



# Annual Drinking Water Quality Report

## 2021 (2020 Data)

Phoenixville Water Department  
PWSID# 1150077

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.)*

This report summarizes the quality of water provided in 2020 by the Phoenixville Water Department (PWD) - including details about water source, what the water at your tap contains, and how it compares to standards set by regulatory agencies. Although the report lists only those regulated substances that were detected in your water, we test for more than what is reported.

If you have any questions about this report or concerning your water utility, please contact Borough Manager E. Jean Krack at 610-933-8801. We encourage public participation at our regular meeting which is held every second Tuesday of each month at 7:00pm. Meetings are located at 351 Bridge Street.

### Sources of Water

PWD obtains water from the Schuylkill River, a surface water supply, through two intakes.

A Source Water Assessment for the Schuylkill River was completed in 2002 by the Pennsylvania Department of Environmental Protection (DEP). The source overall has a moderate risk of significant contamination. The Assessment found that this source is potentially susceptible to spills, failing septic systems, wastewater lift station and collector overflows, runoff from roads and parking lots, and waterfowl. The Schuylkill River is susceptible to the effects of acid mine drainage in the upper watershed.

A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: <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 SouthEast Regional Office, Records Management Unit at 484-250-5900.

### How do drinking water sources become polluted?

In order to assure 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 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 stormwater runoff, and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts 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.



### People with Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemo-therapy, 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

### Lead Notice

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. PWD 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 is available from the Safe Drinking Water Hotline or at

<http://www.epa.gov/safewater/lead>.

### Violations

Due to an administrative oversight, certain samples were not collected within the required monitoring period during 2020. This resulted in Monitoring/Reporting violations for missed total organic carbon (TOC) in January and April 2020 and gross beta. Samples were collected in 2020 promptly after the Borough was notified by PADEP.



### Definitions

<b>ppm</b>	<b>Parts Per Million:</b> equivalent of one second in 12 days	<b>MCL</b>	<b>Maximum Contaminant Level:</b> The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.	<b>MRDL</b>	<b>Maximum Residual Disinfection Level:</b> The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.
<b>ppb</b>	<b>Parts Per Billion:</b> equivalent of one second in 32 years				
<b>ppt</b>	<b>Parts Per Trillion:</b> equivalent of one second in 32,000 years				
<b>NA</b>	<b>Not Applicable</b>	<b>MCLG</b>	<b>Maximum Contaminant Level Goal:</b> The level of a contaminant in drinking water below which there is no known or expected health risk. MCLG's allow for a margin of safety.	<b>MRDL</b>	<b>Maximum Residual Disinfection Level Goal:</b> The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefit of the use of disinfectants to control microbial contamination.
<b>RUL</b>	<b>Recommended Upper Limit</b>			<b>NTU</b>	<b>Nephelometric Turbidity Units:</b> a measure of water clarity
<b>ND</b>	<b>Not Detected</b>			<b>Level 1 Assessment:</b>	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.
<b>RAA</b>	<b>Running Annual Average</b>	<b>AL</b>	<b>Action Level:</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.		
<b>LRAA</b>	<b>Locational Running Annual Average</b>				
<b>TT</b>	<b>Treatment Technique:</b> A required process intended to reduce the level of a contaminant in drinking water.	<b>CU</b>	<b>Color Unit</b>		
		<b>pCi/L</b>	<b>Picocuries Per Liter:</b> equivalent of one second in 32 million years		



We routinely monitor for contaminants in your drinking water according to federal and state laws. The following table shows the results of our monitoring for the period of January 1 to December 31, 2020. 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.

