

2016 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 Tom Gigliotti 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. Meetings are held on the First Wednesday of each month at 6:00 PM at the Authority Offices, 26 Monongahela Avenue, Fredericktown, PA 15333.

SOURCE(S) OF WATER:

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

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) are potentially most susceptible to transportation corridors/road deicing, "Wildcat" sewers, combined sewer outfalls, utility substations, marinas, river barges/shipping, urban areas, power plants, strip mines, and wastewater treatment. Overall, our source(s) have high risk of significant contamination. A summary report of the Assessment is available on the *Source Water Assessment & Protection web page* at (<http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm>). 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, 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.

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.

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 | 0.031 | - | ppm | 2015 | N | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Fluoride | 2* | 4 | 0.698 | - | ppm | 2015 | N | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Haloacetic Acids (HAA5) | 60 | NA | 44.2 | 17.1-63.9 | ppb | 2016 | N | By-product of drinking water disinfection |
| Total Trihalomethanes (TTHM) | 80 | NA | 98.9 | 50.6-152 | ppb | 2016 | Y | By-product of drinking water disinfection |
| Chlorine | MRDL=4 | MRDL G=4 | 1.82 | 1.73-2.52 | ppm | 2016 | N | Water additive used to control microbes |

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

| Entry Point Disinfectant Residual | | | | | | | |
|------------------------------------------|-------------------------------|-----------------------|---------------------|-------|-------------|---------------|------------------------------------------|
| Contaminant | Minimum Disinfectant Residual | Lowest Level Detected | Range of Detections | Units | Sample Date | Violation Y/N | Sources of Contamination |
| Chlorine | 0.2 | 1.73 | 1.73-2.52 | ppm | 2016 | N | Water additive used to control microbes. |

| Lead and Copper | | | | | | | |
|------------------------|-------------------|------|-----------------------------------|-------|------------------------------------|---------------|----------------------------------|
| Contaminant | Action Level (AL) | MCLG | 90 th Percentile Value | Units | # of Sites Above AL of Total Sites | Violation Y/N | Sources of Contamination |
| 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 0 | N | Corrosion of household plumbing. |

| Total Organic Carbon (TOC) | | | | | | |
|-----------------------------------|------|--------------------|-----------------------------------|---------------------------------|---------------------|---------------------------------------|
| Contaminant | MC L | % Removal Required | Range of Percent Removal Achieved | # of Quarters out of Compliance | Violation Of TT Y/N | Source of Contamination |
| TOC | TT | 25 - 35 | 21.7 -43.4 | 0 | N | Naturally present in the environment. |

| Turbidity | | | | | | |
|------------------|----------------------------------------------------|------|----------------|-------------------|---------------------|-------------------------|
| Contaminant | MCL | MCLG | Level Detected | Sample Date | Violation Of TT Y/N | Source of Contamination |
| Turbidity | TT=1 NTU for a single measurement | 0 | 0.09 NTU | 07/2016 | N | Soil runoff. |
| | TT= at least 95% of monthly samples \leq 0.3 NTU | | 100 % | 01/2016 - 12/2016 | N | |

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

| Microbial | | | | | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------------|---------------|---------------------------------------|
| Contaminant | MCL | MCLG | Highest # or % of Positive Samples | Violation Y/N | Sources of Contamination |
| Total Coliform Bacteria | For systems that collect <40 samples/month: <ul style="list-style-type: none"> More than 1 positive monthly sample | 0 | 0 | N | Naturally present in the environment. |

HEALTH EFFECTS:

The result for Trihalomethanes (TTHM) exceeded the MCL for the second, third, and fourth quarters of 2016; the annual average also exceeded the MCL. You should know that some people who drink water containing Trihalomethanes well in excess of the MCL over many years could experience problems with their liver, kidneys, or central nervous systems, and may have any increased risk of getting cancer. Public notification of these MCL violations was posted. If you want more information about Trihalomethanes or the violation, please call us (724) 377-2211, or the PA DEP Regional Drinking Water Office in Washington County (724) 847-5270.

OTHER VIOLATIONS:

A failure to monitor or report violation for inorganic compounds (IOCs) occurred in 2016 due to a missed scheduled sampling event. A sample was collected and analyzed immediately upon the discovery of the oversight in 2017 but does not fulfill the 2016 monitoring requirement for IOCs.

A late reporting violation for Lead and Copper occurred in 2016 due to late submission of Lead and Copper results to the DEP by the contracted commercial laboratory. A late report was filled by the laboratory and compliance was achieved.

A failure to monitor or plan violation for Trihalomethanes, Chlorine, and Total coliforms occurred in 2016. We appropriately addressed the violation notices and compliance was achieved.

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. Tri-County Joint Municipal Authority 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. In addition, we had no detections of Volatile Organic Compounds (VOCs) during 2016.