

State Fiscal Year 2016
319(h), CBT and NRD Nonpoint Source Pollution Control Project
Descriptions

Funded Projects:

1. Expansion of Bio-Based Living Shorelines for Water Quality Enhancement along the Maurice River, New Jersey

Grantee: Partnership for the Delaware Estuary

Funding Amount: \$340,000

The Partnership for the Delaware Estuary (PDE) proposes to strengthen and expand installation of bio-based living shorelines along salt marshes in the tidal Maurice River, New Jersey. The primary goal will be to enhance water quality in this impaired watershed. Working with a partner organization, the Rutgers University's Haskin Shellfish Research Laboratory (HSRL), PDE has installed more than a dozen living shoreline (LS) cells along eroding salt marshes of the lower Maurice River between 2008 and 2012. The primary objective was to study living shoreline tactic stability, ecological uplift potential, and erosion control capabilities. Water quality improvement, mediated by filter-feeding mussel beds, were documented but was not integral to earlier designs. In this proposed project, as many as 10 new living shoreline cells will be installed in proximity to earlier installations; however, these designs will seek to maximize shellfish- and vegetation-mediated water quality enhancement through total suspended solids (TSS) and particulate nutrients (i.e., nitrogen, phosphorous) filtration. Outcomes from this project will include the treatment of up to 1,200 linear feet of eroding marsh shoreline enhancing local water quality as well as increasing coastal resilience, salt marsh stability, fish and wildlife habitat support, and increased carbon storage capacity.

2. Sylvan Lake Living Shoreline Project

Grantee: Borough of Avon-by-the-Sea

Funding Amount: \$472,750

Sylvan Lake is one of nine coastal lakes found in Monmouth County. The approximately seventeen (17) acre waterbody has shoreline primarily stabilized by bulkheads and rock revetments. A small island is located at the central portion of the Lake. The Lake is located on the border of Avon and Bradley Beach, has approximately 6,600 feet of shoreline, of which approximately 3,371 feet falls within the municipal boundary of Avon-by-the-Sea. Under this 319(h) grant the Borough of Avon-By-The-Sea is proposing to implement the Sylvan Lake Living Shoreline Project, a natural solutions based project that also incorporates the creation of bioswales and constructed wetlands, designed to mitigate the nonpoint source (NPS) pollution impacting Sylvan Lake. In addition, the Project will also create habitat, improve biodiversity, stabilize an eroding shoreline, discourage resident goose populations, improve the water quality of water discharged to the recreational beaches, provide public access points for recreational activities, and foster community volunteerism and engagement.

3. Neshanic River Watershed- Agricultural and Stormwater Alternatives

Grantee: North Jersey Resource Conservation and Development Council

Funding Amount: \$1,252,750

This project will build upon an existing grant with North Jersey RC&D, the Neshanic River Watershed Restoration Plan Project (RP12-028), whereby project implementation is occurring at such a high rate that funding will soon be exhausted well before the original grant deadline. This project will contain three main goals: (1) Increase the quantity of agricultural BMPs implemented, to reduce water quality impairments in the entire Neshanic River Watershed and headwaters, coupling practices with USDA- Farm Bill funding support; (2) Increase implementation of small-scale bio-retention BMPs to reduce storm water contribution; and, (3) Incorporate sustainable stormwater and landscape design on the Hunterdon Land Trust- Dvoor Farm property to address flooding and to incorporate erosion and sediment control measures in the area adjacent to the Mine Street crossing of Walnut Brook.

