Exhibit I

Gateway Center at Bronx Terminal Market
Final Environmental Impact Statement

December 7, 2005

CEQR No.: 04DME017X

Project Location: Bronx, New York

Lead Agency: The Office of the Deputy Mayor for Economic Development and Rebuilding
Lead Agency Contact: Robert R. Kulikowski, Ph.D.

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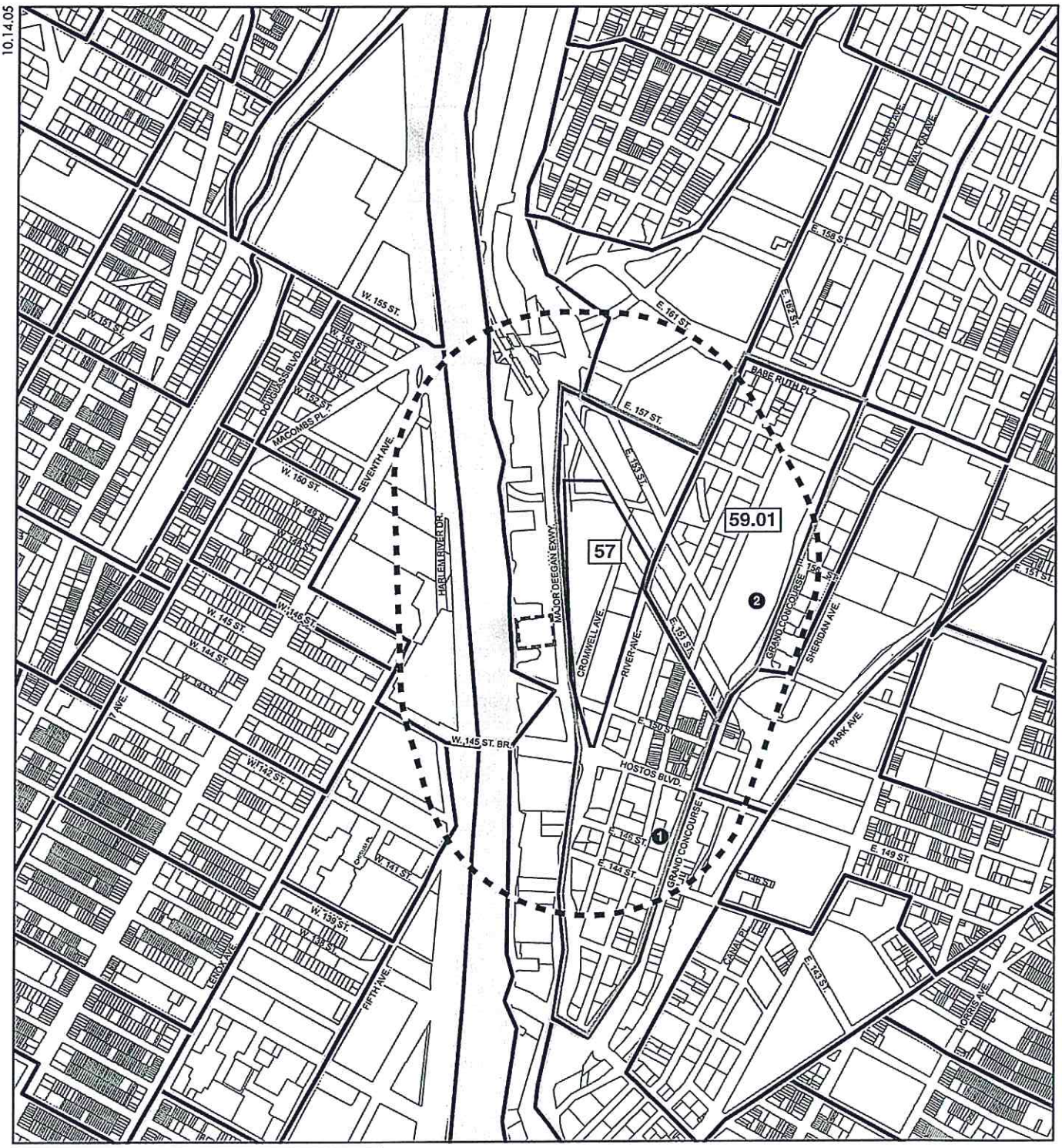
10.14.05



0 400 800 FEET
SCALE

- Project Site Boundary
- 1/4-Mile Perimeter
- ❶ Open Space Resource
- 57 Census Tract Boundary
- Open Space Study Area Boundary
- Projected Off-Site Open Space

GATEWAY CENTER AT BRONX TERMINAL MARKET

Open Space
Figure 5-1

the residential buildings located along East 153rd Street and along Gerard and Walton Avenues north of East 153rd Street, the buildings at Hostos Community College, and Yankee Stadium. Therefore, the proposed buildings would be in keeping with the height and bulk of some of the existing structures in the study area. As the existing buildings on the project site are currently unutilized or underutilized and have a neglected quality, the proposed buildings would be expected to improve the visual quality and the character of the area.

The Proposed Project would modify the shapes of the project blocks by demapping portions of several streets to create a superblock. These streets are currently underutilized and form blocks with unusual shapes. The change would not result in a negative neighborhood character impact related to urban design, as it would not significantly alter the basic street pattern or block shapes of the study area.

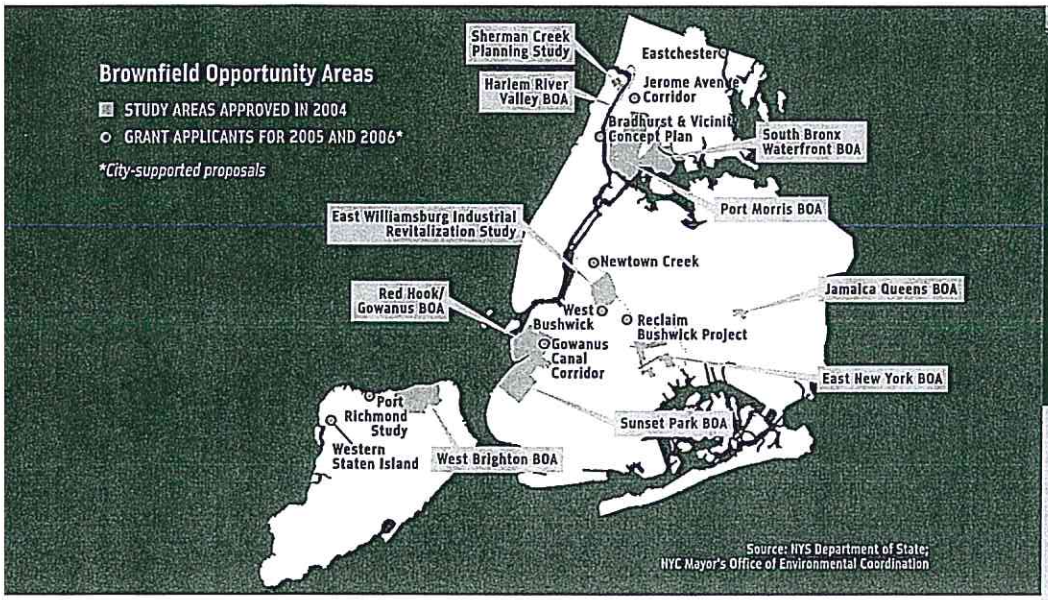
In general, the Proposed Project is expected to enhance the vitality of the surrounding streets by introducing active retail uses and increasing visitation to the project site. The Proposed Project would also add to the visual quality of the surrounding area, by creating landscaped passageways between buildings, introducing street lighting and trees, and opening up views from the project site to the Harlem River.

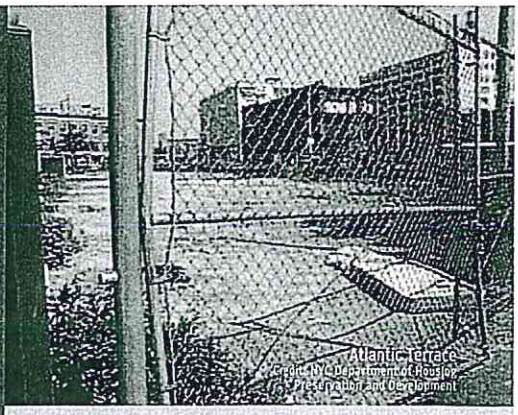
In the future with the Proposed Project, it is anticipated that the City, with contributions from the project sponsor, would develop a portion of the waterfront area west of Exterior Street with a 2-acre public open space. The City is committed to developing the off-site public open space by the Proposed Project's 2009 Build year. The programming of this open space and the actions required for its development are yet to be determined. This new open space would facilitate access to the Harlem River, and views from Exterior Street to the waterfront would be improved. The Proposed Project's landscaped passageways across the project site would be publicly accessible and would facilitate access to this public open space.

Although the context of surrounding views would be altered by the introduction of taller, modern buildings to the area, this change is not considered to be adverse, as these buildings would replace underutilized, deteriorating buildings and the project would create new waterfront access and views to the Harlem River. Yankee Stadium would continue to be a prominent feature in surrounding views. Some existing views to the stadium would be eliminated, but other new views would be created with the removal of the detention center.

Although the Proposed Project would require the demolition of two of the historic resources on the project site (Building B and the Bronx House of Detention)— this impact would be lessened by mitigation measures being developed in consultation with the New York State Office of Parks, Recreation and Historic Preservation. Mitigation measures are anticipated to include retaining and reutilizing Building D for retail development in conjunction with the Proposed Project; reutilizing ornamental elements from the Bronx House of Detention within the River Avenue façade of the proposed Retail Building B/F as well as the plaza on River Avenue at the entrance to the southern passageway through the site; affixing a plaque either to the side of Retail Building B near the plaza or incorporated into the plaza design, describing the Bronx House of Detention's significance as an example of WPA-era institutional architecture designed by Joseph Freelander; affixing a plaque to the side of Building D describing the history of the Bronx Terminal Market and its role in the development of terminal markets in the United States; and recording Buildings B and D and the Bronx House of Detention through a Historic American Buildings Survey (HABS)-level photographic documentation and accompanying narrative.

