



2018 ANNUAL DRINKING WATER QUALITY REPORT

MONROEVILLE MUNICIPAL AUTHORITY

219 SPEELMAN LANE

MONROEVILLE PA 15146

PWSID 5020027

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

The **Monroeville Municipal Authority** (MMA) is proud to present its 2018 Water Quality Report. This report provides our customers with a summary of where their drinking water comes from, how it is treated, and the results of water quality monitoring performed on a daily basis. To meet the Environmental Protection Agency (EPA) ruling requiring all U.S. water utilities to provide customers with this information, we will be posting our 2018 water quality report online by July 1, 2019. Please contact our offices if you would like a paper copy delivered to your home or business.

The MMA constantly strives to meet and exceed drinking water standards established by the Environmental Protection Agency (EPA), the Pennsylvania Department of Environmental Protection (PADEP), and the Allegheny County Health Department (ACHD). How do we do this? All of the employees at the MMA share the same goal – to provide our customers with safe and reliable drinking water at the lowest rate possible.

If you have questions or comments concerning the information presented in this report or other aspects of the MMA's operations, please contact the MMA administrative office at (412)372-2677. You may also visit our web site at www.monroevillewater.org. In addition, the MMA Board of Directors meets at 7pm on the third Monday of each month at 219 Speelman Lane. MMA Board meetings are open to the public.



SOURCE OF WATER:

During the entire 2018 calendar year, the MMA purchased finished drinking water from the Municipal Authority of Westmoreland County (MAWC). Information regarding MAWC water quality may be accessed by visiting www.mawc.org/consumer-confidence-reports.

The finished water that is provided by MAWC is obtained from both the Beaver Run Reservoir and Youghiogheny River. The MAWC raw water sources are potentially most susceptible to accidental spills along major transportation corridors, release of raw and/or under treated sewage, and storm water runoff from developed and/or agricultural areas. Also, Beaver Run is potentially susceptible to the cumulative release of petroleum products from nearby tank farms.

A Source Water Assessment of MAWC's intake water was completed in 2002 by the PA Department of Environmental Protection (PA DEP). The source water assessment public summaries can be found on the MMA website at <https://www.monroevillewater.org/sweeney> and <https://www.monroevillewater.org/yough>. Complete reports were distributed to municipalities, water suppliers, local planning agencies and PA DEP offices.



HEALTH INFORMATION:

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. 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 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 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 runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that your tap water is safe to drink, the US EPA and the PADEP have established regulations which limit the amount of certain contaminants in water provided by public water systems. The presence of these contaminants does not necessarily indicate that the water poses a health risk. Information about contaminants and potential health effects of chemicals detected in our drinking water are listed in this report. Further information can be obtained by calling the US EPA's Safe Drinking Water Hotline at (800)426-4791 or on the US EPA's website at <http://www.epa.gov/ground-water-and-drinking-water>.



SPECIAL MESSAGE FOR PEOPLE WITH SEVERELY WEAKENED IMMUNE SYSTEMS:

Some people may be more vulnerable to contaminants in drinking water than the general population. If you have any of the following medical conditions, care for a person having a medical condition, or are an immunocompromised individual, you should pay particular attention to the following information.

- Persons with cancer undergoing chemotherapy.
- Persons who have undergone organ transplants.
- People with HIV/AIDS or immune system disorders.
- Some elderly and/or infants which are particularly "at risk" from infections.

These people should seek advice about drinking water from their health care provider. The US EPA/CDC (Center for Disease Control & Prevention) guidelines on appropriate means to lessen the risk of infection by

Cryptosporidium and other microbial contaminants are available from the US EPA Safe Drinking Water Hotline (800)426-4791 or the US EPA's website: <http://www.epa.gov/ground-water-and-drinking-water>.



MONITORING YOUR DRINKING WATER AND DETECTED SAMPLE RESULTS:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2018. The State allows 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 is from prior years in accordance with the Safe Drinking Water Act. The tables presented show the results of our water-quality analyses. Every regulated contaminant that was detected in the water, even in the most minute traces, is listed here. Substances not detected are not included in the table. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the major sources of the contaminants, footnotes explaining the words and abbreviations used in the table. Many tests were conducted for other parameters including trace metals, pesticides, herbicides, and numerous organic chemicals such as industrial wastes and solvents.

