

MUNICIPAL CASE STUDY

City of Camden, New Jersey

While Camden is revitalizing, a coalition of public and private organizations are implementing green infrastructure projects that benefit the city’s residents and improve overall quality of life.



By: John Gaadt, AICP
 Gaadt Perspectives, LLC.

Background

Camden, New Jersey, is a post-industrial waterfront city across the Delaware River from the City of Philadelphia. Camden is essentially a peninsula, surrounded by water on three sides. While the city had a booming industrial economy 70 years ago, job loss and a declining population over the years contributed to severe economic distress. The city has seen high vacancy rates, poverty, and increased crime, and city government itself has struggled financially for many years. However, Camden is in the midst of a major transformation. In 2013, the State of New Jersey passed the Economic Opportunity Act to encourage businesses to move into cities, and Camden has benefitted significantly. Several recent developments attest to this, among them: the decision by Subaru to relocate its North American headquarters in the city and a one-billion-dollar investment in the city by Liberty Property Trust, a real estate investment trust.

Quick Stats
City of Camden

Annual average rainfall: 47 inches

Major adjoining water body:
 Delaware River

Population: 76,119 (2015)

Sewer System:
 Combined Sewer Overflow

Land area: 10.3 square miles

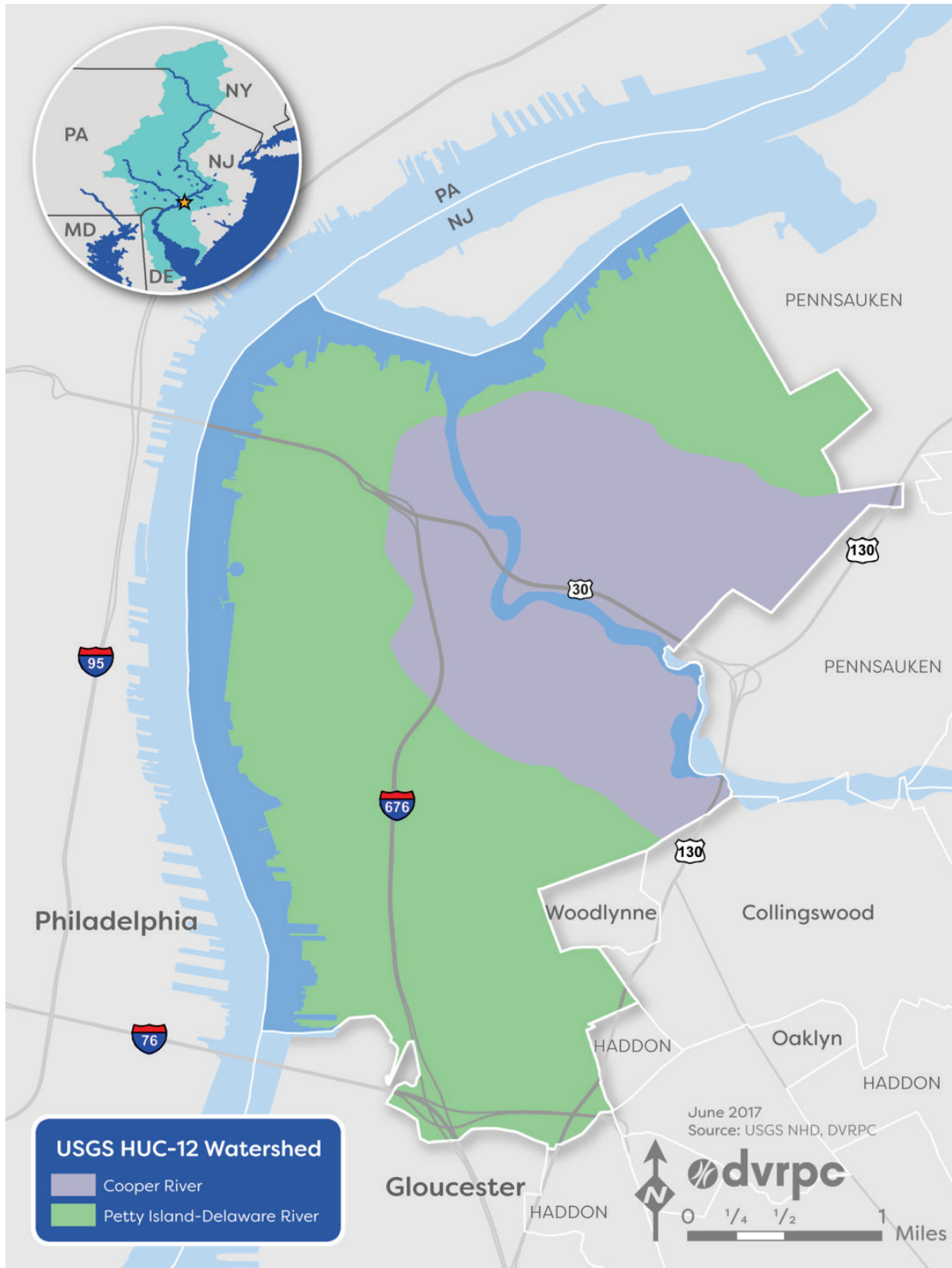
Water area: 1.42 square miles (13.73%)

