



# 2017 WATER QUALITY REPORT



## Glen Alsace

Public Water Supply ID# PA3060088

Este informe contiene información importante acerca de su agua potable. Haga que 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 if needed.)

### A Message from the Pennsylvania American Water President

Dear Valued Customer:

On behalf of all Pennsylvania American Water employees, I am pleased to report very good news about the quality of your drinking water. This annual Water Quality Report provides the results of local water testing between January and December 2017, and as you will see, we continue to supply your community with water that meets or surpasses all regulatory standards.

Water service from Pennsylvania American Water is an exceptional value. To deliver quality water to your tap, we employ a great deal of science, expertise, technology and infrastructure to bring water from the source, treat it and ensure it is clean and safe. In addition, our plant operators, water quality experts, engineers and maintenance crews work around the clock to make sure reliable water service is always there when you need it.

Delivering high-quality water service also requires significant investment to replace and upgrade aging pipe, equipment and facilities. **In 2017 alone, we invested nearly \$300 million in system improvements across the Commonwealth.**

Water is essential for public health, fire protection, economic development and our overall quality of life. Every Pennsylvania American Water employee takes this responsibility very seriously and works hard to keep water flowing not only today but for the next generation. Please take the time to read this report and learn more about the source and quality of your drinking water.



Sincerely,

Jeffrey L. McIntyre  
President, Pennsylvania American Water



**QUALITY. ONE MORE WAY WE KEEP LIFE FLOWING.**

## Our Mark of Excellence

With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 6,900 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 46 states and Ontario, Canada. American Water provides safe, clean, affordable and reliable water services to our customers to make sure we keep their lives flowing. For more information, visit [amwater.com](http://amwater.com) and follow American Water on [Twitter](#), [Facebook](#) and [LinkedIn](#).

Pennsylvania American Water, a subsidiary of American Water, is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to approximately 2.4 million people.

We are once again proud to present our annual water quality report. This edition covers all testing completed from January through December 2017. Over the years, we have dedicated ourselves to producing drinking water that meets or surpasses all state and federal drinking water standards. We continually strive to adopt new and better methods of delivering the best quality drinking water to you. As regulations and drinking water standards become more stringent, it is our commitment to you to ensure compliance with these standards in an expeditious and cost-effective manner, while maintaining our objective of providing quality drinking water at an affordable price. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

For more information about this report, or for any questions relating to your drinking water, please feel free to call our Customer Service Department at 1-800-565-7292.

## Source Water Information

The source of supply for the Glen Alsace service area includes 11 ground water wells and two interconnections. Pennsylvania American Water purchases water from the Mount Penn Borough Municipal Authority and the Reading Area Water Authority.

Mount Penn Borough Municipal Authority's source of water supply is ground water wells. Reading Area Water Authority's source of water supply is Lake Ontelaunee, which is supplied from the Maiden, Saucony and Bailey Creeks. The combined water supply is distributed for residential, commercial, and industrial use.

## Protecting Your Water Source

The Pennsylvania Department of Environmental Protection (PA-DEP) and Pennsylvania American Water (PAW) performed an assessment for the drinking water sources for the Coatesville system in February, 2003. An update to this assessment was completed in 2013 through PA-DEP's Source Water Protection Technical Assistance Program. Annual meetings are scheduled with stakeholders sharing our watershed with the focus on protecting our natural water supplies.

A copy of the completed Source Water Assessment may be obtained by following the link below or by calling the Pennsylvania DEP at (717) 772-4048. Pennsylvania American Water encourages you to take an active part in protecting your water supply by participating in activities as they occur in your local area. If you are interested in learning more about Source Water Protection for your area, please contact the Water Quality Supervisor, Jasmine Price, at 717-533-5627 ext: 1006.

### [Glen Alsace System Source Water Assessment Link](#)

We recognize that our best protection comes from customers, residents and businesses within our service area. That's why we've established a proactive public outreach program to help spread the word, including school education and community programs.

## Other Water Quality Parameters of Interest

### Is there lead in your 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. Pennsylvania American Water 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:

[U.S. Environmental Protection Agency Web Page on Lead](#)

#### **Does your water contain nitrates?**

PAW's normal range of nitrate levels is well below the MCL of 10 ppm. Nitrates enter the water supply from fertilizers used on farms and natural erosion of deposits in the watershed.

Levels above 10 ppm are a health risk for infants under six months of age and can cause blue baby syndrome. Check with your physician if you have questions.

#### **How hard is your water?**

Hardness is a measure of the concentration of two minerals naturally present in water – calcium and magnesium. High hardness levels cause soap not to foam as easily as it would at lower levels. Hardness levels range from 80 ppm to 424 ppm, 5 or 25 to grains per gallon of water.

#### **How much sodium is in your water?**

The sodium level in the distribution system is approximately 37 ppm.

