Plum Borough Municipal Authority 2021 Annual Drinking Water Quality Report

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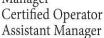
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William Lang Michael DiGuilio





Este informe contiene informacion muy importante sobre su agua de beber. Traduzcalo o hable con alquien que lo entienda bien. (This report contains very important information about your drinking water. Translate it, or speak to someone who understands it.)

The Plum Borough Municipal Authority (PBMA) is pleased to present its 2021 Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to our customers every day. Our constant goal is to provide you with a dependable supply of drinking water. We are committed to ensuring the quality of your water.

The Plum Borough Municipal Authority is pleased to report that our drinking water meets federal and state requirements. If you have any questions about this report or concerning your water utility, please contact Bill Lang, Certified Operator or J. Howard Theis, Manager at (412)793-7331 between 8:00 A.M. - 4:30 P.M. Monday through Friday. We want our valued customers to be informed about their water utility. If you want to learn more, you may attend the PBMA Board of Directors meetings held on the third Thursday of each month at 6:00 P.M. at the Municipal Authority Building located at 4555 New Texas Road, Pittsburgh, PA 15239.

If you have questions or comments concerning the information presented in this report or other aspects of the PBMA operations, please contact the PBMA administrative office at (412) 793-7331. You may also visit our web site at www.plumboroughma.com

QUALITY CUSTOMER SERVICE

The Plum Borough Municipal Authority routinely monitors for constituents in your drinking water according to Federal and State laws. The table on the next page shows the results of our monitoring for the period of January 1st to December 31st, 2021. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

The Municipal Authority of Westmoreland County changes their disinfection process from Chlorine to Chloramines during the months of May thru October.

BACKFLOW/CROSS CONNECTION PROGRAM

Plum Borough Municipal Authority continues in our efforts of staying in compliance with the "Safe Drinking Water Act" by monitoring locations posing the greatest degree of hazard to our water system by enforcing our "Backflow/Cross Connection Program". These locations are classified as newly constructed, major renovated, commercial & industrial consumers or consumers classified as potential polluters. Consumers must have their backflow systems inspected annually by a certified plumber and submit a certified report to the Authority. If you desire additional information about the Backflow/Cross Connection Program, please contact our office at 412-793-7331.

UPGRADE OF DISTRIBUTION SYSTEM

During 2021 the Authority completed Phase 1 of Sardis Road, the New Texas Road & Roberts Road waterline replacement projects. The Sardis Road project encompassed the replacement of approximately 2,450' of 8" cast iron pipe. The installation of 2,413' of 12", 344' of 8", & 24' of 6" PVC-C900 waterline & two new fire hydrants. The Project started @ the intersection of Webster Road and ran to house #4967 Sardis Road. Total project was \$544,200.

The New Texas Road project began @ the intersection of Renton Road and continued to the High School water pump station. The project included the replacement of approximately 7,400' of cast iron & transite pipe. The installation consisted of 7,376' of 12", 198' of 8", & 55' of 6" PVC-C900 waterline and 7 new fire hydrants. Total cost for the project was \$1,561,400.

The Roberts Road project consisted of the replacement of 735' of 6" cast iron waterline and the installatin of 735" of 8" PVC-C900 waterline. The total construction cost was \$152,640.

EXCESSIVE WATER PRESSURE / PER THE 2015 UNIFORM PLUMBING CODE

Where static water pressure in the water supply piping is exceeding 80 psi (552 kPa), an approved – type pressure regulator may be used to reduce static

An approved expansion tank shall be installed in the cold-water distribution piping downstream of each such regulator to prevent excessive pressure from developing due to thermal expansion and to maintain the pressure settings of the regulator. Expansion tanks used in potable water systems intended to supply drinking water shall be in accordance with NSF 61. The expansion tank shall be properly sized and installed in accordance with the manufacturer's installation instructions and listings.

Required Consumer Confidence Report (CCR) statement Addressing Lead 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. MAWC 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.eps.gov/safewater/lead."

omfidence.

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IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

AVAILABILITY OF MONITORING DATA FOR UNREGULATED CONTAMINANTS

FOR PLUM BOROUGH MUNICIPAL AUTHORITY.

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA.

The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that this data is available.

