2017 Drinking Water Quality Report

Published Spring 2018

This report is produced as a requirement of the Federal Safe Drinking Water Act. Note: Industrial and commercial customers, including hospitals, medical centers and health clinics, please forward this report to your Environmental Compliance Manager.

PWD’s Public Water System Identification #PA151001
We continue to deliver safe, reliable, high-quality drinking water from source to tap.

Our drinking water quality is better than standards set by the EPA.
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Sharing This Report
Please share this report with all 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 and mail.

To receive a printed copy of this report, please email: waterquality@phila.gov.

Para obtener una copia del informe en Español sobre los resultados más recientes de la calidad del agua publicado por el Departamento de Agua de Philadelphia, llame al 215.685.6300.

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 chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS and 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.

U.S. Environmental Protection Agency (EPA)/Centers for Disease Control (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.
A Message From the Philadelphia Water Department’s Commissioner

Every hour of every day, we work to provide you with safe, reliable service and water that tastes good and that you can trust. Our staff of over 2,000 dedicated employees work to ensure that our water exceeds safe water standards and remains top quality.

This report, published in the spring of 2018, includes water quality information for the 2017 calendar year. The U.S. Environmental Protection Agency (EPA) requires all water utilities to produce and distribute water quality reports on an annual basis. We take this opportunity to introduce you to a variety of programs and operations that preserve and protect our drinking water sources — the Schuylkill and Delaware rivers.

Through continuous treatment, testing and monitoring, the water that leaves our treatment plants is better than what is required by the EPA. Our team of experienced scientists and engineers tests our water for nearly 100 compounds. This annual Drinking Water Quality Report explains what we look for, and what we found.

Water is one of life’s essential resources, and we hope you take the time to look at all the information in the report. Please do not hesitate to contact us if you have any questions or would like to learn more about being a part of keeping our water and waterways clean.

Debra McCarty
Water Commissioner

The Philadelphia Water Department is an active member of:

- American Water Resources Association
- American Water Works Association
- Partnership for Safe Water
- American Public Works Association
- Association of Metropolitan Water Agencies
- National Association of Clean Water Agencies
- Partnership for the Delaware Estuary
- Schuylkill Action Network
- Schuylkill River Restoration Fund
- Tookany/Tacony-Frankford (TTF) Watershed Partnership
- U.S. Water Alliance
- Water Environment Federation
- Water Environment Research Foundation
- Water Research Foundation
Philadelphia’s water comes from the Schuylkill and Delaware rivers.

Each river contributes one-half of the City’s overall supply and approximately 230 million gallons of high-quality drinking water is produced for our customers on a daily basis.

Rivers are surface water supplies. Philadelphia does not use groundwater.

The Philadelphia Water Department (PWD) has three water treatment plants that process untreated river water. Depending on where you live, you receive drinking water from one of these three plants:

The Queen Lane Plant is located in East Falls and its water comes from the Schuylkill River; its intake is located along Kelly Drive.

The Belmont Plant is located in Wynnefield and its water also comes from the Schuylkill River; its intake is located along Martin Luther King, Jr. Drive.

The Baxter Plant is located in Torresdale and its water comes from the Delaware River; its intake is located at the plant on the Delaware River.

Philadelphia is located in the Delaware River Watershed, which begins in New York State and extends 330 miles south to the mouth of the Delaware Bay. The Schuylkill River is part of the Delaware River Watershed.
Safeguarding The Water You Drink

How Do Drinking Water Sources Become Polluted?

Across the nation, rivers, lakes, streams, ponds, reservoirs, springs and wells are sources of drinking water (both tap water and bottled water). Rain and melting snow travels over the surface of the land or through the ground, dissolving naturally occurring minerals and picking up substances resulting from animal and human activity and carrying these pollutants to our drinking water sources.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals can be naturally occurring or come from urban stormwater runoff (streets and parking lots), industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, are byproducts of industrial processes and petroleum production. They can also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants can be naturally occurring or can come from oil and gas production, mining activities or medical use.

At their sources, the Delaware and Schuylkill Rivers are generally clean. But as the rivers flow downstream, they pick up contaminants from many sources — stormwater runoff washes pollutants on the land into the rivers, and communities and industries discharge used water back into the rivers. Today, Philadelphia enjoys watersheds that are cleaner and healthier than they have been in well over a century. Although we have seen a dramatic improvement in the water quality of the City’s two major rivers since the passage of the Federal Clean Water Act in the early 1970s, there is still more work that needs to be done to protect our drinking water sources from pollution.

In order to ensure that tap water is safe to drink, the EPA has regulations that limit the amount of certain contaminants in water provided by water suppliers. The Food and Drug Administration establishes limits for contaminants in bottled water that 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, 800.426.4791, or from their website: www.epa.gov/safewater.
Lead in Drinking Water

The drinking water delivered to your home meets all state and federal water quality standards.

Our water mains are not made of lead. However, some homes built before 1950 may have service lines made from lead.

While lead was once a common building material, today we know lead is harmful to everyone. Pregnant women, infants, children under the age of six and adults with high blood pressure and kidney problems are at the most risk.

Lead can also be found in older brass fixtures and valves and in old solder, where pipes are joined.

Service Line: This pipe connects home plumbing to the water main in the street, and is the responsibility of the homeowner.
Whether you have lead pipes or not, all households should follow the tips below.

Instructions for daily pipe flushing
If you have not used your water for a few hours, turn on the cold water faucet at the sink that you drink from, and let the water run for three to five minutes.

Why Flush?
It’s good to avoid drinking water that has been sitting in your home’s pipes for several hours.

- Never drink hot water from the tap, or use that water for cooking. Water heaters aren’t made for drinking water.
- Clean aerators (also called screens) to remove debris from any taps used for drinking water.

