

2017 \_\_\_\_\_ **ANNUAL DRINKING WATER QUALITY REPORT**

**PWSID #:** 5630045 \_\_\_\_\_ **NAME:** Tri-County Joint Municipal Authority \_\_\_\_\_

*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.)

**WATER SYSTEM INFORMATION:**

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Keith N. Marucci \_\_\_\_\_ at 724-377-2211 \_\_\_\_\_. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first Wednesday of each month at 6:00pm at the Authority Offices - 26 Monongahela Ave Fredericktown PA 15333. \_\_\_\_\_

**SOURCE(S) OF WATER:**

Our water source(s) is/are: (Name-Type-Location)

Our water source is the Monongahela River which is a community water source located in East Bethlehem, Washington County.

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A Source Water Assessment of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our source(s) of is/are potentially most susceptible to [insert potential Sources of Contamination listed in your Source Water Assessment Summary]. Overall, our source(s) has/have [little, moderate, high] risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: [www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045](http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045). Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP Washington Regional Office, Records Management Unit at (724) 847-5270.

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* (800-426-4791).

**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, 2017. 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.

**DEFINITIONS:**

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

*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 allow for a margin of safety.

*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.

*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.

*Minimum Residual Disinfectant Level (MinRDL)* - The minimum level of residual disinfectant required at the entry point to the distribution system.

*Level 1 Assessment* – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

*Level 2 Assessment* – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

*Mrem/year* = millirems per year (a measure of radiation absorbed by the body)

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

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

*ppq* = parts per quadrillion, or picograms per liter

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

*ppt* = parts per trillion, or nanograms per liter

## DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Barium	2	2	0.032	-	ppm	2017	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2	2	0.403	-	ppm	2017	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	10	10	0.47	-	ppm	2017	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Di(2-Ethylhexyl) Adipate (SOC)	0.4	400	0.00278	-	ppm	2017	N	Discharge from chemical factories.
Di(2-Ethylhexyl) Phthalate (SOC)	0.006	6	0.00308	-	ppm	2017	N	Discharge from rubber and chemical factories.
Hexachlorobenzene(SOC)	0.001	1	0.00051	-	ppm	2017	N	Discharge from metal refineries and agricultural chemical factories.
Benzo(A)Pyrene (SOC)	0.0002	200	0.0303	-	ppm	2017	Y	Leaching from linings of water storage tanks and distribution lines.
Haloacetic Acids (HAA5)	60	60	35.99	30.75-44.73	ppb	2017	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	80	80	71.86	39.93-115.25	ppb	2017	Y	By-product of drinking water disinfection.

\*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

<b>Entry Point Disinfectant Residual</b>							
<b>Contaminant</b>	<b>Minimum Disinfectant Residual</b>	<b>Lowest Level Detected</b>	<b>Range of Detections</b>	<b>Units</b>	<b>Sample Date</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Chlorine	0.2	1.75	1.75-2.48	ppm	2017	N	Water additive used to control microbes.

<b>Lead and Copper</b>							
<b>Contaminant</b>	<b>Action Level (AL)</b>	<b>MCLG</b>	<b>90<sup>th</sup> Percentile Value</b>	<b>Units</b>	<b># of Sites Above AL of Total Sites</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Lead	15	0	0	ppb	1 out of 30	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.038	ppm	0 out of 30	N	Corrosion of household plumbing.

<b>Microbial (related to Assessments/Corrective Actions regarding TC positive results)</b>					
<b>Contaminants</b>	<b>TT</b>	<b>MCLG</b>	<b>Assessments/ Corrective Actions</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
Total Coliform Bacteria	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See detailed description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Naturally present in the environment.

<b>Microbial (related to E. coli)</b>					
<b>Contaminants</b>	<b>MCL</b>	<b>MCLG</b>	<b>Positive Sample(s)</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
<i>E. coli</i>	Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .	0	0	N	Human and animal fecal waste.
<b>Contaminants</b>	<b>TT</b>	<b>MCLG</b>	<b>Assessments/ Corrective Actions</b>	<b>Violation Y/N</b>	<b>Sources of Contamination</b>
<i>E. coli</i>	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Human and animal fecal waste.

<b>Turbidity</b>
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Contaminant	MCL	MCLG	Level Detected	Sample Date	Violation Y/N	Source of Contamination
Turbidity	TT=1 NTU for a single measurement	0	0.097NTU	11/6/17	N	Soil runoff
	TT= at least 95% of monthly samples $\leq$ 0.3 NTU		100 %	2017	N	

<b>Total Organic Carbon (TOC)</b>					
Contaminant	Range of % Removal Required	Range of percent removal achieved	Number of quarters out of compliance	Violation Y/N	Sources of Contamination
TOC	25-35	27.2-46	3	N	Naturally present in the environment

#### **DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:**

About our Benzo(A)Pyrene (SOC) violation: Sources of Benzo(A)Pyrene can be from industrial processes or any other activity that involves combustion of an organic material. Some people drink water containing Benzo(A)Pyrene in excess over a long period of time have the risk of developing cancer or have harmful changes to their nervous system and organs. Compliance was achieved after public notice was issued.

About our Trihalomethanes (TTHM) violation: Some people who drinking water containing trihalomethanes in excess of the MCL over many years could experience problems with their liver, kidneys or central nervous system and may have an increased risk of getting cancer. Public notification for these violations were posted and compliance was achieved. If you have any additional questions, please call us at 724-377-2211 or the PA DEP Regional Drinking Water Office of Washington County 724-847-5270.

#### **OTHER VIOLATIONS:**

A failure to monitor/report routine samples for Inorganic Chemicals (IOCs), TOC occurred in 2017. Violation was addressed and compliance was achieved. An average MCL violation was issued for Benzo(a)Pyrene and Trihalomethanes in 2017. Public notice was issued so compliance was achieved.

TTHMs & HAA5s did not fit in table 1 Chemical Contaminates above.

We posted our CCR on our website but we failed to deliver our 2016 CCR to the DEP by July 1, 2016. We have since submitted this CCR and returned to compliance.

#### **EDUCATIONAL INFORMATION:**

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 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 stormwater run-off, 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, urban stormwater

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 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 tap water is safe to drink, EPA and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations establish limits for contaminants in bottled water which 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 Environmental Protection Agency's *Safe Drinking Water Hotline* (800-426-4791).

**Information about Lead**

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.

\_\_\_\_\_ 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.epa.gov/safewater/lead>.

**OTHER INFORMATION:**

There were no exceedances for treatment techniques.

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