PUBLIC NOTIFICATION NEWS

As part of the requirements of the Public Notification Rule Promulgated in 2009, Plum Borough Municipal Authority now has the Spitfire notification system. This system will be administered by the Authority. This will enable PBMA to get in contact with our customers in case the need presents itself (i.e. Tier 1 violations, health warning, areas of flushing, water conservation orders, etc.) in the quickest and most efficient way. The Authority encourages you to please provide our office with any changes to your emergency contact telephone numbers.

PLANNED AUTHORITY UPGRADES

In 2022 the Authority started the Maple Street waterline relocation/replacement project. The new main water line has been installed. The Authority will be awarding in 2022 a Contract to a plumber to have the service lines installed and connected to the homes involved. Additionally, the Authority has recently bid the Phase II Sardis Road waterline replacement project. The project will begin near the Westmoreland Co. line and end at the intersection of Renton Road. The estimated distance is 4,850' and the estimated cost is \$1,112,650. Both the Maple St. & Sardis Road waterline projects are expected to be completed in 2022. The Authority is also planning to repaint the Logans Ferry water storage tank. The estimated cost for this project is \$300,000.

The Authority continues to survey & plot the Authority's water system on its GPS mapping system. We are also continuing to utilize PSN as our Third-Party billing remitter. You can visit our web-site @ www.plumboroughma.com for more information.

To our Valued Customers, you have our promise that we will continue to strive to protect your sensitive information, while protecting you, your family members and the environment. It is always our intent to provide you with a safe, reliable product and services at the lowest possible price.

SOURCE OF WATER

During the entire 2021 calendar year, the PBMA 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/ccr.

The finished water that is provided by MAWC is obtained from the Beaver Run Reservoir. 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.

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 though the ground, it dissolves naturally occurring minerals and radioative 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:

- Microbiological 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 water runoff, industrial or domestic
 wastewater discharges, oil & gas production, mining and farming.
- Pesticides and herbicides which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- 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.
- Radioactive contaminants, which can be naturally occurring or be the result of oil & 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 a 800-426-4791or on the US EPA's website at http://www.epa.gov/ground-water-and-drinking-water.

NOTICE: IMPORTANT INFORMATION

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 Cryptos poridium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791), or the EPA website https://www.epa.gov/safewater.

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	2.38	0.20-2.38	ppm	2021	NO control mic	Water additive used to robes
HAA5s	60	NA	29	7-51	ppb	2021	NO	By-product of drinking water disinfection
TTHMs	80	NA	43	28-57	ppb	2021	NO	By-product of drinking water chlorination
Fluoride	4	4	0.094	(f-g)	ppm	2021	NO	Water additive which promotes strong teeth
Micr	obial Con	taminaı	1ts - 36 rou	utine samp	es per mon	ith, 2 out o	of 443 samp	les tested positive
Contaminant	MCL in CCR Units	MCLG	Highest Percent of Positive Samples		Range of Detections	Sample Date	Violation YES/NO	Source(s) of Contamination
Total Coliform	5% of monthly	0	2.7% Highest % of positive		0-2.7%	2021	NO	Naturally present

Lead and Copper (Number of customer taps tested above Lead and/or Copper Action Level = 0 out of 30) (2021 Results)

Highest % of positive samples per month

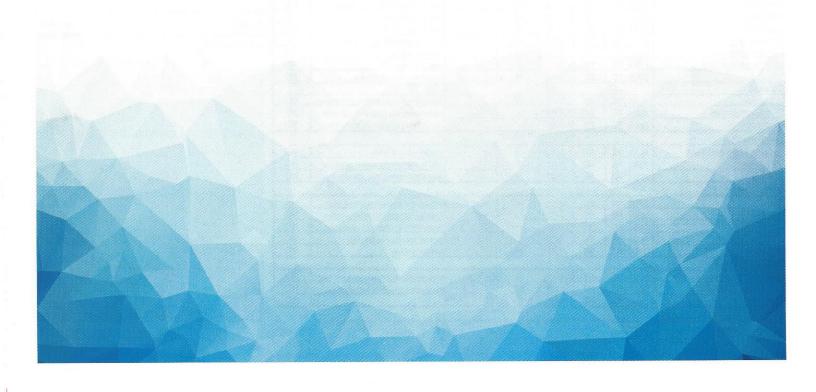
Bacteria

samples are positive

Naturally present in the environment

Contaminant	Action Level (AL)	Ideal Goal MCLG	90th Percentile Value		Units	Sample Date	Violation YES/NO	Source(s) of Contamination	
Lead	15	0		0	ppb	2021	NO	Corrosion of Household Plumbing	
Copper	1.3	1.3		0.074	ppm	2021	NO NO	Corrosion of Household Plumbing	

Water-Quality Table Footnotes: (f) Meadowbrook Pump Station. (g) Hankey Tank. Meadowbrook Pump Station. 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 contaminents in drinking water and whether future regulation is warranted.