How We Manage Lead
We continuously monitor drinking water to make sure our treatment helps to keep lead out of water in buildings with lead plumbing. As a part of our testing efforts, we ask Philadelphia households with lead water pipes to participate in our free tap water sampling program.

Every three years, PWD samples at least 50 homes with lead plumbing and tests the water for lead levels. These samples are a required part of the EPA’s Lead and Copper Rule, which was created in 1992 to make sure that our corrosion control treatment is working.

Our corrosion control program, as mandated by federal law and optimized over the past two decades, minimizes the release of lead from service lines, pipes, fixtures, and solder by creating a coating designed to keep lead from leaching into the water.

To date, sampling results show that our treatment is controlling corrosion in our customers’ plumbing.

Lead Testing: June – September 2017
The Philadelphia Water Department conducted a regulatory lead testing program from June through September 2017. PWD consulted with the EPA and PA DEP on the design and timeline of the testing with the intent of going above and beyond existing sampling requirements. Results from the 2017 round of testing can be found in the table on page 17. The next round of regulatory sampling will take place in 2019.

Concerned About Lead In Your Pipes?
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 on PWD’s website at www.phila.gov/lead or from the Safe Drinking Water Hotline 1.800.426.4791, or at: www.epa.gov/safewater/lead.

US EPA Guidance
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 material and components associated with service lines and home plumbing. The Philadelphia Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. If you haven’t turned on your tap for several hours, you can minimize the potential for lead exposure by flushing your tap before using water for drinking and 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 (800.426.4791) or at: www.epa.gov/safewater/lead.
**Lead in Drinking Water (continued)**

PWD continues to educate customers about lead in drinking water. Programs introduced in 2016 have helped customers replace lead service lines:

**Service line replacement during water main replacement work**

When the Philadelphia Water Department replaces a water main, we will also replace any lead service line from the main all the way to the customer’s meter. This will be done at no cost to the customer, but permission is needed to complete this valuable service.

All customers on blocks where water main replacement is scheduled will receive a letter approximately six months before construction work begins. In addition to alerting customers about construction, this letter lets them know their service line will be inspected for lead.

To date, 324 customers have had lead service lines replaced through this program.

If you think water main work is being done on your street and you did not get any notification about service lines or flushing, please call our Customer Contact Center at 215.685.6300.

**Let’s learn about lead: Community Organization Presentations**

The Philadelphia Water Department offers a 30-minute presentation about our programs and lead safety for Registered Community Organizations and civic associations. Our goal is to empower customers to address any issues with lead plumbing in their homes.

Educational materials, such as fact sheets and instructions for maintaining home plumbing, can be translated into a variety of languages to meet the needs of community members.

Since this program began, 25 Registered Community Organizations (RCOs) have participated in PWD’s lead presentations. To schedule a presentation, interested organizations can call us at 215.685.6300 or email: waterinfo@phila.gov.

**Updated website**

www.phila.gov/water/lead

Our website provides information about all Philadelphia Water Department efforts to assist and educate customers about lead in drinking water. You will find:

1. Options for getting water tested
2. How to check for lead pipes
3. Daily flushing tips to ensure fresh water
4. Tips on maintaining household plumbing
5. The most recent lead sampling results

**HELP Loan for Lead Service Line Replacement**

In the City of Philadelphia, water service lines are the responsibility of the homeowner. If you have a water service line made of lead and want to replace it, you may qualify for the Homeowner’s Emergency Loan Program (HELP). HELP is a zero-interest loan for replacement of a lead service line, payable over a sixty-month (60) period.

To date, 120 Philadelphia residents have replaced their lead service lines with a HELP loan.

**HELP Loan Eligibility Guidelines:**

- The property must be a residential dwelling and cannot have any more than four units.
- The applicant cannot be delinquent on their monthly water bill(s) for more than two (2) billing cycles. If there is an arrearage, the payment agreement with the Water Revenue Bureau must be current for at least six (6) months.
- The property must have an operable water meter.
Why is chlorine used to disinfect the drinking water?

State and federal laws require the disinfection of all public water supplies. EPA and health agencies recognize that using chlorine is one of the most effective ways to protect public health from disease-causing organisms that can be found in rivers and streams. However, chlorine can chemically react with natural materials in rivers to form disinfection by-products, such as trihalomethanes and haloacetic acids. We have been adjusting our treatment process over the years to reduce this chemical reaction, but we also ensure that the treated water that is distributed through the City's water mains to your homes has a "chlorine residual." This residual continues to protect your water against bacteria and other organisms on its journey to your home's tap. We use sodium hypochlorite, a safer form of chlorine similar to household bleach, to disinfect the water at our treatment plants.
Pharmaceuticals and Source Water

Pharmaceuticals get into drinking water because people use both prescription and over-the-counter medications. Only a portion of these substances is absorbed into the bloodstream. The rest is excreted by the body, making its way through wastewater treatment plants and back into the waterways that serve as our drinking water sources. Pharmaceuticals can also enter the waterways through the practice of improper disposal methods, such as flushing unused or expired medications down the toilet.

You can help keep unused pharmaceuticals out of the water supply by paying attention to how you dispose of unused medications. Look for take-back programs that may be established near you. The Drug Enforcement Agency (DEA) sponsors national take-back programs in coordination with State and local law enforcement agencies.

National take-back programs provide opportunities for the public to surrender expired, unwanted or unused pharmaceuticals and other medications to law enforcement officers for proper disposal. To find out about future take-back events, visit DEA’s website at www.deadiversion.usdoj.gov/drug_disposal/takeback/.

How To Properly Dispose Of Your Medications At Home!

1. Protect Your Info
   Peel off the label, or cross out all your personal information with a marker.

2. Seal the Meds
   Put the pills or liquids in another container, then cover with items like coffee grounds or kitty litter.

