Columbus and Philly

use green infrastructure to beautify neighborhoods and create jobs

Although Peoria has a chance to be the first municipality in the nation to mitigate CSOs with 100% green infrastructure, a diverse group of cities has successfully incorporated green infrastructure plans, studies or pilots into their Clean Water Act settlements with the U.S. EPA. These range from Chicago and Seattle … to Chattanooga, Tenn., and South Bend, Ind.

For your reference, we have included snapshots about two communities using green infrastructure: Philadelphia and Columbus, Ohio.

COLUMBUS, OHIO

This Midwestern city has struggled with both combined sewer overflows—similar to Peoria—and sanitary sewer overflows (SSOs). The latter occurs when there is an overflow, spill or release of raw or partially treated sewage from a sanitary sewer collection system before it reaches a treatment plant.

To resolve its CSO issue, Columbus decided to build gray infrastructure, including a major tunnel that remains under construction. But in 2012, the mayor challenged city staff to take a fresh approach that would do more than just stop pollution. Using a green approach, Columbus could invest in its neighborhoods and create local jobs. Called Blueprint Columbus, green plans include transforming a vacant lot into a park-like area with a porous pavement basketball court and bioswales.

And economic development plans involve partnering with the Urban League and the area community college to train new workers and equip small businesses with new green-building skills.
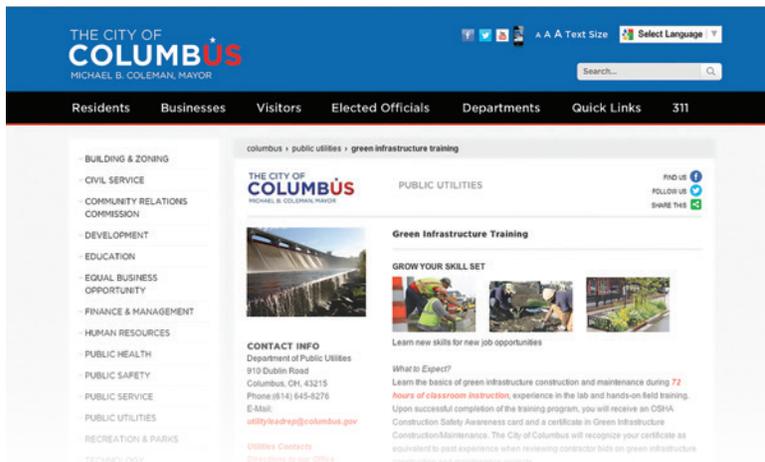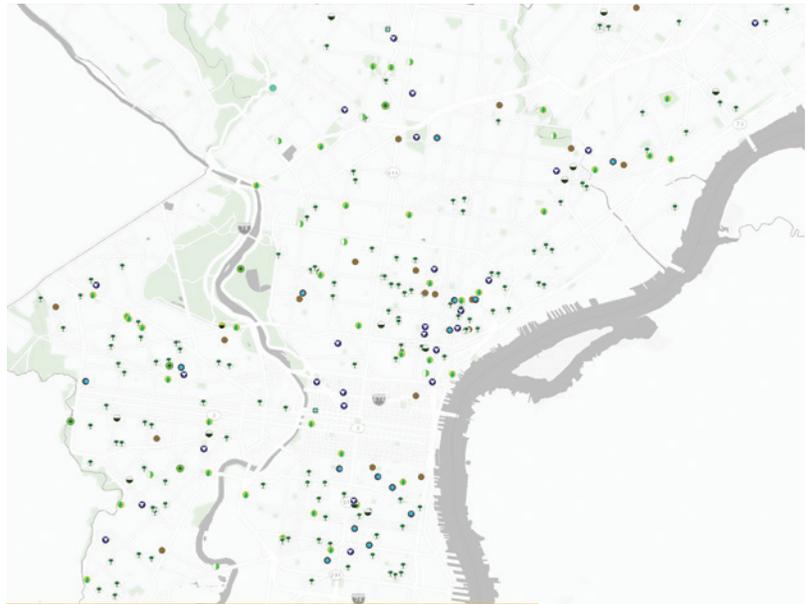

THE CITY'S WEBSITE has resources for workers and firms seeking training on green infrastructure construction and maintenance.

PHILADELPHIA

Back in 2011, the City of Brotherly Love made news by forming a friendly accord with the U.S. EPA. The stated goal of the pioneering Partnership Agreement? To advance the use of green infrastructure for urban wet weather pollution control, including sewer overflows. The initial five-year implementation plan called for, among other things: integrating green programs into school science curriculum; holding a Green Design Challenge for local projects; and building a "Big Green Block" designed to manage stormwater runoff for a full acre of land.

In a 2015 interview, Erin Williams of the Philadelphia Water Department said her city's "green-forward" plan was crafted to go beyond simply meeting NPDES permit requirements. "The idea was crafted by visionaries at the Water Department. We wanted to do something transformative" for the city, she said.

THE CITY'S BIG GREEN MAP shows the public where green infrastructure projects are happening.

Securing broad buy-in for the roughly $2 billion initiative wasn't problematic because the pricetag for a gray infrastructure approach was, by comparison, two to three times more costly. And because Philadelphia already had a robust Water Department and decades-old stormwater utility, citizens were accustomed to a comprehensive approach to wet weather. In fact, a stakeholder group advised the city to change its stormwater billing approach—away from a water-meter-based system, to a parcel-based system—to make funding more equitable. Williams said this 2010 change brought an added benefit: Shifting people's behavior in how they manage their own properties.

Philadelphia is now funding its Green City, Clean Waters program with a mix of sanitary and stormwater revenues, with an eye on reducing sewer overflows by 85%.

ADDITIONAL READING:

- EPA green infrastructure overview: http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm
- More case studies of green infrastructure solutions: http://www.nrdc.org/water/pollution/rooftopsii
- Blueprint Columbus website: http://www.columbus.gov/blueprint
- Blueprint Columbus video: http://youtu.be/do6jFv_HdbE
- Stormwater Report Article: http://stormwater.wef.org/2015/02/columbus-solves-sso-problem-creates-jobs-residents
- Philadelphia Water Department's Green City, Clean Waters: http://phillywatersheds.org
- Philly's Big Green Map: http://phillywatersheds.org/biggreenmap