

**COVER PAGE**  
**WCS/NOAA REGIONAL PARTNERSHIP GRANT**

**I Contact Information – BRONX COUNCIL FOR ENVIRONMENTAL QUALITY**

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**II Project Information**

Project Title: Creating Stormwater Capture Parks at the Harlem River Waterfront  
Rivers to Benefit: Harlem  
Land Owner: New York City Department of Parks and Recreation

Start Date: April 2012  
End Date: April 2013

**Estimate of Funds Requested: \$200,000**

**Funds Matched: \$200,000** NYS Brownfields Opportunity Area -- BCEQ Harlem River BOA Step 2

**Project Partners:**

- BCEQ Harlem River Brownfield Opportunity Area (BOA) Step 2 Steering Committee (<http://bit.ly/kVL94D>), including Manhattan College and the NYS Soil and Water Conservation District; and others
- Harlem River Working Group (HRWG – <http://bit.ly/kVL94D>), including the Highbridge Community Life Center, Friends of Brook Park, Harlem River Urban Divers; and others
- Academic and scientific Advisors from the 2011 Site and Environmental Systems Planning practicum at the Department of Urban Studies and Planning, School of Architecture + Planning at MIT Massachusetts Institute of Technology (<http://bronx.mit.edu/>)
- Green Infrastructure: Landscape Architect Susannah Drake of [www.dlandstudios.com](http://www.dlandstudios.com), Biogeochemical Ecologist Paul Mankiewicz of [www.thegaia institute.org](http://www.thegaia institute.org), Maintenance by SmartRoofs LLC, a subsidiary of Sustainable South Bronx (SSBx) at [www.ssbx.org](http://www.ssbx.org).

**III Project Summary (100 words maximum):**

The location of this project is Pier 5 on the Bronx side of the Harlem River from the 149th Street Bridge to Mill Pond Park. The proposal will use ecological methods to capture and filter currently piped storm water runoff from the Major Deegan (I-87) to help clean the water before it enters the river. As both the parkland and the elevated highway are future major capital projects, this project will be temporary, and will not disturb the potential brownfield. The community education and training will empower stakeholders, as will the community-based maintenance program for the pilot facilities.

**IV Checklist**

- \_X\_ Cover Page
- \_X\_ II Project Narrative - 6 pages
- \_X\_ III: Project Schedule
- \_X\_ IV Completed Budget Form
- \_X\_ V Supplementary Documentation
- \_X\_ VI Locus and Boundary Maps

## II. PROJECT NARRATIVE

### Narrative Section I. PROJECT GOALS

This project is located at Pier 5 on the Bronx side of the Harlem River where new and unimproved parkland stretches from just north of the 149th Street Bridge to Mill Pond Park. (Section VI. Maps)

We propose to use ecological methods to capture and clean the currently piped runoff from the Major Deegan Expressway (I-87) to help clean the water in the river. We plan to use a combination of eco-machines,<sup>1</sup> and/or other biogeochemical<sup>2</sup> efforts to clean the water and as and test brownfield remediation techniques. As both the parkland and the elevated highway are future major capital projects, this project will be temporary, and will not disturb the potential brownfield. NYS Department of Transportation (DOT) was contacted concerning the use of the stormwater drains, as well as the projected schedule for the highway work. Separate monitoring and maintenance components will assist in community stakeholder visioning meetings on restoration, education, access, and job creation/training. This proposal of Stormwater Modules and Brownfield Remediation, along with Community Education & Training, will create greater public awareness of stewardship for the river.

The best management practice described for the vacant site at the future Mill Pond Park South will be temporary until the completed parkland is planned, designed and constructed -- a project that will take at least 5 years to begin construction. The original Mill Pond Park cost approximately \$60 million due to the existence of underground fuel tanks and other remediation needs. As a pilot project that will test new design and stormwater capture techniques, it is expected that this project will provide valuable data for the design of the ultimate permanent storm water system in the park, as well as to test the value of natural biogeochemical methods of protecting the soil and water.

Working with our partners in the New York City Department of Parks & Recreation, we agree that the use of the city-owned parklands qualifies for scientific research, and requires coordination and application<sup>3</sup> (see VI. Supplemental). All activities on City parkland will be in accordance with Parks' Rules & Regulations.

#### A. *Habitat Restoration*

The Harlem River forms a part of the Hudson estuary system, serving as a narrow strait that divides the island of Manhattan from the mainland of Manhattan and the Bronx. It runs from the Hudson River to the East River, including the Bronx Kill which separates Randall's Island from the Bronx. According to the primacy agency, the New York State Department of Environmental Conservation, the Harlem River is classified as a Class I saline surface water, indicating that the NYS DEC has determined that its best use is for secondary contact recreation and fishing and suitable for fish propagation and survival. Water quality data collected are typical of surface waters receiving urban runoff, and while the dissolved oxygen and pH measurements are adequate to support aquatic life, other tests show that the River is turbid. High levels of phosphorus and nitrogen indicated nutrient enrichment from CSO events, further supported by the presence of fecal coliform and high concentrations of suspended solids in all samples.<sup>4</sup>

Future EPA standards may include pathogen levels as indicators of clean water and habitat restoration. Our stormwater management proposal will monitor both pathogens and future water contamination from

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<sup>1</sup> Eco-machine: a natural water treatment system that uses biogeochemical processes to reduce contaminates levels. Eco-machines being considered here are the Green Infrastructure modular prototype of bioremediation cells. (Section V. **Sup. Doc.**, 1 of dlandstudios.com brochure.

<sup>2</sup> Work at El Jardin thegaiainstitute.org brochure (Section V. **Sup. Doc.**, 2)

<sup>3</sup> <http://www.nycgovparks.org/permits/research/>

<sup>4</sup> <http://www.nyc.gov/html/dep/pdf/croton/7-15waterresources.pdf>

urban runoff and/or pollutant sources. Stormwater management systems also can extract first flush runoff contaminants such as heavy metals, hydrocarbons, Total Suspended Solids and Volatile Suspended Solids.

### B. Education and Access

“Remediation circles” can be adopted by stakeholder and youth groups to allow community to have a hand in transforming the site and learn and experiment with various remediation practices. In addition, this will enable and empower the community to prepare design guidelines for the water’s edge, including but not limited to a boat storage facility, pier for public access to the water, meeting and picnic areas. *Deliverables* will be the community visioning meetings, agenda of which include presentation of the chosen restoration methods, reports on ideas/concepts generated, and consensus building agreements among stakeholders and agency decision maker contribution/responses.

NEEDS	GOALS	#	OUTCOME	IMPACT
Clean Water	Stormwater Modules <sup>5</sup>	1	Benefit to marine resources, increase public participation on the river.	Lowering pollutants and polishing the discharge will limit pathogens, pollutants
Clean Land	Bioremediation	2 3	Benefit to marine resources by decreasing concentration and discharge, and increase public awareness in brownfield cleanups	Decreasing contaminant discharge to the river will increase living marine resources and potentially help to restore the riparian edge
Clean Water and Land	Monitoring <sup>6</sup>	1 2 3	Demonstrate the benefit of these designs in water quantity and quality, and assist public participation	Provide support that the water and the land are becoming cleaner and better able to provide safe access to the river
Clean Water	Community Coordinator	4	Getting the public to the waterfront may be the primary tool for protection and restoration of clean water and marine life.	Organizing stakeholder awareness will protect the water and living organisms
Access to Clean Water	Consensus Visioning	4	Access to the water will protect clean water and marine life	Create a sense of community ownership by educating the public around clean water, waterfront park access.
Clean Land & Employment Opportunities	Community Maintenance	5	One year maintenance by community stakeholders will clean water, create job opportunities, and prepare maintenance guidelines	Clean Water and Job Creation will provide economic opportunity and training for local residents.