3. Trash It!
   Toss sealed meds in your household trash.

Learn more: www.vimeo.com/78005190

Cryptosporidium and Giardia

Cryptosporidium and Giardia are microscopic organisms found in rivers and lakes throughout the United States. If ingested, Cryptosporidium and Giardia can cause diarrhea and abdominal cramps. However, these are also symptoms of intestinal diseases caused by many bacteria, viruses and parasites.

Most healthy individuals can overcome such illnesses within a few weeks; however, immuno-compromised individuals are at a greater risk of developing a life-threatening illness and are encouraged to consult with their doctors about taking appropriate precautions to avoid infections.

PWD carefully monitors water treatment processes and works closely with the Philadelphia Department of Public Health to ensure that our tap water is free of pathogens that can be found in rivers. The Department of Public Health monitors local hospital records in real time for symptoms consistent with waterborne illnesses and would contact PWD if there were any concerns that the drinking water may be contributing to illnesses.

The Philadelphia Water Department is one of the nation’s leaders in Cryptosporidium research and was one of the first utilities in the U.S. to monitor for the organism. The Philadelphia Water Department manages a source water protection program that looks at protecting the rivers in the City as well as farther upstream of Philadelphia. PWD continues source water Cryptosporidium research, in collaboration with Lehigh University. By identifying sources of Cryptosporidium in the watershed, PWD is taking a proactive approach in improving our rivers’ water quality. Please refer to page 17 for results from 2017 Cryptosporidium monitoring.
The Schuylkill and Delaware River Source Water Assessments and Protection Plans provide a comprehensive framework for a watershed-wide effort to protect the quality and quantity of Philadelphia’s water supplies. The assessments identify and prioritize existing and potential sources of pollution while the plans outline several strategic approaches to reduce the impacts from these sources. Collectively, these documents serve as the foundation of the PWD Watershed Protection Program, a nationally recognized program that has been featured as an exemplary source water protection case study in AWWA industry guidance.

The comprehensive research and analyses completed as part of the Source Water Assessment and Protection Plans in the early 2000s identified the need for a regional partnership in the Schuylkill River Watershed to address priority contaminants through stakeholder workgroups. The resulting watershed partnership, the Schuylkill Action Network, will celebrate its 15th year of successful collaborative protection efforts in 2018.

To address unanticipated sources of water pollution, PWD established the Delaware Valley Early Warning System, a private web-based emergency communication system. PWD continues to improve upon the system’s technological capabilities and will launch a redesigned website with enhanced mobile compatibility in 2018.

The PWD Watershed Protection Program continues to collect, research, and analyze data to gain a better understanding of the risks to Philadelphia’s water supplies, which further refine protection priorities and planning needs.
How Do We Make Water Drinkable?

Like the majority of water utilities in the U.S., we use a multi-step treatment process at all three of our drinking water treatment plants. This Water Treatment Process diagram provides a brief description of drinking water treatment in Philadelphia.

1. The River
Philadelphia’s tap water comes from the Delaware and Schuylkill Rivers.

2. Gravity Settling
River water is pumped to reservoirs to allow sediment to settle.

3. Coagulation, Flocculation & pH Adjustment
Coagulant is added to make fine suspended particles clump together. Gentle mixing of the water encourages this process. The clumps of particles are called “floc.” Lime is added to adjust pH.

4. Disinfection
Sodium Hypochlorite is added to second time to kill any remaining disease-causing organisms.

5. Aeration & Biological Reduction
Air and waste-eating microbes remove remaining contaminants.

6. Disinfection
Sodium Hypochlorite is added to kill any remaining disease-causing organisms.

7. Filtration
Water flows through filters which remove even more microscopic particles.

8. Final Treatment
Fluoride is added to help prevent tooth decay, Zinc Orthophosphate is added to minimize pipe corrosion and Ammonia is added to keep the disinfectant in the water and reduce the chlorine taste and odor.

The average Philadelphia household uses about 125 gallons of water per day.

How Do We Process Wastewater?

After water is used, PWD is responsible for cleaning it before returning the water to the river. This is the Wastewater Treatment Process.

1. Collection & Pumping
Wastewater flows from homes by gravity and is pumped up to the treatment plant from underground.

2. Screening
Debris and trash are removed from the wastewater.

3. Grit Removal
Small debris, like sand and gravel, is removed by gravity.

4. Gravity Settling
Suspended solids settle to the bottom by gravity and oil and grease rise to the top.

5. Gravity Settling
The newly formed “floc” settles by gravity and is removed from the bottom of the settling tanks.

6. Gravity Settling
Living microbes settle by gravity to be recycled to the Aeration Tanks. Excess microbes are sent to the digesters.

7. Disinfection
Sodium Hypochlorite is added to kill any remaining disease-causing organisms.

8. Effluent Discharge
The treated water is returned to the river.

The River
Philadelphia’s tap water comes from the Delaware and Schuylkill Rivers.

Gravity Settling
River water is pumped to reservoirs to allow sediment to settle.

Grit to Landfill
Settled solids travel through digesters which produce natural gas and biosolids that are recycled as fertilizer.

After water is used, PWD is responsible for cleaning it before returning the water to the river. This is the Wastewater Treatment Process.

546,000,000 Gallons of water Philadelphia can treat and distribute every day.

1,000,000,000 Gallons of wastewater/stormwater Philadelphia can process a day.

Grit to Landfill
Settled solids travel through digesters which produce natural gas and biosolids that are recycled as fertilizer.

115,000,000 Gallons of wastewater/stormwater Philadelphia processes a day.

Settled solids travel through digesters which produce natural gas and biosolids that are recycled as fertilizer.
Monitoring Water Quality: What Do We Look For?

