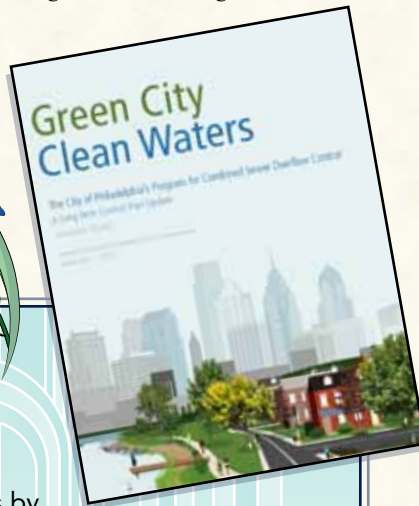


## Philadelphia Green City, Clean Waters

Flowers are nature's artwork, with vibrant colors in foliage and petals relying on the availability of plentiful, clean water. The *Green City, Clean Waters* plan was recently launched by the Philadelphia Water Department to unite the City of Philadelphia with its water environment, creating a green legacy for future generations while incorporating a balance between ecology, economics, and equity.

As rain or melting snow drains off of our yards and roadways it picks up pollutants (such as trash, leaky engine fluids, animal waste, excess lawn chemicals, etc.). By handling rainwater more naturally we can assure clean and reliable water for fishing, swimming and drinking.

Sidewalk and downspout planters and porous pavers are just a few ways that property owners can help prevent stormwater pollution. These tools slow, absorb and filter the rain water. Whether found at a quaint, Parisian flower shop or a South Philly steak shop, these green practices can be used to clean and manage stormwater while making storefronts brighter.



**Green City, Clean Waters** is PWD's vision for protecting and enhancing our watersheds by managing stormwater with innovative green infrastructure throughout our City, maximizing economic, social, and environmental benefits to Philadelphia.

## Other Ways You Can Help

Whether your yard is 2 feet or 2 miles from the nearest waterway, it affects the health of our streams. During rainstorms, water flowing across the ground can pick up loose soil, pesticides, herbicides, fertilizers, or anything else on your driveway, rooftop, and sidewalks, and carry it to the local waterway.

### Here is what you can do to help:

**Plant more trees and shrubs** – their roots absorb much more water than grass alone.

**Harvest rainwater in rain barrels** and use it to water your plants during dry periods.

**Use organic fertilizers**, pesticides and herbicides only as needed (or not at all!)

**Garden with native plants** – adapted to our climate, they require less chemical intervention.

**Stabilize areas of bare soil** with plants and trees as soon as possible.

**Limit impervious surfaces** like concrete and asphalt on your property.

**Build or buy a flow through planter** so you don't have to water your plants as much.

**Never discard yard waste in streams or storm sewers.**

**Consider installing a rain garden** in areas where water naturally collects in your yard.

For more information on how you can help, visit [www.phillywatersheds.org](http://www.phillywatersheds.org).



## Find Out More!

Visit the **Fairmount Water Works Interpretive Center** at 640 Waterworks Drive (below the Philadelphia Museum of Art).

Come and visit our interactive exhibits and theater, where you can explore the wonders of "*Water in Our World*," and get helpful hints on the wise use of water in your garden.

[www.fairmountwaterworks.org](http://www.fairmountwaterworks.org) or call 215-685-0723.

### Hours:

Tuesday–Saturday: 10:00am – 5:00pm

Sunday: 1:00pm – 5:00pm

Closed on City holidays.

Admission is free and the Center is ADA accessible.

## Exhibit Sponsors



**Philadelphia Water Department (PWD)** supplies drinking water, wastewater and stormwater treatment services

to the City and many suburban communities. The Department actively promotes good stewardship for the Delaware Estuary through its day-to-day water and wastewater operations, its nationally recognized Office of Watersheds programs, and its award winning Public Education programs. In addition, PWD practices Conservation Landscaping at many of its facilities and works to share the lessons learned from these projects with partners across the region.

[www.phila.gov/water](http://www.phila.gov/water)



### Partnership for the Delaware Estuary — A National Estuary Program

is a non-profit organization established in 1996 with a mission to lead collaborative and creative efforts to protect and enhance the Delaware Estuary.