## Narrative Section 2: Project Design

The stormwater management modules will be a Brownfield Remediation Pilot. This kind of a pilot has been a priority of the BCEQ Harlem River BOA since 2004. By creating an impervious module, adding existing contaminated soil and planting phytoremediative plants, it would become a remediation testing tray.<sup>7</sup> We plan to measure the performance of the project by reviewing each outcome:

<sup>5</sup> Modules start out one size and then can be expanded as needed if there is more or less rainfall or runoff. In order to do the pilot here, the size may have to start out small to meet spatial and budget constraints. However, modules enable the project to grow when research demonstrates the success of the method and other funding is possible.

<sup>6</sup> BMP performance will be measured through water quality sampling and analysis. Both influent and effluent will test the water discharged in the modules. We will also do water tests at the outfalls to see if there is a significant enough difference between the highway water capture and its input into the river. *new*

<sup>7</sup> This project has been preliminarily discussed with the USEPA and NYS DEC. Based upon discussions with the Parks Department and the NYS DEC, we decided on avoiding any disturbance with the land or anything that would constitute a contaminant exposure pathway that is regulated. The modular BMP is particularly made to assure that any pollutants revealed, or any plant species planted for hydrocarbon or metals uptake, would be neutralized or removed by natural methods of plant species, thereby eliminating any cause for creating a contaminant exposure

- Outcome 1: Create pilot projects that reduce highway runoff into storm drains in order to mitigate impact on the river.
  - Measure 1: Quantity of diverted stormwater from highway, as measured by the amount of rainfall, scale of collection watershed, and size of collection modules. The influent and effluent will be tested. Testing will use the water discharged in the modules. We will do water tests at the outfall to see if there is a significant enough difference between the highway water capture and its input into the river.
  - Measure 2: Monitor water quality measurements after large rainfall events at the on-site outfalls before and after pilot project. Measure heavy metals, hydrocarbons, temperature, salinity, and quantity of stormwater, maybe pathogens, TSS, VOC.
  - Measure 3: Compare input water quality to water filtration by pilot projects.
- Outcome 2: Devise a cost-effective, removable restoration module at Pier 5.
  - Measure 1: Pilot sections of restored habitat before and after project implementation.
  - Measure 2: Biodiversity of plant and animal species as monitored 6 months, 1 year after implementation.
- Outcome 3: Remediate the soil conditions using community-based phytoremediation techniques
  - Measure 1: Soil remediation managed to achieve a level appropriate for park conditions.
  - Measure 2: Community groups and/or individuals will adopt 3-5 distinct remediation testing modules.
  - Measure 3: Identify an ecologically appropriate methodology for remediation that is appropriate for other sites along the Harlem River.
- Outcome 4: Develop education partnerships and community support and engagement
  - Measure 1: Work with 10-30 youth through groups such as the Harlem River Rangers teach about urban ecology and landscape management.
  - Measure 2: Hold at least 3 community visioning sessions, where attendance and sustained engagement will be monitored.
  - Measure 3: Hold 2-3 "pop up" events on site to celebrate the initiative and gain wider publicity. (For example: community walking tour on sidewalk, and in Mill Pond Park.)
- Outcome 5: Develop blueprint for site restoration, maintenance, job training and green infrastructure as well as an agreement on a conceptual plan for the Harlem River.
  - Measure 1: Demonstrate support of blueprint by community and public agency stakeholders through a signed consensus building agreement.
  - Measure 2: Establish formal partnerships with other organizations specializing in job training, youth education, as well as with public entities.

#### A. *Habitat Restoration*

Since stormwater runoff from the Major Deegan is a significant contributor to the degraded water quality in the Harlem River, an integrated storm water solution along the riverfront is needed. Pier 5 offers an opportunity to address storm water issues from the elevated highway system. The Harlem River, which runs from the Hudson to the East River along the Bronx and Manhattan, is classified for secondary contact recreation and fishing and suitable for fish propagation and survival.

Building upon the work at the newly created park at Mill Pond Park, this project will attempt to provide the good *on site* science to restore habitat and create opportunities for waterfront access into the water, by reducing the discharge to the river and reusing/repurposing stormwater for habitat and biodiversity enhancement. Improving the river conditions through water capture/filtration plantings may prove to allow for habitat enhancement, nutrient uptake, and shelter for a variety of marine species by creating a continuous ecological connectivity along this fragmented area along the Harlem River.

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pathway that needs permit regulating. After discussing this with USEPA, we identified the work as being in a vacuum – an idea which has great impact on future projects both on the land and on the many bridges crossing the Harlem River. This is an approach we are interesting in taking as part of the ultimate park design to educate the public on different methods. We will add extra modules to make up for the less rigorous phytoremediation review.

*new*

### *C. Education and Access*

Maintenance requirements would depend on the storm water management system and could be tied into educational programs with schools as well as existing youth and environmental efforts such as the Harlem River Rangers providing job training around green infrastructure. *Deliverables* will be one pilot project with design/maintenance guidelines and monitoring data at existing outfalls discharging directly to the river, including a presentation to stakeholders. The project will serve both as a demonstration for dealing with urban highway runoff and as an education center for the river edge reclamation processes.

While Pier 5, a former rail yard and site of the Bronx Terminal Market, has a legacy as a “working site,” the edge of older and new parkland offers opportunities for public access and improved habitat. A series of highly visible passive, phytoremediation (plant-based) strategies can contribute to cleaning the sites in the BOA, as well as exposing its history and providing education and participatory opportunities. *Deliverables* will be the community visioning presentation of the chosen restoration methods and maintenance requirements, including job training around green infrastructure, as well as any other available options.

### **Narrative Section 3: Sustainability**

The Harlem River is spanned by seven swing bridges, three lift bridges, and four arch bridges, and is navigable to any boat less than 55 feet. The Croton Aqueduct spans the river, both along the Highbridge -- a pedestrian walkway, and underneath in a u-shaped tunnel. The Harlem River Drive and Greenway run on the western side (Manhattan), and the Major Deegan and the Hudson Line of the Metro North runs on the east side of the river (the Bronx). The Bronx waterfront lies littered with potential brownfields left by empty industrial facilities that historically blocked access to the water’s edge. The upland community along the Harlem River (most of the catchment area) has a median household income of \$25,000 with more than 33% of the residents in the community boards within the area are younger than 18 years old. This project aims to provide some opportunity in a demographic all too typical of inequities. (See detailed community profile prepared by the Borough President’s Office, Section V. **Sup. Doc.**, 3)

On the Bronx side, the area along the river is mostly depopulated, except for the River Park Towers, a housing development built in conjunction with Roberto Clemente State Park. However, the surrounding communities in the project area include the densely populated neighborhoods immediately upland on a ridge. They are parts of Spuyten Duvyl, Kingsbridge, Fordham, University Heights, Morris Heights, Highbridge, Concourse, Lower Concourse, Melrose, Mott Haven, and Port Haven. They include five Bronx Community Board Districts (1, 4, 5, 7 and 8) and drain to the Ward’s Island and North River water treatment plants, with some CSO as well as some separated storm drainage.

An outgrowth of the collaboration between the BCEQ Harlem River BOA Stage II Steering Committee and the Harlem River Working Group, with input from the 2011 Site and Environmental Systems Planning practicum at MIT, the Bronx Borough President's Office of Planning, and the New York City Planning Department's Waterfront Division, a strong network of organizational and agency support has already been established, with commitment at all levels to continue supporting the activities. We believe that the stormwater pilot projects, community visioning events and public events will strengthen these partnerships and expand the network of committed stakeholders to include groups specializing in youth education, and green job training. In addition to demonstrating the ecological benefits of reusing stormwater, improving soil conditions, and future plans to restore the riparian edge, the grant will allow exemplary best practices for similar conditions along the Harlem River and other parts of New York City's waterfront.

At the community level, gaining support and tying the project into job training and education programs is paramount to its success both during the grant period and beyond. Getting Bronx residents to "own" their waterfront is the only way to ensure that it will be cared for and managed well in the future. Thus, an

emphasis is given to allow for a wide range of community engagement, from more intensive youth job and educational programs and green job training, to pop-up event opportunities with the simple goal of drawing the average resident down to the river and seeing the activities taking place.