Public Drinking Water Systems monitor their treated drinking water for approximately 100 regulated contaminants. These regulatory parameters are defined within federal rules such as the Total Coliform Rule, Surface Water Treatment Rule, Disinfectants and Disinfection Byproducts Rules, Lead and Copper Rule and the Radionuclides Rule. We monitor for the regulated parameters listed below. Tables on the following pages summarize monitoring results for parameters found at detectable levels. Please refer to the glossary of terms and abbreviations for more information.

### Inorganic Chemicals:
- Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Cyanide, Fluoride, Lead, Mercury, Nickel, Nitrate, Nitrite, Selenium, Thallium

### Synthetic Organic Chemicals:
- 2,3,7,8 - TCDD (Dioxin), 2,4 – D, 2,4,5 - TP (Silvex), Alachlor, Atrazine, Benzpyrene, Carbofuran, Chlordane, Dalapon, Di(ethylhexyl)adipate, Di(ethylhexyl) phthalate, Dibromochloropropane, Dinoose, Diquat, Endothall, Endrin, Ethylene Dibromide, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxamyl, PCBs Total, Pentachlorophenol, Picroxan, Simazine, Toxaphene

### Volatile Organic Chemicals:
- Benzene, Carbon Tetrachloride, 1,2-Dichloroethane, o-Dichlorobenzene, p-Dichlorobenzene, 1,1-Dichloroethylene, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Monochlorobenzene, Styrene, Tetrachloroethylene, Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Chloroethylene, m,p-Xylenes

### Appealing to Your Senses
- We also test for alkalinity, aluminum, chloride, color, hardness, iron, manganese, odor, pH, silver, sodium, sulfate, surfactants, total dissolved solids, turbidity and zinc to ensure that your water meets all water quality taste and odor guidelines. This is so that your water looks, tastes and smells the way it should.

### Temperature and Cloudiness
- The temperature of the Schuylkill and Delaware Rivers varied in 2017 seasonally from approximately 34 degrees to 81 degrees Fahrenheit. The Philadelphia Water Department does not treat the water for temperature. Cloudiness in tap water most commonly happens in the winter, when the cold water from the water main is warmed up quickly in household plumbing. Cold water and water under pressure can hold more air than warmer water and water open to the atmosphere. When really cold winter water comes out of your tap, it’s simultaneously warming up and being relieved of the pressure it was under inside the water main and your plumbing. The milky white color is actually just tiny air bubbles. If you allow the glass to sit undisturbed for a few minutes, you will see it clear up gradually.

Parameters listed below are not part of EPA’s requirements and are provided for information purposes.

<table>
<thead>
<tr>
<th>SODIUM IN TAP WATER</th>
<th>Baxter WTP One Year Average</th>
<th>Belmont WTP One Year Average</th>
<th>Queen Lane WTP One Year Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average (ppm)</td>
<td>25 ppm</td>
<td>45 ppm</td>
<td>45 ppm</td>
</tr>
<tr>
<td>Average (mg in 8 oz. glass of water)</td>
<td>6 mg</td>
<td>11 mg</td>
<td>11 mg</td>
</tr>
<tr>
<td>Range (ppm)</td>
<td>19 – 42 ppm</td>
<td>29 – 69 ppm</td>
<td>32 – 72 ppm</td>
</tr>
<tr>
<td>Range (mg in 8 oz. glass of water)</td>
<td>4 – 10 mg</td>
<td>7 – 16 mg</td>
<td>8 – 17 mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HARDNESS IN TAP WATER</th>
<th>Baxter WTP One Year Average</th>
<th>Belmont WTP One Year Average</th>
<th>Queen Lane WTP One Year Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>90 ppm or 5 gpg</td>
<td>142 ppm or 8 gpg</td>
<td>164 ppm or 10 gpg</td>
</tr>
<tr>
<td>Minimum</td>
<td>72 ppm or 4 gpg</td>
<td>108 ppm or 6 gpg</td>
<td>127 ppm or 7 gpg</td>
</tr>
<tr>
<td>Maximum</td>
<td>113 ppm or 7 gpg</td>
<td>167 ppm or 10 gpg</td>
<td>193 ppm or 11 gpg</td>
</tr>
</tbody>
</table>

Hardness defines the quantity of minerals, such as calcium and magnesium, in water. These minerals react with soap to form insoluble precipitates and can affect common household chores such as cooking and washing. Philadelphia’s water is considered “medium” hard.

<table>
<thead>
<tr>
<th>ALKALINITY IN TAP WATER</th>
<th>Baxter WTP One Year Average</th>
<th>Belmont WTP One Year Average</th>
<th>Queen Lane WTP One Year Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>38 ppm</td>
<td>69 ppm</td>
<td>75 ppm</td>
</tr>
<tr>
<td>Minimum</td>
<td>23 ppm</td>
<td>45 ppm</td>
<td>53 ppm</td>
</tr>
<tr>
<td>Maximum</td>
<td>56 ppm</td>
<td>95 ppm</td>
<td>99 ppm</td>
</tr>
</tbody>
</table>
# 2017 Drinking Water Quality Results

Listed on pages 16 – 18 are our Drinking Water Quality Results for 2017. All results are better than the recommended federal levels designed to protect public health. By reporting these results in the tables below, we are meeting a requirement of the EPA. Please see the glossary on page 19 for definitions of abbreviations used in the tables. Some contaminants may pose a health risk at certain levels to people with special health concerns. Others are used as indicators for treatment plant performance. For more information, please visit our website at www.phila.gov/water or call us at 215.685.6300.