2021

	DEAVER RUM SYSTEM							
	T				Highest Compliance			
				Year	Level	Range of		
PARAMETER	IUNIT	MCL	MCLG	Sampled	Detected	Detection	MAJOR SOURCES	VIOLATI
Total Chlorine Residual				2000				
Entry Point	ppm	0.2	MinRDL		500	1.0-2.4	Added by the Water Treatment Plant	NO
Distribution (RAA)	ppm	4.0	MRDL	2021	F 2 F 3	0.20-2.92	for disinfection	NO
ORGANIC CHEMICALS								
Total Trihalomethanes	ppb	80	0	2021	52.0	26.5-64.2	By-product of drinking water chlorination	NO
Halo Acetic Acids 5	ppb	60	0	2021	43.3	1.0-54.9	By-product of drinking water chlorination	NO
Other VOCs/SOCs## (see list below)	1			2021	ND	(a)		NO
(See ust Delow)	e Review		Date - Total		range	range		
Total Organic Carbon (TOC)			35527928		required	achieved	Natural decaying matter	
	ppm	TT	11	2021	35%	11.04-30.89 (9		NO
TREATMENT TECHNIQUE (TT)	100000		Name of				i	
Turbidity	NTU	0.3	0	2021	0.222	(f)	Soil runoff	NO
Bacteria		>5.09	4-200-000-000-000-000-000-000-000-000-00	2021	А	0.20%		NO
LT2 (Cryptosporidium oocysts/L)		e wat	er	2017 ND			Animal feces	NO
INORGANIC CHEMICALS								
Nitraté	ppm	10	10	2021	0.41	(a)	Runoff from fertilizer use;	NO
Nitrite	ppm	1	0	2021	ND	(a)	Leaching from septic tanks, sewage;	
	5						Errosion of natural deposits.	
Barium	ppm	2	2	2021	0.032	(a)	Mine discharge; drilling waste;	NO
		-					copper smelting	
Fluoride	ppm	4	4	2021	0.094	(a)	Naturally occuring; aluminum and fertilizer	NO
W. Carlotte							factory discharge	
Mercury	ppm	2		2021	ND -	(a)	Erosion, runoff from landfill/crop lands.	NO
Cyanide (Free)	ppm	0.2		2021	ND	(a)	Mining extraction, Steel production	NO
Other inorganics				2021	ND	(a)		NO
(see list below)				1000				
RADIOACTIVE	100000							
Gross Alpha particles ##	pCi/L	15		2014	0.0		Decay of natural and man-made deposits	NO
Radium -226 ##	pCi/L	5	-	2014	0.0			NO
Radium -228 ##	pCi/L	5		2014	0.0	THE PER		NO
Total Uranium ##	ug/l	30		2020	0.0	(c)		NO
DBP / Organics								
NDMA	ppm	NA	NA	2020	ND	(a)	Chloramine by-product	NO
UCMR4				1114				
AM1 (Metals, Pesticides, Alcohol	s, Sem	volat	iles)					
Metals								
germanium	ppb	NE	NE	2019	ND		By-product of zinc ore production	NO
manganese	ppb	NE	NE	2019	5.02	1.5-5.02	By-product of steel production	NO
Pesticides								
alpha-hexachlorocyclohexane	ppb	NE	NE	2019	ND	10.00	used as an insecticide	NO
chlorpyrifos	ppb	NE	NE	2019	ND		used as an insecticide, mitticide & acaracide	NO
dimethipin	ppb	NE	NE	2019	ND		used as a herbicide and plant regulator	NO
ethoprop	ppb	NE	NE	2019	ND		used as an insecticide.	NO
oxyfluorfen	ppb	NE	NE	2019	ND		used as an herbicide	NO
profenofos	ppb	NE	NE	2019	ND		used as an insecticide and acaricide	NO
tebuconazole	ppb	NE	NE	2019	ND ND		used as a fungicide	NO
total permethrin (cis- & trans-) tribufos	ppb	NE NE	NE NE	2019	ND ND		used as an insecticide	NO
Alcohols	hhn	IAC	IVE	2019	ND		used as an insecticide defoliant	NO
1-butanol	ppb	NE	NE	2019	ND		used as solvent, food additive & other chem.	NO
2-methoxyethanol	ppb	NE	NE	2019	ND ND		used as sconsumer products & synthetics	NO
2-propen-1-ol	ppb	NE	NE	2019	ND		used in flavorings, perfumes & other chem.	NO
Semi-volatiles	1							
butylated hydroxyanisole	**************************************		NE	2019	ND	Territoria	used as a food additive	NO
	pph	NE		~~ ~		14634	used in prod of dyes, rubber, pesticides	NO