2020 Water Quality Results - Phoenixville Water Department					
Surface Water	MCLG	MCL	Level Found	Violation	Likely Source
Turbidity Test Results Year 2020	0 NTU	<sup>1</sup> TT= 1 NTU TT=95% < 0.3 NTU	Highest: 0.16 % < 0.3 NTU: 100%	N	Soil runoff
<sup>1</sup> Treatment Technique (TT) is for any single measurement greater than 1 NTU and at least 95% of monthly samples below 0.3 NTU.					
Radioactive Contaminants	MCLG	MCL	Level Detected	Violation	Likely Source
Gross Beta Test Results Year 2018	0 pCi/L	50 pCi/L <sup>2</sup>	Range: ND-3.8 RAA: 1.7	N	Erosion of natural deposits
<sup>2</sup> The MCL for beta particles is 4 millirems per year (a measure of radiation absorbed by the body). EPA considers 50 pCi/L to be a level of concern for beta particles.					
Inorganic Chemicals	MCLG	MCL	Level Detected	Violation	Likely Source
Barium Test Results Year 2018	2 ppm	2 ppm	Range: 0.04 Highest: 0.04	N	Discharge of drilling wastes, metal refineries, and erosion of natural deposits
Chromium Test Results Year 2018	100 ppb	100 ppb	Range: 2.6 Highest: 2.6	N	Discharge from steel and pulp mills; erosion of natural deposits
Nitrate (as Nitrogen) Test Results Year 2020	10 ppm	10 ppm	Range: 2.1 Highest: 2.1	N	Corrosion of household plumbing systems and erosion of natural deposits
Fluoride Test Results Year 2019	4 ppm	2 ppm <sup>3</sup>	Range: 0.5 Highest: 0.5	N	Erosion of natural deposits
<sup>3</sup> EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.					
Copper & Lead	MCLG	AL	Level Detected	Violation	Likely Source
Copper Test Results Year 2019	1.3 ppm	1.3 ppm	90th Percentile: 0.23 Samples > AL: 0 of 30	N	Corrosion of household plumbing systems and erosion of natural deposits
Lead Test Results Year 2019	0 ppb	15 ppb	90th Percentile: ND Samples > AL: 0 of 30	N	Corrosion of household plumbing systems and erosion of natural deposits
Regulated Disinfectants	MRDLG	MRDL	Level Detected	Violation	Likely Source
Chloramines Test Results Year 2020	4.0 ppm	4.0 ppm	Range: 0.06-1.97 RAA: 1.0	N	Water additive used to control microbes.
Chlorine <sup>4</sup> Test Results Year 2020	Minimum Disinfectant Residual: 0.2		Range: 1.0-3.8 Lowest: 1.0	N	Water additive used to control microbes.
<sup>4</sup> Entry Point Disinfectant Residual – PA Rule: This rule requires that no station operate below specific minimum free chlorine levels for more than 4 hours.					
Volatile Organic Compounds / Disinfection By-products	MCLG	MCL	Level Detected	Violation	Likely Source
HAA5 Haloacetic Acids Test Results Year 2020	n/a	60 ppb	Range: 1-39 Highest: 25 LRAA	N	Byproduct of drinking water disinfection
TTHM Total Trihalomethanes Test Results Year 2020	n/a	80 ppb	Range: 15-117 Highest: 59 LRAA	N	Byproduct of drinking water disinfection



**2020 Water Quality Results - Phoenixville Water Department**

TOC Removal Ratio	Range of % Removal Required	Range of % Removal Achieved	Number of Quarters Out of Compliance	Violation	Likely Source
TOC Removal Ratio Test Results Year 2020	25-35%	19-29%	0	N	Naturally present in the environment

Cryptosporidium is a microbial parasite found in waters throughout the United States. During 2017-2018 monitoring of the raw surface water source (prior to treatment), Cryptosporidium was detected at an average concentration of 0.09 oocyst per liter. Samples were collected monthly from January 2017 through August 2018 from the raw water supply (Schuylkill River) and had a range of concentrations of Not Detected to 0.444 oocyst per liter. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants and small children, and the elderly are at a greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.

Microbiologicals-Revised Total Coliform Rule (RTCRC)	Number Required	Number Completed	Corrective Actions Required	Corrective Actions Completed
Level 1 Assessment - Total Coliform	0	0	0	0

Total coliform bacteria are generally not harmful themselves. Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. PWD had 0 positive results for coliform bacteria in 175 samples.