Exhibit J




Atlantic Terrace
Credit: NY Department of Housing Preservation and Development

a City COC. The City will work with the State and, where necessary, advance legislation to ensure that a City COC is honored by State regulators and provides the same liability relief as the BCP.

INITIATIVE 6

Provide incentives to lower costs of remediation

We will dedicate $15 million to capitalize a fund to support brownfield redevelopment

Although a City brownfield program will increase oversight for remediation projects, many sites will still require financial assistance to begin redevelopment. That's why the City will provide $15 million to a public-private revolving fund. The Remediation Fund will provide below-market rates to developers of contaminated land. These incentives will be directed toward remediation and related costs, including testing and environmental insurance.

The City will partner with private institutions to raise 70% of the Fund's total capital. Because of the risk involved with lending against contaminated property, current interest rates are often greater than 13%. By using City capital in a revolving fund, the interest rate can be much lower, reducing the costs of remediation and testing.

Encourage greater community involvement in brownfield redevelopment

Brownfields are frequently concentrated in former manufacturing areas, many with large concentrations of low-income New Yorkers. From Sunset Park to the South Bronx, environmental justice advocates have launched a variety of community planning efforts aimed at reclaiming brownfield sites for local priorities and needs. But as growth surges across the city and begins to reach these areas, residents must be given greater voices in shaping their communities. That means incorporating amenities such as healthy, open spaces, community centers, and affordable housing, as land values and rents continue to rise.

That's why we will work with the State and local organizations to incorporate community perspectives more fully into brownfield redevelopment projects.

INITIATIVE 7

Encourage the State to release community-based redevelopment grants

We will advocate for the State to reform the Brownfield Opportunity Area (BOA) program and release planning grant funds to community groups

The Brownfield Opportunity Area program (BOA) provides approximately $8 million per year to help communities with large concentrations of brownfields develop visions for how underutilized land in their neighborhoods could be redeveloped to strengthen

CASE STUDY

Atlantic Terrace

When the non-profit Fifth Avenue Committee (FAC) gained custody of an empty lot in Fort Greene, it had an impressive goal in mind. It would make its project, Atlantic Terrace, the first LEED Gold certified affordable housing in Brooklyn.

But for FAC, getting green hasn't been easy. The lot had previously been the site of gas stations and manufacturing businesses. Though seven gas tanks had been removed, they had leaked. This, in addition to the fill used to level the site, meant that Atlantic Terrace had to be a remediation project before an affordable housing development.

"The contamination added bureaucratic complexity, cost, and time to the project. We could have started construction months ago," said Michelle de la Uz, Executive Director of FAC. In fact, by participating in the State's Brownfield Cleanup Program, FAC expects to lose at least six months.

And while FAC is eager to benefit from the tax credits and liability protection offered by the State BCP, it fears the costs of delay. So although the State admitted Atlantic Terrace into the BCP program, FAC is electing not to participate. In the absence of alternatives, FAC will conduct its cleanup without State assistance. By the time FAC is finished, the site will be safe to residents and neighbors, but with potentially significant liability.

This is where a City-sponsored BCP program could play a key role. The City BCP program would allow an alternative for sites like Atlantic Terrace. The City will offer expedited review and oversight that, upon satisfactory remediation, could, with State approval, result in a City approval letter providing liability relief similar to that offered by State programs. The City's BCP program will also make sites like Atlantic Terrace eligible for City programs.

"A program like that would have given us a clear path very early on in Atlantic Terrace's conception," said de la Uz. "That certainly would have helped."

existing or proposed community plans. Between 2004 and 2006, the State awarded 10 BOA grants to local organizations in the city and received nine more City-supported applications. *(See map on previous page: Brownfield Opportunity Areas)*

One of the recipients, the Bronx Council for Environmental Quality (BCEQ), sought to revitalize a seven-mile sliver of land between the Harlem River and the Major Deegan expressway. Spanning 159 acres across 45 sites in the neighborhood, every site in the study area is considered potentially contaminated because each is located downhill from dense urban development and adjacent to railroad tracks. Currently, 33 of these sites are also considered underused.

The BCEQ plan will expand access to the waterfront, creating new parkland curving alongside the river, a restored shoreline and natural habitat, and stronger links with the surrounding areas.

But the progress on this plan—and 18 others—has ground to a halt because of a cumbersome process for delivering the grant money. Since 2005, no grants have been issued at all, despite a backlog of City-supported initiatives. To get BOAs back on track again, the City will request that the State modify its requirements in order to deliver funding to program grantees more quickly. The City also will work with the State to ensure the provision of funding to implement BOA plans, so that community initiatives are more likely to come to life.

INITIATIVE 8

Provide incentives to participate in Brownfields Opportunity Area (BOA) planning

We will advocate for financial incentives for developments constructed in coordination with a BOA

There is currently no incentive for private developers who own property within a BOA to work with the community's redevelopment plan. Often community groups have a limited ability to acquire and remediate sites on their own. Therefore, community-based brownfield redevelopment often requires the participation of site owners and developers in order to have any tangible impact.

When each side works together, projects can be designed that meet the needs both of the landowner and the community; for example, the redevelopment of the Rheingold Brewery in Bushwick was done as a partnership between the community, the Bluestone Organization, and the City's Department of Housing Preservation and Development. It included 300 affordable housing units and won a Phoenix Award for Excellence in brownfield redevelopment.

But, in many cases, landlords note that community-based planning can add further delay to the already-lengthy process of brownfield redevelopment. Although the BOA legislation currently states that projects consistent with BOA plans be given "preference and priority" for incentives, the State has not defined the nature of the preference and no project has benefited.

We will advocate for the State to encourage these partnerships more strongly by creating a financial incentive for plans that reflect BOA guidelines. This incentive would provide a measurable reason for developers to factor community interests into their development plans, maximizing potential coordination opportunities.

INITIATIVE 9

Launch outreach effort to educate communities about brownfield redevelopment

We will educate and provide technical assistance to communities, private developers, and City agencies to promote brownfield redevelopment

Even at its simplest, brownfield remediation is very confusing. Whole industries exist to coordinate the numerous stakeholders in brownfield redevelopments. Lawyers, environmental consultants, lenders, insurance brokers, and Federal, State, and local regulators usually have some part to play in most brownfield transactions, creating tens or hundreds of thousands of dollars in soft costs alone. Though these services are expensive, they are also essential to help maximize the potential benefits of existing programs.

Through its new Office of Environmental Remediation, the City will provide the information, technical assistance, and training necessary to assist less-sophisticated developers and encourage effective community involvement and planning.

The effort will include the creation and continual updating of a brownfields information website to provide information on resources available for site investigation and cleanup. The office will also act as a liaison to DEC, assist in reviewing legal agreements and permitting applications, track sites and progress, create a "toolkit" for interested community groups, and hold workshops for community groups and City agency staff. The group will also actively promote applications to the State BOA program, as well as provide a City liaison to all City projects.

Identify remaining sites for cleanups

Outside of sites enrolled in State programs, and areas that have been rezoned from manufacturing to residential use or awarded redevelopment grants, the City does not have a way of knowing how many brownfields exist or where they might be. This lack of full information prevents the City from being more proactive in promoting remediation. Further, it imposes the full costs of determining dangerous historic uses on the landowner.

INITIATIVE 10

Create a database of historic uses across New York City to identify potential brownfields

We will conduct a historic use assessment for all sites in order to measure long-term progress towards goals

We will create a "historical use database" to assemble information that will help inform our awareness of potential contamination. This will include two types of research. First, we will gather information from a variety of sources, including environmental releases, databases, historic maps, telephone, and finance records. Second, we will ask Community Boards in their annual Community Needs Assessments to include an assessment of local vacant or underused lots that might

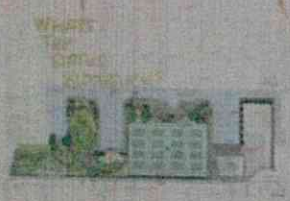
Exhibit K

WORKING TO IMPROVE YOUR PARKS

Mill Pond Park

City of New York
Parks & Recreation

Existing conditions



Schematic Design

The waterfront park is part of the redevelopment of the South Bronx resulting from the construction of the new Yankee Stadium. This program includes ballfields at PS 29 and the West Bronx Recreation Center; the new Macombs Dam park track and field complex; River Avenue pocket parks; and the Heritage Field ballfields.

The market park project converts the former Bronx Terminal Market to a waterfront park that will include 16 tennis courts, a serpentine esplanade with river overlooks, pier inlets, a sand play area, an outdoor classroom, and picnic grounds. The former Power House building will include space for a tennis center with lockers and a café, and the parks maintenance facility.

Thank you for your patience as we make these improvements.