#### **What is the pH (acidity) range of your water?**

Water in the distribution system averages 7.4 pH units. A pH of 7.0 is considered neutral, neither acidic nor basic.

#### **Is there fluoride in your water?**

PAW does not add fluoride to the water in the Glen Alsace system.

Reading Area Water Authority and Mount Penn Borough Municipal Authority add fluoride to a level near 0.70 ppm to assist in the preventions of dental cavities.

### **How to Contact Us**

Additional copies of this report can be printed directly from this site ([www.amwater.com/ccr/glenalsace.pdf](http://www.amwater.com/ccr/glenalsace.pdf)). Questions can be presented to our Customer Service Department at 1-800-565-7292. Added information can be gathered by viewing the following links on the Internet:

[Pennsylvania American Water Web Page](#)

[Pa. Department of Environmental Protection Web Page](#)

[United States Environmental Protection Agency Web Page](#)

**Safe Drinking Water Hotline:** (800) 426-4791

[Center for Disease Control and Prevention Web Page](#)

[American Water Works Association Web Page](#)

### **Substances Expected to be in Drinking Water**

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Pennsylvania American Water's treatment processes are designed to reduce any such substances to levels well below any health concern and the processes are controlled to provide maximum protection against microbial and viral pathogens which could be naturally present in surface and groundwater. 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 U.S. Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

**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 may 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 EPA's Safe Drinking Water Hotline at (800) 426-4791.**



The source of drinking water (both tap water and bottled water) includes 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 may result from urban storm water 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, 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 may also, come from gas stations, urban storm water runoff, and septic systems.

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

## Definitions of Terms Used in This Report

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

**MCL (Maximum Contaminant Level):** 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.

**MCLG (Maximum Contaminant Level Goal):** 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.

**MRDL (Maximum Residual Disinfectant Level):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of 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.

**NA:** Not applicable

**ND:** Not detected

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of the water.

**pCi/L (picocuries per liter):** Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

**ppm (parts per million):** One part substance per million parts water, or milligrams per liter.

**ppb (parts per billion):** One part substance per billion parts water, or micrograms per liter.

**SS:** Single sample

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

**%:** means percent.

**90th Percentile:** The highest concentration of lead or copper in tap water that is exceeded by 10 percent of the sites sampled during a monitoring period. This value is compared to the lead and copper action level (AL) to determine whether an AL has been exceeded.



## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

ESTE INFORME CONTIENE INFORMACION MUY IMPORTANTE SOBRE SU AGUA DE BEBER. TRADUZCALO O HABLE CON ALGUIEN QUE LO ENTIENDA BIEN

### Monitoring Requirements Not Met for PA-American Glen Alsace

Our water system violated drinking water standards over the past year. Even though these were not emergencies, as our employees/customers, you have a right to know what happened and what we did to correct these situations.

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During we did not collect samples to be analyzed for Combined Uranium and therefore cannot be sure of the quality of our drinking water during that time.*

#### What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for *these contaminants* and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminants	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken
Combined Uranium	6 Years	0	2017	Sample was collected 4/18/2018

#### What happened? What was done?

An error occurred during the scheduling of samples for 2017 which caused one of the entry points monitoring requirements to be left off the 2017 schedule. The error has been corrected and the sample was collected during 2018

For more information, please contact Jasmine Price at (717) 533-5627 ext 1006

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by PA-American Glen Alsace

PWS ID#: 3060088

Date distributed: 5/1/2018



## How to Read This Table

Starting with a **Substance**, read across. **Year Sampled** is usually in 2017 or year prior. **MCL** shows the highest level of substance (contaminant) allowed. **MCLG** is the goal level for that substance (goal may be set lower than what is allowed). **Highest Amount Detected** represents the measured amount (less is better). **Range** tells the highest and lowest amounts measured. A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements. **Typical Source** tells where the substance usually originates.

Non-regulated substances are measured, but maximum allowed contaminant levels have not been established by the government. These contaminants are shown for your information.

## Water Quality Statement

For your information, we have compiled a list in the table below showing what substances were detected in your drinking water during 2017. The Pennsylvania DEP allows us to monitor for some contaminants less than once per year because the concentration of the contaminants does not change frequently. Some of our data, though representative, are more than one year old. Although all of the substances listed below are under the Maximum Contaminant Levels (MCL) set by the U.S. Environmental Protection Agency and the Pennsylvania DEP, we feel it is important that you know exactly what was detected and how much of each substance was present in the water.