The Estuary, where fresh water and salt water mix, is also known as the tidal portion of the Delaware River and its tributaries, including parts of Pennsylvania, New Jersey and Delaware. It is one of twenty-eight congressionally designated National Estuary Programs in the country working to improve the environmental health of the nation's estuaries.

[www.DelawareEstuary.org](http://www.DelawareEstuary.org)

### Project Contributors:

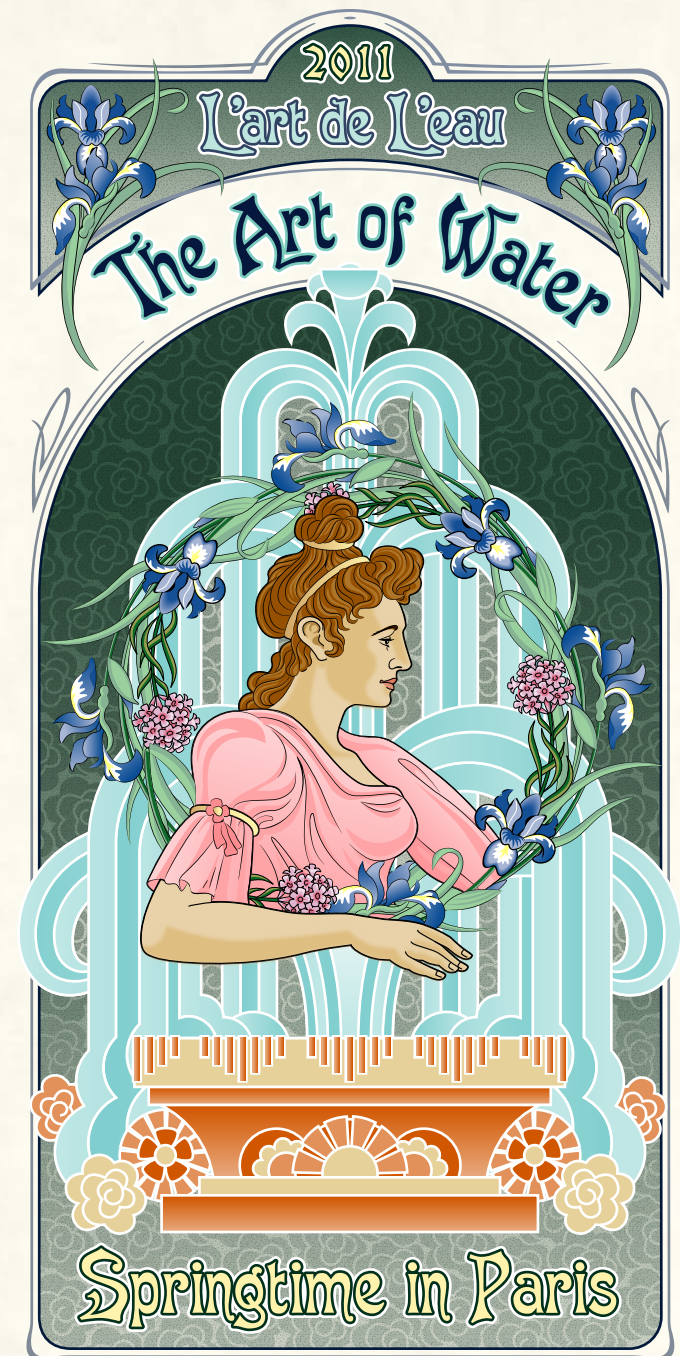
Landscaping design and installation by Joe Vetrone.

Backdrop designed and painted by Vanessa Fenton.

Brochure and signage designed by Frank McShane.