Water Resources

The city is 10.3 square miles with a 2015 population of 76,119 (approximately 7,479 persons per square mile). Approximately 14 percent of the city’s land area is water; water bodies include the Delaware River, the New Jersey Channel (also referred to as the Delaware River Backchannel, a navigable channel of the Delaware River), the Cooper River, and the Newton Creek (both its Main Branch and Tributary).

The Delaware River Basin is a significant natural resource and economic engine, providing drinking water to more than 15 million people, including New York City and Philadelphia. Much of the City of Camden’s identity and future are tied to the Delaware River waterfront. Along the waterfront are thriving residential neighborhoods, redevelopment opportunities, tourist attractions, natural areas and a trail network, and large port and industrial facilities.

Map: Camden City Watersheds



The Cooper River measures 16 linear miles and drains approximately 40 square miles. Of note are several lakes and impoundments upstream of Camden.

The Newton Creek is approximately six linear miles and is comprised of three tributaries; its watershed area is approximately 13.6 square miles.

Water Quality Problems

The city faces several challenges, but the single biggest threat at present are the city's Combined Sewer Overflows (CSOs) and the flooding affiliated with them. The current system is aged, severely taxed, and overflows routinely. A one-inch storm can inundate the system, causing back-ups onto the city's streets, parks, and homes, and/or discharges into the Delaware River. It is considered by many to be a public health crisis.

A second problem, according to New Jersey American Water, one of the city's water suppliers, is that the city loses upwards of 40 percent of its potable water through transmission leakages.

The city also has lead in its drinking water, the source of which is the internal plumbing in homes, not in the water system itself. A first flush by residents—running the water for 30–45 seconds—can clear the lines, but it is a worrying issue nonetheless.

Some of Camden's environmental challenges are the result of past industrial pollution. The city has nearly 200 known contaminated sites (including several Superfund sites). Of the city's 21 neighborhoods, the Waterfront South community alone has 27 known contaminated sites and two Superfund sites. Much of the land that could be used for infill is contaminated. Despite this, the city sees great potential for redevelopment and has undertaken many projects that have contributed to a "greening" of the community.

Water Quality Solutions

Water quality is very important to the City of Camden, and the city acknowledges that without proper investments, access to clean water resources will be an impediment to the city's revitalization. Action taken by the city and its partners was spurred on by serious flooding events and concern for public health, recognizing the connections between water health and public health.

One of the most important strategies being used to improve and protect water quality was the formation of partnerships with other public and private entities engaged in water resource issues. The city has been leveraging tremendous assistance from community partners to develop strategies to improve and protect water quality. For example, the Camden SMART Initiative and the Camden



Source: CCMUA

Baldwin's Run Daylighting is an example of a project undertaken by Camden SMART.

Coalitions Dedicated to Improving Camden through its Environmental Resources

Camden Collaborative Initiative (CCI): CCI is a solutions-oriented partnership between governmental, non-profit, private, and community-based agencies formed to implement innovative strategies to improve the environment and the quality of life of Camden’s residents. The City of Camden, with the support of CFP, CCMUA, NJDEP, and the U.S. EPA, launched CCI in 2013. There are now over 40 member organizations.