Scheduled Completion: Late Fall 2009

Mayor: Michael R. Bloomberg
Borough President:
Council Member: Helen D. Foster
Commissioner: Adrian Benepe
Deputy Commissioner: Thérese Braddick
Borough Commissioner: Hector M. Aponte
Implementing Agency: NYCEDC
Preliminary Design: Rogers Marvel Architects
Final Design: Thomas Balsley Associates, Stantec Consulting & Wendy Evans Joseph Architecture
Construction Management: The LiRo Group
Program Managers: Tishman Construction & DMJM Harris

New York City Economic Development Corporation

DIAL 311 Government Information and Services for NYC

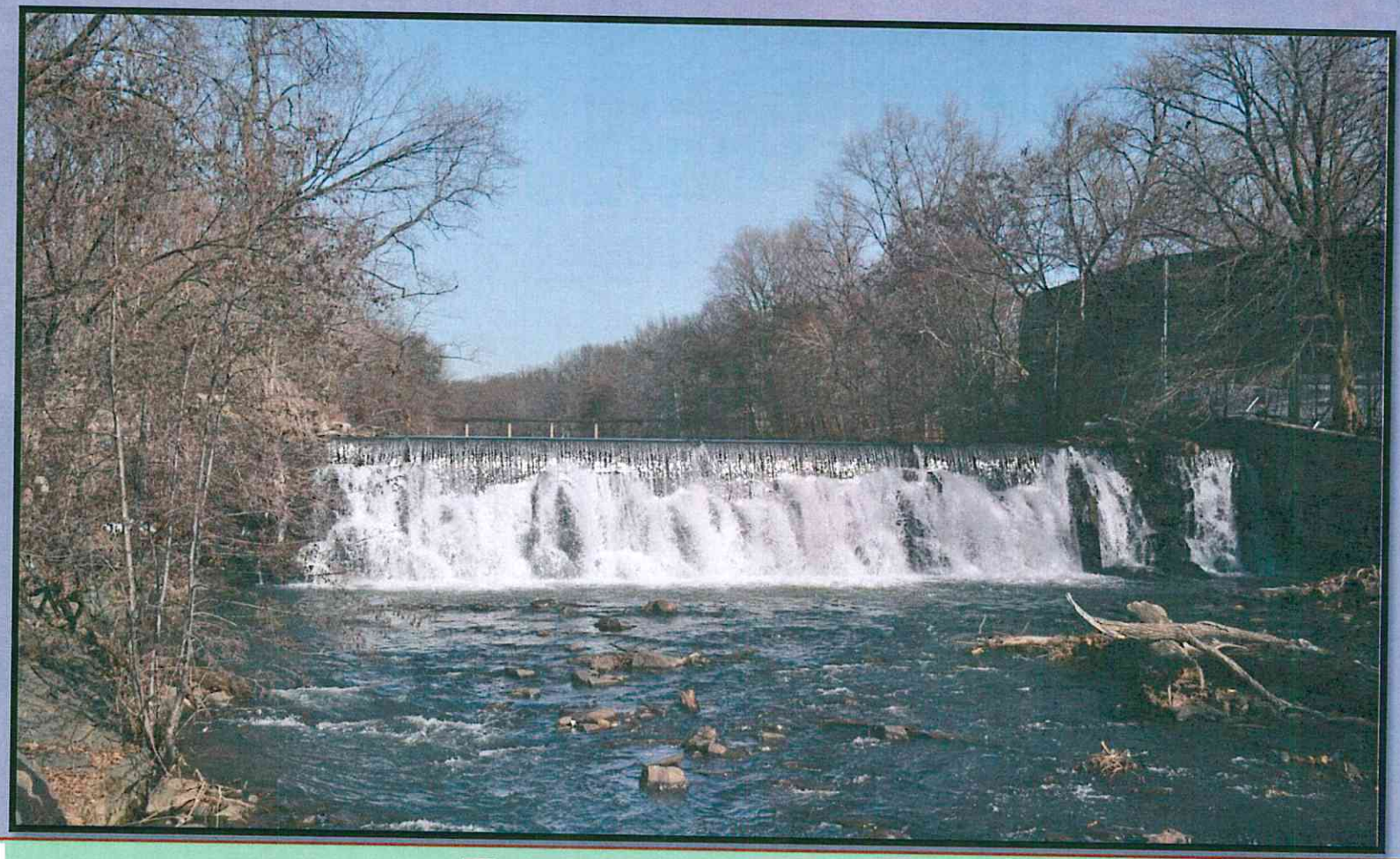
www.nyc.gov/parks


DEAD
END


Mill Pond Park / Parque Mill Pond
Park District Map
Distrito del Parque - Mapa
Mill Pond Park Map
Parque Mill Pond - Mapa
Harlem River
Metro North
Subway
Key / Clave
1 Mill Pond Park / Parque Mill Pond
2 Macombs Dam Park / Parque Macombs Dam
3 Yankee Stadium
4 John Mullaly Park / Parque John Mullaly
5 Joyce Kilmer Park / Parque Joyce Kilmer
6 Franz Sigel Park / Parque Franz Sigel
7 Metro North Station Hudson Line / Estación de Metro North Hudson Line
8 Pedestrian Bridge / Puente Peatonal
9 Subway Station / Estación de Tren
B D 4
10 Bronx Civil Court / Corte Civil del Bronx
11 Picnic Area / El Comedor
12 The Lawn / El Batey
13 Outdoor Classroom / Salones de Clase al Aire Libre
14 Water Play Area / Area de Juegos Aquáticos
15 The Beach / La Playa
16 Tennis / Tenis
17 Power House - Park Office / Oficina del Parque

Exhibit L

Bronx Waterfront Vision



Ruben Diaz Jr.
Bronx Borough President

February 2011

Introduction

Objectives for the Bronx Waterfront:

- Establish and Improve Public Access
- Protect our Natural Resources
- Upgrade Existing Parkland
- Identify Future Park Sites

Harlem River: Future Sites for Public Access

- Park Avenue Street End
- Lower Grand Concourse Rezoning Park Site at E. 144th Street
- Pier 5*
- Highbridge Yards Public Easement
- New Tabernacle Baptist Church Parcels*
- DCAS Scaffolding Parcel*
- Fordham Landing Parcel
- DCAS Parcel North of University Heights Bridge*

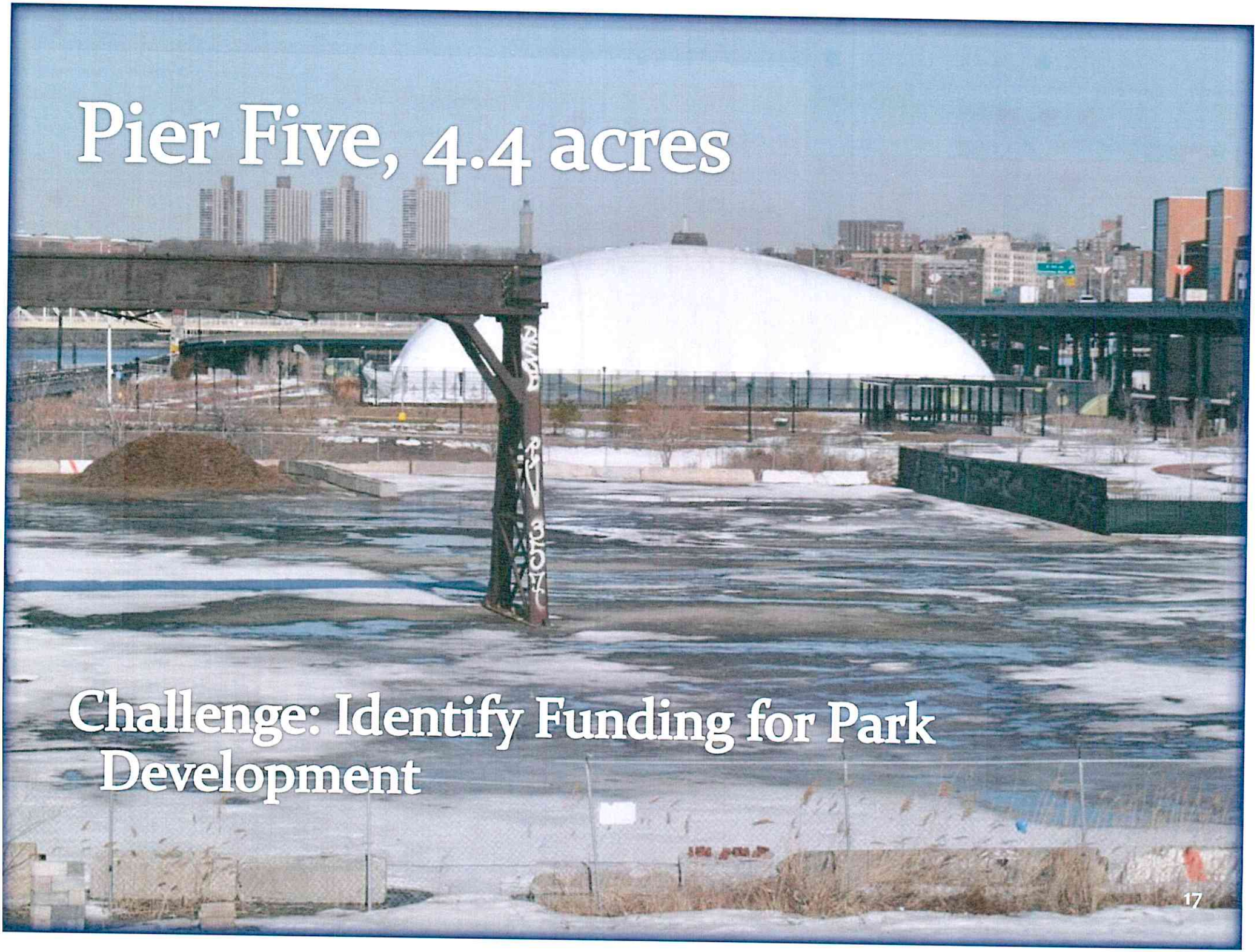

Pier Five, 4.4 acres
Challenge: Identify Funding for Park Development

Exhibit M

MILL POND PARK MASTER PLAN & SCHEMATIC DESIGN

Bronx, NY

Mill Pond Park (formerly The Bronx Terminal Market) site is a 10-acre parcel spanning between the East 145th Street Bridge and the Yankee Stadium Ferry, from Exterior Street to the Harlem River. This waterfront park is one of several replacement parks and recreational facilities that are within the Yankee Stadium Redevelopment Program. Rogers Marvel is responsible for the preliminary and schematic plans for the park, linking the project to other the redevelopment sites throughout the area. Program elements for Phase 1 include a tennis court, passive recreation areas, and restoration of Power House, the remaining building of the Bronx Terminal Market. For the design, these components are linked by the red ribbon, a continuous waterfront esplanade and pathway, providing space for walking, skating, or biking throughout the park. Special feature of this park will allow visitors to have access to the former New York Harbor estuaries which were transformed into the Harlem River.