#### **Narrative Section 4: Community Partnerships**

In this project, we are partnering with the New York City Department of Parks & Recreation (DPR) and the Bronx Borough President's Office. We agree on the fundamental priorities of the Harlem River Working Group surrounding public access to and on the river, habitat restoration, education and public awareness. As part of the Harlem River Brownfield Opportunity Area Program, we have been working since 2004 on these goals, with many different agencies, including DPR, the Bronx Borough President's Office, Manhattan College, NYC Soil and Water Conservation District, The Gaia Institute, Partnerships for Parks, and the local Community Boards. (See list of HRWG groups, Section V. **Sup. Doc.**, 4)

*The Bronx Council for Environmental Quality (BCEQ)* is a non-profit 501(c)3 membership organization located in NYC's only mainland borough — The Bronx. Founded over forty years ago, they are a diverse collection of volunteers all seeking to leave our great grandchildren better air, land, and water quality than we have at present. We are teachers, community activists, health professionals — environmentalists.

The *Harlem River Working Group (HRWG)* is a coalition of nearly fifty community organizations, city, state and federal agencies, and elected officials focused on improving access to and along the Harlem River -- an area stretching 9.3 miles from the Randall's Island to the Hudson River in Bronx County, New York City. The group's goal is to work toward restoring the Harlem River; reconnecting the waterfront with the people; recreating the water's edge; and reinvigorating in-the-water recreational and commercial activities. The HRWG plans to accomplish these goals by creating linear greenway routes<sup>8</sup> linked to existing on and off street routes, restoring the river's water quality to swimable/fishable, providing access points into the water body, protecting and conserving natural habitats, monitoring and publicizing water quality sampling, create new parkland trails and parks both linearly and at the waterfront access points, and organize the community by creating a unified Harlem River Working Group.<sup>9</sup>

The Harlem River Working Group (HRWG) is a project that grew out of small planning meetings between park advocates, environmental organizations, community organizations, and the Office of the Bronx Borough President in late 2008. The Working Group was made official at the *Bronx Council for Environmental Quality's* Annual Water Conference in March 2009. *Highbridge Community Life Center*, an active Community Based Organization located and operating for over thirty years in the Highbridge Neighborhood of the Bronx acted as the fiscal conduit for the coalition. Through the efforts of all coalition members, the Harlem River Working Group was able to secure funding through the *Wildlife Conservation Society/National Oceanic and Atmospheric Administration (WCS-NOAA)* partially funding the position of the Harlem River Coordinator, as well as receiving two to three years of technical support from the *National Parks Services' Rivers, Trails, and Conservation Assistance Program*.<sup>10</sup>

In 2011, a class of the Massachusetts Institute of Technology Urban Design and Architecture School (MIT) studied the river and the waterfront. The Trust for the Public Land has been another one of our partners, supporting the creation of an outreach brochure/map, and purchasing public land for parkland use at Depot Place on the waterfront; *we received a grant from the US Forest Service for an intern to help on the outreach for the TPL project*. Finally, the Urban Waters Federal Partnership (UWFP) announced efforts on seven pilot locations, one of which is the Bronx River & Harlem River Watersheds (New

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<sup>8</sup> **Section VI Maps**, 5 shows the ribbon of greenways connecting parkland.

<sup>9</sup> <http://www.bceq.org/category/projects/harlem-river-working-group-projects/>

<sup>10</sup> <http://www.bceq.org/2009/07/31/harlem-river-working-group-nps-application-filed/>



York). Our area was chosen because each “locations had a strong restoration effort underway, spearheaded by local governments and community organizations.” The UWFP plans to transfer lessons learned from these pilot locations to other cities in the country.

#### **Narrative Section 5: Budget Justification**

The budget is attached. BCEQ members are donating their time to the project – from 2-4 hours per week supervising the contractors and other administrative tasks. The subcontractors will be responsible to the design, presentation to the committee, reports, budgetary paperwork and, if need be, permits (BCEQ will assist with this). The project will last for one year. We are requesting the full amount in order to accomplish the project as described. We have two different pilots -- stormwater and remediation, and can incorporate other savings. The potential for the NYS BOA funds to be ready as a non-federal match is anticipated in the spring, but it cannot be used for restoration, monitoring, or maintenance. We are requesting \$200,000. We expect to advance some payments, but hope to have no more than two checks per line item for Green Infrastructure: Landscape Architect Susannah Drake of [www.dlandstudios.com](http://www.dlandstudios.com), Biogeochemical Ecologist Paul Mankiewicz of [www.thegaiainstitute.org](http://www.thegaiainstitute.org), Maintenance by SmartRoofs LLC, a subsidiary of Sustainable South Bronx (SSBx), Community Coordinator and Monitoring.

#### **Narrative Section 6: Personnel and Management Plan**

The Bronx Council for Environmental Quality (BCEQ) is a 501c.3 grass roots borough-wide organization of volunteers founded in 1971. In 2005, BCEQ entered into an agreement with NYS Brownfields Opportunity Area Program for the Harlem River BOA Stage I is completed. The contract, signed for over \$300,000, would provide the community a greater opportunity to discuss visioning and pilot projects than allowable in the BOA program. This project will focus the work of the HRWG to improve the condition of the water and land along the Harlem River. We will be working with the Bronx Borough President’s Office and the Parks Department. We will extend the BOA area to include the area south of the Macomb’s Dam Bridge to the 149<sup>th</sup> Street Bridge.

The BCEQ Water Committee worked in the NYC Drinking Water Croton Watershed on stormwater runoff issues and other development. In the late 1990s, we worked on a successful EPA grant to hold National Education of Municipal Officials (NEMO) like project in Putnam and Westchester County. For five years, we participated in a NYS Department of Transportation Advisory Committee designing stormwater Best Management Practices (BMPs) for Route 684 near the Kensico Reservoir. Both Dart Westphal and Karen Argenti have worked on these issues, as volunteers. They will be advised by two HRWG members, Jerry Willis from the NPS and Chauncy Young from the Highbridge Community Life Center. Resume’s attached, Section V. **Sup. Doc.**, 5.

**SIX PAGES FOR THE NARRATIVE**

### III. PROJECT SCHEDULE

<b>TIMETABLE</b>	April – June 2012	July – Sept 2012	Oct – Dec 2012	Jan – March 2013
Stormwater Modules				
Bioremediation Monitoring				
Community Coordinator				
Consensus Visioning				
Community Maintenance				



