

New Jersey Green and Grey Infrastructure Project

Camden City (population 80,000), one of the most economically distressed cities in the US, had a combined sewer system that was in a serious state of disrepair, creating serious human health issues due to flooding. This project implemented various green and grey infrastructure projects to address stormwater and combined sewer issues through a partnership between the Camden County Municipal Utilities Authority (MUA) and other governmental entities and non-profits.

Funding Mechanism

The New Jersey Environmental Infrastructure Trust, New Jersey's State Revolving Loan Fund, awarded \$5,657,000 for this project. The award consisted of a \$2M grant and \$3.6M in a low interest loan. The balance of the project funds were provided by the Camden County MUA itself.

Since the implementation of this project, the components listed below became the "phase 1" of a long term green and grey infrastructure program in Camden. This project's success led to the implementation of successive phases, also being funded through New Jersey's SRF.

Project Components

1. Construction of 17 rain gardens to capture stormwater flow.
2. The daylighting of a stream that had previously been paved over in order to capture stormwater flow.
3. Conversion of an abandoned factory into a 5.5 acre riverfront park for the environmental justice community of Waterfront South in Camden. By depaving the impervious surface and removing contaminated soil and thereby eliminating contaminated runoff into the Delaware River, the project resulted in captured stormwater, water quality benefits and quality of life benefits.
4. Separating a portion of the City's combined sewer system to reduce the potential for flooding and overflows.
5. Replacing several failing portions of the city's combined sewer system in order to reduce the potential for flooding and overflows.



Baldwin's Run Stream Daylighting Project Before and After, CCMUA



CWSRF: A Flexible Tool for Advancing Clean Water



E C O S

This factsheet was developed by the Environmental Council of the States. It is one of ten factsheets on how states have used flexibility in the Clean Water State Revolving Loan Funds to pursue innovative projects. To view the other factsheets and information on other state projects visit www.ecos.org.

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Innovation

The project is innovative for several reasons. First, green infrastructure is a relatively innovative way to deal with stormwater and combined sewer issues. Second, the CCMUA partnered with other governmental entities and non-profits in a completely voluntary manner to accomplish the project. Finally, this project resulted in the first New Jersey Environmental Infrastructure Trust green infrastructure grant, totaling \$2,000,000.

Replicability

From an environmental standpoint, this project is extremely replicable in that the benefits of green infrastructure can be realized nearly everywhere. Economically, this project can be replicated assuming the community's SRF supports and funds green infrastructure projects. From a collaboration standpoint, most communities have similar potential partners, like a clean water utility, state regulatory agency, a state university, or local non-profits. This project can be scaled up or down depending on a community's need and budget. Projects can be significantly scaled up and used as a template to address a Combined Sewer Overflows consent decree.

Environmental Benefits

The projects will result in the capture of 100,000,000 gallons of stormwater every year, significantly reducing the potential for combined sewage flooding in Camden. Additionally, the receiving waterways of the Delaware and Cooper Rivers as well as Newton Creek will have significantly improved water quality as there will be less combined sewer overflows into the rivers and streams.

Community Benefits

These projects have a huge impact on Camden's neighborhoods. As previously mentioned, the Waterfront South community now has access to the waterfront for the first time in over 50 years. Children can now play in parks without fear they will be in contact with combined sewage. Many homes that were previously confronted with the health concerns of basement backups no longer face that challenge.

Economic Benefits

The most obvious economic impact is the \$5,000,000 investment in Camden's infrastructure. In addition, the combined sewer flooding problem in Camden City is a serious deterrent to future investment in the City. Eliminating the flooding problem removes a significant barrier to economic development in the City of Camden. There is also an uncalculated economic impact that comes with wage earners not having to miss work because they cannot access a flooded street or the savings a family realizes when not confronting basement backups.

More Information

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