	ppb	NE NE		2019	ND		Or have at all controlled by the control of	NO
o-toluidine	ppb	NE NE NE	NE NE	2019 2019	ND ND	mark the same	used in pharmaceuticals, flavoring etc.	
o-toluidine quinoline	-	NE	NE	2019 2019	The second second second second		used in pharmaceuticals, flavoring etc.	
o-toluidine quinoline <i>AM2 (HAA)</i>	ppb ppb	NE NE	NE NE	2019	ND	31.8-51.5		NO
o-toluidine quinoline <i>AM2 (HAA)</i> HAA5	ppb ppb	NE NE NE	NE NE NE	2019 2019	ND 51.5	31.8-51.5 4.81-7.12	By-product of drinking water chlorination	NO NO
o-toluidine quinoline <i>AM2 (HAA)</i> HAA5 HAABr	ppb ppb ppb	NE NE NE	NE NE NE NE	2019 2019 2019	ND 51.5 7.12	4.81-7.12	By-product of drinking water chlorination By-product of drinking water chlorination	NO
o-toluidine quinoline <i>AM2 (HAA)</i> HAA5 HAABr HAA9	ppb ppb ppb ppb	NE NE NE	NE NE NE	2019 2019	51.5 7.12 58.62	4.81-7.12 36.9-58.6	By-product of drinking water chlorination By-product of drinking water chlorination By-product of drinking water chlorination	Education Assessment Conference
o-toluidine quinoline <i>AM2 (HAA)</i> HAA5 HAABr HAA9 TOC	ppb ppb ppb	NE NE NE NE	NE NE NE NE NE	2019 2019 2019 2019	ND 51.5 7.12	4.81-7.12	By-product of drinking water chlorination By-product of drinking water chlorination	NO NO
o-toluidine quinoline <i>AM2 (HAA)</i> HAA5 HAABr HAA9 TOC Bromide	ppb ppb ppb ppb ppb ppb	NE NE NE NE NE NE	NE NE NE NE NE NE	2019 2019 2019 2019 2019	51.5 7.12 58.62 2.31	4.81-7.12 36.9-58.6	By-product of drinking water chlorination By-product of drinking water chlorination By-product of drinking water chlorination Naturally occurring organic matter	NO NO
o-toluidine quinoline AM2 (HAA) HAA5 HAABr HAA9 TOC Bromide AM3 (Cyanotoxins) Total Microcystins	ppb ppb ppb ppb ppb ppb	NE NE NE NE NE NE	NE NE NE NE NE NE	2019 2019 2019 2019 2019	51.5 7.12 58.62 2.31	4.81-7.12 36.9-58.6	By-product of drinking water chlorination By-product of drinking water chlorination By-product of drinking water chlorination Naturally occurring organic matter	NO NO
o-toluidine quinoline AM2 (HAA) HAA5 HAABr HAA9 TOC Bromide AM3 (Cyanotoxins)	ppb ppb ppb ppb ppb ppb	NE NE NE NE NE NE	NE NE NE NE NE NE NE	2019 2019 2019 2019 2019 2019	ND 51.5 7.12 58.62 2.31 ND	4.81-7.12 36.9-58.6	By-product of drinking water chlorination By-product of drinking water chlorination By-product of drinking water chlorination Naturally occuring organic matter Naturally occuring	NO NO NO

DEFINTIONS/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 MCLG's 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. MCLG's 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 contamination.

Million Fiber 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 (AL) -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 cabon 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 for disinfection process.

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

Unregulated Contaminant Monitoring Rule 3 (UCMR 3) - The UCMR 3 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 coocurence 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 conatcting the Safe Drinking Water Hotline at (800) 426-4791. Further, our water system has sampled for sepcific chemicals that may have not been specifically listed in our water quality report. As our customer, 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) 793-7331.