Monroeville Municipal Authority PWSID 5020027 - January 1, 2018 to December 31, 2018								
CONTAMINANT	UNIT	MCL	MCLG	DATE TESTED	DETECTED LEVEL	RANGE	MAJOR SOURCES IN DRINKING WATER	VIOLATION
Total Chlorine	ppm	MRDL = 4	MRDLG = 4	2018	1.32	0.55 - 1.32	Water additive used to control microbes.	NO
HAA5s	ppb	60	NA	2018	40.32	27.7 - 58.3	By-product of drinking water disinfection.	NO
TTHMs	ppb	80	NA	2018	46.51	22 - 76.7	By-product of drinking water chlorination	NO
Fluoride	ppm	4	4	2018	0.78 (a) 0.64(b)	0.53-0.78(a) 0.1-1.1(b)	Water additive which promotes strong teeth.	NO
Microbial Contaminants - 50 routine samples per month, 0 out of 600 samples tested positive								
Contaminant	MCL in CCR Units	MCLG	DATE TESTED	HIGHEST % OF POSITIVE SAMPLES	RANGE	MAJOR SOURCES IN DRINKING WATER	VIOLATION	
Total Coliform Bacteria	5% of monthly samples are positive	0	2018	0.00%	0%	Naturally present in the environment.	NO	
Lead and Copper (Number of customer taps tested above Lead and/or Copper Action Level = 5 out of 240)								
Contaminant	UNIT	Action Level (AL)	Ideal Goal MCLG	DATE TESTED	90th Percentile Value 1/2 Qtr 3/4 Qtr		MAJOR SOURCES IN DRINKING WATER	VIOLATION
Lead	ppb	15	0	2016	1.76	3.42	Corrosion of household plumbing.	NO
Copper	ppm	1.3	1.3	2016	0.056	0.1	Corrosion of household plumbing.	NO
Water-Quality Table Footnotes								
(a) 2018 MMA Haymaker Pump Station								
(b) 2018 MAWC Meadowbrook Pump Station								

Municipal Authority of Westmoreland County - service from January 1, 2018 to December 31, 2018

				BEAVER RUN SYSTEM PWSID 5650032			INDIAN CREEK SYSTEM PWSID 5260036					
INORGANIC CHEMICALS	UNIT	MCL	MCLG	Date Tested	Detected Level	Range	Date Tested	Detected Level	Range	MAJOR SOURCE(S) IN DRINKING WATER	VIOLATION	
Nitrate	ppm	10	10	2018	0.69	(a)	2018	0.97	(a)	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	NO	
Nitrite	ppm	1	0	2018	ND		2018	ND			NO	
Barium	ppm	2	2	2018	0.033		2018	0.037			Mine discharge; drilling waste; copper smelting.	NO
Fluoride	ppm	4	4	2018	0.111		2018	ND			Naturally occurring; aluminum and fertilizer factory discharge.	NO
Mercury	ppm	2		2018	ND		2018	ND			Erosion, runoff from landfill/crop lands.	NO
Cyanide (Free)	ppm	0.2		2018	0.006		2018	ND			Mining extraction, Steel production	NO
TREATMENT TECHNIQUE (TT)	UNIT	MCL	MCLG	Date Tested	Detected Level	Range	Date Tested	Detected Level	Range	MAJOR SOURCE(S) IN DRINKING WATER	VIOLATION	
Turbidity	NTU	0.3	0	2018	0.11	(b)	2018	0.52	(c)	Soil runoff	NO	
Bacteria		>5.0%		2018	Absent	0.20%	2018	Absent	0.00%	Soil runoff	NO	
LT2 (Cryptosporidium)	Source water			2018	ND		2018	ND		Animal feces	NO	
TOTAL ORGANIC CARBON (TOC)	UNIT	MCL	MCLG	Date Tested	Range Required	Range Achieved	Date Tested	Range Required	Range Achieved	MAJOR SOURCE(S) IN DRINKING WATER	VIOLATION	
TOC	ppm	TT		2018	35%	12.7-24.4 (d)	2018	35%	30.4-39.2% (e)	Natural decaying matter	YES (d) Beaver Run Only	
RADIOACTIVE	UNIT	MCL	MCLG	Date Tested	Detected Level	Range	Date Tested	Detected Level	Range	MAJOR SOURCE(S) IN DRINKING WATER	VIOLATION	
Gross Alpha particles	pCi/L	15		2014	0.0		2014	0.0		Decay of natural and man-made deposits	NO	
Radium -226	pCi/L	5		2014	0.0		2014	0.0		Decay of natural and man-made deposits	NO	
Radium -228	pCi/L	5		2014	0.0		2014	0.0		Decay of natural and man-made deposits	NO	
Total Uranium	ug/l	30		2011	0.0		2014	0.0		Decay of natural and man-made deposits	NO	
DBP / ORGANICS	UNIT	MCL	MCLG	Date Tested	Detected Level	Range	Date Tested	Detected Level	Range	MAJOR SOURCE(S) IN DRINKING WATER	VIOLATION	
NDMA	ppm	NA	NA	2009	0.0022	(a)	2017	ND		Chloramine by-product	NO	

