



**GREENPOINT  
COMMUNITY  
ENVIRONMENTAL  
FUND**

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## 2015 GCEF PROJECTS INVITED TO PREFERENCING Project Descriptions

### **AirCasting Greenpoint: Citizen Science for Clean Air**

**Lead Sponsor:** HabitatMap, Inc.

**Funding Request:** \$235,388

**Value of Applicant and Partner Contributions:** \$209,208

**Total Budget:** \$444,596

**Partners:** Newtown Creek Alliance, Sonoma Technology, Inc., New York University School of Medicine, and New York University Robert F. Wagner Graduate School of Public Service

**Location:** Greenpoint, Brooklyn, NY 11222

The project proposes to implement a community-based participatory research project that will: 1) equip Greenpoint residents with wearable sensors and smartphones for recording, mapping, and sharing air quality measurements; and 2) provide the Greenpoint community with innovative ways to visualize and make sense of the collected data in order to reduce air pollution exposures and address community concerns related to air pollution, health, and quality of life.

#### MAJOR ACTIVITIES:

- Survey Greenpoint residents regarding their air pollution concerns.
- Train participants in air quality sampling, health tracking, and data analysis.
- Conduct a mapping analysis to examine potential relationships between air and health.
- Perform a policy analysis to identify initiatives for improving air quality in Greenpoint.
- Working with community-based organizations to review potential clean air initiatives.



- Organizing a workshop during which Greenpoint air quality monitors can transfer their knowledge and findings to others.

Personal exposures to air pollution will be reduced via avoidance, once residents are made aware of neighborhood pollution “hot spots”, by behavior change, once participants are made aware of which activities and behaviors have the largest negative impact on the quality of the air they are breathing, and by the community action, once residents are educated as to their air quality environment and how this is related to pollution generating activities and the policies which affect them. By piloting this state-of-the-art program in Greenpoint and publicizing the community’s findings, *AirCasting Greenpoint* will raise Greenpoint’s profile thereby helping to promote policies that address community concerns related to air pollution, health, and quality of life.

**PROJECT GOALS:**

- 20% average reduction in exposure to fine particulate air pollution for participants.
- Inform community action to reduce exposures to air pollution.
- Demonstrate how community-based research can make substantial contributions to scientific understanding and public policy.

**Gilroy High Performance Field Retrofit**

**Lead Sponsor:** New York City Department of Parks and Recreation

**Funding Request:** \$1,787,221

**Value of Applicant and Partner Contributions:** \$4,300,000

**Total Budget:** \$6,087,221

**Partners:** Open Space Alliance for North Brooklyn and Brooklyn Borough Office of the New York City Department of Parks and Recreation

**Location:** Gilroy Field, McCarren Park, Greenpoint, Brooklyn, NY 11772

The project proposes to transform the 60,000 square foot Gilroy Field in McCarren Park into a model sustainable, high performance urban athletic turf field that integrates green infrastructure elements.



## MAJOR ACTIVITIES:

- Design and construct a field with an intensive drainage system, a highly biotic soil specification (i.e., friendly to and inclusive of living organisms), a polyculture seed mix (i.e., a diverse mix of sustainable natural grasses), and a self-regulating irrigation system.
- Design and install three rain gardens totaling 14,000 sq. ft. to capture polluted stormwater runoff.
- Plant 30 trees around the perimeter of the field, and at least 200 native shrubs, and 2,000 native ornamental grasses.

The proposed project will provide improvements in water quality, air quality, and wildlife habitat in the park and neighborhood. The rain gardens will improve water quality by reducing the occurrence of combined sewer overflow events during storms. Trees and other plantings will filter and cool air, and provide habitat for pollinators and wildlife. McCarren Park is one of the most used parks in Greenpoint and the improved athletic field will increase neighborhood green space.

## PROJECT GOALS:

- Capture polluted stormwater runoff from the field and asphalt paths in a 72,120 square foot drainage area.
- Improve air quality and lower air temperature with new tree plantings.
- Use a natural grass seed mix to allow the field to remain playable with little or no use of chemicals and herbicides.
- Install a self-regulating irrigation system to reduce water use and wastewater treatment needs in the neighborhood.
- Provide habitat for pollinators and birds with diverse native plant selection.
- Increase accessible, regional green space to more than 170,000 people.



## **Greenpoint Healthy Homes**

**Lead Sponsor:** Icahn School of Medicine at Mount Sinai

**Funding Request:** \$599,016

**Value of Applicant and Partner Contributions:** \$256,629

**Total Budget:** \$855,645

**Partners:** Newtown Creek Alliance, New York City Department of Health and Mental Hygiene Healthy Homes Program, St. Nick's Alliance, Office of New York City Council Member Stephen Levin, The City University of New York- LaGuardia Community College, the Region 2 Pediatric Environmental Health Specialty Unit at Mount Sinai, the Mount Sinai Community Outreach and Engagement Core, Transdisciplinary Center on Early Environmental Exposures, and a representative from Safer Chemicals, Healthy Families

**Location:** Greenpoint, Brooklyn, NY 11222

The project proposes to address home environmental health concerns by training community health workers, linking families to environmental experts, and educating and empowering residents about how to promote healthy home environments.