Master Planning & Schematic Design: Rogers Marvel Architects

Execution: Thomas Balsley Associates, Stanley & Wendy Evans Joseph Architecture

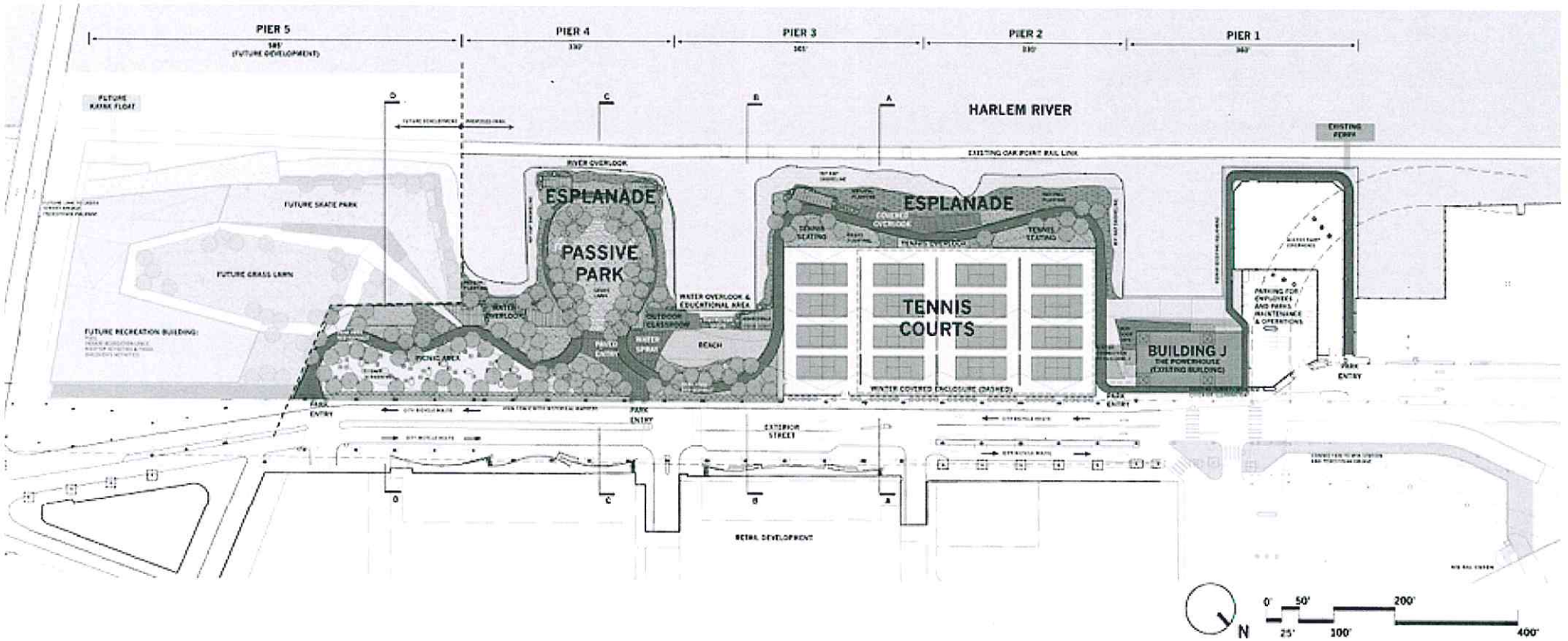

PIER 5
(FUTURE DEVELOPMENT)
PIER 4
PIER 3
PIER 2
PIER 1
HARLEM RIVER
FUTURE KAYAK FLOAT
FUTURE SKATE PARK
FUTURE GRASS LAWN
FUTURE RECREATION BUILDING
RIVER OVERLOOK
ESPLANADE
PASSIVE PARK
WATER OVERLOOK
PICNIC AREA
WATER OVERLOOK & EDUCATIONAL AREA
OUTDOOR CLASSROOM
WATER SPRAY
BEACH
ESPLANADE
COVERED OVERLOOK
TENNIS SEATING
TENNIS COURTS
WINTER COVERED ENCLOSURE (DASHED)
BUILDING J
THE POWERHOUSE
(EXISTING BUILDING)
EXISTING FERRY
EXISTING CAR FLOAT RAIL LINK
PARKING FOR EMPLOYEES AND PARKS MAINTENANCE & OPERATIONS
PARK ENTRY
EXTERIOR STREET
RETAIL DEVELOPMENT
A
B
C
D
N
0'
50'
200'
25'
100'
400'

Exhibit N

The Harlem River Greenway:
Our River, Our Future

A community initiated greenprint for the reclamation of the natural beauty of the Harlem River and the creation of a greenway

La Vía Verde del Río Harlem:
Nuestro Río, Nuestro Futuro

Una visión iniciada por la comunidad para una vía verde, una reclamación de la belleza natural del Río Harlem y un público comprometido

THE TRUST for PUBLIC LAND

Harlem River Working Group

Our vision has six basic objectives:
Nuestra visión tiene seis objetivos básicos:

1) Build the Greenway

Build the Greenway through a network of parks alongside the river—the entire length of the river, as close to the river as possible—and ensure that the Greenway links to the extensive network of existing Bronx greenways and bicycle paths. This is of course a long-term goal, but it starts with strategic connections, such as linking Depot Place Park to Roberto Clemente State Park via the Regatta Greenway. The Harlem River Greenway won't happen without a comprehensive vision and a plan to guide improvements on both publicly and privately-owned sites. The Greenway should incorporate green infrastructure technologies including green swales, porous pavement and soil bioengineering to capture storm water.

Construir la Vía Verde a través una red de parques al lado del río, a lo largo del río, lo más cercano posible al río, donde sea esto alcanzable y asegurando que la Vía Verde conecte con la red vías existentes del Bronx. Por supuesto, esto es una meta a largo plazo. Pero comienza con conexiones estratégicas, como el enlace del Depot Place al Parque Estatal Roberto Clemente hacia la Vía Regata. La Vía Verde del Río Harlem no pasará sin la visión global y un plan para guiar las mejoras en sitios públicos y privados, incluyendo las Mejores Prácticas de Administración como pavimentos porosos y la captura de aguas tormentosas.

2) Provide On-Water Access

Provide on-water access to the river through multiple "doorways," and ensure that streets leading to the river are clear and inviting pathways for the public. Provide multiple ways for people to access the river, whether by human-powered boats or larger-scale water transit.

Proveer acceso al agua en el río a través de múltiples "entradas", y asegurando que las calles y senderos lleguen al río invitando al público. Esto significa proveer múltiples caminos para que las personas lleguen al río, si esto significa botes impulsando por humanos o barcos de grande escala.

3) Clean Water

In addition to necessary grey infrastructure engineering investments that capture and remediate storm water runoff with a goal of eliminating combined sewer releases, clean the water by expanding the use of natural sustainable storm water management practices. Green infrastructure systems should incorporate green swales, enhanced plantings and soil bioengineering practices in the upland areas and leading to the river's edge. Make the river safe and attractive for swimming, boating, and fishing. Anything built along the river should contribute to improved water quality through the capture of storm water and should create a healthier, more attractive urban environment.

Limpiar el agua empleando prácticas naturales de manejo sostenible de aguas tormentosas, empezando en las áreas altas y dirigiéndose hacia la orilla del río. Haciendo el río seguro y atractivo para la natación, navegación y pesca. Cualquier construcción a lo largo del río debe contribuir a mejorar la calidad del agua a través de atrapar aguas tormentosas, y debe crear un ambiente urbano más saludable y atractivo.

4) Build Upland Connections

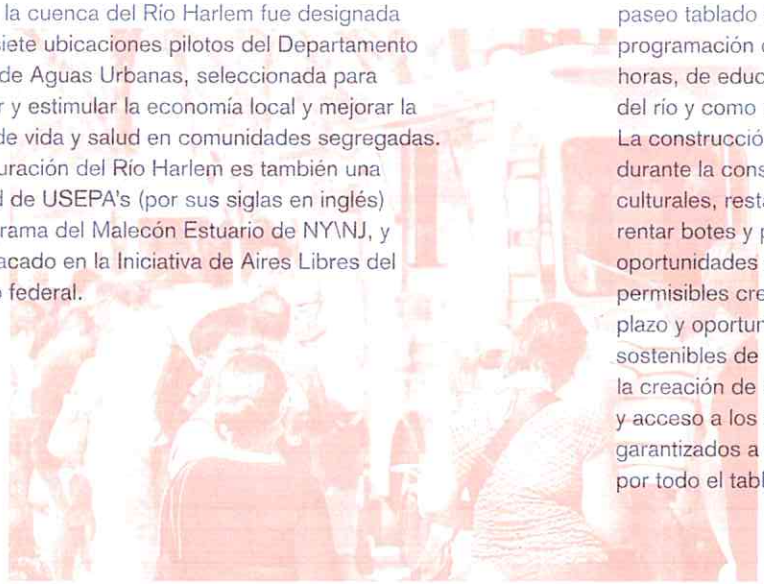
Build upland connections carefully, prioritize existing needs (such as access where there is population density and transit) and always consider how people get to the water. Enhancements to the Harlem River should contribute to improving the health and mobility of the surrounding neighborhoods. Improvements along the water should improve the communities' connections to each other, and to the river. These inviting pathways (multiple doorways) should lead to recreational water activities as well as transportation by road, rail, boat or bike.