## LEAD AND COPPER - Tested at Customers’ Taps - Testing is done every 3 years. Most recent tests were done in 2017.

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>EPA’s Action Level</th>
<th>Ideal Goal</th>
<th>90% of PWD customers’ homes considered to have elevated levels</th>
<th>Number of homes considered to have elevated levels</th>
<th>Violation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>90% of homes must test less than 15 ppb</td>
<td>0 ppb</td>
<td>2.0 ppb</td>
<td>3 out of 89</td>
<td>No</td>
<td>Corrosion of household plumbing; Erosion of natural deposits</td>
</tr>
<tr>
<td>Copper</td>
<td>90% of homes must test less than 1.3 ppm</td>
<td>1.3 ppm</td>
<td>0.23 ppm</td>
<td>1 out of 89</td>
<td>No</td>
<td>Corrosion of household plumbing; Erosion of natural deposits; Leaching from wood preservatives</td>
</tr>
</tbody>
</table>

## CRYPTOSPORIDIUM - Tested at Source Water to Water Treatment Plants Prior to Treatment

<table>
<thead>
<tr>
<th>Treatment Technique Requirement</th>
<th>Baxter WTP One Year Range</th>
<th>Belmont WTP One Year Range</th>
<th>Queen Lane WTP One Year Range</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Samples Collected</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>Naturally present in the environment.</td>
</tr>
<tr>
<td>Number of Cryptosporidium Detected</td>
<td>15</td>
<td>2</td>
<td>6</td>
<td>Naturally present in the environment.</td>
</tr>
<tr>
<td></td>
<td>0.250 count/L</td>
<td>0.033 count/L</td>
<td>0.100 count/L</td>
<td>Naturally present in the environment.</td>
</tr>
</tbody>
</table>

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease.

## BACTERIA IN TAP WATER - Tested throughout the Distribution System. Over 460 samples collected throughout the City every month.

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Highest Level Allowed (EPA’s MCL)</th>
<th>Ideal Goal (EPA’s MCLG)</th>
<th>Highest Monthly % or Yearly Total of Positive Samples</th>
<th>Monthly Range (% or #)</th>
<th>Violation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform</td>
<td>5% of monthly samples are positive*</td>
<td>0</td>
<td>0.75%</td>
<td>0 – 0.75%</td>
<td>No</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td>Fecal Coliform or E. coli</td>
<td>0</td>
<td>1</td>
<td>0 – 1</td>
<td>No</td>
<td>Human or animal fecal waste</td>
<td></td>
</tr>
</tbody>
</table>

*Every sample that is positive for total coliforms must also be analyzed for E. coli. If a system has two consecutive total coliform positive samples, and one is also positive for E. coli then the system has an MCL violation. There were no Level 1 and Level 2 assessments required under Revised Total Coliform Rule in 2017.

## INORGANIC CHEMICALS (IOC) - PWD monitors for IOC more often than required by EPA.

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Highest Level Allowed (EPA’s MCL)</th>
<th>Ideal Goal (EPA’s MCLG)</th>
<th>Highest Result</th>
<th>Range of Test Results for the Year</th>
<th>Violation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony</td>
<td>6 ppb</td>
<td>6 ppb</td>
<td>0.4 ppb</td>
<td>0 - 0.4 ppb</td>
<td>No</td>
<td>Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder</td>
</tr>
<tr>
<td>Barium</td>
<td>2 ppm</td>
<td>2 ppm</td>
<td>0.044 ppm</td>
<td>0.027 – 0.044 ppm</td>
<td>No</td>
<td>Discharges of drilling wastes; Discharge from metals refineries; Erosion of natural deposits</td>
</tr>
<tr>
<td>Chromium</td>
<td>100 ppb</td>
<td>100 ppb</td>
<td>1 ppb</td>
<td>0 – 1 ppb</td>
<td>No</td>
<td>Discharge from steel and pulp mills; Erosion of natural deposits</td>
</tr>
<tr>
<td>Fluoride</td>
<td>2 ppm*</td>
<td>2 ppm*</td>
<td>0.72 ppm</td>
<td>0.68 – 0.72 ppm</td>
<td>No</td>
<td>Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories</td>
</tr>
<tr>
<td>Nitrate</td>
<td>10 ppm</td>
<td>10 ppm</td>
<td>4.15 ppm</td>
<td>0.71 – 4.15 ppm</td>
<td>No</td>
<td>Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits</td>
</tr>
<tr>
<td>Total Cyanide</td>
<td>200 ppb</td>
<td>200 ppb</td>
<td>36 ppb</td>
<td>0 – 36 ppb</td>
<td>No</td>
<td>Discharge from steel/metal factories; Discharge from plastic and fertilizer factories</td>
</tr>
</tbody>
</table>

*EPA’s MCL and MCLG is 4 ppm, but PADEP has set this lower MCL and MCLG which takes precedence.
### 2017 Drinking Water Quality Results (Continued)

#### TOTAL CHLORINE RESIDUAL - Continuously Monitored at Water Treatment Plants.

<table>
<thead>
<tr>
<th>Sample Location</th>
<th>Minimum Disinfectant Residual Level Allowed</th>
<th>Lowest Level Detected</th>
<th>Yearly Range</th>
<th>Violation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baxter WTP</td>
<td>0.2 ppm</td>
<td>1.10 ppm</td>
<td>1.10 – 3.52 ppm</td>
<td>No</td>
<td>Water additive used to control microbes</td>
</tr>
<tr>
<td>Belmont WTP</td>
<td>1.51 ppm</td>
<td>1.51 ppm</td>
<td>1.51 – 2.65 ppm</td>
<td>No</td>
<td>No water additive used to control microbes</td>
</tr>
<tr>
<td>Queen Lane WTP</td>
<td>1.84 ppm</td>
<td>1.84 ppm</td>
<td>1.84 – 3.59 ppm</td>
<td>No</td>
<td>No water additive used to control microbes</td>
</tr>
</tbody>
</table>

#### TOTAL CHLORINE RESIDUAL - Tested throughout the Distribution System. Over 460 samples collected throughout the City every month.