## IV. BUDGET FORM

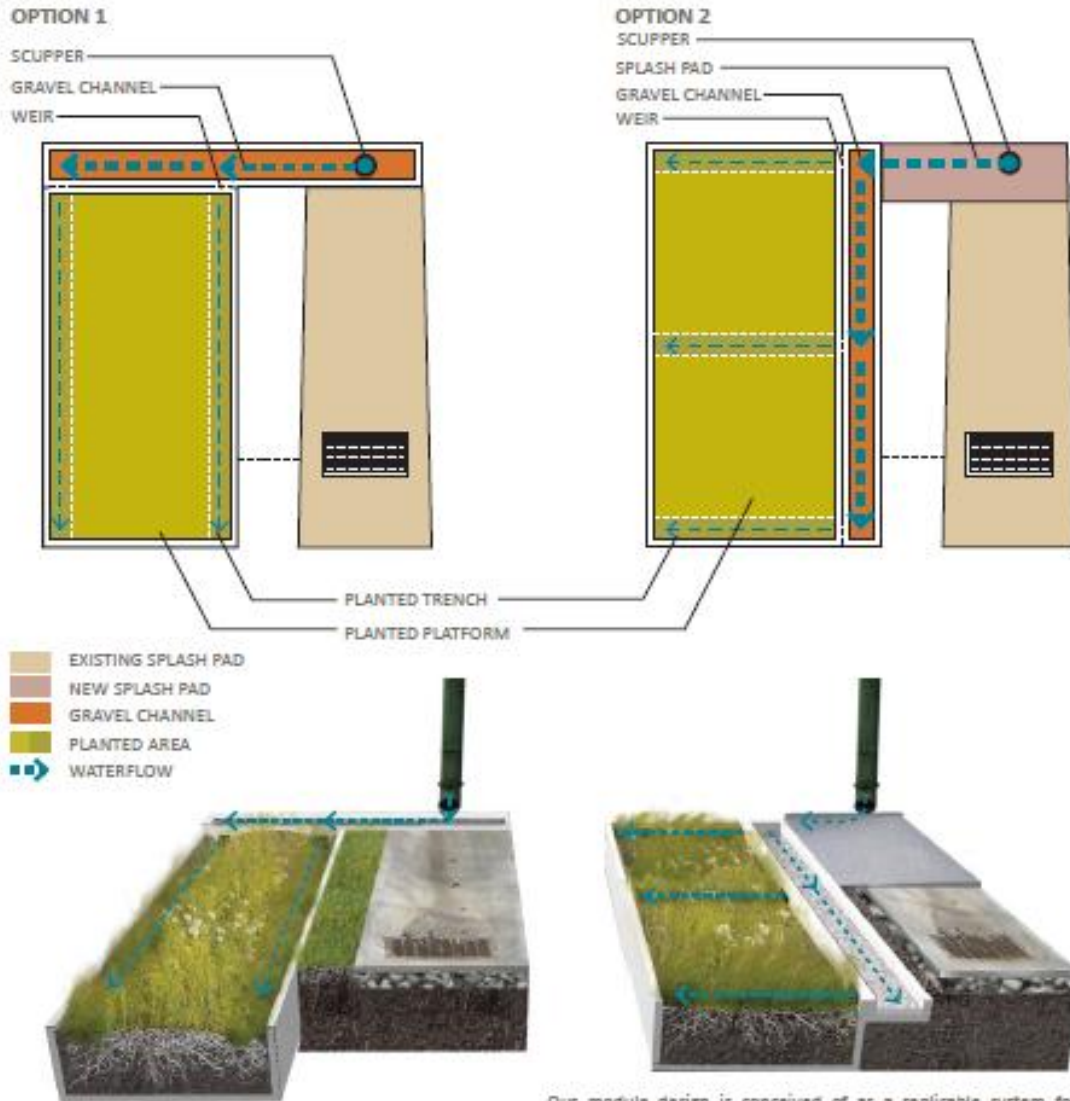
Bronx Council for Environmental Quality (BCEQ) Creating New Stormwater Capture Parks at the Harlem River Waterfront					27-Jun-11
WCS/NOAA Regional Partnership Grant Application Budget Form					
Salaries and Wages					
Bronx Council for Environmental Quality (BCEQ) in-kind volunteer	Creating New Stormwater Capture Parks at the Harlem River Waterfront	Percentage of Annual Salary or Hourly Rate and Manhours Breakdown	NOAA	Applicant	Total
Project Manager (PM)	\$ 10,000.00	20%	0.00	\$ 10,000.00	10,000.00
Contract Manger (CM)	\$ 10,000.00	20%		10,000.00	10,000.00
					0.00
		Totals:	0.00	20,000.00	20,000.00
Consultant Services					
Name	Project Task/Deliverable				
Stormwater Modules	Stormwater Capture Project from overhead highway into modules that filter, slow down and cool the discharge before it enters the river	includes design, equipment and installation oversight *	75,000.00		75,000.00
Bioremediation Pilot	Pilot project to use natural biogeochemical methods to remediate landscapes near the waterfront to clean the river	includes design, equipment and installation oversight *	75,000.00		75,000.00
Community Coordinator	Coordinate the agencies, the community, the schools, the community groups interested in the Harlem River clean water and land.	20% of the annual salary to coordinate the community visioning sessions, and the meetings of the coalition group the Harlem River Working Group	10,000.00		10,000.00
Monitoring	Lab tests on existing conditions, design guidelines, and impact on living marine resources.	Includes monitoring equipment and student stipends from local college	20,000.00		20,000.00
Community Consensus Building	Coordinator to build consensus on community visioning for the new parkland uses.	30% of the annual salary, includes documents and other audio visual aides to assist in increasing stakeholder interest	15,000.00		15,000.00
Community Maintenance	Community based workers to maintain the bmps for the one year period - 3 X per annum		5,000.00		5,000.00
		Totals:	200,000.00	0.00	200,000.00
<b>Total Direct Costs:</b>			#REF!	#REF!	#REF!
<b>Indirect Costs</b> (no more than 10% of salary +fringe)			0.00	0.00	0.00
<b>Total Direct and Indirect Costs:</b>			#REF!	#REF!	#REF!
<b>Total Amount Requested from NOAA:</b>			#REF!		

\* Pilot costs include: (1) Module Construction (one stormwater and one bioremediation) at \$40,000 per unit = \$80,000. (2) Design Services = \$55,000.00. (3) Contingency for additional Design Services = \$15,000. These are flexible reserve funds that can be allocated based on need throughout the project process. Please note that site analysis and environmental engineering services/testing are not included in the design services.

## **V. SUPPLEMENTARY DOCUMENTATION**

- 1 DRAWING BY DLANDSTUDIOS**
- 2 EL JARDIN BY THE GAIA INSTITUTE**
- 3 BOROUGH PRESIDENT'S GEOGRAPHIC PROFILE OF THE HARLEM RIVER WATERFRONT**
- 4 LIST OF HARLEM RIVER WORKING GROUP MEMBERS**
- 5 RESUMES OF PERSONNEL AND MANAGEMENT PLAN**
- 6 LETTERS OF SUPPORT:**
  - A. MANHATTAN COLLEGE**
  - B. BOEDC**
  - C. PARTNERSHIPS FOR PARKS**
  - D. CONGRESSMAN ENGEL**
  - E. MIT**
  - F. BRONX BOROUGH PRESIDENT**
  - G. HARLEM RIVER COMMUNITY ROWING**
  - H. NATIONAL PARKS SERVICE**

## DESIGN POTENTIAL



Our module design is conceived of as a replicable system for treating stormwater from elevated structures. Both design strategies employ a gravel channel to slow stormwater. The channel directs the water through weirs into planted trenches for remediation and filtration. Containing water flow within trenches provides targeted areas for maintenance. The primary difference between the basin designs are the tools utilized to direct water into the channel. Option one collects stormwater directly from the scupper into the channel, while option two utilizes a stormwater splash pad to divert water into the channel.

## El Jardin del Paraiso



## Biogeochemical Cap



- 9,000 ppm LEAD
- 1,000 cu yds composted biosolids from Hunts Point WWTP
- Removed about 30% of the total concentration of lead
- high enough in iron, phosphorus, and manganese to complex (*makes the lead inert*) with lead.

The Gaia Institute





## List of HRWG members

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### Attachment C - List of Partners – Active 2011