Camden SMART Initiative: Camden SMART (Stormwater Management and Resource Training) is a working group within CCI that was originally founded in 2011 by a coalition of six entities: the City of Camden, CFP, CCMUA, Rutgers Cooperative Extension Water Resources Program, New Jersey Tree Foundation, and the NJDEP. The initiative is a community-driven movement to protect human health, improve conditions for economic development, improve water quality, and enhance the quality of life for Camden City, its residents, and the Delaware River watershed through the broad use of green and gray infrastructure techniques for stormwater management. It now is a part of the more extensive CCI, administered and staffed by Cooper’s Ferry.

Collaborative Initiative (CCI) work to improve the city’s gray infrastructure and create opportunities for green infrastructure. These partnerships are thinking creatively to reduce the burden on the city’s combined sewer system. The U.S. Environmental Protection Agency (U.S. EPA) and New Jersey Department of Environmental Protection (NJDEP) have also become true partners, frequenting the city for meetings and participating in creative problem solving, not just regulatory enforcement.

CCI is a partnership of over 40 organizations that work together on a wide range of environmental issues. The group has five main partners: the City of Camden, the U.S. EPA, the

NJDEP, the Camden County Municipal Utilities Authority (CCMUA), and Cooper’s Ferry Partnership (CFP). Together, this group brainstorms solutions related to brownfield remediation, air quality, illegal dumping, recycling, environmental education, stormwater management, public health, and environmental justice. The group has identified the interconnectivity of many environmental issues and believes that a peer-to-peer partnership approach is the best way to collectively solve environmental problems in the city. Examples of projects include joint programs to tackle illegal dumping, address combined sewer flooding, improve riverfront access, and fast track permits. Additionally, the Initiative has held seminars for environmental professionals and developed programs to create environmental jobs in the local community. In 2015, the partners worked with the city to adopt the first sustainability ordinance in New Jersey that requires land development applicants to submit an Environmental Impact Assessment to the Planning Board.

The Camden SMART Initiative, a working group within CCI, developed a multi-pronged approach to address the city’s stormwater management challenges, including: (1) implementing a water conservation ordinance to reduce usage; (2) undertaking green infrastructure projects; (3) cleaning and



Source: CCMUA
 Von Neida Park is a facility that benefited from daylighting Baldwin’s Run, which is immediately adjacent to the active recreation site.

restoring combined sewer pipes; (4) replacing components of the combined sewer system and its overflows and separating the system near the Delaware River to reduce sewage discharges; (5) upgrading CCMUA’s wastewater treatment plant; and (6) educating and engaging the public through events, partnerships, and presentations.

As of 2016, Camden SMART has completed 50 new green infrastructure projects, four park projects with green infrastructure elements, and a stream daylighting project that addressed wastewater flooding in a large city park. The city and its partners have worked together to identify the public benefits of their activities and seek out projects that achieve multiple benefits (e.g., a park that offers recreation, infiltrates stormwater, and daylight a stream). Work to improve the sewer system has involved pipe replacements that have averaged between two and three million dollars a year, and CCMUA is about to implement a \$60-million improvement plan to reduce flooding, improve the waterfront, further reduce combined sewers, improve pipes, and upgrade the wastewater treatment plant. Additionally, Camden SMART hosts an annual public convening focused on stormwater management and environmental efforts in Camden and beyond.

Key Partners

Camden County Municipal Utilities Authority (CCMUA): CCMUA operates the County Regional Wastewater Treatment System, which manages 58 million gallons (220 million liters) of sewage per day. CCMUA has been a key partner in helping the city manage its sewage and CSOs.

Cooper’s Ferry Partnership (CFP): CFP is a non-profit community and economic development organization that serves as a catalyst for the growth and preservation of the vibrant City of Camden. CFP works to establish public and private partnerships to effect sustainable economic development and promote and grow Camden as a place in which to live, work, visit, and invest.

U.S. EPA Region 2: Responsible for Clean Water Act enforcement in New Jersey, including issues related to CSOs, Total Maximum Daily Loads, and Municipal Separate Storm Sewer System.

New Jersey Department of Environmental Protection (NJDEP): The state agency collects water quality data to determine the status of water quality impairments and assists Camden in meeting its regulatory requirements.

