

Protecting and Preserving Our Waterways

The Philadelphia Water Department (PWD) is always working to protect your water resources. This includes managing the stormwater that comes with heavy rain or snow falls. We are working on ways to control stormwater that also help our waterways. Our plan to do this is called a “Long Term Control Plan,” or LTCP.

Part of our plan includes studying at our combined sewer system and the rivers and streams. This means we now know how our system is working, and where we can make changes to help it work better.

What is a Combined Sewer Overflow (CSO)?

A combined sewer system brings wastewater from homes, businesses and industry, and stormwater from the storm drains on our streets through a single-pipe system to a Water Pollution Control Plant (treatment plant).

Under heavier rainfall conditions, the flow in combined sewers may be more than the pipe or treatment plant can handle. This means that some of the wastewater and stormwater may flow directly to a nearby stream or river to prevent the flooding of homes and streets. This is what is known as a Combined Sewer Overflow.

What is a Watershed?

A watershed is the land surrounding a system of rivers (or streams or creeks), or a particular river, that, when it rains, sheds the runoff into that waterway.

Everything you do impacts your watershed. Runoff from garden fertilizers, hazardous substances like used motor oil, and trash dumped into one area of a river bank, can pollute water many miles downstream. Protecting and preserving our watersheds helps protect our water resources.

The watersheds that drain directly to Philadelphia are: Darby Cobbs Watershed, Schuylkill Watershed, Wissahickon Watershed, Delaware Watershed, Pennypack Watershed, Tookany/Tacony-Frankford Watershed and Poquessing Watershed.

Green City – Clean Water

We want to make Philadelphia’s urban landscape into a vibrant, green community where people want to live and work.

Philadelphia can be a green city with clean water -- and benefit economically at the same time. We can help our watershed as well as our region’s economic health, quality of life and sustainability.

PWD has the knowledge and experience for creating and managing a watershed approach to Combined Sewer Overflow (CSO) control. We own and operate the City’s sanitary sewers, storm sewers, combined sewers and wastewater treatment plants. We work in cooperation with the Philadelphia City Planning Commission to help local builders and developers include stormwater management in many of their projects.

In 2007, PWD began to review its CSO Long Term Control Plan (LTCP) and capital improvements program. We want to make sure our capital improvement projects control CSOs.

For our CSO Long Term Control Plan Update (LTCPU), we have developed new ways to handle sanitary sewer system flows. We have also been successful in reducing CSOs.

Over the past few years, we have gathered thousands of facts about the Schuylkill and Delaware Rivers, as well as the Cobbs and Tookany/Tacony-Frankford Creeks. We have information about their water quality, aquatic wildlife, history, land use, cultural resources, and more.

Watersheds and Waterways

We work with many local partners, including educational and environmental groups, township and other governments, and volunteer organizations. These partnerships are very important in the work we do to protect our waterways. The partnerships work together to write a plan to improve the water resources in each watershed.

Using a watershed approach means we look at more than just Philadelphia’s city boundaries. Rivers and streams don’t stop at those boundaries, so we don’t either.

Some waterways are already damaged – erosion, trash-dumping, and neglect can mean polluted water or even further erosion. We are working to clean up damaged waterways. This will protect the land nearby, and let us enjoy recreational activities on or near the waterways.

Looking at The Tookany/Tacony-Frankford Watershed



The Tookany/Tacony-Frankford Creek Watershed is in Philadelphia and Montgomery counties, and is 29 square miles in size. From 2000 to 2004, PWD collected water data for the watershed to look at the health of the water and the land.

We then compared our findings with 46 standards set by the Pennsylvania Department of Environmental Protection. These standards tell us if the water can be used for drinking, and recreational uses, and if the water is clean enough for human health and aquatic life.

Our results were positive, but we did find some areas where we want to improve, and we developed our Watershed Management Plan.

Some of the issues we are now working on include: stream bank erosion, loss of floodplain, pollution from urban development, suspected sewer leaks, and trash and debris dumping.

We have identified the wetlands that need help the most, and developed a list of 26 projects to improve the health of these areas. We are also planting trees to help control erosion, and removing some invasive plants and aquatic life that harm our natural wildlife.

Glossary

Here are definitions of some of the terms we use when talking about water.

Sanitary Sewer

Underground pipes that carry only domestic or industrial waste, not stormwater. *Definition from the U.S. Environmental Protection Agency (EPA).*

Sanitary Sewer Overflow (SSO)

Untreated or partially treated sewage overflows from a sanitary sewer collection system. *Definition from Philadelphia Water Department.*

Stormwater

The water that runs off surfaces such as rooftops, paved streets, highways and parking lots. It can also come from hard, grassy surfaces like lawns, play fields, and from graveled roads and parking lots. *Definition from King County, Water and Land Resources Division.*

Wastewater

The spent or used water from a home, community, farm, or industry that contains dissolved or suspended matter. *Definition from EPA.*

Water Pollution

The presence in water of enough harmful or objectionable material to damage the water's quality. *Definition from EPA.*

Other Resources

PhillyRiverInfo

<http://www.phillyriverinfo.org/>
On this website, you will find general information on Philadelphia's watersheds. Check this site to find out what is going on in your watershed!

Green Cities, Clean Waters (LTCPU)

<http://www.phillyriverinfo.org/csoltcpu/>
This website focuses on the Green Cities, Clean Waters Program (Combined Sewer Overflow Long Term Control Plan Update). Read about details of the plan and learn about the basics of a combined sewer system.

CSOCast

<http://www.phillywatersheds.org/csocast/>
This website shows the overflow status of the City's 164 Combined Sewer Outfalls. It is updated twice daily.

RiverCast

<http://www.phillyrivercast.org/>
This is a forecast of water quality that predicts potential levels of pathogens in the Schuylkill River between Manayunk and Boathouse Row. Visit this site to find out the daily RiverCast prediction.

Rain Barrel Program

<http://www.phillywatersheds.org/rainbarrel/>
PWD is providing rain barrels to residents of Philadelphia's watersheds free of charge. To receive a rain barrel, you must attend a rain barrel workshop. Check this website to see the schedule.