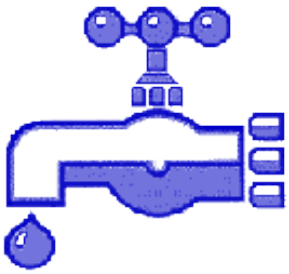

2016 ANNUAL DRINKING WATER QUALITY REPORT

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 2016 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 2016 water quality report online by July 1, 2017. 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 fourth Tuesday of each month at 219 Speelman Lane. MMA Board meetings are open to the public.

SOURCE OF WATER

During the 2016 calendar year, the MMA purchased finished drinking water from the Wilkinsburg-Penn Joint Water Authority (WPJWA) and then switched to the Municipal Authority of Westmoreland County (MAWC) on April 12, 2016. Information regarding WPJWA water quality may be accessed by visiting *www.wpjwa.com*. Information regarding MAWC water quality may be accessed by visiting *www.mawc.org/ccr*.

The WPJWA obtains its raw water from the Allegheny River at the Nadine Intake on Allegheny River Boulevard in Verona, PA. The raw water is classified as a "surface water supply." The quality of the Allegheny River is affected by mine acid drainage, livestock runoff, sanitary sewage runoff, plant discharges, underground and river pipelines, chemical storage tanks, river barges, railroad car chemicals and combined sewer overflows.

A Source Water Assessment of WPJWA's intake water was completed in 2002 by the PA Department of Environmental Protection (PA DEP). Overall, the Allegheny River Watershed has a moderate risk of significant

contamination. The source water assessment public summary can be found on the MMA website at *https://www.monroevillewater.org/WPSWassessment*. Complete reports were distributed to municipalities, water suppliers, local planning agencies and PA DEP offices.

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 immuno-compromised 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 WATER:

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, 2016. 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 date has been noted on the sampling results table.

DETECTED SAMPLE RESULTS:

The table presented herein shows the results of our water-quality analyses. Every regulated contaminant that we 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.

Chemical Contaminants - Monroeville Municipal Authority PWSID 5020027

Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation YES / NO	Source(s) of Contamination
Chlorine	MRDL = 4	MRDLG = 4	1.23	0.37 - 1.23	ppm	2016	NO	Water additive used to control microbes.
HAA5s	60	NA	33.4	13 -74	ppb	2016	NO	By-product of drinking water disinfection.
TTHMs	80	NA	38	21 - 85	ppb	2016	YES	By-product of drinking water chlorination
Fluoride	2	2	1.19 (f) 0.64 (g)	0.41-1.19(f) 0.06-1.28(g)	ppm	2016	NO	Water additive which promotes strong teeth.

Microbial Contaminants - *52 routine samples per month, 2 out of 624 samples tested positive*

Contaminant	MCL in CCR Units	MCLG	Highest % of Positive Samples	Range of Detections	Sample Date	Violation YES / NO	Source(s) of Contamination
Total Coliform Bacteria	5% of monthly samples are positive	0	3.85% Highest % of positive samples per month	0 - 3.85 %	2016	NO	Naturally present in the environment.

Lead and Copper *(Number of customer taps tested above Lead and/or Copper Action Level = 5 out of 240)*

Contaminant	Action Level (AL)	Ideal Goal MCLG	90th Percentile Value 1/2 Qtr	3/4 Qtr	Units	Sample Date	Violation YES / NO	Source(s) of Contamination
Lead	15	0	1.76	3.42	ppb	2016	NO	Corrosion of household plumbing.
Copper	1.3	1.3	0.056	0.1	ppm	2016	NO	Corrosion of household plumbing.

Unregulated Contaminants (UCMR3) MMA Distribution System Entry Point

Contaminant	MRL	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation YES / NO	Source(s) of Contamination
Chromium (Total)	0.02	NA	0.8	ND - 3.2	ppb	2013-14	NO	Naturally occurring element.
Chromium-6	0.03	NA	0.55	0.4 -0.9	ppb	2013-14	NO	Naturally occurring element.
Molybdenum	1	NA	0.275	ND - 1.1	ppb	2013-14	NO	Naturally occurring element.
Strontium	0.3	NA	107.8	97.3 - 123.6	ppb	2013-14	NO	Naturally occurring element.

