

City of Barberton

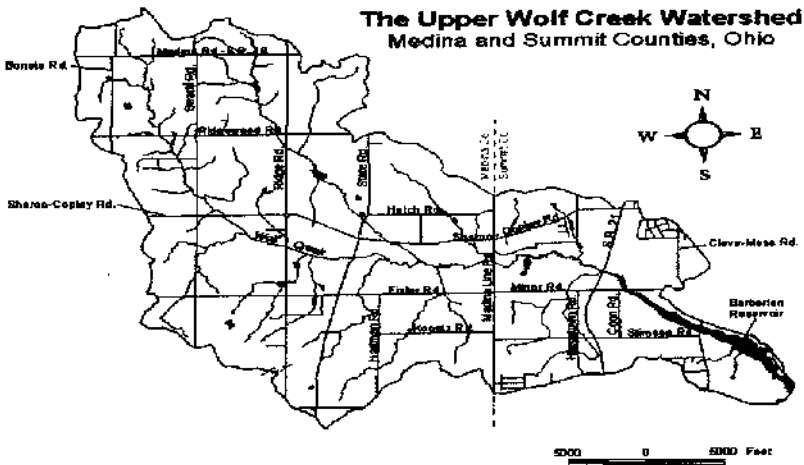


**2018 CITY OF BARBERTON
REPORT TO CONSUMERS
ON WATER QUALITY**

Upon reviewing our treatment process and consulting with the engineering firm Stantec in 2017 we came to the conclusion that removing our membrane filtration system and returning to all rapid sand filtration was the best solution to eliminating the manganese issues from our raw water supply. Construction began in July of 2018 and was ongoing through December. The project is projected to be completed by the end of 2019.

The City of Barberton is committed to providing residents with a safe and reliable supply of high-quality drinking water. We test our water using sophisticated equipment and advanced procedures. The City of Barberton water meets state and federal standards for both appearance and safety. This annual "Consumer Confidence Report," required by the Safe Drinking Water Act (SDWA), informs you where your water comes from, test results, general health information, and other facts you should know about your drinking water.

Barberton's water treatment plant, which had an unconditioned license to operate from the OEPA in 2018, serves all of Barberton and parts of Norton & Coventry. We encourage public interest and participation in our community's decisions affecting drinking water. Regular City Council meetings occur on Mondays, at the Municipal Building, 576 W. Park Ave. at 7:30 pm. The public is welcome. More information is available on the World Wide Web at <http://www.waterdata.com>. or by calling Terry Palmer at the Barberton Water Treatment Plant 330-848-6744.



WATER SOURCE

The City of Barberton has a surface water system that is supplied by the Upper Wolf Creek Watershed. A watershed is an area of land from which surface water drains into a common outlet, such as a stream, lake or wetland. The Upper Wolf Creek watershed drains approximately 18,062 acres in Medina and Summit Counties. The headwaters arise in the rural areas east of the city of Medina (Sharon Township) and flow east into the 200 acre, 670 million gallon Barberton Reservoir in Summit County.

As a backup supply of water to the Reservoir, the City of Barberton owns three ground water wells located on Pigeon and Wolf Creek with a total capacity of 4.6 MGD.

All surface waters, due to watershed drainage and open waters are susceptible to contamination. The City of Barberton has been developing a Watershed Management Plan and a Well head protection plan to protect the City's source water supply.

The City of Barberton maintains two emergency water connections with the City of Akron. In 2018 Barberton did not purchase any water from Akron.

SYSTEM PROJECTS

The Carbon machine replacement project was completed at the end of 2017. Starting in 2018 we have the ability to feed nearly three times the rate of carbon as our previous system, which will assist us in treating any detections of Harmful Algae Blooms. Our rapid sand filtration construction and rehabilitation project was started in July of 2018 and is projected to be completed in Dec. of 2019. With the Rapid Sand Filters we have the ability to remove soluble and insoluble Manganese.

An Explanation of the Water-Quality Data Table

The table shows the results of our water-quality analyses. Every regulated contaminant that we detected in the water, even 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 the public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important. Please read these definitions.

Maximum Contaminant Level or MCL: 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 or MCLG: 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.

Action Level (AL) The concentration of a contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow.

Detected Level The average level detected of a contaminant for comparison against acceptance levels for each parameter. These levels could be the highest single measurement, or an average of values depending on the contaminant.

