



**GREENPOINT
COMMUNITY
ENVIRONMENTAL
FUND**

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2015 GCEF LARGE AND LEGACY GRANT AWARDS

Greenpoint Monitor Museum, USS Monitor Park

Lead Sponsor: The Greenpoint Monitor Museum

Funding Request: \$599,200

Value of Applicant and Partner Contributions: \$208,800

Partners: National Oceanic and Atmospheric Administration USS Monitor National Marine Sanctuary, PS 110, PS 31, PS 34, MS 126, Saint Stanislaus Kostka School, and Oliver Tilden Camp No. 26 Sons of Union Veterans of the Civil War.

Location: 56 Quay Street, Greenpoint, Brooklyn, NY 11222

The project will develop a final ecological design for a green/living shoreline restoration and stabilization at the proposed site of the Greenpoint Monitor Museum building, and incorporate that environmental design process into the education programs conducted at Greenpoint schools by the Museum.

MAJOR ACTIVITIES:

- Assess alternative natural shoreline stabilization and flood protection methods combining soft non-structural stabilization (e.g., gentle slopes, vegetated buffers) with hard shoreline protection alternatives (i.e., vegetated rip rap or gabion mattresses) based upon an assessment of site conditions.
- Integrate as part of assessment projected sea-level rise, future phases of the Museum's plans for the site, including museum construction and public access, and the proposed expansion of Bushwick Inlet Park.
- Evaluate the condition of the existing bulkhead.



- Conduct a bathymetry assessment (e.g., assess the depth of waters of near the shoreline in order to inform shoreline delineation, any needed coastal engineering, modeling of storm surge, to inform habitat restoration etc.).
- Prepare design documentation incorporating the selected shoreline stabilization method, and estimate relative costs of design/build methods identified in the assessment.
- Prepare design documentation incorporating the selected shoreline stabilization methods, a 100% engineered design, complete permits, and prepare plans and specifications to allow for future construction of the living shoreline.
- Conduct public information meetings with community members about the design as it progresses to seek feedback.
- Enhance the current Museum education program to local schools providing information about the environmental and engineering processes involved in waterfront shoreline protection.

The project will design the site using “living shoreline” techniques widely-recognized as tool to improve the resiliency of shorelines to flooding and erosion, while also providing important ecosystem services such as preserving or creating aquatic habitat. The project envisions a stabilization using a natural shoreline; raising the elevation of the site; and constructing small property line walls above flood elevations to create a publically accessible, environmentally beneficial open space that can be enjoyed by the Greenpoint community and used for environmental and historical educational purposes.

PROJECT GOALS:

- Develop an environmentally beneficial design for shoreline stabilization/protection and related flood control at the site of the future Greenpoint Monitor Museum.
- Design to restore 950 linear feet of shoreline with improved natural features, enhanced wildlife habitat, and improved erosion control.
- Design to provide 62,950 square foot of natural permeable surfaces to absorb polluted stormwater and to control flooding and erosion.
- Design to provide 48,250 square foot of publically accessible open green space.
- Enhance the existing educational outreach programs to at least 300 students.



McCarren Park Urban Farms and Green Infrastructure Corridor

Lead Sponsor: Council on the Environment d/b/a GrowNYC

Funding Request: \$477,084

Value of Applicant and Partner Contributions: \$307,700

Partners: GreenThumb, Open Space Alliance for North Brooklyn, and New York City Department of Parks and Recreation

Location: McCarren Park, Greenpoint

The project will create an urban farm and green Infrastructure corridor comprised of model urban backyard gardens, a community garden, rain gardens, and an area for community events and to conduct environmental education for residents, schools, and community groups.