<table>
<thead>
<tr>
<th>Sample Location</th>
<th>Maximum Disinfectant Residual Level Allowed</th>
<th>Highest Monthly Average</th>
<th>Monthly Average Range</th>
<th>Violation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution System</td>
<td>4.0 ppm</td>
<td>2.25 ppm</td>
<td>1.45 – 2.25 ppm</td>
<td>No</td>
<td>Water additive used to control microbes</td>
</tr>
</tbody>
</table>

#### TOTAL ORGANIC CARBON - Tested at Water Treatment Plants.

<table>
<thead>
<tr>
<th>Treatment Technique Requirement</th>
<th>Baxter WTP One Year Range</th>
<th>Belmont WTP One Year Range</th>
<th>Queen Lane WTP One Year Range</th>
<th>Violation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Removal Required</td>
<td>25 – 45%</td>
<td>25 – 35%</td>
<td>25 – 45%</td>
<td>n/a</td>
<td>Naturally present in the environment</td>
</tr>
<tr>
<td>Percent of Removal Achieved</td>
<td>35 – 72%</td>
<td>5 – 68%</td>
<td>0 – 88%</td>
<td>No</td>
<td>No water additive used to control microbes</td>
</tr>
<tr>
<td>Number of Quarters out of Compliance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

PWD achieved TOC removal requirements in all quarters of 2017 at all WTPs. Compliance is based on a running annual average computed quarterly. The numbers shown represent a range of TOC results in weekly samples.

#### SYNTHETIC ORGANIC CHEMICALS (SOC)

<table>
<thead>
<tr>
<th>Chemical</th>
<th>EPA’s MCL</th>
<th>EPA’s MCLG</th>
<th>Highest Result</th>
<th>Yearly Range</th>
<th>Violation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-D</td>
<td>70 ppb</td>
<td>70 ppb</td>
<td>0.7 ppb</td>
<td>0 – 0.7 ppb</td>
<td>No</td>
<td>Runoff from herbicide used on row crops</td>
</tr>
<tr>
<td>Atrazine</td>
<td>3 ppb</td>
<td>3 ppb</td>
<td>0.3 ppb</td>
<td>0 – 0.3 ppb</td>
<td>No</td>
<td>Runoff from herbicide used on row crops</td>
</tr>
</tbody>
</table>

#### TURBIDITY - A Measure of Clarity (Tested at Water Treatment Plants)

<table>
<thead>
<tr>
<th>Treatment Technique Requirement: 95% of samples must be at or below 0.300 NTU</th>
<th>Baxter WTP</th>
<th>Belmont WTP</th>
<th>Queen Lane WTP</th>
<th>Violation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest single value for the year 0.084 NTU</td>
<td>0.084 NTU</td>
<td>0.083 NTU</td>
<td>0.20 NTU</td>
<td>No</td>
<td>Soil runoff, river sediment</td>
</tr>
</tbody>
</table>

#### DISINFECTION BY-PRODUCTS

<table>
<thead>
<tr>
<th>Highest Level Allowed (EPA’s MCL) - One Year Average</th>
<th>Running Annual Average 2017*</th>
<th>System Wide Range of Individual Results</th>
<th>Violation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Trihalomethanes (TTHMs)</td>
<td>80 ppb</td>
<td>58 ppb</td>
<td>16 – 84 ppb</td>
<td>No</td>
</tr>
<tr>
<td>Total Haloacetic Acids (THAAs)</td>
<td>60 ppb</td>
<td>45 ppb</td>
<td>11 – 78 ppb</td>
<td>No</td>
</tr>
</tbody>
</table>

*Monitoring is conducted at 16 locations throughout the City of Philadelphia. This result is the highest locational running annual average in 2017.
Glossary

Some of the words we use in the following charts may not be familiar to you. Here are definitions of technical and other terms.

**Action Level**: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. The action level is not based on one sample; instead, it is based on many samples.

**Alkalinity**: A measure of the water's ability to resist changes in the pH level and a good indicator of overall water quality. Although there is no health risk from alkalinity, we monitor it to check our treatment processes.

**E. coli** (Escherichia coli): A type of coliform bacteria that is associated with human and animal fecal waste.

**gpg (grains per gallon)**: A unit of water hardness. One grain per gallon is equal to 17.1 parts per million.

**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.

**mg/L (Milligrams per liter)**: One milligram per liter is equal to one part per billion.

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

**MRDLG (Maximum Residual Disinfection Level Goal)**: The level of a disinfectant in drinking water 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**: The minimum level of residual disinfectant required at the entry point to the distribution system.

**NTU (nephelometric turbidity units)**: Turbidity is measured with an instrument called a nephelometer. Measurements are given in nephelometric turbidity units.

**Pathogens**: Bacteria, virus, or other microorganisms that can cause disease.

**pCi/L (Picocuries per liter)**: A measure of radioactivity.

**ppm (parts per million)**: Denotes 1 part per 1,000,000 parts, which is equivalent to two thirds of a gallon in an Olympic-sized swimming pool.

**ppb (parts per billion)**: Denotes 1 part per 1,000,000,000 parts, which is equivalent to half a teaspoon in an Olympic-sized swimming pool.

**μg/L (Microgram per liter)**: One microgram per liter is equal to one part per billion.

**ppt (parts per trillion)**: Denotes 1 part per 1,000,000,000,000 parts, which is equivalent to one drop in 20 Olympic-sized swimming pools.

**SOC (Synthetic Organic Chemical)**: Commercially made organic compounds, such as pesticides and herbicides.

**TOC (Total Organic Carbon)**: A measure of the carbon content of organic matter. This measure is used to indicate the amount of organic material in the water that could potentially react with a disinfectant to form disinfection byproducts.

**TTHMs (Total Trihalomethanes)**: A group of chemicals known as disinfection byproducts. These form when a disinfectant reacts with naturally occurring organic and inorganic matter in the water.