Highbridge Community Life Center: Sr. Ellenrita Purcaro, [purcaroe@highbridgelife.org](mailto:purcaroe@highbridgelife.org)  
Urban Divers Harlem River Ecology Center: Ludger Balan, [harlemriver.udec@gmail.com](mailto:harlemriver.udec@gmail.com)  
Friends of Brook Park: Harry Bubbins, [information@friendsofbrookpark.org](mailto:information@friendsofbrookpark.org)  
Bronx Council for Environmental Quality: Dart Westphal, [dartwestphal@gmail.com](mailto:dartwestphal@gmail.com)  
National Parks Service Rivers, Trails and Conservation Assistance Program: Jerry Willis, [jerry\\_willis@nps.gov](mailto:jerry_willis@nps.gov)  
New York City Soil and Water Conservation District: Shino Tanikawa, [shino@nycswcd.net](mailto:shino@nycswcd.net)  
NYC Partnerships for Parks: Maria Luisa Cipriano, [marialuisa.cipriano@parks.nyc.gov](mailto:marialuisa.cipriano@parks.nyc.gov)  
Manhattan College: Walter Matystik, [walter.matystik@manhattan.edu](mailto:walter.matystik@manhattan.edu)  
Gaia Institute: Paul Mankiewicz, [paul@thegaia institute.org](mailto:paul@thegaia institute.org)  
Friends of the Woods: Brandy Cochrane, [thewoods@inbox.com](mailto:thewoods@inbox.com)  
NYC Parks and Recreation: Ellen Macnow, [ellen.macnow@parks.nyc.gov](mailto:ellen.macnow@parks.nyc.gov)  
Metropolitan Waterfront Alliance: Louis Kleinman, [lkleinman@waterfrontalliance.org](mailto:lkleinman@waterfrontalliance.org)  
Trust for the Public Land: Clark Wallace, [clark.wallace@tpl.org](mailto:clark.wallace@tpl.org)  
Community Board 8 – Bx: Bob Bender, [bobbender@optonline.net](mailto:bobbender@optonline.net)  
Community Board 7 – Bx: Fernando Tirado, [info@bronxcb7.info](mailto:info@bronxcb7.info)  
Community Board 5 – Bx: Xavier Rodriguez, [brxcb5@optonline.net](mailto:brxcb5@optonline.net)  
Community Board 4 – Bx: Jose Rodriguez, [josrodriguez@cb.nyc.gov](mailto:josrodriguez@cb.nyc.gov)  
Harlem River Community Rowing: Jenny Sherman, [jenny@harlemriverCR.org](mailto:jenny@harlemriverCR.org)  
Friends of Sherman Creek: Obed Fulcar, [ofulcar@yahoo.com](mailto:ofulcar@yahoo.com)  
Friends of the Old Croton Aqueduct: Charlotte Fahn, [czfahn@yahoo.com](mailto:czfahn@yahoo.com)  
Shorewalkers: Cy Adler, [mail@shorewalkers.org](mailto:mail@shorewalkers.org)  
Waste Management: Rachel Amar, [ramar@wm.com](mailto:ramar@wm.com)  
Davidson Community Center: Angel Caballero, [angel.caballero@bldconline.org](mailto:angel.caballero@bldconline.org)  
Alexander Hamilton Bridge Community Liaison for NYS DOT: Zachary Campbell, [zcampbell@zetlin.com](mailto:zcampbell@zetlin.com)  
Transportation Alternatives: Aja Hazelhoff, [aja@transalt.org](mailto:aja@transalt.org)  
NYS Department of Environmental Conservation: Jesse Krief, 718-482-6464  
Congressman Serrano's Office: Anna Vincenty, [Anna.Vincenty@mail.house.gov](mailto:Anna.Vincenty@mail.house.gov)  
Congressman Engel's Office: Lori Copland, [Lori.Copland@mail.house.gov](mailto:Lori.Copland@mail.house.gov)  
Borough President's Office: Wilhelm Rhonda, [wronda@bronxbp.nyc.gov](mailto:wronda@bronxbp.nyc.gov)  
Assembly Member Vanessa Gibson: Edu Hermelyn, [edherme@hotmail.com](mailto:edherme@hotmail.com)  
Senator Jose M. Serrano: Angel L. Santana, [santana.nys@gmail.com](mailto:santana.nys@gmail.com)  
Council Member Maria del Carmen Arroyo: Joan Otero, [jotero@council.nyc.gov](mailto:jotero@council.nyc.gov)  
Council Member Helen Diane Foster: Jim Fairbanks, [Jfairbanks@council.nyc.gov](mailto:Jfairbanks@council.nyc.gov)

**Biographies of Personnel and Management****Jerry Willis, Director NYC/Metro Field Office****National Park Service, Rivers, Trails & Conservation Assistance Program**

Jerry's background is in Environmental/Community/Natural Resource Planning and he has over twenty-five years experience working with urban communities on natural resource, open space and conservation issues. He has worked with hundreds of community-based organizations and government agencies in diverse communities across the New York/Metropolitan region.

Jerry currently directs the New York City/Metropolitan Field Office of the Rivers, Trails & Conservation Assistance Program for the Northeast Region of the National Park Service. Projects he has worked on for the Park Service include the Bronx River Restoration & Greenway; the 150 mile Liberty-Water Gap Trail across northern NJ; the Highbridge Restoration Greenway Link; the 160 + mile NYC Water Trail, the Harlem River Greenway; Walk E Harlem; the Newark Waterfront Trail; the Passaic River Blueway; the Rutherford Bicycle Ring; and the Hackensack River Canoe & Kayak Trail.

**Karen Argenti, Board Member, Bronx Council for Environmental Quality (BCEQ)**

Karen has an extensive background in administration, municipal governance, politics and community action. She serves on the steering committee of the Bronx Council for Environmental Quality Brownfields Opportunity Area Project along the Harlem River, and is in charge of developing the public outreach program. Working with the Gaia Institute, she assisted in designing public participation for the proposal to turn the Henry Hudson Parkway into the first Scenic Byway in NYC. She also prepared the census and other data for the Head Start Programs as consultant preparing federally required Community Assessments.

Since December 2000, she is a member of the Stormwater Pollution Prevention Plan (SPPP) Advisory Committee set up as an agreement in the NYS DOT 120 EIS – this committee has been able to create a state of the art stormwater practice protecting the Kensico Reservoir. (The project ran out of money after the design was completed). She commented on various Environmental Impact Statements (EIS), including the Croton Water Treatment Plant (was a member of the Citizens Advisory Committee), and the Route 120/684/22 NYS Department of Transportation EIS. For more than twenty years, she worked for city and state elected officials gaining a diverse experience working with the NYC Council President, NY City Council, the NY State Senate, and the Bronx Democratic County Committee.

Community Memberships include: Current -- Fort Independence Park Neighborhood Association (FIPNA) Vice President; Friends of Jerome Park Reservoir, Bronx Council for Environmental Quality (BCEQ) Board Member, Communications Committee Chair and Co-Chair of the Water Committee. Former community associations include: founding member of the Jerome Park Reservoir Citizens Advisory Committee and the, Jerome Park Conservancy, Member and Chairperson of Bronx Community Board 7, and Board Member of the Mosholu Preservation Corporation.

**Dart Westphal, Board Member, Bronx Council for Environmental Quality**

Dart Westphal received his BSFS from Georgetown University in 1975. He worked in a middle school for emotionally disturbed children, taught at the Academy of Notre Dame and the Garland school, while doing graduate work in education at George Washington University. He received his MA in anthropology from Catholic University while working for the Municipal Reference Service of the National League of Cities.

Mr. Westphal worked for the South Bronx Open Space Task Force, building community designed playgrounds and gardens, before serving as Director of the West Tremont/Kingsbridge Neighborhood Preservation Office of the NYC Department of Housing Preservation and Development. He managed and coordinated department operations for an area encompassing 25% of Bronx County (250,000 population) underwriting \$8 - \$12 million in loans annually and coordinated the full spectrum of housing development activities. He simultaneously served as Director of a Federally sponsored Apartment Improvement Program (NHS) involving city officials, building owners, tenants and lenders, developing resources from private sources.



In 1987 Mr. Westphal began as COO of Mosholu Preservation Corp. (MPC), becoming President in 1996. MPC is a non-profit housing, community and economic development organization; a support corporation of the Montefiore Medical Center.

Mr. Westphal coordinated acquisition and rehabilitation, cooperative conversion, condominium construction and technical assistance to landlords and small businesses. He developed the nation's first Safe House for Lead Poisoning Prevention. He spearheaded adaptive re-use of disused properties, turning a former office building into a kindergarten and two former synagogues into a nursery school and a child abuse prevention center. He led the historic preservation of a 19<sup>th</sup> century reservoir building, including listing on the Registers of Historic Places and New York City Landmark status. He implemented economic development projects including the creation and management of a Business Improvement District. He founded the **Norwood News**, a bi-weekly community newspaper, and led the development of the Bronx News Network, with two additional newspapers both in print and online.

Throughout his career Mr. Westphal has led efforts to improve public services and facilities and enhance community organizations' ability to be self-sufficient. These include co-founding the Norwood Street Fair, several parks friends groups, the Bronx Parks Speak Up, The Tour de Bronx bike tour, The Bronx River Alliance, spearheading both the 1993 and 2007 Bronx Greenway Plans and Lutheran Cooperating in Ministry.