MAJOR ACTIVITIES:

- Create two rain gardens including a 7,200 square foot garden located in the urban farm and a 5,200 square foot rain garden located in the green infrastructure corridor.
- Install two 1,250 square foot model backyards to demonstrate how residents may transform their own spaces into urban gardens with programs about soil health, raised beds, and plants.
- Install signs about environmental stewardship and conservation.
- Create a “best practices” manual with information for Greenpoint residents about the principles and concepts used in the project.
- Conduct community programming including site tours and workshops about how to build a garden and use green infrastructure (e.g., rain gardens and rainwater harvesting) in backyards, on roofs, and in community spaces; and use the urban farm to teach about environmental sustainability, energy, ecosystems, safe urban gardening practices, and more.
- Offer three on-site workshops for students (grades 5-12), teachers, and parents about energy, solar and earth science and other topics.
- Provide a community event space, tours, and workshops.

The project will provide additional garden and green space, harvest, capture, and treat polluted rainwater before it enters sewers and waterways; provide wildlife habitat; and improve air quality. The enhancements will be “learning gardens” to be used as sites for environmental education for residents, schools, and community groups. The proposed model backyards will be set up to encourage community members to support residential green



space expansion by showing residents how to transform their own space.

PROJECT GOALS:

- Capture approximately 210,800 gallons of polluted stormwater annually.
- Provide 12,400 square foot of green space.
- Provide 1,500 square foot of model backyard gardens.
- Improve air quality.
- Build awareness about urban gardening and environmental topics in the community.
- Engage Greenpoint residents in transforming and expanding their own green spaces.

McGolrick Park Restoration

Lead Sponsor: Horticultural Society of New York

Funding Request: \$562,056

Value of Applicant and Partner Contributions: \$2,100,000

Partners: McGolrick Park Neighborhood Alliance, the Open Space Alliance for North Brooklyn, and New York City Department of Parks and Recreation.

Project Location: Southeast lawn, central pavilion, primary garden space, central playground, and dog run at Mstrg. McGolrick Park, Greenpoint

The project will enhance and restore environmental and community amenities in five sections of McGolrick Park.

MAJOR ACTIVITIES:

- Recondition a compacted lawn in the southeast area by remediating the soil, applying new topsoil, reseeding the turf with shade grasses, and installing temporary irrigation, and fencing.
- Reset pavers in the central plaza to direct rainwater runoff into an adjacent rain garden and install interpretive educational signs about green infrastructure in urban areas.
- Create a native pollinator (e.g., bees, butterflies) sanctuary in the primary garden area of the park.
- Recondition the soil and restore garden beds around the playground.
- Restore drainage at the dog run by removing dirty mulch, lowering the soil to below grade, installing French drains, and backfilling with crushed gravel or mulch.
- Conduct an environmental education program about natural features of the park.
- Create a Citizen Gardener certification program.



- Implement two “It’s My Park” planting and cleanup events at the improved park.

The green infrastructure and landscape enhancements will treat polluted stormwater before it enters sewers and waterways; reduce water pooling on paths; provide habitat for pollinators and other urban wildlife; create sustainable and resilient gardens; and reduce ambient air temperatures and air pollution. The environmental education will engage Greenpoint residents and increase their sense of ownership of the park. The Citizen Gardener certification program and “It’s My Park” events will engage informed volunteers to improve and maintain the park.

PROJECT GOALS:

- Restore 130,000 square feet of impervious or degraded park landscape to treat 3 million gallons of polluted stormwater annually.
- Eliminate 600 gallons of standing water annually.
- Provide 60,000 square feet of pollinator and wildlife habitat.
- Improve 70,000 square foot of degraded landscape with environmental improvements.
- Engage 1,800 community members in environmental education and certify 50 citizen gardeners.

Newtown Creek Wildflower Roof and Community Space

Lead Sponsor: New York City Audubon Society, Inc.

Funding Request: \$971,782

Value of Applicant and Partner Contributions: \$2,571,840

Partners: Newtown Creek Alliance, Alive Structures, Trout in the Classroom, and the Fortune Society

Location: 520 Kingsland Avenue, Brooklyn, NY 11222

The project will install a 21,711 square foot bird-friendly intensive green roof to reduce polluted stormwater; and provide publically-accessible green space and an outdoor education classroom and environmental educational programming for Greenpoint residents at Broadway Stages.