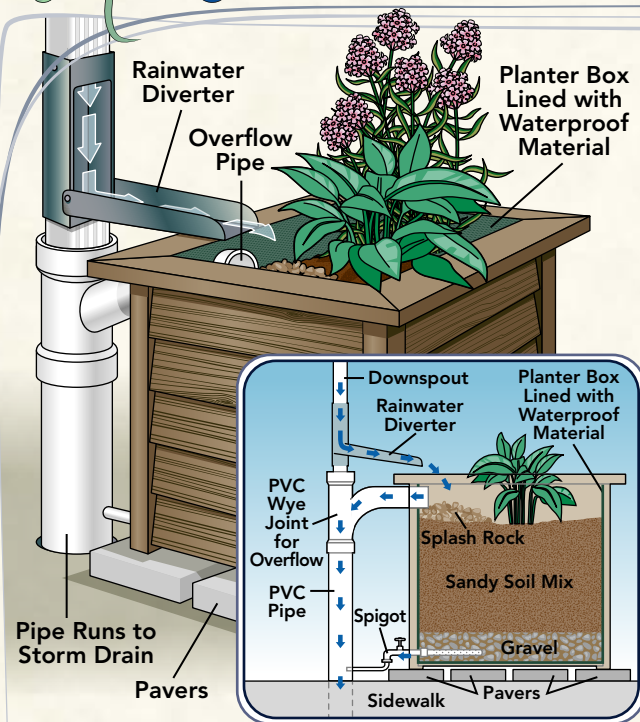
♻️ Printed on Recycled Paper





# Philadelphia – Green City, Clean Waters

## Here are Some Ways to Help Keep Philadelphia's Waterways Clean:



### Downspout Planters

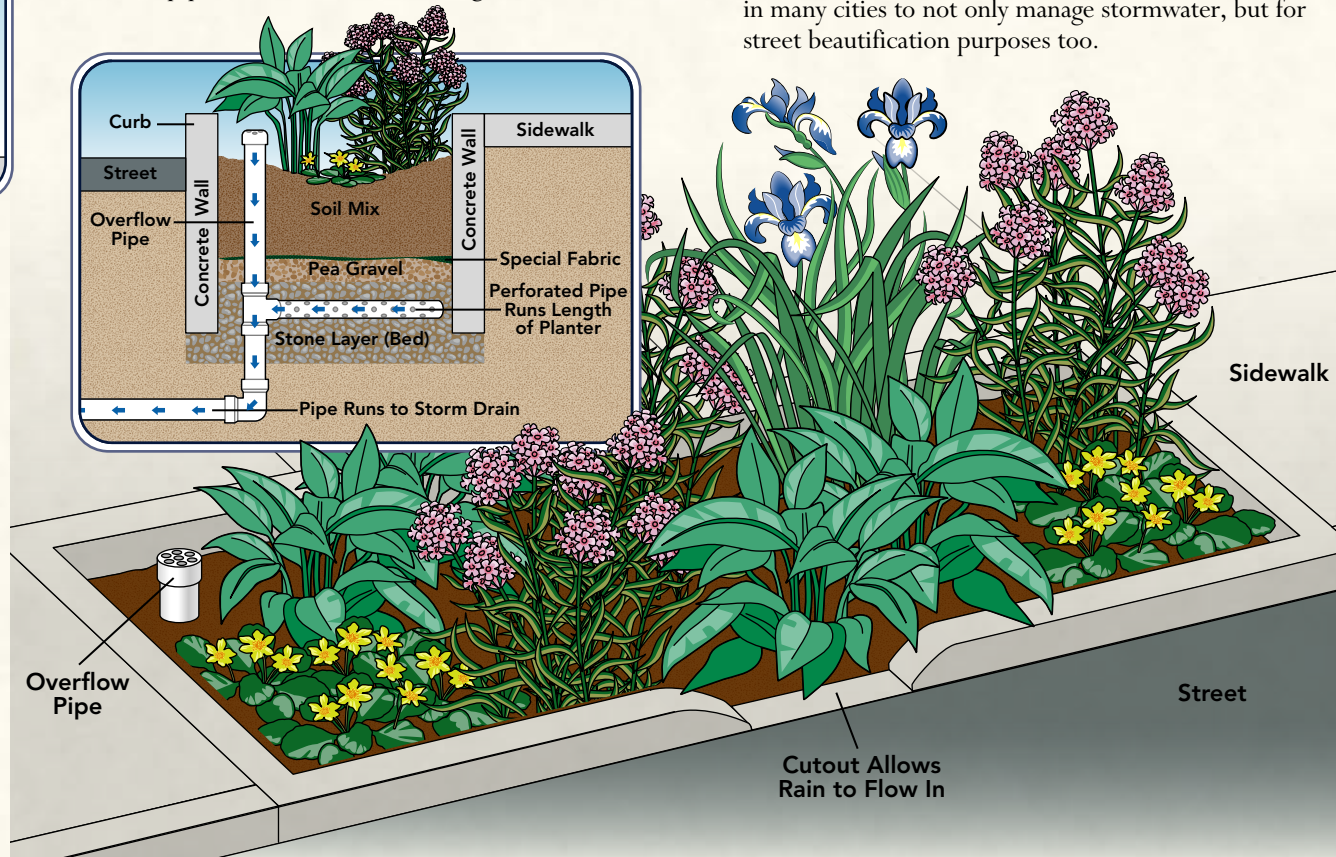
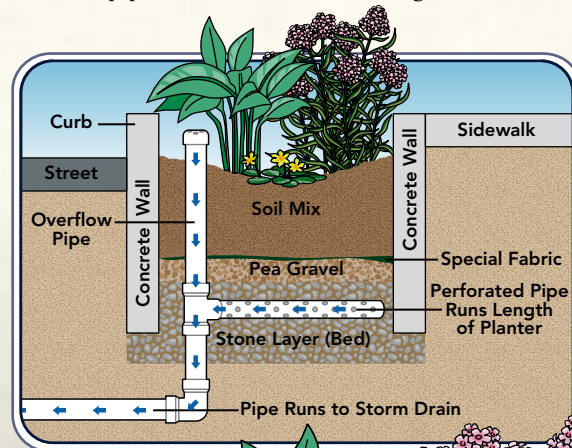
These specially designed planters are filled with gravel, soil, and then plants. A connection to the roof downspout lets rain flow into the planter and water the plants. There is another pipe that connects back to the existing downspout to drain excess water.