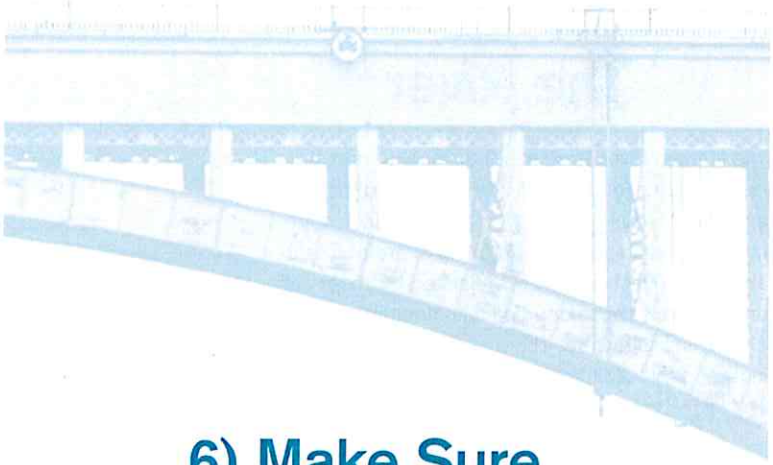
Planificar cuidadosamente las conexiones de tierra alta, priorizando las necesidades existentes, como por ejemplo, donde haya densidad poblacional y de tránsito, y siempre considerando como las personas lleguen hasta el agua. Las mejoras al Río Harlem deben contribuir a las mejoras de la salud y la movilidad de los vecindarios adyacentes. Las mejoras conjuntas al agua deben siempre resultar en mejoras a las conexiones entre los varios vecindarios, y mejorar las conexiones comunitarias con el río. Estas vías atractivas deben llevar a actividades recreacionales en el agua, como también transportación por calles, tren o bote.

5) Protect and Restore the Edge

Restore the edge by naturalizing, where possible, the river's edge to begin to capture non-point source runoff, while providing habitat to critical invertebrates and fish. In 2011, the Harlem River watershed was designated one of seven Urban Waters Federal Partnership pilot locations, selected to restore and stimulate the local economy and improve quality of life and health in underserved communities. Harlem River restoration is also a priority of the USEPA's NY/NJ Harbor Estuary Program, and is highlighted in the America's Great Outdoors Initiative of the federal government. Much of the Harlem River lies in a Hurricane Evacuation Zone. As our coastal waters continue to rise, restoring and protecting the edge through land conservation provides a buffer to the community and protects the economic interests of our neighborhoods.

Restaurar la orilla naturalizando, donde sea posible, la orilla del río empezando a capturar escorrentías no puntuales, mientras se provee un hábitat para invertebrados críticos y peces. En el 2011, la cuenca del Río Harlem fue designada una de siete ubicaciones pilotos del Departamento Federal de Aguas Urbanas, seleccionada para restaurar y estimular la economía local y mejorar la calidad de vida y salud en comunidades segregadas. La restauración del Río Harlem es también una prioridad de USEPA's (por sus siglas en inglés) del Programa del Malecón Estuario de NY\NJ, y fue destacado en la Iniciativa de Aires Libres del gobierno federal.





6) Make Sure to Benefit All

The Greenway is an opportunity to think differently about how the community can use the river—for recreation, for exercise, for economic development, for culture and education. A safe waterfront is one enlivened by programming and facilities that function at all hours and educate people about the use of the river and how to be safe on or in the water. Building the Greenway creates jobs during construction and enhances real estate values when completed. Educational and cultural programming, waterfront restaurants, boat storage and rentals, enhanced fishing opportunities, and other allowable maritime uses create both construction and long-term employment and entrepreneurial opportunities. Sustainable storm water management practices, creation of the Greenway at the water's edge, and waterfront pathway access should be guaranteed in return for economic incentives along the Bronx waterfront.

Asegurar que las vías verdes beneficien a todos. Las Vía Verde es una oportunidad para pensar de forma diferente como las comunidades pueden usar el río—para la recreación, ejercicio, desarrollo económico, cultura y educación. Un paseo tablado seguro es uno animado por la programación de facilidades que funcionan a todas horas, de educar a las personas sobre el uso del río y como estar seguro en o dentro del agua. La construcción de la Vía Verde crea empleos durante la construcción. Programas educacionales/culturales, restaurantes en el tablado, sitios para rentar botes y puertos deportivos, mejoras en las oportunidades de pesca y otros usos marítimo permisibles crean la construcción, empleos a largo plazo y oportunidades empresariales. Prácticas sostenibles de manejo de aguas tormentosas, la creación de la Vía Verde en la orilla del agua y acceso a los paseos tablados deben ser garantizados a cambio de incentivos económicos por todo el tablado del Bronx.

The River

The Harlem River stretches 9.3 miles to form a natural boundary between Manhattan and the Bronx and links the East River to the Hudson River, and flows into Long Island Sound. It is a rare and valuable urban landscape: a river flanked by sheer cliffs and forested slopes coupled with monumental and historic infrastructure. There are fourteen bridges including the Old Croton aqueduct, and a viaduct–The High Bridge.

While most of the river's edge is fill, many natural areas are still in place as small sections of tidal wetland habitat adapted. The Harlem River has the potential to serve as a sustainable model that will enhance the recreational and ecological value of the region.

El Río Harlem se extiende 9.3 millas para formar una línea natural divisoria entre Manhattan y el Bronx y conecta el Río Este al Río Hudson. Es un paisaje urbano raro y valioso: un río flanqueado por precipicios y cuestas arboladas asociadas con una infraestructura monumental e histórica incluyendo quince puentes, el acueducto Old Croton, y un viaducto–El Puente Highbridge.

Mientras que la orilla del río está llena, hay muchas áreas naturales en pequeñas secciones en las ciénagas de marea. Esto tiene el potencial de actuar como un modelo de valor ecológico y recreacional del río y éstos valores son sostenibles.

The Neighborhoods

The river connects diverse neighborhoods: Spuyten Duyvil, Kingsbridge, Marble Hill, University Heights, Morris Heights, HighBridge, Port Morris, and Mott Haven. When the Greenway is built, some of NYC's neighborhoods in greatest need will finally have access to one of the city's most beautiful natural landscapes.

Los Vecindarios: El río conecta varios vecindarios diversos: Spuyten Duyvil, Kingsbridge, Marble Hills, University Heights, Morris Heights, HighBridge, Port Morris y Mott Haven. Cuando la Vía Verde se construya, alguno de los vecindarios necesitados de la ciudad de NY, finalmente tendrán acceso a uno de los más bonitos paisajes de la ciudad.

The Need

There is a dramatic juxtaposition: the river is a unique natural asset that historically provided a recreational center for regattas and small boating, with dramatic views of the river from high bluffs on both sides, connected two boroughs, and allowed a thriving economy to flourish upon the waterfront. But the arrival of the Major Deegan Expressway in the 1950s separated the public from the river. Parks on both sides of the river were abandoned, piers rotted, and the High Bridge Promenade that linked two boroughs high above the river was closed. Poor public policy allowed random, inappropriate uses to pop up along the river's edge, adding pollutants to a river no one could reach, enjoy, or protect.

There are currently only two publicly accessible parks, no continuous bicycle or pedestrian pathways or connections to upland communities, and only very limited on-water access. Meanwhile, Bronx residents are cut off from significant open space and pay a heavy price in terms of public health; the Bronx has the country's highest rates of asthma (51% of adult emergency room visits were for asthma), and high rates of obesity (affecting 31% of adult Bronx residents), and diabetes (affecting 12% of adult Bronx residents). Community members are denied the public health, aesthetic, and recreational benefits of the natural environment. Tantalizingly close, but in every practical sense, very far away.

La Necesidad: Hay una yuxtaposición dramática: una única ventaja natural que proveyó históricamente un centro recreativo para regatas y pequeños barcos, con vistas del río de altos peñascos en ambos lados, conectó dos condados y una próspera economía construida por las vistas costeras. Pero la llegada de la autopista Major Deegan en los años 1950 separó al público del río. Los parques en ambas partes del río fueron cerrados. La pobre política pública permitió usos inapropiados y sin control a través de la costa del río, y así se añadieron contaminantes al río, que nadie podía asesar, disfrutar y proteger.

Existe actualmente un espacio abierto muy limitado para el acceso público, sin bicicleta, ni conexión peatonal para las comunidades elevadas, y muy limitado acceso al agua. Mientras tanto, los residentes del Bronx fueron y continúan siendo aislados del espacio abierto importante y pagan un alto precio en términos de salud pública: las tasas más altas de país en cuanto a asma (51% de las visitas a la sala de emergencia por adultos fue por asma), altas tasas de obesidad (afectando el 31% de los adultos residentes del Bronx) y la diabetes (afectando 12% de los adultos residentes en el Bronx) los mismos son negados de la salud pública, de los ambientes naturales, estéticos y recreativos que ellos son vecinos. Tentadoramente cerca, pero en el sentido práctico, muy lejos.

The Opportunity

The Trust for Public Land has a long history of partnering with local organizations to create waterfront visions—greenprints—that recommend and inspire protection, conservation and restoration of urban waterfronts. The Harlem River Working Group (HRWG) is a coalition of nearly 50 community groups, city, state and federal agencies, and elected officials focused on improving access to and along the Harlem River in the Bronx. The group's goals are to work toward restoring the Harlem River, reconnecting the waterfront with the people, recreating the water's edge; and reinvigorating recreational and commercial activities on the water. For a decade, HRWG has advocated the creation of a Harlem River Greenway. Inspired by a vision of a Bronx-wide system of greenways (best exemplified by the spectacular reclamation of the Bronx River for the public, and the 40-year-old national goal of swimmable, fishable waters), HRWG has successfully nurtured the reopening of the historic High Bridge and partnered with the Trust for Public Land, The Port Authority of New York & New Jersey, and NYC Parks on the acquisition of Depot Place Park. The group and its member organizations are using every opportunity to ensure that all investments along the river build toward the creation of the Greenway.

