



# 2017 WATER QUALITY REPORT

## Lake Scranton

Public Water Supply ID# PA2359008



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



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## 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

Lake Scranton is the main surface water source of supply for the Scranton Area service territory. Pennsylvania American Water maintains a treatment facility on the Lake Scranton Reservoir capable of processing a maximum of 33 million gallons of water per day (MGD). The Lake Scranton Reservoir level is directly supplemented with water from the Williams Bridge, Elmhurst, Curtis and Hollister Reservoirs. Additional surface water sources include Griffin Reservoir and Summit Lake Reservoir, which can supplement the system through PAW's alternate water purification facility, the Chinchilla Plant, on Leggett's Creek. This facility is capable of processing a maximum of 6 million gallons of water per day. Approximately 40% of the Abington area is supplied with water by 8 wells and the other 60% comes from an interconnection with the Lake Scranton Area Water Purification Plant system. Wells in the Abington Area deliver approximately 0.60 million gallons per day (MGD) to the distribution system. The water supply is distributed for residential, commercial, and industrial use.

## Protecting Your Water Source

The Pennsylvania Department of Environmental Protection (DEP) and PAW completed an assessment of the drinking water sources for the Lake Scranton and Chinchilla surface water supplies in 2002. Although no man-made contaminants were detected, the water sources were considered most vulnerable to the following potential impacts: sewage treatment plants, junkyards, greenhouses, an industrial park and plating utility, runoff from agricultural lands, farming activities, storm water runoff in developed areas, and roadway spills. The source water assessment for the Abington groundwater area of the Lake Scranton system was completed in August 2003. Potential sources of contamination for these groundwater wells include: underground petroleum storage tanks, auto repair shops, dry cleaners, highway spills and road salt, lawn care products, petroleum and sewer pipelines, on-lot sewage disposal, and boreholes.

A summary of the completed Source Water Assessments has been made available by DEP and may be viewed on their website by following the link below. Additional information can also be obtained by calling the local office of the DEP at (570) 826-2511. PAW encourages you to take an active part in protecting your water supply by participating in local watershed activities as they occur in your area.

[Lake Scranton Source Water Assessment Link](#)

## Other Water Quality Parameters of Interest

### 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.



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### **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](#)

### **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 from the Lake Scranton Area Water Purification Plant range from 19 ppm to 80 ppm, or 1.1 to 4.7 grains per gallon of water. Hardness levels from the Abington Area wells range from 118 ppm to 496 ppm, or 7 to 29 grains per gallon of water.

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

The sodium level is approximately 15 ppm from the Lake Scranton Area Water Purification Plant and ranges from 16 ppm to 183 ppm from the Abington Area wells.

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

Water in the distribution system averages 7.2 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 your water supply.

## **Partnership for Safe Drinking Water Program**

In 2000, the Lake Scranton water treatment facility was awarded the prestigious Director's Award under the Partnership for Safe Water program, which is administered by the U.S. Environmental Protection Agency (EPA), the Pennsylvania Department of Environmental Protection (DEP), and other water-related organizations. The award honors water utilities for achieving operational excellence, by voluntarily optimizing their treatment facility operations and adopting more stringent performance goals than those required by federal and state drinking water standards. We are proud to report that our employees have maintained those standards every year through 2017.



## **How to Contact Us**

Additional copies of this report can be printed directly from this site at [www.amwater.com/ccr/scranton.pdf](http://www.amwater.com/ccr/scranton.pdf). Additional information can be gathered by calling our Customer Service Department at 1-800-565-7292 or by viewing the following information 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](#)



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## 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.

## Important Information About Your Drinking Water

**Availability of Monitoring Data for Unregulated Contaminants for Pennsylvania American Water – Scranton Area**

Our water system conducted monitoring for several unregulated contaminants in 2014. Unregulated contaminants are those that do not yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help the EPA decide whether the contaminants should be regulated. As our customers, you have a right to know that these data are available. If you are interested in discussing the results please contact Emery Yurko at 570-457-1550 x 4.

## Sodium

Although the amount of sodium in drinking water is insignificant compared to the sodium normally consumed in the average diet, it does become a concern to people on low sodium diets recommending less than 20 ppm intake from drinking water. High levels of salt intake may be associated with hypertension in some individuals. To reduce the risks of adverse health effects due to sodium, consult a physician or registered dietitian to plan a healthy diet that reduces the sodium content in your total food intake.