These planters temporarily store water and filter pollutants as the water soaks down through soil and stone in the planter. Downspout planters are typically lined on the inside with some type of waterproofing. They can be constructed in many sizes and shapes, and with various materials, including concrete, brick, plastic, lumber, or wood.

These specially designed planters not only help keep our waterways clean, but the plants need far less watering than a typical planter during hot summer months.

### Sidewalk Stormwater Planter

Similar to a downspout planter, this vegetated space in between the sidewalk and the street provides an absorption area for the rainwater draining off the sidewalk and road. It is traditionally rectangular, with four concrete sides. A stone layer (or bed) is placed beneath the planter to allow for additional storage of rainwater. The stone layer is wrapped in a special fabric that allows water to soak through. The planter is then filled with soil, plants, and sometimes trees. Oftentimes, the top of the soil in the planter is lower than the sidewalk, allowing for rain to flow into the planter through an inlet at street level. If it rains too much, there is an overflow pipe connected to the existing sewer.



Special plants must be used in these planters. The plants must be species that are able to tolerate wet soils for extended periods of time and dry conditions during droughts. Due to their proximity to the harsh conditions of street life, plants should be hardy and salt-tolerant (winter deicers). Native plants, or plants that would naturally occur in this region, are also suggested. They require less pesticides and fertilizers because they have evolved to grow under local conditions.

These planters help rainwater soak into the ground as well as hold the water to keep the plant and tree roots moist over time. Since the rain soaks into the ground within a few days, mosquitoes do not have enough time to reproduce. Sidewalk planters are being used in many cities to not only manage stormwater, but for street beautification purposes too.



### Porous Pavers

Where a hard surface is necessary, porous pavers can be used. These interlocking pavers are spaced apart with gravel or grass (not concrete). These spaces allow rain and melting snow to soak into the ground.

This porous surface has a layer of stone underneath. The spaces in between the stone provide temporary storage for the water as it slowly soaks into the ground. Allowing the water to drain into the ground rather than run off into a nearby storm drain can reduce flooding and pollution that would eventually end up in local waterways.

Black ice or the refreezing of melted snow rarely occurs on porous parking lots because water drains through the porous paving, leaving nothing to refreeze at dusk.

There are many different types of porous surfaces including pervious asphalt, pervious concrete, and these interlocking pavers.