Water-Quality Table Footnotes

(a) Only one sample was required per monitoring period. (b) 100% of samples in compliance. (c) 95% of the measurements were less than 0.5 NTU, 95% of the measurements were <0.3 NTU. (d) MAWC did not meet the alternative compliance criteria required by the SDWA. (e) In months that the percent achieved was below required, there was no exceedance of the TT because MAWC met alternative compliance criteria as required by the PA Safe Drinking Water Act. **LT2** = (Long Term Enhanced Surface Water Treatment Rule) addresses the health effects associated with Cryptosporidium in surface water.

MAWC complete water quality report can be found at <http://www.mawc.org/consumer-confidence-report>. Radionuclides as well as an extensive list of organic chemicals were also analyzed for the raw water intake on the Beaver Run Reservoir. This data can be viewed on the IUP Beaver Run Project website at <http://lambic.nsm.iup.edu/BeaverRun>.



EXPLANATION OF MAWC VIOLATION:

The Municipal Authority of Westmoreland County (MAWC) violated a treatment technique for Total Organic Carbon (TOC). The Monroeville Municipal Authority (MMA) purchases your finished drinking water from the MAWC. **This was not an immediate risk. If it had been, you would have been notified immediately.** The MMA followed public notification requirements for this violation in March and April of 2019.

TOC has **NO HEALTH EFFECTS**. TOC may provide a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (TTHM's) and haloacetic acids (HAA5's). Drinking water containing these TTHM's and HAA5's in **EXCESS of their Maximum Contaminant Levels (MCL)** may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to increased risk of getting cancer.

Due to significant consistent rainfall during 2018 the TOC level in the raw source water in the MAWC Beaver Run Reservoir was persistently higher than normal especially in the 2nd and 4th quarters of 2018. MAWC was unable to remove the required amount of TOC in the 4th Quarter of 2018 increasing the TOC running annual average. MAWC made chemical treatment changes in its process system to reduce TOC further and has replaced the Granular Activated Carbon (GAC) in its filters to also increase removal of the TOC. These process changes have reduced the current level of TOC to well below the standard.

The MMA is currently and continues to be in full compliance with the TTHM and HAA5 Maximum Contaminant Levels (MCL). Disinfection Byproduct concentrations recorded before, during, and after the time that this violation occurred were all below the MCL.



INFORMATION ABOUT LEAD:

The Allegheny County Health Department notified the MMA that it qualified for reduced lead and copper sampling. The reduction is based on the results of the previous two consecutive 6-month monitoring periods conducted in 2016. The MMA system 90th percentile lead level was < 0.005 mg/L and the 90th percentile copper level was < 0.65 mg/L during these periods. The MMA now qualifies to sample for lead and copper every three years, with the next sampling occurring in June of 2019.

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 MMA is responsible for providing high quality drinking water, but cannot control the variety of materials used in household 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>.



UNREGULATED CONTAMINANT MONITORING RULE (UCMR 3, UCMR 4):

The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every five years, the EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. This national survey is one of the primary sources of information on occurrence and levels of exposure that the Agency uses to develop regulatory decisions for contaminants in the public drinking water supply. The UCMR 3 monitoring cycle of 2013-14 monitored for emerging contaminants in drinking water. The UCMR 4 monitoring cycle of 2018-19 includes monitoring for a total of 30 chemical contaminants: 10 cyanotoxins (nine cyanotoxins and one cyanotoxin group) and 20 additional contaminants (two metals, eight pesticides plus one pesticide manufacturing byproduct, three brominated haloacetic acid [HAA] disinfection byproducts groups, three alcohols, and three semivolatile organic chemicals [SVOCs]). You can learn more about UCMR 4 by accessing <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr4> or contacting the Safe Drinking Water Hotline at (800)426-4791.