## Cryptosporidium (Measured on Raw Source Water Prior to Treatment) – Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) Round 2 Cryptosporidium Monitoring Results

From April of 2015 through March of 2017, monthly cryptosporidium monitoring was conducted on the raw source water for the Lake Scranton Water Treatment Plant. There were no cryptosporidium detections in the Lake Scranton Reservoir. As a result of this monitoring, no additional treatment is required for the Lake Scranton Water Treatment Plant.

Monitoring for Cryptosporidium, a microbial parasite commonly found in surface water, was conducted as part of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR). Current test methods do not allow us to determine if the organisms, when detected, are dead or if they are capable of causing disease. Typical sources would be fecal material from wildlife such as deer, other mammals, and warm blooded animals that are present in the watershed.

Cryptosporidium must be ingested for it to cause disease, and may be transmitted through means other than drinking water. Symptoms of infection include nausea, diarrhea, and abdominal cramps. These symptoms can also be the result of different food related organisms, flu or ingesting untreated water such as while swimming in lakes or reservoirs. Most healthy individuals are able to overcome the disease within a few weeks. However, some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people living with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk. These people should seek advice 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 (1-800-426-4791).

### 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.

**>:** means greater than.

**<:** means less than.

**≤:** means less than or equal to.

**≥:** means greater than or equal to.

**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.



## 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

We are pleased to report that during calendar year 2017, the water delivered to your home or business complied with all state and federal drinking water requirements. 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

### Turbidity – A Measure of the Clarity of the Water at the Treatment Facility

Plant	Substance (units)	Year Sampled	MCLG	MCL	Highest Single Measurement or Lowest Monthly % of Samples $\leq 0.3$ NTU	Compliance Achieved	Typical Source
Lake Scranton	Turbidity (NTU) <sup>1</sup>	2017	NA	TT= 1 NTU for a single measurement	0.12	Yes	Soil runoff
				TT= at least 95% of monthly samples $\leq 0.3$ NTU	100%	Yes	

<sup>1</sup> Turbidity serves as an indicator of the effectiveness of the filtration process

### Total Organic Carbon (TOC) – A measure of the removal of TOC at the Lake Scranton Plant

Substance (units)	Year Sampled	MCL	MCLG	Range of Removal Required (%)	Range of Removal Achieved (%)	Number of Quarters Out of Compliance	Compliance Achieved	Typical Source
TOC Removal Efficiency (%)	2017	TT	NA	$\geq 35$	49 - 56	0	Yes	Naturally present in the environment

### Chlorine – Measured on the Water Leaving the Lake Scranton Plant

Substance (units)	Year Sampled	Minimum Disinfectant Residual Level	Lowest Amount Detected	Range Low - High	Compliance Achieved	Typical Source
Chlorine Residual (ppm) <sup>2</sup>	2017	0.2	1.0	1.0 - 2.4	Yes	Water additive used to control microbes

<sup>2</sup> All chlorine readings were above the treatment technique requirement of not less than 0.2 ppm for more than 4 hours on water supplied to the distribution system.



### Ground Water Disinfectant Residuals - Measured on the Water Leaving the Treatment Facilities

Entry Point	Year Sampled	Units	DEP Approved Minimum Disinfectant Residual	Range of Results	Below Required Minimum Residual More Than 4-Hours	Compliance Achieved	Typical Source
104	2017	ppm	0.30	0.55 – 1.95	No	Yes	Water additive used to control microbes
106	2017	ppm	0.70	0.80 – 1.95	No	Yes	Water additive used to control microbes
108	2017	ppm	0.20	0.91 - 1.83	No	Yes	Water additive used to control microbes
109	2017	ppm	0.75	0.76 – 2.14	No	Yes	Water additive used to control microbes
110	2017	ppm	0.40	0.49 – 2.45	No	Yes	Water additive used to control microbes
112	2017	ppm	0.40	0.73 – 1.82	No	Yes	Water additive used to control microbes
113	2017	ppm	0.80	0.80 – 1.86	No	Yes	Water additive used to control microbes

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

Substance (units)	Year Sampled	MCLG	MCL	Highest Amount Detected	Range Low - High	Compliance Achieved	Typical Source
Barium (ppm)	2015	2	2	1.1	ND - 1.1 (Abington Wells)	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate as Nitrogen (ppm)	2017	10	10	2.65	0.14 - 2.65	Yes	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits
Tetrachloroethylene (ppb)	2017	0	5	0.8	ND – 0.8	Yes	Discharge from factories and dry cleaners
Trichloroethylene (ppb)	2017	0	5	2.5	ND – 2.5	Yes	Discharge from metal degreasing sites and other factories
Alpha Emitters (pCi/L)	2014	0	15	3.4	ND - 3.4	Yes	Erosion of natural deposits
Combined Radium (pCi/L)	2014	0	5	1.2	ND - 1.2	Yes	Erosion of natural deposits
Uranium (ppb)	2017	0	30	3	1 – 3	Yes	Erosion of natural deposits