La Oportunidad: El Fideicomiso de Tierras Públicas (Trust for Public Land) tiene una larga historia de asociarse con organizaciones locales para crear visiones sobre paseos tablados—planos verdes—ue recomiendan e inspiran protección, conservación y restauración de los paseos tablados urbanos. El grupo de trabajo de Harlem (HRWG, por sus siglas en inglés) es una coalición de de casi 50 grupos compuestos por organizaciones comunitarias, agencias de la ciudad, del estado y federales, también políticos enfocados en mejorar el acceso hacia y a lo largo del Río Harlem en el Bronx. Las metas del grupo son: trabajar para la restauración del Río Harlem; reconectar el río con las personas; rehacer las orillas; revitalizar las actividades comerciales y recreativas en el agua. Por una década, el grupo HRWG ha estado abogando por la creación de la Vía Verde del Río Harlem. Inspirada por una visión global del Bronx, de un sistema de vías verdes, mejor ejemplificada por la espectacular reclamación del Río del Bronx por el público, y una visión nacional de aguas que se pueda nadar y pescar, el grupo HRGW ha sido exitoso en cultivar la reapertura del histórico puente de High Bridge, también asociándose con el Fideicomiso de Tierras Públicas en adquirir las propiedades de Depot Place, trabajado con la ciudad para planificar la vía verde Regata y trabajado creativamente en colaboración con otros grupos para llevar a los residentes del Bronx al agua. El grupo y sus organizaciones miembros usan cualquier oportunidad para asegurar que todas las inversiones a lo largo del río construyan la creación de la Vía Verde.

The Process

HRWG joined with the Trust for Public Land and students and staff from Pratt Institute and the Pratt Center for Community Development to engage the public in the creation of a vision for the Harlem River. Four community workshops were held in the Bronx during the spring of 2012, where participants used maps to show their connections to the water and talk about their ideas. The vision presented here represents a melding of ideas from over 30 years of existing plans as well as new ideas from residents and other stakeholders garnered during the process.

El Proceso: El grupo de trabajo de Harlem se unió al Fideicomiso de Tierras Públicas, a estudiantes, personal del Instituto de Pratt y al Centro de Desarrollo Comunitario de Pratt para comprometer al público en la creación de la visión del Río Harlem. Cuatro talleres comunitarios se hicieron en el Bronx durante la primavera del 2012, donde los participantes usaron mapas para enseñar sus conexiones con el agua y hablar de sus ideas. La visión presentada representó una unión de ideas de más de 30 años de planes existentes, así como nuevas ideas de los residentes y otros líderes recogidas durante este proceso.

Throughout the process, themes both emerged and reinforced the priorities of HRWG for all Harlem River improvements / A través del proceso, los temas emergieron y reafirmaron las prioridades para el grupo de HRGW para las mejoras de Río Harlem:

- Improve overall health and mobility of Bronx residents
  Mejorar la salud en general y la movilidad de los residentes del Bronx
- Improve water quality and restore the edge
  Mejorar la calidad del agua y restaurar las orillas del río
- Achieve safety by activating waterfront programs
  Alcanzar seguridad por la activación de programas en el paseo tablado
- Ensure that water/waterfront improvements create local jobs
  Asegurar que las mejoras al agua/ el tablado cree empleos locales
- Ensure that water/waterfront improvements improve connections between neighborhoods and the river, and among neighborhoods
  Segurar que las mejoras al agua/el tablado optimicen las conexiones entre vecindarios y el rio, entre otros vecindarios

We need community support so the pieces of the plan can become a reality!

Several pieces of the plan are already in motion including the reopening of the High Bridge, improvements to Depot Place Park, and construction of a 1.5 mile Regatta Park Greenway.

Please let us know if you have a group or want to create a group interested in working on the river (for example, a community group, a rowing group, a college or high school organization or team).

We cannot do it without you!

Visit the HRWG website and Facebook page for detailed information about the proposals and to follow the progress.

¡Necesitamos apoyo comunitario!

Varias piezas del plan están ya en movimiento incluyendo la reapertura del puente de High Bridge, la creación del parque en Depot Place, y la construcción 1.5 millas de la Vía Verde Regata. Necesitamos apoyo comunitario para asegúranos que las otras piezas del plan se hagan realidad.

Por favor déjenos saber: Si tiene un grupo interesado en trabajar en el río: un grupo comunitario, grupo de remo, una organización universitaria o de escuela superior o equipo. Si quisiera crear un grupo interesado en trabajar en problemas y asuntos del rio o representar algún grupo existente.

¡No lo podemos hacer sin usted!

Visite la página web del grupo HRWG y la página en Facebook para información sobre las propuestas para seguir nuestro progreso.

www.bceq.org

Let's Prioritize!
¡Vamos a priorizar!

IN 10 YEARS

Wherever feasible, build the greenway along the water
Siempre que sea posible, construir la vía verde a lo largo del agua

Add access to the river from various points along the Harlem River Yards
Agregar el acceso al río desde varios puntos a lo largo de los Astilleros de Río Harlem

Acquire the full CSX site in Community District 7 waterfront for public open space
Adquirir el sitio completo CSX en el Distrito Comunal 7 muelles para el espacio público abierto

Transform the planned waterfront park at 144 Street
Transformar el parque junto al mar prevista en el 144 la calle

Encourage the City of New York and Bronx cultural institutions to sponsor arts and botanical events
Anime a la ciudad de Nueva York y de las instituciones culturales del Bronx para patrocinar eventos artísticos y botánicos

Add vending and retail options along the river in the form of carts, concession stands, and locally-owned restaurants
Añadir vending y las opciones de venta al por menor a lo largo del río en forma de carros, puestos de venta y restaurantes de propiedad local

Create new waterfront public open space by converting street ends into vest pocket parks that combine access, boat launches, and water transport hubs
Crear nuevo paseo marítimo de espacios abiertos públicos mediante la conversión de los extremos de la calle en los parques de bolsillo del chaleco, que combinan el acceso, lanzamientos de botes, y los centros de transporte de agua

IN 5 YEARS

Transform elevated portions of the Major Deegan Expressway into green infrastructure and lively social space
Transformar porciones elevadas de la Major Deegan Expressway en infraestructura verde y espacio social muy animada

Wherever possible, restore the natural waterfront edge to rebuild the river eco-system
Siempre que sea posible, restaurar el borde marítimo natural para reconstruir el ecosistema del río

Add signage and wayfinding to key streets leading to the river
Agregar la señalización y señalización de las calles principales que conducen al río

Reclaim for public use the waterfront park property currently used for parking during Yankees games
Recuperar para el uso público de la propiedad del parque frente al mar utiliza actualmente para el estacionamiento durante los partidos de Yankee

Acquire the four-acre waterfront site south of University Bridge for new waterfront park and public access
Adquirir los cuatro acres frente al mar sitio al sur de University Bridge para nuevo parque frente al mar y acceso público

TODAY

Ensure clean water through storm water retention and treatment
Mantener el agua limpia a través de la retención de las aguas pluviales y tratamiento

Improvements to Roberto Clemente State Park
Las mejoras a Roberto Clemente State Park

Acquisition of Depot Place
Adquisición de la Plaza Depot

Add access by extending the 161st Street pedestrian bridge to the waterfront
Añadir al ampliar el acceso 161st puente peatonal de la calle de la zona ribereña

Construct a pedestrian and bike bridge across the MTA tracks connecting to Putnam Line Greenway and Van Cortlandt Park
Construir un puente peatonal y en bicicleta a través de las vías del MTA se conectan a Putnam Line Greenway y Van Cortlandt Park

Add water bus or water ferry service to carry patrons to Yankee Stadium and transport Bronx residents from place to place along the river
Añadir autobús acuático o ferry de agua para llevar a los clientes a Yankee Stadium y los residentes del Bronx transporte de un lugar a otro a lo largo del río

Create a "moving museum" that runs on rail, or a "science barge" that moves up and down the river
Crear un "museo móvil" que se ejecuta en ferrocarril, o una "Barcaza de la Ciencia" que se mueve arriba y abajo del río

Add bikeshare stations at key transit stops in upland areas
Agregar estaciones bikeshare en clave de tránsito s e detiene en las zonas altas

Ensure that the public has full access to the river along the CSX site
Asegúrese de que el público tenga acceso total al río wa lo largo del sitio CSX

Build Regatta Park on the one-acre parcel just north of Fordham Road
Construir Parque Regatta en la parcela de un acre, justo al norte de Fordham Road

Remediate and build the promised park at Pier 5
Rehabilitar y construir el parque prometido en el Muelle 5

Make Roberto Clemente State Park the premier gateway to the river
Haga Roberto Clemente State Park de la principal puerta de entrada al río y la Vía

Mark the juncture of the South Bronx Greenway and Harlem River Greenway at Randall's Island connector with well-lit pedestrian and bike paths
Marque la confluencia de la Vía Verde del Sur del Bronx y Harlem River Greenway en el conector de la isla de Randall con senderos bien iluminado para peatones y bicicletas

Engage public interest in use of the river and the Greenway through creative programming
Comprometer el interés público en el uso del río y la Vía Verde a través de una programación creativa

Complete Regatta Park Greenway
Completo Regata Parque Vía Verde

Reopening of the High bridge
Reapertura de la High bridge

Creation of the Harlem River Greenway Vision Plan
Creación del Plan de Harlem River Greenway Visión

The Harlem River Greenway: Our River, Our Future is sponsored by:

The Trust for Public Land: A national organization conserving land for people to enjoy as parks, gardens, and other natural places, ensuring livable communities for generations to come. For more information about The Trust for Public Land, visit www.tpl.org

Harlem River Working Group (HRWG)

Thanks:

Pratt Center for Community Development

Pratt Programs for Sustainable Planning & Development, Spring 2012 Sustainable Communities Studio

National Park Service Rivers, Trails & Conservation Assistance, NOAA/National Marine Fisheries Service—Restoration Center

Generous support for this plan was provided to The Trust for Public Land by the J.M. Kaplan Fund

La Vía Verde del Río Harlem: Nuestro Río, Nuestro Futuro es patrocinado por:

El Fideicomiso de Tierras Públicas: Una organización nacional que conserva la tierra para que las personas disfruten parques, hortalizas y otros lugares naturales, asegurando que las comunidades habiten por generaciones. Para más información sobre el Fideicomiso de Tierras Públicas, visite www.tpl.org

El grupo de trabajo del Río Harlem (HRWG)

Gracias:

Centro de Desarrollo Comunitario de Pratt

El Programa de Pratt Para la Planificación y Desarollo Sostenible, Primavera del 2012 Estudio de Comunidades Sostenibles

Servicio de Parques Nacionales— Programa de Ríos a Vías, NOAA/National Marine Fisheries Service—Centro de Restauración

Apoyo generoso para este plan fue provisto por el Fideicomiso de Tierras Públicas por la Fundacion J.M. Kaplan Fund

Partners and Participants:

Bike the Bronx, Bissel Gardens, Bronx African American History Program, Bronx Borough President Ruben Diaz Jr., Bronx Children's Museum, Bronx Community Boards 1, 4, 5, 7, and 8, Bronx Community College (Center for Sustainable Energy), Bronx Council for Environmental Quality, Bronx Health Reach, Bronx Overall Economic Development Corporation, Bronx River Alliance, CLIMB, Con Edison, Davidson Community Center, Friends of Brook Park, Friends of Sherman Creek, Friends of the Old Croton Aqueduct, Friends of the Woods, Gaia Institute, Harlem River Community Rowing, Harlem River Estuary Urban Ecology Center, Highbridge Community Life Center, Manhattan Borough President Scott Stringer, Manhattan College, Manhattan Community Board 12, Metropolitan Waterfront Alliance, National Parks Service (Rivers, Trails and Conservation Assistance Program), Northwest Bronx Community and Clergy Coalition, NY Council of Malians, NY Restoration Project, NYC Council Members, Maria del Carmen Arroyo, Fernando Cabrera, Helen Diane Foster and her Friends of Parks Council (Oliver Koppell and Melissa Mark-Viverito), NYC Department of Parks + Recreation, NYC Department of Transportation (Bicycle Program), NYC Partnerships for Parks, NYC Soil and Water Conservation District, NYCPP, NYS Assembly Members: Carmen Arroyo, Nelson Castro, Jeffrey Dinowitz, Vanessa Gibson, and Jose Rivera, NYPD 46th Precinct Community Council, NYS Department of Environmental Conservation, NYS Department of Transportation, NYS Office of Parks and Historic Preservation (Roberto Clemente State Park), NYS Senators Adriano Espaillat, Gustavo Rivera, and Jose M. Serrano), Pratt Center for Community Development, The Port Authority of New York & New Jersey, Representatives Eliot L. Engel, Charles Rangel, and Jose E. Serrano, Riverpark Towers Tenant Association, Rocking the Boat, Row NY, Shorewalkers, South Bronx Unite, Sustainable South Bronx, Transportation Alternatives, The Trust for Public Land, U.S. Environmental Protection Agency, U.S. Forest Service, Velo City, Waste Management, Wildlife Conservation Society

Design: David Frisco & Leigh Mignogna

THE TRUST for PUBLIC LAND

Harlem River Working Group

Exhibit O

REACH 7 - *SOUTH BRONX*

Location: Harlem River, Bronx Kill, East River and Bronx River from the Bronx Terminal Market to the Bruckner Boulevard Bridge

Upland Neighborhoods: Mott Haven, Port Morris, Hunts Point

Neighborhood Strategies

Harlem River

- Explore opportunities to reduce wave action to promote recreational boating and limit shoreline erosion.

Lower Concourse / Harlem River WAP 1

- Support the development of Lower Concourse Mixed Use Area and Special Waterfront District with required waterfront access, open space, and brownfield remediation.

Pier V (Former Velodrome Site) 1.a

- Develop land for public use and open space.

144th St. 1.b

- Fund acquisition and construction of proposed 2-acre park dependant on the redevelopment of the site north of the proposed park.

138th St. Bridge (Padded Wagon Site) 1.c

- Plan for residential and commercial development of site (lease comes up in 2014).

Expansion of Harlem River WAP 2

- Support waterfront redevelopment to increase public waterfront access and maximize economic development potential.
- Explore opportunity for public waterfront access and non-motorized boat launch at Park Ave. street end, based on the criteria described in the Citywide Strategy.

Bronx Kill 3

- Explore improvements to support habitat restoration and, where feasible, the navigability of the Bronx Kill for kayaks and canoes.

North and South Brother Islands 4

- Pursue additional funding for a comprehensive plan to integrate cultural, historical, and natural resource management on both islands.

Hunts Point / Port Morris 5

- Complete improvements to the South Bronx Greenway.
- Identify opportunities to attract tall ships and other educational programming to the waterfront at Barretto Point Park and other recreational areas.
- Promote redevelopment of vacant land within the Significant Maritime and Industrial Area (SMIA) for industrial uses with preference for water-dependent maritime industries.
- Where feasible, preserve waterfront access to industrial properties and intermodal connections to facilitate waterborne movement of goods.
- Evaluate feasibility of developing a Hunts Point boat launch/docking facility that services recreational or freight vessels.
- Complete improvements at Hunts Point Waste Water Treatment Plant to reduce nitrogen discharge into the East River.

132nd St. / 134th St. 5.a

- Study street ends for recreational or industrial purposes, including potential preservation of gantry cranes.

Hunts Point South 5.b

- Study corrections site for potential redevelopment opportunities.

Farragut St. End & Marine Transfer Station 5.c

- Support improvements at Farragut Street end.
- Balance needs of city's waste management with those of the community.
- Explore redevelopment of the Marine Transfer Station as a maritime use.

Hunts Point Market 5.d

- Explore waterborne transportation modes for the movement of goods to and from the Food Distribution Center, as well as supporting infrastructure, such as a pier for fishing vessels and freight ferries.

Hunts Point-Riverside Park 6

- Complete expansion of launch platform for canoes and small boats, consistent with the criteria described in the Citywide Strategy.

Exhibit P

WCS-NOAA Regional Partnership Grant
Advancement Calendar and Payment Information

Program Title: Creating New Stormwater Capture Parks at the Harlem River Waterfront

Recipient Organization:

Name: Bronx Council For Environmental Quality

Address: 213 Fordham St.

City, State, Zip: Bronx, NY 10464

Payee (Where check is to be sent if different from recipient)

Name: BCEQ c/o SF

Address:

City, State, Zip:

Please distribute funds over at least four payment periods.
Please do not place more than 25% of funds in one payment period.
If this is not feasible, please contact Marla Krauss to discuss your needs.

Total Grant: $200,000.00

Grant Period: April 1, 2012- August 31, 2013

Qtr.	Period Covering	Funds Advanced
1	Aug 1 -Sep 30, 2012	$50,000
2	Oct 1- Dec 31, 2012	50,000
3	Jan 1- Mar 30, 2013	50,000
4	Apr 1 - Jun 30, 2013	30,000
5	Jul 1 - Aug 31, 2013	20,000

Signature of Authorized Official

SUB- GRANT AGREEMENT

This Sub-Grant Agreement, dated as of June 29, 2012, made between Wildlife Conservation Society, a not for profit corporation organized and existing under the laws of the State of New York ("WCS"), with a principal place of business at 2300 Southern Boulevard, Bronx, New York 10460, and Bronx Council for Environmental Quality ("Sub-Grantee"), located at 213 Fordham Street, Bronx, NY 10464.

1. PURPOSE OF THE SUB-GRANT. Sub-Grant funds are provided from a grant to WCS from the National Oceanographic and Atmospheric Administration ("NOAA") to support the project described in Sub-Grantee's Sub-Grant proposal and budget set forth in Attachment 1 ("Project Proposal and Budget"). Funds shall be used solely for the purposes and activities described therein, and in accordance with the Standard Provisions attached hereto as Attachment 2 ("Standard Provisions") and with the Special Award Conditions attached hereto as Attachment 3 ("Special Award Conditions").

2. SUB-GRANT TERM. The effective date of this Sub-Grant is April 1, 2012. The termination date is August 31, 2013. unless otherwise modified, or terminated in accordance with the Standard Provisions. All work must be performed and all expenses must be incurred within the term of the Sub-Grant.

3. SUB-GRANT AMOUNT. The total amount of this Sub-Grant is $200,000. Subject to the terms and conditions contained herein, WCS shall make to the Sub-Grantee payments as set forth in Attachment 5 ("Payment Schedule"). No other funds will be provided under this Sub-Grant.

4. PROJECT MANAGEMENT. WCS's contact person for this project is Marla Krauss. Sub-Grantee's contact person is Karen Argenti. All administrative notices, program requests, and deliverables relating to this Sub-Grant shall be addressed to these representatives of the respective organizations.