## Water Quality Results

### Monitoring Results for the PAW - Glen Alsace System

#### Entry Point Disinfectant Residual - Measured on the Water Leaving the Glen Alsace Treatment Facilities

Substance (units)	Year Sampled	Entry Point Location	Minimum Disinfectant Residual Level Required By DEP	Lowest Amount Detected	Range Low - High	Compliance Achieved?	Typical Source
Chlorine (ppm)	2017	Wells 1, 5, 7	0.40	0.29	0.29 – 1.97	Yes	Water additive used to control microbes
Chlorine (ppm)	2017	Well 8	0.60	0.06	0.06 – 3.91	Yes	Water additive used to control microbes
Chlorine (ppm)	2017	Wells 9/9A	0.50	0.68	0.68 – 1.69	Yes	Water additive used to control microbes
Chlorine (ppm)	2017	Well 2A	0.50	0.45	0.45 - 1.69	Yes	Water additive used to control microbes
Chlorine (ppm)	2017	Wells 3/4	0.40	0.10	0.10 – 1.60	Yes	Water additive used to control microbes
Chlorine (ppm)	2017	Well DG6	0.50	0.0	0.00 - 1.67	Yes	Water additive used to control microbes
Chlorine (ppm)	2017	Well 12A	0.80	0.55	0.55 - 1.62	Yes	Water additive used to control microbes
Chlorine (ppm)	2017	Well DG11	0.40	0.44	0.44 - 1.61	Yes	Water additive used to control microbes
Chlorine (ppm)	2017	Well DG13	0.40	0.42	0.42 - 1.75	Yes	Water additive used to control microbes

<sup>1</sup> All chlorine readings were above the Groundwater Rule requirement of not less than the approved minimum disinfectant residual level for more than four hours.



## Regulated Substances - Measured on the Water Leaving the Glen Alsace Treatment Facilities

Substance (units)	Year Sampled	MCL	MCLG	Highest Amount Detected	Range Low - High	Compliance Achieved?	Typical Source
Barium (ppm)	2015	2	2	0.3	ND - 0.3	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Gross Alpha (pCi/L)	2015	15	0	4.06	SS	Yes	Erosion of natural deposits
Combined Uranium (pCi/L)	2017	20	0	3.27	0.8 – 3.3	Yes	Erosion of natural deposits
Tetrachloroethylene (ppb)	2017	5	0	1.3	0 – 1.3	Yes	Discharge from factories and dry cleaners
1,1,1 Trichloroethane (ppb)	2017	2	0	0.6	0 – 0.6	Yes	Discharge from metal degreasing sites and other facilities
Nitrate (ppm)	2017	10	10	4.9	0.8 – 4.9	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Arsenic (ppb)	2017	10	0	2	0 - 2	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Total Chromium (ppb)	2014	100	100	2.2	ND - 2.2	Yes	Discharge from steel and pulp mills; erosion of natural deposits.

## Regulated Compounds - Measured in the Glen Alsace Distribution System

Substance (units)	Year Sampled	MCL	MCLG	Average Results <sup>2</sup>	Range Low – High <sup>3</sup>	Compliance Achieved?	Typical Source
Total Trihalomethanes (TTHM) (ppb)	2016	80	NA	51	4 - 62	Yes	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	2016	60	NA	59	1- 66	Yes	By-product of drinking water disinfection

<sup>2</sup> Highest localized running annual average for individual sample points

<sup>3</sup> Range represents sampling at individual sample points



### Disinfectant Residual - Measured in the Glen Alsace Distribution System

Substance (units)	Year Sampled	MRDL	MRDLG	Highest Result	Range Low - High	Compliance Achieved	Typical Source
Chlorine (ppm)	2017	4	4	1.21	0.71 – 1.21	Yes	Water additive used to control microbes

### Tap Water Samples: Lead and Copper Results - Measured in the Glen Alsace Distribution System

Substance (units)	Year Sampled	Action Level	MCLG	Number of Samples Taken	90th Percentile	Number of Samples Above Action Level	Compliance Achieved?	Typical Source
Lead (ppb)	2016	15	0	30	3	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2016	1.3	1.3	30	1.1	2	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

### Secondary Contaminant - Measured on the Water Leaving the Glen Alsace Treatment Facilities

Substance (units)	Year Sampled	Secondary MCL	Highest Amount Detected	Range Low – High
Total Dissolved Solids (TDS) (ppm)	2016	500	500	368-500
Nickel (mg/L)	2015	0.2	0.007	ND – 0.007

Note: In 2017, the Glen Alsace System monitored for TDS at Wells 9/9A. High levels of TDS can affect the taste of your drinking water, but generally does not affect the safety of your drinking water. Pennsylvania American Water is providing this information to you and requests that you discuss any concerns you have with your physician.