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

**Turbidity**: A measure of the clarity of water related to its particle content. Turbidity serves as an indicator for the effectiveness of the water treatment process. Low turbidity measurements, such as ours, show the significant removal of particles that are much smaller than can be seen by the naked eye.

**VOC (Volatile Organic Chemicals)**: Organic chemicals that can be either man-made or naturally occurring. These include gases and volatile liquids.

**WTP**: Water Treatment Plant
Your Support Means More Green Milestones

How has Philadelphia integrated thousands of green tools into our neighborhoods, preventing more than 1.5 billion of gallons of polluted stormwater runoff from entering the City’s waterways each year?

With the help of our most important partner: you.

It took the collaboration of state and federal environmental protection agencies, City departments, advocacy groups, and more, to establish our mold-breaking stormwater management plan back in 2011.

But you made Green City, Clean Waters what it is today.

Why Your Support Matters

What began as an innovative way to meet environmental regulations, has evolved into a community-driven initiative that’s gained the attention and support of thousands of business owners, residents, students and civic groups.

From high school students like the Watershed Stewards who spend their summers protecting the Cobbs Creek watershed, to the dedicated homeowners who manage stormwater on their properties through the Rain Check program, nearly half a million residents have joined us since Green City, Clean Waters launched in building a greener future with vibrant, healthy waterways.

This robust support is so crucial because, unlike most water infrastructure, green tools like rain gardens are far from “out of sight, out of mind”—they become a visible, living part of our neighborhoods, parks, schools, businesses, houses of worship, and beyond.

Having a city like Philadelphia where communities are open to revolutionary ideas and people believe in the benefits of the nature-based solutions that drive Green City, Clean Waters is what has made the success of America’s first large-scale green stormwater management program possible.

What We’ve Accomplished So Far

In October 2017, we joined Mayor Kenney and many partners to honor those who helped us hit a major Green City, Clean Waters milestone—our 1,000th Greened Acre. Hailed as 1,000 (Green) Thank Yous, the event celebrated the teamwork and individual support that makes continued water quality improvement possible.

Each Greened Acre—a measurement we use to track progress—can keep nearly 28,000 gallons of stormwater runoff out of the sewer system during a typical 1-inch rainstorm. With a constantly expanding green footprint, we’re quickly approaching 1,100 Greened Acres in the city. That adds up to nearly 30 million gallons of runoff managed with green tools when we get an inch of rain.

Improving Watersheds Together

The support and enthusiasm that our partners have for green infrastructure and clean water manifests itself in different, but equally important, ways.

Attending community meetings about upcoming projects, committing time to maintain neighborhood green tools through our Soak It Up Adoption program, and applying for grants to build green infrastructure projects are just some of the ways partners work with us to protect our shared watersheds.

Our fellow City agencies play a big role too. Their assistance lets us bring green infrastructure to parks, recreation centers, and even public transportation stops to help beautify neighborhoods while keeping our waterways clean.

We won’t reach our final goal of 9,600 Greened acres until 2036, but with the help of civic and private partnerships, nonprofit organizations, City agencies, and residents like you, we know Philadelphia is up to the challenge.

How to Get Involved

Looking to participate in a Green City, Clean Waters program? Visit www.phillywatersheds.org to find a way that you can take part or head to www.pwdraincheck.org to find out how we can help you manage stormwater at home with free rain barrels and more.
In 2017, the Fairmount Water Works Interpretive Center (FWW) continued to maximize upon the previous year’s momentum by expanding its programs. FWW provides family-friendly activities, on- and off-site guided public tours, and hands-on lessons for pre-K through college-age students.

FWW established and enhanced relationships with organizations with a similar mission, by serving as the event venue of choice for lectures and cocktail receptions, all while raising more than $6,000 towards our educational programs.

Freshwater Mussel Hatchery
Thanks to the hard work of our partners, the Mussel Hatchery Exhibition and Aquatic Field Station has successfully cultivated more than 30,000 baby mussels to help clean our watershed! Almost 18,000 visitors have come to see the hatchery since its February 2017 opening. Come see the Hatchery for yourself during our normal operating hours, or visit www.mightymussel.com for more information.

Visit Us: People of all ages are invited to join us in discovering the wonders of water in our world. Visit www.fairmountwaterworks.org or call 215.685.0723 for the latest program listings, tours, and events.

Tours
FWW participated in the Parkway Museum District’s Parkway 100 Celebration, by bringing back its “Walk Along the Parkway” tour, perfect for history buffs and architectural mavens! More than a dozen attendees raved about the tour, led by Ken Hinde, who has more than 40 years of tour guide experience. As a result of feedback, FWW offered a “Behind-the-Scenes” and an “Inside & Out” tour, both with increased attendance. In keeping with this momentum, FWW has expanded its tour offerings and dates. Check our website for upcoming tours.

The Watershed is an Open Book
The Fairmount Water Works recently launched a new two-year, pre-K family program, “The Watershed Is an Open Book”, in partnership with Mander Recreation Center (Mander) and Let’s Go Outdoors. This pilot program is one of eight supported by the William Penn Foundation through its new Informal Learning Initiative. Each series of 12-week programs, offered four times a year to coincide with the seasons, is designed to connect neighborhood community participants to the watershed in which they live and to offer new learning opportunities at the FWW.

The activities, materials and training are designed to enhance reading readiness by simultaneously building the child’s language development and the caregiver’s informal “teaching” skills. This program highlights the significance of utilizing language learning opportunities “where they are” and developing environmental literacy “where they live”. Since launching the program in fall 2017, many families return week to week for literacy skill building and environmental exploration.

Partnerships
The FWW partnered with various organizations with shared missions, including: GoPhillyGo, BioPhilly, Keep Philadelphia Beautiful, United by Blue and the Pennsylvania Department of Environmental Protection to help bring public awareness to caring for and becoming ambassadors for our environment.