Range The range of all values for samples tested for each contaminant.

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

Parts per Million (ppm) or Milligrams per Liter (mg/l) Units of measure for concentration of contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (ug/l) Units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

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.

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.

KEY TO TABLE

AL =	Action Level
MCL =	Maximum Contaminant Level
MCLG =	Maximum Contaminant Level Goal
MFL =	million fibers per liter
mrem/year =	millirems per year (a measure of radiation absorbed by the body)
MGD	Million gallons per day
MRDL	Maximum residual disinfectant level
MRDLG	Maximum residual disinfectant level goal
NTU =	Nephelometric Turbidity Units
pci/l =	picocuries per liter (a measure of radioactivity)
ppm =	parts per million, or milligrams per liter (mg/l)
ppb =	parts per billion, or micrograms per liter (ug/l)
ppt =	parts per trillion, or nanograms per liter
TT =	Treatment Technique
n/a	not applicable
"<"	a symbol which means less than

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detection	Violation	Sample Year	Typical Source of Contaminants
Volatile Organic Contaminants							
Halocetic Acids ⁽⁴⁾ (HAA5) ppb	No Goal for the Total	60	44.05	16.1 – 53.7	N	2018	By-product of drinking water disinfection
Total Trihalomethanes ⁽⁶⁾ (TTHm) ppb	No goal for the total	80	76.03	20.1 – 112.00	N	2018	By-product of drinking water disinfection
Microbiological Contaminants							
Turbidity ^{(1),(5)} ntu	N/A	TT	.76	.03 - .76	N	2018	Soil runoff
Turbidity (% meeting standard)	N/A	TT	99.7%	99.7% – 100%	N	2018	Soil runoff
Total Organic Carbon ^{(3),(11)} ppm	N/A	TT	1.69	1.51 – 2.28	N	2018	Naturally present in the environment
Residual Disinfectants							
Total Chlorine ⁽⁹⁾ ppm	MRDL=4	MRDLG=4	1.30	0.82 – 1.50	N	2018	Water additive used to control microbes
Inorganic Contaminants							
Fluoride ⁽³⁾ ppm	4.0	4.0	1.03	0.35 – 1.17	N	2018	Erosion of natural deposits; Water additive which promotes strong teeth; Discharges from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] ⁽³⁾ ppm	10.0	10.0	0.93	0 – 0.93	N	2018	Runoff from fertilizer use; Leaching septic tanks, sewage; Erosion of natural deposits
Barium ⁽³⁾ ppm	2	2	0.04	N/A	N	2018	Discharge of drilling wastes; Discharge From metal refineries; Erosion of Natural deposits

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	Action Level (AL)	Individual Results Over the AL	90% of Test Levels were Less than	Violation	Year Sampled	Typical Source of Contaminants
Lead and Copper						
Copper (7.8) ppm	1.3	0	0.09	N	2018	Corrosion of household plumbing systems; Erosion of natural deposits
	[Zero out of 30 samples was found to have copper levels in excess of the copper action level of 1.3 ppm]					
Lead (2.5) ppb	15	1	2.5	N	2018	Corrosion of household plumbing systems Erosion of natural deposits
	[One out of 30 samples exceeded the action level of 15ppb for lead with a result of 34ppb.]					

Unregulated Contaminants

Contaminant (Units)	Average	Range	Contaminant (Units)	Average	Range
Chlorate (3) ppb	403	294 - 512	Strontium (6) ppb	141	93 - 160
Molybdenum (3) ppb	1.15	1.0 - 1.3	Chlorate (6) ppb	455.5	373 - 538
Strontium (3) ppb	130	100 - 150			
Chromium (3) ppb	.13	.035 - .22			

UNREGULATED CONTAMINANTS

- The City of Barberton participated in the UCMR 3 (Unregulated Contaminants Monitoring Regulation) in 2014 with all results being zero except those listed under unregulated contaminants.

WATER-QUALITY TABLE FOOTNOTES

1 Turbidity is a measure of the cloudiness of 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, the Barberton Water Plant's highest recorded turbidity result for 2018 was 0.76 NTU (see footnote #10) and the lowest monthly percentage of samples meeting the turbidity limits was 99.7%.