## Unregulated Compounds - Measured on the Water Leaving the Glen Alsace Treatment Facilities

Substance (units)	Year Sampled	MCL / MCLG	Average Amount Detected	Range Low - High	Use or Environmental Source
Molybdenum (ppb)	2014	Not regulated	4.63	ND - 10.8	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent.
Vanadium (ppb)	2014	Not regulated	0.73	ND - 2.7	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst.
Strontium (ppb)	2014	Not regulated	413	31 – 1,711	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
Chromium 6 or Hexavalent Chromium (ppb)	2014	Not regulated	0.45	0.03 - 3.29	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Chlorate (ppb)	2014	Not regulated	182	ND - 610	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide
Chlorodifluoromethane (ppb)	2014	Not regulated	0.10	ND - 0.10	Chlorofluorocarbon; occurs as a gas, and used as a refrigerant, as a low-temperature solvent, and in fluorocarbon resins, especially tetrafluoroethylene polymers.
1,4 – Dioxane (ppb)	2014	Not regulated	0.12	ND - 0.13	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos.



## Unregulated Compounds - Measured on the Water in the Glen Alsace Distribution System

Substance (units)	Year Sampled	MCL / MCLG	Average Amount Detected	Range Low - High	Use or Environmental Source
Cobalt (ppb)	2014	Not regulated	1.1	ND - 1.1	Naturally-occurring element found in the earth's crust and at low concentrations in seawater, and in some surface and ground water; cobaltous chloride was formerly used in medicine and as a germicide
Molybdenum (ppb)	2014	Not regulated	1.4	ND - 1.7	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium (ppb)	2014	Not regulated	303	2.9 – 1,710	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
Vanadium (ppb)	2014	Not regulated	0.62	ND - 2.9	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst.
Chromium 6 or Hexavalent Chromium (ppb)	2014	Not regulated	0.46	ND - 2.26	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Chlorate	2014	Not regulated	159	ND - 450	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide.

## Monitoring Results for the Mount Penn Water Authority System

### Regulated Substances - Measured on the Water Leaving the Mount Penn Water Authority Treatment Facility

Substance (units)	Year Sampled	MCL	MCLG	Highest Amount Detected	Range Low - High	Compliance Achieved?	Typical Source
Nitrate (ppm)	2017	10	10	2.2	ND – 2.2	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Gross Alpha (pCi/L)	2014	15	0	3.9	SS	Yes	Erosion of natural deposits
Radium 228 (pCi/L)	2014	5	0	3.1	SS	Yes	Erosion of natural deposits
Fluoride (ppm)	2017	2	2	1.7	1.0 - 1.7	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.



# Monitoring Results for the Reading Area Water Authority System

## Turbidity – A Measure of the Clarity of the Water Leaving the Reading Area Water Authority Treatment Facility

Plant	Substance (units)	Year Sampled	MCL	MCLG	Highest Single Measurement	Compliance Achieved?	Typical Source
Reading Area Water Authority	Turbidity (NTU) <sup>4</sup>	2017	TT	NA	0.17	Yes	Soil runoff

<sup>4</sup>Pennsylvania American Water purchases water from the Reading Area Water Authority. All turbidity readings were below the treatment technique requirement of 0.3 NTU in 100% of all samples taken for compliance on a monthly basis.

## Total Organic Carbon Removal - Measured at the Reading Area Water Authority Treatment Facility

Substance (units)	Year Sampled	TT	Range of Percent Removal Required	Range of Percent Removal Achieved	Compliance Achieved?	Typical Source
Total Organic Carbon (TOC) (Percent Removal) <sup>5</sup>	2017	Meet EPA Removal Requirements	0 - 35	32 - 57	Yes	Naturally decaying vegetation

<sup>5</sup>Adequate removal of TOC may be necessary to control the unwanted formation of chlorinated by-products. Naturally occurring organic matter present in the source water can react with the disinfectants used at the treatment facility to form these by-products.

## Regulated Substances - Measured on the Water Leaving the Reading Area Water Authority Treatment Facility

Substance (units)	Year Sampled	MCL	MCLG	Highest Amount Detected	Range Low - High	Compliance Achieved?	Typical Source
Fluoride (ppm)	2017	2 <sup>6</sup>	4	0.84	0.50- 0.84	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	2017	10	10	3.6	2.3 – 3.6	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
HAA5 (ppb)	2017	60	N/A	43.2	2.2 – 70.4 <sup>7</sup>	Yes	By-product of drinking water chlorination
TTHM (ppb)	2017	80	N/A	44.9	6.7 – 48.4	Yes	By-product of drinking water chlorination

<sup>6</sup>EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

<sup>7</sup>Compliance for HAA5s is based upon the running annual average.



**Unregulated Substances - Measured on Water Leaving Reading Area Water Authority Treatment Facility**

Substance (units)	Year Sampled	MCL/ MCLG	Average Amount Detected	Range Low - High	Typical Source
Chromium 6 or Hexavalent Chromium (ppb)	2013	Not regulated	0.10	0.04 - 0.18	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Chromium (ppb)	2013	Not regulated	0.10	ND - 0.31	Discharge from steel and pulp mills; erosion of natural deposits.
Strontium (ppb)	2013	Not regulated	121	104 - 131	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.

