a	No	2018	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium (ppm)	2	2	0.0572	n/a	No	2018	Discharge of drilling wastes, Discharge from metal refineries, Erosion of natural deposits

\*Please note in the above chart under Microbiological Contaminants the word Turbidity is used. Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of the filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed one NTU at any time. As reported in the chart, the highest recorded turbidity result for 2018 was 0.25 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100% < .03 NTU.

Table of Unregulated Contaminants				
Contaminants (Units)	Sample Year	Average Level Found	Range of Detections	Sample Location
Manganese (ppb)	2018	1.1	.97-1.02	Entry Point
Haloacetic Acids (HAA5) (ppb)	2018	7.58	5.08-13.9	Distribution
Haloacetic Acids (HAA9) (ppb)	2018	10.96	7.55-15.04	Distribution
Haloacetic Acids (HAA6Br) (ppb)	2018	9.54	5.27-14.5	Distribution

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2018, The City of Monroe participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4). For a copy of the results, please call City of Monroe Public Works at 513-727-8953.

## City of Monroe Drinking Water Consumer Confidence Report for 2018

May, 2019

The City of Monroe is pleased to present you with their Annual Water Quality Report, also known as the Consumer Confidence Report (CCR). This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process, ensure an adequate supply and protect our water resources. We are committed to ensuring the quality of your water.

Public participation and comments are encouraged. City Council meetings are held at 6:30 PM on the second and fourth Tuesday of every month in the Council Chambers at 233 S. Main Street, Monroe, OH 45050. To participate or for more information on your drinking water, please contact the City of Monroe Public Works Department at 513-727-8953.

### SOURCE WATER INFORMATION

The City of Monroe purchases drinking water from Butler County Water and Sewer who purchase surface water from the City of Cincinnati and purchase ground water from the City of Hamilton.

For the purposes of source water assessments, all surface waters are considered to be highly susceptible to contamination. By their nature, surface waters are open systems with no confining layer to impede contaminant movement, and have relatively short travel times from the source to the public water system intake. The full report for Cincinnati can be viewed online at <http://wwwapp.epa.ohio.gov/gis/swpa/OH3102612.pdf>.

The Great Miami Buried Valley Aquifer that supplies drinking water to the City of Hamilton's North and South Wellfields has a high susceptibility to contamination based on the aquifer's sensitivity to contamination and the numbers and types of potential contaminant sources within the protection area. The aquifer is an unconfined sand and gravel aquifer with a depth to water less than 30' below the ground surface. The topography is relatively flat and the soils are very sandy, allowing for a significant amount of precipitation to infiltrate into the aquifer instead of running off the ground surface. The full report can be viewed online at <http://wwwapp.epa.ohio.gov/gis/swpa/OH0904012.pdf>.

### 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 infection. 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).

**Consumer Confidence  
Report for 2018  
City of Monroe Drinking Water**

This report provides you, the consumer, with information 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. The following is a description of the abbreviated language included within this report:

- AL – (Action Level) The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.
- MCL – (Maximum Contaminant Level) 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 treatment technology.
- MCLG – (Maximum Contaminant Level Goal) 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.
- MRDL – (Maximum Residual Disinfectant Level) The highest level of disinfectant allowed in drinking water.
- PPM – (Parts Per Million) Units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
- N/A – (Not Applicable) There is no set MCL, MCLG or the test is not required.
- PPB – (Parts Per Billion) Units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- ND – (Not Detected)
- NR – (Not Regulated)
- NTU – (Nephelometric Turbidity Units) A unit of measure for the size and concentration of particles in water.
- ppm – (parts per million) A unit of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
- ppb – (part per billion) A unit of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- TT – (Treatment Technique) A required process intended to reduce the level of a contaminant 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. **City of Monroe** 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 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

**DEFICIENCIES**

The City of Monroe had no deficiencies to report for the 2018 year.

***Please note: For the reporting year of 2018, we have a current, unconditioned license to operate our water system.***

***What are the Sources of Contamination to our 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:				
Microbial	Inorganic	Synthetic Organic Compounds	Organic Chemical	Radioactive
Such as viruses and bacteria	Such as salts and metals	Such as pesticides and herbicides	Including synthetic and volatile organic chemicals	Such as radium 226 and gross alpha particles
May come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife	Can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming	May come from a variety of sources such as agriculture, urban runoff, and residential uses	Are by-products of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff, and septic systems	Can be naturally occurring or the result of oil and gas production and mining activities

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that 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 EPA’s Safe Drinking Water Hotline at 1-800-426-4791.

**About our Drinking Water**

The EPA requires regular sampling to ensure drinking water safety. The City of Monroe Water Department conducted sampling for bacteria, inorganic, radiological, synthetic organic, and volatile organic contaminants. Samples were collected and analyzed for 75 different contaminants; most of which were not detected in the City of Monroe water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

Water Quality Data on Detected Contaminants							
Contaminants (units)	MCLG	MCL	Compliance Level	Range of Detection	Violation	Sample Year	Typical Source of Contaminants
Lead (ppb)	0	AL=15	1.02 & 1 out of 30 sites exceeded AL	<0.5 - 17.2	No	2018	Corrosion of household plumbing system; erosion of natural deposit
Copper (ppm)	1.3	AL=1.3	.0266 & 0 out of 30 sites exceeded AL	N/A	No	2018	Corrosion of household plumbing system; erosion of natural deposit
Residual Disinfectants							
Contaminants (units)	MCLG	MCL	Compliance Level	Range of Detection	Violation	Sample Year	Typical Source of Contaminants
Total Chlorine(ppm)	MRDL=4	MRDLG=4	.83	.61-1.21	No	2018	Water additive used to control microbes
Volatile Organic Contaminants							
Total Trihalomethane (ppb)	N/A	80	37.28	20.38-44.12	No	2018	By-product of drinking water chlorination
Haloacetic Acids HAA’s (ppb)	N/A	60	6.28	4.0-6.4	N/A	2018	By-product of drinking water chlorination
Unregulated Volatile Organic Contaminants							
Dibromochloromethane (ppb)	N/A	N/A	13.83	5.23-15.7	No	2018	Components of Total Trihalomethanes
Bromodichloromethane (ppb)	N/A	N/A	5.3	3.75-8.71	No	2018	Components of Total Trihalomethanes
Bromoform (ppb)	N/A	N/A	11.51	5.55-14.5	No	2018	By-product of drinking water chlorination
Chloroform (ppb)	N/A	N/A	5.15	1.84-5.66	No	2018	Chlorination by product
Dibromoacetic Acid (ppb)	N/A	N/A	4.51	3.9-5.17	No	2018	Components of Total Haloacetic Acids
Dichloroacetic Acid (ppb)	N/A	N/A	2.03	ND-2.22	No	2018	Components of Total Haloacetic Acids