Unregulated Contaminants (UCMR3) MMA Distribution System Maximum Residence Time

Contaminant	MRL	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation YES / NO	Source(s) of Contamination
Chromium (Total)	0.02	NA	0.1	ND - 0.4	ppb	2013-14	NO	Naturally occurring element.
Chromium-6	0.03	NA	0.053	0.04 - 0.07	ppb	2013-14	NO	Naturally occurring element.
Molybdenum	1	NA	0.275	ND - 1.1	ppb	2013-14	NO	Naturally occurring element.
Strontium	0.3	NA	106.1	91.5	91.5 - 117	2013-14	NO	Naturally occurring element.

Wilkinsburg-Penn Joint Water Authority Detected Contaminants PWSID 5020056
(2016 Monroeville Municipal Authority Bulk Water Supplier) *Service from January 1, 2016 to April 10, 2016*

Contaminant	*MCL*	*MCLG*	*Level Detected*	*Range of Detections*	*Units*	*Sample Date*	*Violation YES / NO*	*Source(s) of Contamination*
Turbidity	TT =95% of samples < 0.3 NTU	0	0.06 (a) 100%	0.02 - 0.12 (a)	NTU	2016	NO	Soil runoff.
Fluoride	2	2	0.75	0.43 - 0.96	ppm	2016	NO	Water additive which promotes strong teeth.
Xylenes (Total)	10	10	0.0386	0.0386 (e)	ppm	2012	NO	Used for making other substances and solvents.
Ethylbenzene	0.7	0.7	0.00363	0.00363 (e)	ppm	2012	NO	Used for making other substances and solvents.
Styrene	0.1	0.1	0.00108	0.00108 (e)	ppm	2012	NO	Used for making other substances and solvents.
Nitrate	10	10	0.42	0.42	ppm	2015	NO	Runoff from fertilizer use.
Total Organic Carbon	TT > 1	NA	1.2	0.8 -1.6	ppm	2016	NO	Naturally present in the environment.
Beta Photon Emitters	50	0	1.92 (b,c)	0 - 1.92 (b,c)	pCi/L	2011	NO	Decay of natural and man-made deposits.
Radium 226, 228	5	0	1.32 (b,c,d)	0 - 1.32 (b,c,d)	pCi/L	2011	NO	Erosion and decay of natural deposits.
Uranium	30	0	0.62 (b,c)	0.07 - 0.62 (b,c)	ppb	2011	NO	Erosion of natural deposits
Bromide	NA	NA	34.5	19 - 62	ppb	2011	NO	Wastewater from hydraulic fractured wells.
Sulfate	250	250	64.8	39.5 - 112	ppm	2011	NO	Coal mining operations, naturally occurring.
Asbestos	7	7	0.16	0.16	MFL	2011	NO	Erosion of asbestos containing material.

(a) 100% of Turbidity samples met the Turbidity limits specified in the PA Safe Drinking Water Act.

(b) Testing required every nine (9) years.

(c) Compliance with MCL may be assumed without further analysis if the average concentration of Gross Beta Particle Activity is less than 50 pCi/L. The MCL for Beta Particles id 4 mrem/yr. EPA considers 50 pCi/L to be the level of concern for Beta Particles.

(d) Result is at the analytical instrument minimum detection level.