He provided organizational sponsorship for the Norwood Food Co-op, a grandparent support center, New York Coalition to End Lead Poisoning, and incubated Effective Alternative Reconciliation Services and the Norwood Blooms collaboration. He consulted on the founding and initial projects of New Directions Inc., a project of Bronx Lebanon Hospital Center.

He has been a task supervisor for graduate students at the Columbia School of Social Work, taught Community Development and Conflict Resolution at Manhattan College and City Government at Lehman College (CUNY). He ran multiple internship programs with both high school and college students in journalism, real estate development, economic development and parks partnerships.

He has served as a Board Member of the Bronx Council on the Arts, Bronx Center Advisory Council, Bronx Council for Environmental Quality (President), NYC Clean Water CAC, Croton CAC, Bronx Tourism Council, Friends of Van Cortlandt Park, Long Range Planning Committee Metro New York Synod (Evangelical Lutheran Church in America), Epiphany Lutheran Church Council (President), Bronx River Alliance (Chair), Harlem River Working Group.

#### **Chauncy Young, Coordinator, Harlem River Working Group**

Chauncy has been a community and labor organizer for over fifteen years throughout the New England and New York City Area. He has worked as an organizer with the New York City Coalition for Educational Justice, organizing parents and community members to improve their schools. Through his work with the NYCEJ and its local parent organization the United Parents of Highbridge, Chauncy was able to help design the first Green School for the Highbridge Neighborhood of the Bronx, a middle school which will be focused on environmental sciences and will be equipped with a greenroof laboratory equipped with solar panels and wind turbines to augment the students' studies.

He has served as the Chairperson of the High Bridge Coalition, which successfully raised sixty-five million dollars to reopen the High Bridge, New York City's oldest standing bridge and a main access point in the New York City Greenway plan; the Bridge is scheduled to open in 2014. He also serves on the board of the Highbridge Library Council and coordinates monthly meetings of a local school coalition and clergy council.

## V. SUPPLEMENTARY DOCUMENTATION

- 1 DRAWING BY DLANDSTUDIOS
- 2 EL JARDIN BY THE GAIA INSTITUTE
- 3 BOROUGH PRESIDENT'S GEOGRAPHIC PROFILE OF THE HARLEM RIVER WATERFRONT
- 4 LIST OF HARLEM RIVER WORKING GROUP MEMBERS
- 5 RESUMES OF PERSONNEL AND MANAGEMENT PLAN
- 6 LETTERS OF SUPPORT:
  - A. MANHATTAN COLLEGE
  - B. BOEDC
  - C. PARTNERSHIPS FOR PARKS
  - D. CONGRESSMAN ENGEL
  - E. MIT
  - F. BRONX BOROUGH PRESIDENT
  - G. HARLEM RIVER COMMUNITY ROWING
  - H. NATIONAL PARKS SERVICE
7. **NEW:** SUBMISSION BY DLANDSTUDIOS (INCLUDING MAPS AND DESIGN CHANGES)
8. **NEW:** NYC DEPARTMENT OF PARKS RESEARCH PERMIT APPLICATION FORM
9. **NEW:** GAIA INSTITUTE EXECUTIVE DIRECTOR BIO

June 24, 2011

Ms. Maria Krauss  
Government Affairs Department  
Wildlife Conservation Society  
2300 Southern Boulevard  
Bronx, NY 10460

RE: Bronx Council for Environmental Quality: Creating New Stormwater Capture Parks at the Harlem River Waterfront

Dear Ms. Krauss,

Manhattan College is an independent institution of higher learning. Serving students since 1853, the College which is a 501(c)(3) not-for-profit education corporation, has been located in the Riverdale section of The Bronx since 1922. Its campus lies only a mile or so from the Harlem River and two miles from the Hudson River. The College pioneered the graduate education of sanitary/environmental engineers boasting the oldest dedicated Masters program in the nation. The environmental research of its faculty – especially in the area of mathematical modeling of water quality – is acclaimed worldwide.

Manhattan College is pleased to strongly endorse this proposal. The proposed project is complementary to the College's initiatives in the area of green infrastructure to reduce and remediate the impacts of storm water runoff on urban waterways – waterways that can and should serve as recreational destinations for urban residents especially environmental justice populations located in upland communities adjacent to the waterways.

Recently, Manhattan College secured two green infrastructure grants from the NYC Dept. of Environmental Protection – one to install a modular green roof on a New York City hospital and the other to install permeable concrete on an almost forty thousand square foot parking area at the College. The parking lot project alone is projected to capture a million gallons of stormwater runoff annually – stormwater that would otherwise have found its way to the City's combined sewer system and, with ever increasing overflows, to the City's waterways including the Harlem and Hudson Rivers carrying pathogens along with it.

Green infrastructure is a viable remedy to the stormwater runoff problems in major urban areas and this project will capture runoff at a critical location proximate to the Harlem River. Manhattan's ongoing projects and this project will serve to validate the beneficial impact of green infrastructure and move these technologies further along towards being adopted as best management practices nationwide.

The students and employees of Manhattan College look forward to reaping the benefits of being able to take advantage of these initiatives that open up the waterfront to the surrounding community. Indeed, the location will become part of the environmental component of the College's Current Trends, NYC Architecture, Urbanism and Design and other courses.

The College looks forward to a successful review and funding of this project and is pleased to participate towards ensuring its success.

Very truly yours,

*Walter F. Matystik*

Walter F. Matystik, M.E., J.D.



June 24, 2011

Ms. Marla Krauss  
Government Affairs Department  
Wildlife Conservation Society  
2300 Southern Boulevard  
Bronx, NY 10460

Dear Ms. Krauss:

We are pleased to write a letter of support for Harlem River Working Group's applications from the Bronx Council for Environmental Quality (BCEQ) and the Highbridge Community Life Center (HCLC) requests for funding for projects along the Harlem River.

The Bronx Overall Economic Development Corporation (BOEDC) has been involved with the Harlem River Working Group since its inception, and we were the Coordinator for the Harlem River Promenade Design Project conducted by the Starr Whitehouse team through funding from Congressman Serrano's Office. We are excited to see projects that will further develop the Harlem River Waterfront while demonstrating the efficacy of green materials and educating the community about this work.

As a member of the Harlem River Working Group, BOEDC will continue to contribute toward this work and ensure that it mirrors the vision developed with the community for the Harlem River Waterfront. We look forward to seeing these projects come to fruition.

Please let me know if you have any questions.

Sincerely,

  
Kate Shackford  
Executive Vice President



# PARTNERSHIPS for PARKS

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June 27, 2011

Ms. Marla Krauss  
Government Affairs Department  
Wildlife Conservation Society  
2300 Southern Boulevard  
Bronx, NY 10460

Dear Ms. Krauss,

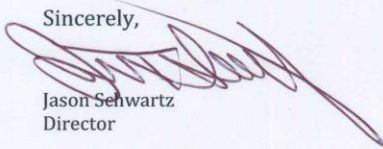
*Partnerships for Parks* is an innovative joint program of City Parks Foundation and the New York City Department of Parks & Recreation. Founded in 1995, we help New Yorkers work together to make neighborhood parks thrive. Ultimately, our work supports a culture of collaboration among people and government that recognizes parks as vital centers of community life.

*Partnerships* has worked with the Bronx Council for Environmental Quality (BCEQ) for many years. We have helped them plan events, conferences, and create a membership brochure. We have also worked with the Highbridge Community Life Center (HCLC) for several years on the effort to reopen the historic High Bridge. We are a member of the Harlem River Working Group (HRWG), the Harlem River Brownfields Opportunity Area and the High Bridge Coalition. *Partnerships for Parks* also convened the Bronx River Working Group, and brought together more than 60 community organizations, public agencies and businesses committed to reclaiming the river and improving access to it throughout the Bronx.