The Fairmount Water Works also helped launch the Alliance for Watershed Education, a consortium of 23 environmental education centers in New Jersey, Pennsylvania, and Delaware.

Canoemobile 2017 (above)
FWW staff once again partnered with Wilderness Inquiry, playing a key role in helping area youth experience and learn about the river as a part of last year’s Canoemobile!

In October 2017, 400 students from Philadelphia and surrounding areas enjoyed land-based watershed activities before canoeing on both the Delaware and Schuykill Rivers. Activities included watershed modeling, learning the cultural history of the river, and water quality testing.

Water and Food: The Art of Irrigation
FWW hosted a three-month exhibition highlighting the vital connection between water, food, and agriculture. The exhibit was in partnership with the Global Water Alliance and UNAGP.

We also invite you to connect with us on Facebook, Twitter, and Instagram (@FairmountWW).
Clean Water Begins and Ends With You!

Don’t Pollute!

Water that enters our storm drains often flows directly to our local streams and rivers. Do your part to help protect our waterways:

- Always recycle or dispose of household hazardous wastes properly.
- Don’t pour motor oil, antifreeze or other toxic materials down storm drains, which connect to the city’s sewer system.
- Don’t flush paint thinners, insect sprays, herbicides and other harmful chemicals down the toilet or put them down the sink.

Contact the Streets Department to get a schedule of their Household Hazardous Materials Drop-off Events where you can dispose of these materials safely without polluting your drinking water supply.

We welcome your ideas and opinions

We participate in nearly 200 public and community events a year, including presentations made at schools, ongoing educational programs and other environmental celebrations. We offer ways for individuals, families, students, seniors, community groups and others to participate in learning about protecting water.

Contact us

Philadelphia Water Department
Aramark Tower
1101 Market Street, 6th Floor
Philadelphia, PA 19107-2994

Customer Contact Center:
215.685.6300

Get Involved

If you would like to help protect your water supply or watershed, please call the Philadelphia Water Department at 215.685.6300, visit our website at www.phila.gov/water, or see Table 2 on page 23.
### Table 1: Who To Call To Report Various Situations

<table>
<thead>
<tr>
<th>Situation</th>
<th>Who to Call</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dead Fish</td>
<td>Fish &amp; Boat Commission</td>
<td>717.626.0228</td>
</tr>
<tr>
<td></td>
<td>PADEP</td>
<td>484.250.5900</td>
</tr>
<tr>
<td>Illegal Dumping &amp; Related Pollution Activities</td>
<td>PADEP</td>
<td>484.250.5900</td>
</tr>
<tr>
<td></td>
<td>PWD</td>
<td>215.685.6300</td>
</tr>
<tr>
<td>Sewage Spills</td>
<td>PADEP</td>
<td>484.250.5900</td>
</tr>
<tr>
<td></td>
<td>PWD</td>
<td>215.685.6300</td>
</tr>
<tr>
<td>Oil &amp; Gas Spills/Accidents</td>
<td>PADEP</td>
<td>484.250.5900</td>
</tr>
<tr>
<td></td>
<td>PWD</td>
<td>215.685.6300</td>
</tr>
</tbody>
</table>

### Table 2: Places To Go To Get Involved In Protecting Your Local Streams, Rivers And Water Supply

<table>
<thead>
<tr>
<th>Organization</th>
<th>Activity Type</th>
<th>Phone</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Alliance for Senior Involvement</td>
<td>A, C, E, P, T</td>
<td>203.779.0024</td>
<td><a href="http://www.easi.org">www.easi.org</a></td>
</tr>
<tr>
<td>Friends of Fox Chase Farms</td>
<td>A, C, E, P</td>
<td>215.728.7900</td>
<td><a href="http://www.foxchasefarm.org">www.foxchasefarm.org</a></td>
</tr>
<tr>
<td>Friends of the Manayunk Canal</td>
<td>A, C, E, P, T</td>
<td>N/A</td>
<td><a href="http://www.manayunkcanal.org">www.manayunkcanal.org</a></td>
</tr>
<tr>
<td>Lower Merion Conservancy</td>
<td>A, C, E, P, T</td>
<td>610.645.9030</td>
<td><a href="http://www.lmconservancy.org">www.lmconservancy.org</a></td>
</tr>
<tr>
<td>Philadelphia Anglers Club</td>
<td>A, C, E, F</td>
<td>N/A</td>
<td><a href="http://www.philadelphiaanglersclub.com">www.philadelphiaanglersclub.com</a></td>
</tr>
<tr>
<td>Schuylkill Banks</td>
<td>B, E</td>
<td>N/A</td>
<td><a href="http://www.schuylkillbanks.org">www.schuylkillbanks.org</a></td>
</tr>
<tr>
<td>Schuylkill Center for Environmental Education</td>
<td>A, B, C, E, P, T</td>
<td>215.482.7300</td>
<td><a href="http://www.schuylkillcenter.org">www.schuylkillcenter.org</a></td>
</tr>
<tr>
<td>Senior Environment Corps</td>
<td>A, C, E, P, T</td>
<td>215.848.7722</td>
<td><a href="http://www.centerinthepark.org">www.centerinthepark.org</a></td>
</tr>
<tr>
<td>Wissahickon Valley Watershed Association</td>
<td>A, C, E, P, T</td>
<td>215.646.8866</td>
<td><a href="http://www.wvwa.org">www.wvwa.org</a></td>
</tr>
</tbody>
</table>

### Activity Types

- **A**: Environmental activism
- **B**: Business-related protection and educational activities
- **C**: Clean-up of trash and litter
- **E**: Environmental education
- **F**: Fishing or fish recreation activities
- **L**: Land conservation and management
- **P**: Planting trees and streambank repair/protection
- **R**: Rowing, canoeing and related boating activities
- **S**: Storm drain marking
- **T**: Water quality testing