(e) 2013 - 2016 results have been below the minimum detection level

(f) 2016 MMA Haymaker Pump Station Entry Point

(g) 2016 Meadowbrook Pump Station MMA Entry Point

Municipal Authority of Westmoreland County - service from April 12, 2016 to December 31, 2016											
Detected Contaminants				BEAVER RUN SYSTEM PWSID 5650032			INDIAN CREEK SYSTEM PWSID 5260036				
CONTAMINANT	UNIT	MCL	MCLG	Date Tested	Detected Level	Range	Date Tested	Detected Level	Range	MAJOR SOURCES	VIOLATION
INORGANIC CHEMICALS											
Nitrate	ppm	10	10	2016	0.55	(a)	2016	1.00	(a)	Runoff from fertilizer use;	NO
Nitrite	ppm	1	0	2016	ND		2016	ND		Leaching from septic tanks, sewage; Erosion of natural deposits.	NO
Barium	ppm	2	2	2016	ND		2014	ND		Mine discharge; drilling waste; copper smelting	NO
Mercury	ppm	2		2016	ND		2016	0.4		Erosion, runoff from landfill/crop lands.	NO
TREATMENT TECHNIQUE (TT)											
Turbidity	NTU	0.3	0	2016	0.1	(c)	2016	0.14	(c)	Soil runoff	NO
Bacteria	>5.0%			2016	(b)	0.20%	2016	(b)	0.00%		NO
LT2 (Cryptosporidium)	Source water			2016	ND		2016	ND		Animal feces	NO
Total Organic Carbon (TOC)					Range Required	Range Achieved		Range Required	Range Achieved		
	ppm	TT		2016	35%	10.5%-23.7%	2016	35%	27.8-36.8%	Natural decaying matter	NO
RADIOACTIVE											
Gross Alpha particles	pCi/L	15		2014	3.0		2011	0.0		Decay of natural and man-made deposits	NO
Radium -226	pCi/L	5		2014	1.0		2011	0.0			NO
Radium -228	pCi/L	5		2014	0.9		2011	0.0			NO
Total Uranium	ug/l	30		2011	0.0		2011	0.0			NO
DBP / Organics											
NDMA	ppm	NA	NA	2009	0.0022	(a)	2016	ND		Chloramine by-product	NO

Water-Quality Table Footnotes

(a) Only one sample was required per monitoring period. (b) Bacteria absence(c) 100% of samples in compliance.

LT2 = (Long Term Enhanced Surface Water Treatment Rule) addresses the health effects associated with Cryptosporidium in surface water

VIOLATIONS AND POSSIBLE HEALTH EFFECTS:

During the 1st Quarter of 2016 our water system exceeded a Locational Running Annual Average (LRAA) drinking water standard. The standard is calculated based on the annual average of quarterly sampling. At the time, all current TTHM sampling concentrations ranged between 0.021 and 0.037 mg/L, but the annual average of one site exceeded the maximum contaminant level (MCL). This incident was not an emergency, and as our customers, you have the right to know what happened and what we are doing to correct this situation.

Quarterly testing results we received on February 9, 2016, showed that one sampling site in the eastern portion of our distribution system had exceeded the LRAA MCL for TTHMs. The standard MCL for TTHMs is a LRAA of 0.080 mg/L. TTHMs at this one site were found at an LRAA of 0.0805 mg/L. The results indicated a dramatic decrease in TTHM concentrations compared to the fourth and third quarter results of 2015. Public notification

requirements were met and control strategies were implemented to minimize TTHMs formation. Increased system flushing, reduced tank storage volumes, and modification of MMA disinfection practices where implemented, while continuing to provide adequate protection against pathogens. **The MMA returned to compliance in the 2nd quarter of 2016**.

The U.S. Environmental Protection Agency sets standards for controlling the levels of disinfectants and disinfection by-products (DBPs) in drinking water because some people who drink water containing TTHMs in excess of the MCL, **over many years**, may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of cancer.

INFORMATION ABOUT LEAD:

Recently, 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.*

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.

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

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

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.

Unregulated Contaminant Monitoring Rule 3 (UCMR 3) – The UCMR provides the EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. These data serve as a primary source of occurrence and exposure information that the agency uses to develop regulatory decisions. Unregulated contaminants are those that do not yet have a drinking water standard set by the EPA. The UCMR specifically uses both assessment monitoring of chemicals and screening surveys of hormones. You can learn more about UCMR 3 by accessing *http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3* or contacting the Safe Drinking Water Hotline at (800)426-4791. Further, our water system has sampled for specific chemicals that may have not been specifically listed in our water quality report. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office at (412)372-2677.