We support the efforts of the HRWG by providing technical assistance; creating a database of meeting and water conference attendees and interested organizations; and assisting with outreach. A revitalized, clean and accessible Harlem River waterfront would be an amazing asset to residents of the Bronx.

*Partnerships for Parks* strongly supports these projects, BCEQ and HCLC, and looks forward to remaining involved with the efforts of the HRWG.

Sincerely,



Jason Schwartz  
Director

The Arsenal  
830 Fifth Avenue • New York, NY 10021  
Phone: 212-360-1310 • Fax: 212-360-1350  
[www.partnershipsforparks.org](http://www.partnershipsforparks.org)

A JOINT PROGRAM OF



City of New York  
Parks & Recreation

**CityParks**  
Foundation

COMMITTEE ON  
FOREIGN AFFAIRS  
RANKING MEMBER  
WESTERN HEMISPHERE SUBCOMMITTEE  
EUROPE AND EURASIA SUBCOMMITTEE

COMMITTEE ON  
ENERGY AND COMMERCE  
HEALTH SUBCOMMITTEE  
ENERGY AND POWER SUBCOMMITTEE  
ASSISTANT DEMOCRATIC WHIP



Congress of the United States  
House of Representatives  
**ELIOT L. ENGEL**  
17th DISTRICT, NEW YORK

2161 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-3217  
(202) 225-2464

DISTRICT OFFICES:  
3655 JOHNSON AVENUE  
BRONX, NY 10463  
(718) 796-9700

6 GRAMATAN AVENUE  
SUITE 205  
MOUNT VERNON, NY 10550  
(914) 699-4100

261 WEST NYACK ROAD  
WEST NYACK, NY 10994  
(845) 735-1000

WEBSITE: <http://engel.house.gov>

June 24, 2011

Ms. Marla Krauss  
Government Affairs Department  
Wildlife Conservation Society  
2300 Southern Boulevard  
Bronx, NY 10460

Re: Bronx Council for Environmental Quality: Creating New  
Stormwater Capture Parks at the Harlem River Waterfront

Dear Ms. Krauss,

I am writing to support the application of the Bronx Council for Environmental Quality to organize activities for Creating New Stormwater Capture Parks at the Harlem River Waterfront to restore the river.

The Harlem River runs parallel to the Major Deegan Expressway, which is part of the Interstate highway system, and carries a large volume of traffic, both cars and trucks, with the runoff from this highway draining into the river. The clearing of this runoff will help to make the Harlem River more amenable for recreational purposes.

Sincerely,

Eliot L. Engel  
MEMBER OF CONGRESS





**Eran Ben-Joseph, PhD**  
Professor of Landscape Architecture and Planning  
Head, Joint Program in City Design and Development

Phone 617.253.7305  
Fax 617.258.8081  
Email [ebj@mit.edu](mailto:ebj@mit.edu)

Monday, June 27, 2011

Bronx Council for Environmental Quality  
3805 Orloff Avenue  
Bronx, NY 10463

Re: Creating New Stormwater Capture Parks at the Harlem River Waterfront -- Letter of Support

Dear Karen Argenti, Dart Westphal and  
the Bronx Council for Environmental Quality (BCEQ)

We would like to offer our strong support for your application for a WCS/NOAA Regional Partnership Grant to create a pilot design of ecological methods to capture and clean the currently piped runoff from the Major Deegan Expressway (I-87) to the adjacent Harlem River.

For the past 5 months, students and faculty from the Massachusetts Institute of Technology have worked closely with citizens and public officials from the Bronx to suggest a range of practical approaches to planning and designing sites within the context of the area natural and urban systems. Specifically, the MIT class explored methods by which a mosaic of industrial and contaminated land uses along the Harlem River might be revisoned and transformed to create a coherent, ecologically-based strategy for connecting the river to its adjacent neighborhoods. (See: <http://bronx.mit.edu/>)

As part of our plan we suggested a new approaches for the treatment of stormwater runoff and the integration of ecological measures into open space design. We are thrilled that the community has endorsed our preliminary ideas and that funding may be available to bring these ideas to fruition.

We believe that this project will incentivize and energize the community, bring much needed attention to this neglected part of the Bronx, will provide an excellent test-bed for new innovative water treatment techniques and will be an excellent platform for education.

The MIT students who participated in the class are eager to help in any way they can to bring this plan to fruition.

We enthusiastically support your proposal and believe that once constructed it will be of a significant value the community, the city of New York and the Harlem River environ.

Yours truly,

A handwritten signature in black ink, appearing to be 'Eran Ben-Joseph'.

Eran Ben-Joseph  
Head, Joint Program in City Design and Development





**Bronx Borough President Ruben Diaz Jr.**

June 27, 2011

Ms. Marla Krauss  
Government Affairs Department  
Wildlife Conservation Society  
2300 Southern Boulevard  
Bronx, NY 10460

Dear Ms. Krauss:

This is to register my support on behalf of the Harlem River Working Group's applications from the Bronx Council for Environmental Quality (BCEQ) and the Highbridge Community Life Center (HCLC) for funding of projects along the Harlem River. I understand that their submission is to the Wildlife Conservation Society (WCS), in its partnership with the National Oceanic and Atmospheric Administration (NOAA) under the Community Based Restoration Program.

As the chief elected official of Bronx County, I am deeply committed to both achieving access to and restoring the Harlem River waterfront. My office has provided funding for greenway and park improvements along this waterway. Over the course of the last year, my Bureau of Planning and Development collaborated with the Department of City Planning in identifying "low hanging fruit" for prioritization, and both of these projects fall within the parameters of my recommendations. Several years ago, my economic development office, the Bronx Overall Economic Development Corporation, commissioned the Harlem River Promenade Plan, which was financed by a grant from the Office of Congressman Jose Serrano. Most recently, my planning unit co-sponsored a Massachusetts Institute of Technology planning studio on the Harlem River.

Both organizations' projects are within the scope of the grant's target areas along the lower Bronx River and/or portions of the East and Harlem Rivers within the 16th Congressional District of New York. I support the applicant's proposals and efforts to restore the landscape and establish stakeholder enhancements.

Please feel free to contact Wilhelm Ronda, my Director of Planning and Development, with any questions at (718) 590-8087.

Sincerely,

A handwritten signature in black ink that reads "Ruben Diaz Jr." in a cursive style.

Ruben Diaz Jr.

RD:p&d/wr



PO Box 333 | Ft. George Station  
NY, NY 10034 | info@harlemrivercr.org

Monday, June 27, 2011

To Whom It May Concern:

I am writing this letter on behalf of the **Bronx Council for Environmental Quality (BCEQ)** to support its bid to seek funding for its **Creating New Stormwater Capture Parks at the Pier 5 Harlem River Waterfront** project.

Harlem River Community Rowing was founded in 2006 to provide affordable and accessible water-based recreation for residents of the New York City neighborhoods adjacent to the Harlem River, where we row and carry out programming. Being based on the Harlem River makes us inherently invested in any efforts to research, restore, beautify, protect, and enjoy the water as well as the waterfront. While rowing, we see evidence daily of the effects human behaviors have on water quality. In addition to natural flotsam and debris, we encounter litter and refuse that washes into the Harlem. The occurrence of human-based debris in the river increases significantly after a rain event as storm water carries it from gutters to the river.

The effects this has on the aesthetics of the river are profound. It goes without saying that an outing on a beautiful, quiet morning is marred by the sight of deflated balloons, fast-food wrappers, plastic bags, and other garbage floating in the water. Knowing that the visible pollutants are accompanied by numerous, harmful substances—motor oil, dyes, detergents, bacteria, human waste—likewise makes rowing less enjoyable.

Restoring the waterfront and the water itself can encourage community members to use it for healthy activities such as ours, relaxation, and reflection. It also encourages respect for our water resources and environment. This is why we support the efforts of the BCEQ to design ecological methods to capture and clean storm water runoff using wetlands as part of new ecological park. HRCR has been knowledgeable and supportive of the efforts of the BCEQ for several years. The organization's dogged riverfront revitalization efforts have been impressive; we have attended and participated in several BCEQ events and meetings—notably, through the Harlem River Working Group, of which HRCR is a member. We laud the BCEQ's dedication, vision, and community-based advocacy, and support its grant application without hesitation.