For its efforts, the city recently attained the silver certification from Sustainable Jersey and won a special award from Sustainable Jersey for the multiple partnerships involved in its sustainability endeavors.

Progress to Date and Challenges Ahead

The City of Camden has had much success: CSO impacts have been reduced, stormwater has been better managed, sewer system upgrades have been installed (and will continue), community outreach has improved, and the city has seen corresponding improvements in its parks, waterways, and overall water quality. In addition, the partnerships that have formed, such as CCI, have been instrumental in bringing about change that minimally affects the city’s limited budget.

Additional partnership efforts by the city include: working with the U.S. EPA to develop a “green infrastructure handbook” that is provided to local businesses, utilizing the services of the Trust for Public Land to help identify appropriate sites for green infrastructure, engaging the Nature Conservancy to undertake a study of vacant parcels for their potential to manage stormwater, working with the Pennsylvania Horticultural Society to develop a rain barrel program, and utilizing the guidance offered by the Philadelphia Water Department to develop water resource management programs and initiatives. Capitalizing on the desire to achieve multiple project benefits, the city, along with CCMUA and Center for Family Services, a non-profit, created a job-training program to train young people in landscape management, park maintenance, and green infrastructure maintenance. This program not only provides job training for work related to the city’s park, water resources, and land management projects, but also assists with job placement, a critical component of any job-training program.



Source: CCMUA
A demonstration/exhibit on Roosevelt Plaza, in front of Camden’s City Hall.

Historically, cities such as Camden have both depended upon and degraded their waterways: channeling them, dumping into them, and often overlooking their importance. For Camden, connecting people to water in all its forms and for all its uses is now seen as critical to the city’s long-term viability. Opportunities exist, and the city and its partners have done a good job implementing projects as time and dollars have been made available.

Camden’s greatest limitation to continued progress is lack of financial resources. Although social capital is high, money needed to finance projects is often elusive. The city does not have a dedicated stream of funding; currently, stormwater impact fees or service fees are not considered viable given the overall economic conditions of the city. Clearly the city has accomplished a great deal in the last five years through partnerships and collaboration, but it is constrained from doing all it would like by budgetary limitations. For the city to accomplish more, it will need to continue to build capacity within its departments, as well as within the organizations that support CCI. The will and interest are there, but the city’s current staff members are spread thin. Additionally, there is not an Office of Sustainability or Environmental Protection and/or dedicated staff for such offices and efforts.

Nevertheless, the city and its partners believe that recent improvements and investments will contribute to immigration and create a brighter future for the community. There are many challenges ahead, but also many opportunities. As Andy Kricun, Executive Director of CCMUA, stated, “the Collaborative treats the city as a partner, not a patient.” Although there is never enough money to do all that is needed, the partnerships that have developed with the city’s guidance have made progress possible.

Key Factors in Success

The city has an engaged mayor and staff that are willing to enter into innovative partnerships with a diverse group of citizens and local, regional, state, and federal agencies to address the needs of the city in unique and productive ways. Although money is in short supply, social capital is high and the city has put faith in its many partners to achieve what might not have been done otherwise.

Cooper's Ferry has been able to rally support of community organizations and residents. NJDEP provides guidance and facilitation with the U.S. EPA. Rutgers Cooperative Extension has provided research. All of this has leveraged foundation grants and other types of funding for numerous projects.

Important issues to address in the future will be the costs of ensuring water quality and the continued value of partnerships and collaborations. As Andy Kricun stated, "The city's champions are the various partnerships that have been formed over many years. These partnerships have made it possible to achieve many projects in Camden that would otherwise not have occurred. Given the city's distressed economy, it is these partnerships that have made it possible for the city's water resources to improve."

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Motivating Factors

Failing Infrastructure: Flooding events and impacts to the city's CSOs created health hazards that forced action by the city and its partners.

Regulatory: The U.S. EPA and NJDEP discharge regulations requiring water quality improvements.

Local Partners: Partnerships developed with the city by diverse groups, such as CCMUA, CFP, as well as others mentioned herein, have contributed greatly to progress in Camden.

Unifying Issues: Flood issues and the inability of the city's CSOs to manage increased loads.

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