MAJOR ACTIVITIES:

- Design and install a 21,711 intensive bird-friendly, stormwater management green roof.
- Plant the roof with biologically diverse native plant species.



- Conduct multi-parameter monitoring to assess green roof biodiversity characteristics and share results with the community.
- Provide educational programming for elementary and middle school educators who will participate in a Trout in the Classroom conference and learn about the site as an outdoor classroom.
- Conduct educational programming including tours, lectures, workshops (e.g., Weather in the Watershed), open houses, and offer public access and eco-festival community days.
- Develop and implement a sustainable maintenance plan that will include creating a stewardship and volunteer network for long-term roof maintenance.
- Conduct local roof installation and maintenance green-collar job training.

The project is located near Newtown Creek and will reduce polluted stormwater flowing into the creek. It also will plant the roof with native plants to increase natural habitat, link to other green spaces and increase biodiversity in the urban environment; conduct a monitoring program to track and observe the biodiversity of insects, birds, and bats; and provide environmental education programming and outreach activities such as, green infrastructure tours, volunteer maintenance opportunities and more to engage the community in this publically accessible green space. The project will also offer green-collar job training as the roof is installed and maintained for local residents and organizations to develop that skill-set.

PROJECT GOALS:

- Capture 33,000 gallons of polluted stormwater during each one-inch storm.
- Remove ozone, 703 pounds of particulate matter, and other pollutants from air.
- Reintroduce native habitat into the urban environment and provide a green corridor for birds and insects to other green spaces.
- Increase and provide publically-accessible green, open community space.
- Provide visitors, educators and students with education about local and regional environmental issues.
- Provide local green-collar job training in roof installation and maintenance for residents and local organizations.



West Street Watershed Stormwater Project

Lead Sponsor: Brooklyn Greenway Initiative, Inc.

Funding Request: \$1,639,878

Value of Applicant and Partner Contributions: \$7,500,000

Partners: New York City Department of Transportation, New York City Department of Environmental Protection, New York City Department of Parks and Recreation, Open Space Alliance of North Brooklyn, and Teresa Toro, Greenpoint resident and outreach lead

Location: West Street specifically West Street, Commercial Street, McGuinness Boulevard and Calyer Street, Greenpoint, Brooklyn, NY

An expansion of the \$1.9 million West Street Watershed Stormwater project funded through a GCEF Large Grant in 2014. The project will implement green infrastructure practices on additional streets and sidewalks between West Street, Commercial Street, McGuinness Boulevard, and Calyer Street preventing the release of raw sewage into the East River and Newtown Creek during heavy storms.

MAJOR ACTIVITIES:

- Conduct site assessments and finalize selection of sites for bioswales and greenstreet improvements.
- Engage the community and neighbors in setting project goals, site selection, and project design.
- Design, construct, and plant 54 bioswales (*aka* rain gardens) and greenstreets (special curb cuts that create a wide planting and infiltration area at street-ends) with hardy perennials, native grasses, shrubs, and trees, in public right-of-ways in a 757,856 sq. ft. area of a Greenpoint sewershed.
- Perform maintenance and monitoring of sites and vegetation.

The project will result in an estimated 23% decrease in the volume and frequency of raw sewage from the city's combined sewer system into the East River and Newtown Creek. The project also will restore native plant communities on streets and sidewalks that lack plants and trees, and use trees and other vegetation to lower local ambient temperatures and capture air pollution.



PROJECT GOALS:

- Divert more than 5 million gallons of stormwater from the combined sewer system, reducing the volume and frequency of overflows of raw sewage annually into the East River and Newtown Creek.
- Capture stormwater to increase the quantity and viability of native plants on residential streets.
- Restore native plants and habitats for pollinators (e.g., bees and butterflies) and birds.
- Improve air quality and reduce local ambient air temperatures.
- Decrease chronic flooding and sewer backups for the 10,910 people living in the project area.