Respectfully yours,

Jenny Sherman  
Co-founder, Board Member, and Head Coach  
Harlem River Community Rowing  
jenny@harlemrivercr.org | 718.233.1917

**National Park Service**  
**US Department of the Interior**

Rivers, Trails & Conservation Assistance  
New York City Field Office  
28 E 20<sup>th</sup> Street New York, NY 10003



June 24, 2011

Ms. Marla Krauss  
Government Affairs Department  
Wildlife Conservation Society  
2300 Southern Boulevard  
Bronx, NY 10460

Dear Ms. Krauss:

I am writing on behalf of the National Park Service to express strong support for the Bronx Council on Environmental Quality's (BCEQ) proposal to the WCS/NOAA Regional Partnership Grant Program. BCEQ led the charge to revitalize the Harlem River and has been an unwavering advocate for improving the water quality of the river over the past decade. They have shown real leadership in their role as the first convener the Harlem River Working Group. Their proposal to create stormwater capture systems within a waterfront park builds on this leadership and will create a project that will also capture the community's imagination by demonstrating the possibilities for taking positive steps to improve the water quality of the Harlem River.

If funded, this project will build momentum and capacity within the local community to effect positive change for a river long forgotten and abused. One only has to look back at the success the WCS/NOAA partnership created on the Bronx River as proof that small successful projects like the one conceived in this proposal can be built upon and leveraged to effect large scale and dramatic change on an urban river.

Sincerely,

Jerry Willis  
National Parks Service  
Rivers, Trails & Conservation Assistance Program

## **Dlandstudio 11.08.11 handout**

## **parks application for research**

# The Gaia Institute



*The Gaia Institute, a 501(c)3 not-for-profit corporation, couples ecological engineering and restoration with the integration of human communities in natural systems.*

*While much environmental engineering has the worthy aim of minimizing harm, the Gaia Institute explores, through research and development, design and construction, how human activities and waste products can be treated to increase ecological productivity, biodiversity, environmental quality, and economic well-being.*

*The purpose of The Gaia Institute is to test through demonstration the means by which the ecological components of backyards, communities, towns and cities, as well as watersheds and estuaries, can be enhanced through integrated wastes-into-resources technologies.*

## **Paul Mankiewicz, Ph.D., Biologist/Plant Scientist**

Paul serves as the Executive Director of the Gaia Institute and leads the staff in pursuing the Institute's mission of exploring through research, development, design and education the interrelationship between human communities and natural systems. Dr. Mankiewicz's philosophy, which provides the foundation on which the Gaia Institute is based, holds that human communities and natural systems can coexist to mutual benefit. This rests on the hypothesis that where the flow of 'waste' materials from human activities can be cleaned and utilized to create habitat, human industry can be coupled with conserving and creating landscapes that provide an abode for life. Such material cycles can enhance environmental quality, where ecological productivity and diversity become goals of human activity.

Dr. Mankiewicz received his Ph.D. in Biology from the City University of New York/New York Botanical Gardens Joint Program in Plant Sciences. He also received a B.A. in Philosophy from the New School for Social Research; an M.A. in Biology from Lehman College; and a M. Phil. in Biology from the City University of New York. He has substantial experience with enhancing, restoring, and constructing wetland and terrestrial ecosystems. A past president of the Torrey Botanical Society, the oldest such organization in the New World, Dr. Mankiewicz is a member and former chair of the Solid Waste Advisory Board of the Bronx and Treasurer of the Soil and Water Conservation District for New York City. He is an active member of the Harlem River Working Group, and the Vice President of the Bronx Council for Environmental Quality.

The Gaia Institute  
99 Bay Street  
Bronx, NY 10464  
718-885-1906

[www.thegaia institute.org](http://www.thegaia institute.org)  
[paul.mankiewicz@thegaia institute.org](mailto:paul.mankiewicz@thegaia institute.org)

**VI. MAPS AND PHOTOS OF THE SITE** *revised 02.09.2012*

**YANKEE STADIUM REDEVELOPMENT MAP**

**PHOTOS TAKEN AT PIER 5**



# YANKEE STADIUM PARK REDEVELOPMENT PROGRAM



Pier 5 is north of the 149th Street Bridge.



# Pier 5



From the MIT students flyer





Drain pipes go across more than six lanes.



Pipes go from both the northbound and southbound side of the highway.





Both sides of the runoff from the elevated highway land on the future parkland.

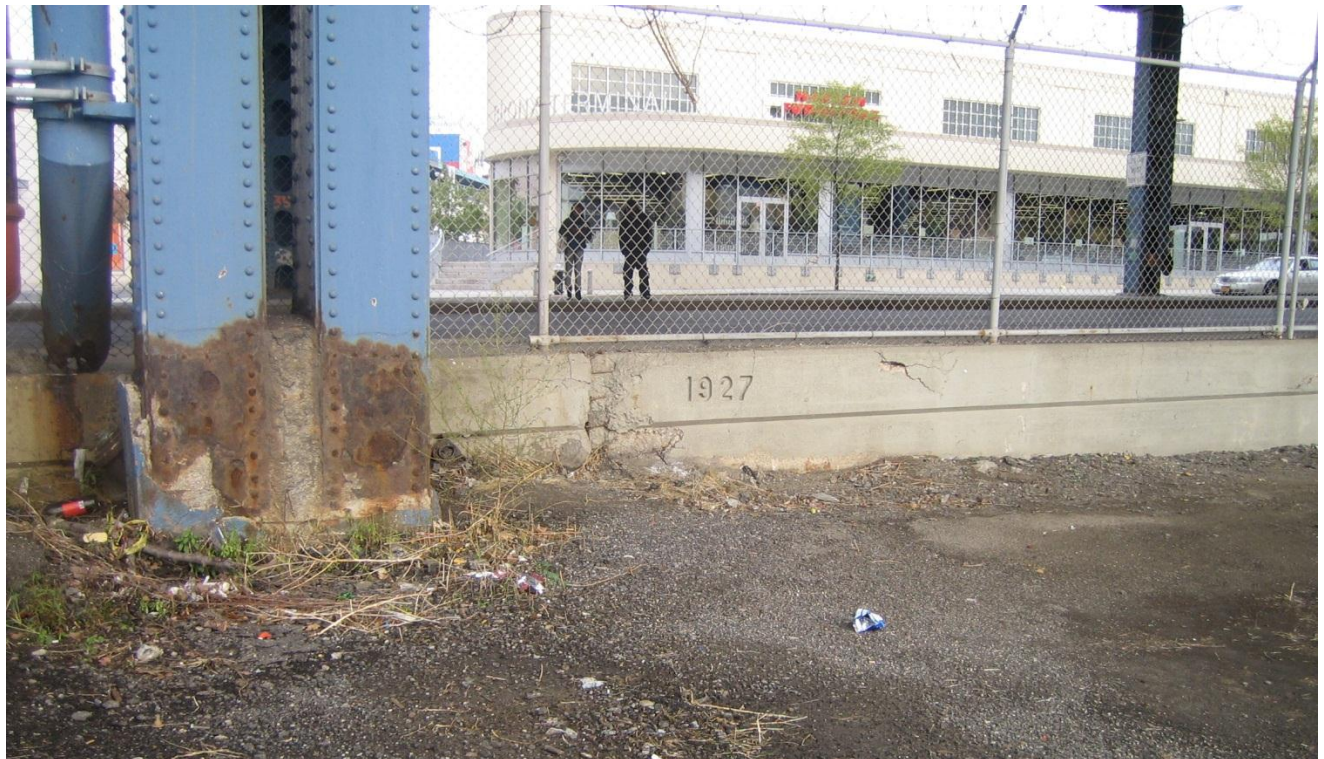


Another view of the runoff piped onto the future parkland.





The future parkland is bordered by the elevated railroad and the Harlem River.



1927 is etched into the concrete.