Monroeville Municipal Authority PWSID 5020027 (2013-2014 Data)								
Unregulated Contaminants (UCMR3) MMA Distribution System Entry Point								
<i>Contaminant</i>	<i>UNIT</i>	<i>MCL</i>	<i>MCLG</i>	<i>DATE TESTED</i>	<i>Average Level</i>	<i>Range of Detections</i>	<i>MAJOR SOURCES IN DRINKING WATER</i>	<i>VIOLATION</i>
Chromium (Total)	ppb	(c)	(c)	2013-14	0.8	ND - 3.2	Naturally occurring element.	NO
Chromium-6	ppb	(c)	(c)	2013-14	0.55	0.4 - 0.9	Naturally occurring element.	NO
Molybdenum	ppb	(c)	(c)	2013-14	0.275	ND - 1.1	Naturally occurring element.	NO
Strontium	ppb	(c)	(c)	2013-14	107.8	97.3 - 123.6	Naturally occurring element.	NO
Unregulated Contaminants (UCMR3) MMA Distribution System Maximum Residence Time								
Chromium (Total)	ppb	(c)	(c)	2013-14	0.1	ND - 0.4	Naturally occurring element.	NO
Chromium-6	ppb	(c)	(c)	2013-14	0.053	0.04 - 0.07	Naturally occurring element.	NO
Molybdenum	ppb	(c)	(c)	2013-14	0.275	ND - 1.1	Naturally occurring element.	NO
Strontium	ppb	(c)	(c)	2013-14	106.1	91.5	Naturally occurring element.	NO
Water-Quality Table Footnotes								
(c) No MCL or MCLG established. 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.								

Monroeville Municipal Authority PWSID 5020027 - January 1, 2018 to December 31, 2018

Unregulated Contaminants (UCMR4) - Monitoring of HAA Groups, Cyanotoxins, and Additional Contaminants

<i>Contaminant</i>	<i>UNIT</i>	<i>MCL</i>	<i>MCLG</i>	<i>DATE TESTED</i>	<i>Level Detected</i>	<i>Range of Detections</i>	<i>MAJOR SOURCES IN DRINKING WATER</i>	<i>VIOLATION</i>
Bromochloroacetic Acid	ppb	(c)	(c)	2018	1.9	1.1 - 3	By-product of drinking water disinfection.	NO
Bromodichloroacetic Acid	ppb	(c)	(c)	2018	3.1	1.7 - 7	By-product of drinking water disinfection.	NO
Dichloroacetic Acid	ppb	(c)	(c)	2018	15.6	7.3 - 29	By-product of drinking water disinfection.	NO
Manganese	ppb	(c)	(c)	2018	4.0	ND - 8.2	Naturally occurring element.	NO
Monochloroacetic Acid	ppm	(c)	(c)	2018	0.001	ND - 0.005	By-product of drinking water disinfection.	NO
Total Haloacetic Acids - Br	ppb	(c)	(c)	2018	4.2	ND - 10	By-product of drinking water disinfection.	NO
Total Haloacetic Acids - Cl	ppb	(c)	(c)	2018	45.5	31 - 68	By-product of drinking water disinfection.	NO
Trichloroacetic Acid	ppb	(c)	(c)	2018	24.3	21 - 31	By-product of drinking water disinfection.	NO

Water-Quality Table Footnotes

(c) No MCL or MCLG established. 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.



DEFINITIONS / TERMS:

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

Locational Running Average (LRAA) – The average, computed quarterly, of all results taken at a monitoring location during the most recent four quarters.

Maximum Contaminant Level (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 (MCLG) – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set to allow for an additional margin of safety.

Maximum Residual Disinfectant Level (MRDL) – 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 Residual Disinfectant level goal (MRDLG) — 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.

Million Fibers Per Liter (MFL) - Measure of the presence of asbestos fibers that are longer than 10 micrometers.

Millirems per Year (mrem/yr) – A measure of radiation absorbed by the body.

Minimum Reporting Level (MRL) – For unregulated contaminant sampling. The minimum limit of a chemical required to be reported to the Environmental Protection Agency (EPA). The data collected from the UCMR 3 analyses are used in assessment monitoring and may contribute to determining future regulations that will set limits on the amount of the listed UCMR 3 chemicals in the future. The MRL is not a regulatory level and is only a reporting requirement at this time.

NTU = Nephelometric Turbidity Units, a regulatory measure of water clarity.

ppb = parts per billion, or micrograms per liter (ug/L)

pCi/L = picocuries per liter (a measure of radioactivity)

ppm = parts per million, or milligrams per liter (mg/L)

Total Organic Carbon (TOC) – The measure of the carbon content of organic matter. The measure provides an indicator of the concentration of organic matter in the water which could react with disinfection chemicals to form TTHMs or HAA5s.

Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5s) – A group of chemicals called “disinfection Byproducts” (DBPs) that form when natural organic matter in the river such as leaves and algae decompose and combine chemically with the chlorine added during the disinfection process.

Treatment Technique (TT) – A required process performed during water treatment intended to reduce the level of a certain contaminant or intermediate chemical.