2 One out of 30 city samples was found to have lead levels in excess of the action level of 15ppb.

3 Location of water tested; plant tap.

4 HAA samples collected from the same four locations as the TTHM samples in the distribution system.

5 Lead samples are analyzed every three years and were due in 2018.

6 TTHMs samples collected from four different locations in the city.

7 Copper samples are analyzed every three years and were due in 2018.

8 From the 30 samples collected, no samples were found to have copper in excess of the action level.

9 Location of water tested; Distribution system.

10 Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

11 The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest quarterly annual average ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

NOTICE OF VIOLATION: During a OEPA sanitary inspection of the Barberton Water Treatment facility conducted on Apr. 19th, Apr. 25th and May18th, 2018 OEPA personnel determined that our three ground water wells located on Pigeon and Wolf Creek, used to pump water into the reservoir when water level is low, were located in a floodplain and the casing, well cap, well vent and pumphouse floor did not extend a minimum of three feet above the one hundred year floodplain elevation or highest known flood elevation, whichever is higher. This is a violation of chapter 3745 and 6109 of the Ohio Revised Code. In response to this violation the city utilities dept. has torn down the well houses and hired Ohio Well Drilling Co. to build and install well platforms on site of the wells. They will mount the well pumps and motors on top of the platforms which will raise the well pumps a minimum of three feet above the floodplain.

For more information, please contact Terry Palmer at 330-848-6744 or at the Barberton WTP, 3365 Summit Rd., Norton, Ohio 44203

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

The data presented in this report are from the most recent testing done in accordance with the regulations. No data older than five years is included.

Although we ran tests for more than 100 contaminants, only the listed substances were found. All results are below the Maximum Contaminant level required.

ADDITIONAL FINISHED WATER TESTING FOR 2017

<u>Test</u>	<u>Unit</u>	<u>MCL</u>	<u>Average Detected Level</u>	<u>Range</u>	<u>Comment</u>	<u>Violation</u>
³ Total Hardness	ppm	N/A	151	56 - 260	Primarily calcium, magnesium content	No
³ Iron	ppm	300	0.02	0 – 0.08	Natural mineral, can cause staining	No
³ pH	units	N/A	7.3	6.6 – 7.9	A symbol for the degree of acidity or alkalinity of a solution	No
³ Total Alkalinity	ppm	N/A	110	42 - 170	Needed to neutralize acidity	No
³ Color	units	N/A	4.0	0 - 19	Clarity measurement	No
³ OrthoPhosphate (PO ₄)	ppm	N/A	0.7	0.39 – 0.82	Part of corrosion control	No
⁹ Total Coliform Bacteria	Colonies/100ml	N/A	0	0 - 0	Monitoring harmful bacteria levels	No

BARBERTON DRINKING WATER SOURCE ASSESSMENT SUMMARY

The City of Barberton public water system uses surface water drawn from Wolf Creek Reservoir and three ground water wells. 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 time to prepare.

The sand and gravel aquifer is also highly susceptible to potential contamination based on the following factors: the aquifer has a shallow depth to the water; there is no significant protective layer of low-permeability material between the aquifer and the ground surface; and potential significant contaminant sources exist within the protection area.

Potential contaminant sources within the City of Barberton's protection areas include agricultural runoff from row crops and animal waste facilities, inadequate semi-public and home sewage disposal systems, new housing and commercial development that could increase storm water runoff from roads, and parking lots, loss and fragmentation of a vegetated riparian corridor (stream buffers), leaks and spills from industrial, commercial, and hazardous material chemical storage areas and underground tanks, oil and gas wells, and transportation related spills.

The City of Barberton 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 water quality impacts can be further decreased by implementing measures to protect Wolf Creek Reservoir and the sand and gravel aquifer. More detailed information is provided in the City of Barberton's Drinking Water Source Assessment report, which can be obtained by calling Terry Palmer at (330) 848-6744 weekdays between 7:30 am & 3 pm, or by visiting <http://www.wapp.epa.ohio.gov/gis/swpa/OH7700411.pdf>.

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Barberton is responsible for providing high quality drinking water, but cannot control the variety of material 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>.

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 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 PWS.

WHAT ARE SOURCES OF CONTAMINATION TO 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 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 runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile 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, 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 human 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 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/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).

For more information, call The City of Barberton at (330) 848-6744 weekdays between 7:30 am & 3 pm.

Water Quality Data for community water systems throughout the United States is available on the internet at www.waterdata.com.