### MAJOR ACTIVITIES:

- Deliver training programs for multilingual (Spanish, Polish, and English) community health workers to conduct baseline home environmental assessments supported by environmental pediatricians, industrial hygienists, and social workers.
- Conduct baseline home environmental assessments that address indoor air quality (e.g., ventilation, water damage, presence of lead and mold).
- Provide a source of professional expertise for medical professionals, public health agencies and community organizations for family referrals to environmental pediatricians, industrial hygienists, community health workers, and social workers.
- Provide community-wide Healthy Homes outreach and education including distribution of Healthy Homes Toolkits, wallet cards, pamphlets, flyers, and reports.
- Create a Greenpoint Healthy Homes Community Advisory Board which will include Greenpoint-based community organizations to support outreach Greenpoint-wide and to identify families in need of services.
- Track project related education received by the community and evaluate impact.
- Develop a plan and resources to sustain the Greenpoint Healthy Homes program long-term.



The project proposes to build a sustainable model for the Greenpoint Healthy Homes program by connecting families, health providers, and public agencies to expert resources that address ongoing environmental concerns. The project proposes to conduct 50 comprehensive “Healthy Homes” assessments; and to provide 720 families with a Healthy Homes toolkit which includes pamphlets, samples of green cleaning supplies, IPM baits and gels, pillow covers and mattress covers to address environmental asthma management, and lead check kits. It also proposes to sponsor annual Healthy Homes training of community health workers and to create environmental health messaging and materials to educate 5,000+ community members on how to reduce potentially harmful exposures within their homes, workplaces, and community.

#### PROJECT GOALS:

- Build a sustainable model for a Greenpoint Healthy Homes Program.
- Implement a model for community partnered approaches to develop high quality, balanced and evidence based environmental health messaging to allow the Greenpoint community to make informed decisions about their environmental health.

### **The Greenpoint Monitor Museum, USS Monitor Park**

**Lead Sponsor:** The Greenpoint Monitor Museum

**Funding Request:** \$599,200

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

**Total Budget:** \$808,000

**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 proposes to develop a final ecological design for a green/living shoreline restoration and stabilization at the proposed site of the Greenpoint Monitor Museum building, and to 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 proposes to 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 proposed 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

**Total Budget:** \$784,784

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

**Location:** McCarren Park, Greenpoint

The project proposes to 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 proposed 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

**Total Budget:** \$2,692,056

**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 Msrq. McGolrick Park, Greenpoint

The project proposes to 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 proposed 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 proposed 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.



## **The 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

**Total Budget:** \$3,543,622

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

**Location:** 520 Kingsland Avenue, Brooklyn, NY 11222

The project proposes to 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 proposed project is located near Newtown Creek and will reduce polluted stormwater flowing into the creek. It also proposes to 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 also offers 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.

## Polish & Slavic Center Green Roof

**Lead Sponsor:** Polish & Slavic Center

**Funding Request:** \$599,980

**Value of Applicant and Partner Contributions:** \$700,000

**Total Budget:** \$1,299,980

**Partners:** National Wildlife Federation's Greenpoint Eco-Schools project, Polish Supplementary School of Maria Konopnicka, Krakus Senior Center, Saint Stanislaus Kostka Church, and Polish and Slavic Federal Credit Union

**Location:** 177 Kent Street, Brooklyn, NY 11222

The project proposes to install a 2,830 square foot green roof to reduce polluted stormwater, engage student and community environmental education, and provide recreational open space at the Polish and Slavic Center (PSC).

## MAJOR ACTIVITIES:

- Consult with PSC residents and visitors about programming needs and involve them in the design of the green roof through a design charrette and community outreach.
- Design and install a green roof stormwater management system including a community garden, and educational and recreational open space.
- Install improved access to the green roof.
- Evaluate the effectiveness of the green roof using a multi-parameter monitoring system.
- Install amenities (i.e., benches, tables, chairs, lighting) to support community programming.



- Install educational signage and distribute brochures and other outreach materials about water quality, the benefits of green roofs, and programs available on the roof to the community.
- Expand PSC programming to integrate environmental sustainability and other types of programs and activities using the roof as a demonstration area for schools, residents, and community groups.

The proposed project is located within the Newtown Creek Water Pollution Control Plant drainage. The green roof will reduce polluted rainwater from the roof by an estimated 65% before it reaches the East River and the Newtown Creek sewershed; provide habitat for wildlife with native plants; reduce energy use by better insulating the building; and increase publically-accessible recreational, educational and open space for Greenpoint residents of all ages. The monitoring system will quantify the reduction in polluted stormwater runoff from the green roof.

#### PROJECT GOALS:

- Absorb 45,600 gallons of polluted stormwater annually.
- Expand educational programs and offer recreational and green space to 75,000 community members and to nine nearby schools annually.
- Improve local air quality and reduce heat island effects in the neighborhood.
- Reduce building heating and cooling costs.
- Enhance biodiversity by providing habitat and a link to existing green space in Greenpoint.

### **West Street Watershed Stormwater Project**

**Lead Sponsor:** Brooklyn Greenway Initiative, Inc.

**Funding Request:** \$2,470,773

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

**Total Budget:** \$9,970,773

**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 proposes to implement green infrastructure practices



on additional streets and sidewalks between West Street, Commercial Street, McGuinness Boulevard, and Calyer Street in order to capture polluted stormwater.

#### 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 square foot area of a Greenpoint sewershed.
- Perform maintenance and monitoring of sites and vegetation.

The proposed project will result in an estimated 23% decrease in the volume and frequency of raw sewage and stormwater releases from the city's combined sewer system and waterways. 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 other types of air pollution.

#### PROJECT GOALS:

- Divert more than 5 million gallons of polluted stormwater from the combined sewer system, reducing the volume and frequency of overflows of stormwater and 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.