### Other Contaminants measured on water leaving the treatment facilities

Substance	Year Sampled	MCLG	MCL	Highest Amount Detected	Range	Typical Source
Nickel (ppm)	2015	NA	NA	0.007	ND – 0.007	Erosion of natural deposits; Corrosion of bronze plumbing fixtures



## Regulated Compounds (Measured in the Distribution Systems)

Substance (units)	Year Sampled	MCLG	MCL	Results	Range Low - High	Compliance Achieved	Typical Source
Total Trihalomethanes (TTHM) (ppb) <sup>5</sup>	2017	NA	80	73	22 - 100	Yes	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb) <sup>5</sup>	2017	NA	60	49	16 - 56	Yes	By-product of drinking water chlorination

<sup>5</sup> Stage 2 Disinfection By-Product Rule: The Range represents the sampling results of all distribution system locations in 2017. The results are the highest quarterly running annual average of the individual sample locations which are used to determine compliance with the MCL.

## Disinfectant Residual - Measured in the Distribution System

Substance (units)	Year Sampled	MRDL	MRDLG	Highest Amount Detected <sup>4</sup>	Range Low - High	Compliance Achieved	Typical Source
Chlorine (ppm) <sup>3</sup>	2017	4	4	1.72	1.32 – 1.72	Yes	Water additive used to control microbes

<sup>3</sup> MRDL (maximum residual disinfectant level) applies. Routine samples were collected monthly with the results from all locations averaged each month.

<sup>4</sup> Highest monthly average for individual sample points

## Tap Water Samples: Lead and Copper Results – Measured in the 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	50	2	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2016	1.3	1.3	50	0.071	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives



## Unregulated Compounds (UCMR3) (Measured on the water leaving the treatment facilities and in the distribution system) <sup>6</sup>

Substance (units)	Year Sampled	Average	Range Low - High	Typical Source
Strontium (ppb)	2014 & 2015	32 (Lake Scranton)	26 – 34	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
		1,267 (Abington Well System)	280 – 4,351	
Chlorate (ppb)	2014	ND (Lake Scranton)	ND	Agricultural defoliant or desiccant; disinfection by-product; and used in production of chlorine dioxide
		182 (Abington Well System)	ND - 570	
Bromomethane (ppb)	2014	0.03	ND – 0.3	Halogenated alkane; occurs as a gas, and used as a fumigant on soil before planting, on crops after harvest, on vehicles and buildings, and for other specialized purposes
Total Chromium (ppb) <sup>7</sup>	2014 & 2015	0.2	ND – 1.2	Naturally-occurring element; used in making steel and other alloys; chromium -3 or chromium -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
Chromium 6 or Hexavalent Chromium (ppb)	2014	0.06	ND – 0.13	Naturally-occurring element; used in making steel and other alloys; chromium -3 or chromium -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation
1,4 dioxane (ppb) <sup>8</sup>	2014	0.01	ND – 0.12	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos
Vanadium (ppb) <sup>8</sup>	2014	0.02	ND – 0.4	Naturally-occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
Cobalt (ppb) <sup>8</sup>	2014	0.05	ND – 1.3	Naturally-occurring element found in the earth's crust and at low concentrations in seawater, and in some surface and groundwater; cobaltous chloride was formerly used in medicine and as a germicide
4-androstene-3,17-dione (ppb) <sup>8</sup>	2014	0.00005	ND – 0.001	Steroidal hormone naturally produced in the human body; and used as an anabolic steroid and a dietary supplement

<sup>6</sup> Substances were monitored under the Unregulated Contaminant Monitoring Rule 3 (UCMR3). MCLs and MCLGs are not established for these compounds.

<sup>7</sup> Total Chromium, a regulated contaminant, was detected in 2014 & 2015 during sampling for the Unregulated Contaminants Monitoring Rule 3 (UCMR3). UCMR3 required sampling of both the water leaving the treatment facilities and in the distribution system.

<sup>8</sup> The average result of all samples analyzed for this substance is less than the analytical method's minimum reporting level for an individual sample result. This is due to the high amount of samples in which the substance was not detected.