The first goal will continue to focus intense efforts to keep agricultural soil in place and reduce erosion thru the application of cover crops and the Soil Health Initiative in the combined Neshanic and Sourland watershed area. As part of this objective there will be continued education and promotion of farmers to practice the River Friendly-Farm Certification standards whereby these farmers will be encouraged to take advantage of the USDA-Natural Resources Conservation Service (NRCS) funding that can be used to remediate potential environmental impacts on their farms. The second goal will be to continue efforts currently underway to disconnect impervious surfaces associated with the residential and commercial development in the Neshanic watershed to reduce stormwater runoff and pollutant loading to the waterway. The third goal will be to address the stormwater runoff that contributes to the erosion of the Walnut Brook on the Hunterdon Land Trust-Dvoor Farm property. This is important to address as it will further protect the property as well increase water quality of the Walnut Brook building on the wetland creation and streambank stabilization practices implemented in 2009 towards reducing sediment impairments. This project would also include support of South Jersey RC&D in developing an agricultural cost share program in South Jersey including assisting Rutgers in the implementation of the existing Assiscunk Watershed implementation grant (RP13-003).

4. Green Infrastructure in Gloucester City and Camden City

Grantees: Camden County Soil Conservation District, Rutgers Cooperative

Extension Water Resources Program, Camden County Municipal Utilities

Authority

Funding Amount: \$430,000

Gloucester City will utilize most of this funding to build upon the techniques and lessons learned in (2) similar projects implemented by the Water Resources Program (WRP) of Rutgers University in the cities of Newark and Camden, supported by 319 grant funds from SFY2009 and 2011, respectively. This project proposes to reduce runoff volumes that contribute flows to drainage systems associated with CSO discharges, through the implementation of green infrastructure techniques such as rain gardens, rain water reuse, community gardens and infiltration structures. This grant

will mirror the youth and adult hands on education programs, focusing on the design and construction of these types of projects piloted in the cities of Newark and Camden. The WRP at Rutgers University has been a valuable watershed partner and is responsible for, or has contributed to, the development and successful implementation of many watershed plans.

Neighboring Camden City will utilize the remaining funds for its existing Camden SMART partnership, which has constructed over 40 green infrastructure projects throughout Camden. The goal is to focus efforts in the North Camden neighborhood with a comprehensive green infrastructure implementation plan for disconnection of 15-50 percent of existing impervious areas in the North Camden neighborhood

5. Green Infrastructure in City of Trenton

Grantees: Rutgers Cooperative Extension Water Resources Program

Funding Amount: \$370,000

The Rutgers Cooperative Extension (RCE) Water Resources Program, in partnership with Isles, Inc. and New Jersey Future, proposes to pilot a community-based initiative addressing environmental health issues through job-skill training and the implementation of green infrastructure demonstration projects throughout the City of Trenton. This CBT funded project will focus on priority environmental issues identified by the community including efforts to better manage vacant properties, reducing nonpoint source water pollution, reducing nuisance flooding, addressing the impact of brownfields on community health, and upgrading aging infrastructure. The project will focus on the capture, treatment, and reuse of stormwater runoff, reducing pressures on existing infrastructure in Trenton and protecting water quality in the Delaware River.

6. Environmental Justice Project for the Lower Assunpink Creek, Broad Street Culvert

Grantee: City of Trenton

Funding Amount: \$2,500,000

The City of Trenton has been working diligently with the Army Corps of Engineers for many years to daylight a portion of the Assunpink Creek between Broad Street and Warren Street. The Department previously awarded \$1,000,000 in 319(h) grant funds to the City of Trenton under grant RP10-082 to facilitate the completion of this project. The Army Corps of Engineers has allocated \$10 million to this project. The project has cleared many hurdles and is shovel ready with the Army Corps releasing the bid documents last year. While the bid documents were being advertised, the Army Corps updated their cost estimate, and the estimated project costs came in significantly higher than initially projected. As a result, the bid documents were pulled, pending the City's ability to identify funds sufficient to close the funding gap. These funds will fill the funding gap identified by the Army Corps, plus an additional 18% contingency, for a total increase of \$2.5 million. This will result in a revised total grant amount of \$3,500,000 (\$1M 319(h); \$2.5M NRD), which will leverage the \$10 million in Army Corps funding to complete the project.