5. REPORTING.

a) Project Activity Progress Reports. The Sub-Grantee shall submit written project activity progress reports describing grant activities undertaken to date (including activities utilizing matching funds, if any) according to the following schedule:

Period Covered	Due Date
January 1 – June 30	July 10
July 1 – December 31	January 10

b) Financial Project Reports. The Sub-Grantee shall submit quarterly Financial Progress Reports, evidencing how grant funds have been expended to date according to the following schedule:

Period Covered	Due Date
January 1 – March 31	April 10
April 1 – June 30	July 10
July 1 – September 30	October 10
October 1 – December 31	January 10

c) Final Report. The Sub-Grantee shall submit a final report within thirty (30) days following the expiration or termination of this Sub-Grant Agreement. This document shall cover both activities and expenditures. The project activity portion shall include a comprehensive, detailed report of activities undertaken and an evaluation of accomplishments/successes under this Sub-Grant Agreement. The final financial portion shall provide a detailed financial report for the final quarter as well as a summary of expenditures of the Sub-Grant. This document shall be submitted in the format specified.

6. ENTIRE AGREEMENT. This Sub-Grant Agreement, including Attachments 1,2,3, 4 and 5, constitutes the entire agreement and understanding between the Wildlife Conservation Society and the Sub-Grantee with respect to its subject matter. This Sub-Grant Agreement is intended as a complete

and exclusive statement of the terms of their agreement, and supersedes any prior or contemporaneous agreements or understandings relating to the subject matter hereof.

7. ORDER OF PRECEDENCE. Any inconsistency between this Sub-Grant Agreement and its Attachments shall be resolved in the following order: a) Standard Provisions (Attachment 2), b) this Sub-Grant Agreement text, c) Special Award Conditions (Attachment 3), d) Payment Schedule (Attachment 5), e) Project Budget (Attachment 1), and f) Project Proposal (Attachment 1).

8. BINDING AUTHORITY. You represent that you are authorized to enter into this Agreement on behalf of the Sub-Grantee and thereby to bind the Sub-Grantee to the terms and conditions of this Sub-Grant.

IN WITNESS WHEREOF, the duly authorized representatives of the parties have executed this Agreement as of the date indicated below:

WILDLIFE CONSERVATION SOCIETY	(Click and type name of grantee)
Signature: 	Signature: _____
Print Name: John F. Calvelli	Print Name: _____
Title: Executive Vice President, Public Affairs	Title: _____
Date: June 29, 2012	Date: _____

COVER PAGE
WCS/NOAA REGIONAL PARTNERSHIP GRANT

I Contact Information – BRONX COUNCIL FOR ENVIRONMENTAL QUALITY

Project Directors: Karen Argenti and Dart Westphal (BCEQ)
Address: Karen Argenti, PO Box 346, Bronx, NY 10471 or
Dart Westphal, 3805 Orloff Avenue, Bronx, NY 10463
Phone Number: 646-462-4132 Karen Argenti, 917-805-9566 Dart Westphal
Web Page: www.bceq.org
Email address: karen.argenti@bceq.org, dart.westphal@bceq.org

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, Biogeochemical Ecologist Paul Mankiewicz of www.thegaiainstitute.org, Maintenance by SmartRoofs LLC, a subsidiary of Sustainable South Bronx (SSBx) at 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,[1] and/or other biogeochemical[2] 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[3] (see VII. Supplemental *new*). 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.[4]

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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[1] 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.

[2] Work at El Jardin thegaiainstitute.org brochure (Section **V. Sup. Doc.**, 2)

[3] http://www.nycgovparks.org/permits/research/

[4] 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[5]	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[6]	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.[7] We plan to measure the performance of the project by reviewing each outcome:

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[5] 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.

[6] 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*

[7] 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 by identifying reuse/repurpose of 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 Duvyil, 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[8] 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.[9]

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.*[10]

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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[8] **Section VI Maps**, 5 shows the ribbon of greenways connecting parkland.

[9] http://www.bceq.org/category/projects/harlem-river-working-group-projects/

[10] 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, Biogeochemical Ecologist Paul Mankiewicz of 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 149th 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.

Finally, Section VII has the new information concerning the other partner's and consultant work: The Gaia Institute, Dlandstudio's and the form required by the City Parks Department. It was just easier to put it in the rear.

SIX PAGES FOR THE NARRATIVE

Bronx Council for Environmental Quality (BCEQ) Creating New Stormwater Capture Parks at the Harlem River Waterfront at Pier 5					
In-kind Salaries and Wages BCEQ					
Community Consulting Services (BCEQ) in-kind Volunteers	**Creating New Stormwater Capture Parks at the Harlem River Waterfront**	Percentage of Annual Salary or Hourly Rate and Person Hours Breakdown	WCS NOOA Budget	Applicant	Total
Project Manager/Community Coordinator (PM)	$ 15,000.00	20%	$ -	$ 10,000.00	$ 10,000.00
Contract Manager	$ 15,000.00	20%	$ -	$ 10,000.00	$ 10,000.00
		Totals:	$ -		$ 20,000.00
Bioremediation pilot design DLANDSTUDIO					
Name	*Project Task/Deliverable*				
Schematic Design Dland Studios	Design a bioremediation cell to collect and filter storm water from highway scuppers.		$ 6,000.00		
Design Development			$ 6,000.00		
Construction Documents/Permitting			$ 12,000.00		
Constuction Oversight			$ 6,000.00		
Review and Approvals			$ 15,000.00		
Soil design	Design and specification of a soil media specifically suited to treat roadway pollutants		$ 5,000.00		
		Totals:	$ 50,000.00		
Bioremediation pilot construction (to be bid) and montitoring (Manhattan College)					
Name	*Project Task/Deliverable*				
Concrete sedimentation basins	Water enters a gravel filled sedimentation basin	construction	$ 18,750.00		
Vegetated cells	Water flows into a vegetated cell containing a specific plant palette and soil media to treat roadway pollutants.	construction	$ 37,500.00		
Gravel overflow basins	As a closed system, excess water will flow in to a gravel filled overflow basin, where it will slowly evaporate over time	construction	$ 18,750.00		
Monitoring / Manhattan College	Lab tests on existing conditions, design guidelines, and impact on living marine resources.	Includes monitoring equipment and student stipends from local college	$ 25,000.00		
		Totals:	$ 100,000.00		
Community Consulting Services					
Name	*Project Task/Deliverable*				
Community Coordinator / Highbridge Community Life Center	Coordinate stakholder agencies, community, schools, community groups interested in the Harlem River clean water and land.		$ 20,000.00		
Community Consensus Building / HCLC	Build consensus on community visioning for the new parkland uses and its connection to the greenway	includes documents and other audio visual aides to assist in increasing stakeholder interest	$ 15,000.00		
Community Maintenance -SSB, HCLC, others	Community based workers to shadow construction and maintain the area for the one year period		$ 15,000.00		
		Totals:	$ 50,000.00		
Total Direct Costs:			$ 200,000.00		
Total Direct Costs *			$ 200,000.00	$ 20,000.00	$ 220,000.00
Indirect Costs (no more than 10% salary and fringe			$ -	$ -	$ -
Total Direct Costs and Indirect Costs			$ 200,000.00	$ 20,000.00	$ 220,000.00
Total Amount Requested from NOAA			$ 200,000.00	$ -	$ -

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

* 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.

Community Consulting Services - Creating Stormwater Capture Parks at the Harlem River Waterfront - WCS/NOAA - BCEQ 2012-2013					
Name	Project Task/Deliverable	Percentage of Annual Salary or Hourly Rate and Person Hours Breakdown	Outcome (from Narrative)	Measure (from Narrative)	Budget
Community Coordinator / Highbridge Community Life Center **July 2012 to March 2013**	Coordinate and support ecology events and stakeholder building (agencies, community, schools, community groups) to identify existing and new watershed management conditions. Getting the public interested in the Harlem River will mean waterfront events/ discussions for all stakeholders. This will be the primary tool for this urbanized watershed protection and restoration plan for clean water and beneficial marine life. Organizing stakeholder awareness will protect the water and living organisms.	Ecology Workshops to identify exisiting conditions and new watershed management conditions, especially for the Greenway. Work includes prep; organize stakeholder volunteers; reporting for organizer; training adult volunteer supervisors for youth programming; and potential Stipend for Presenters where needed. Part Time Lead Community Organizer Compensation, plus stipend for speakers and presenters = $20,000.	**Outcome 3:** Remediate the soil conditions using community-based phytoremediation techniques	3 Measure 2: Community groups and/or individuals will adopt 3-5 distinct remediation testing modules. 3 Measure 1: Work with 10-30 youth through groups such as the Harlem River Rangers teach about urban ecology and landscape management.	$ 20,000.00
Community Consensus Building / HCLC **July to Dec 2012**	Build consensus on community visioning for the new parkland uses and its connection to the greenway - includes documents and other audio visual aides to assist in increasing stakeholder interest. Access to the water will protect clean water and marine life. July to Dec Create a sense of community ownership by educating the public around clean water, waterfront park access.	Involving Youth is pivotal in our community outreach, and therefore we must focus engery and resources to achieve this goal. Three will be separate Youth Ecology onsite training and events to ignite interest and committment. This goal will be reached by organizing educational sessions and tours to the waterfront (most likely at the finished Mill Pond Park). This includes scheduling, prep., coordination, organization. Compensation for Ecology Organizer (Part Time) plus supporting resources is $15,000.	**Outcome 4:** Develop education partnerships and community support and engagement	4 Measure 2: Hold at least 3 community visioning sessions, where attendance and sustained engagement will be monitored. 4 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.) 5 Measure 2: Establish formal partnerships with other organizations specializing in job training, youth education, as well as with public entities.	$ 15,000.00
Community Maintenance -SSB, HCLC, others **Oct to March 2013 (maybe July to Sept, then Jan to March 2013)**	Community based workers to shadow construction and maintain the area for the one year period.	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.	**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.	5 Measure 1: Demonstrate support of blueprint by community and public agency stakeholders through a signed consensus building agreement. 5 Measure 2: Establish formal partnerships with other organizations specializing in job training, youth education, as well as with public entities.	$ 15,000.00
		Totals:			$ 50,000.00

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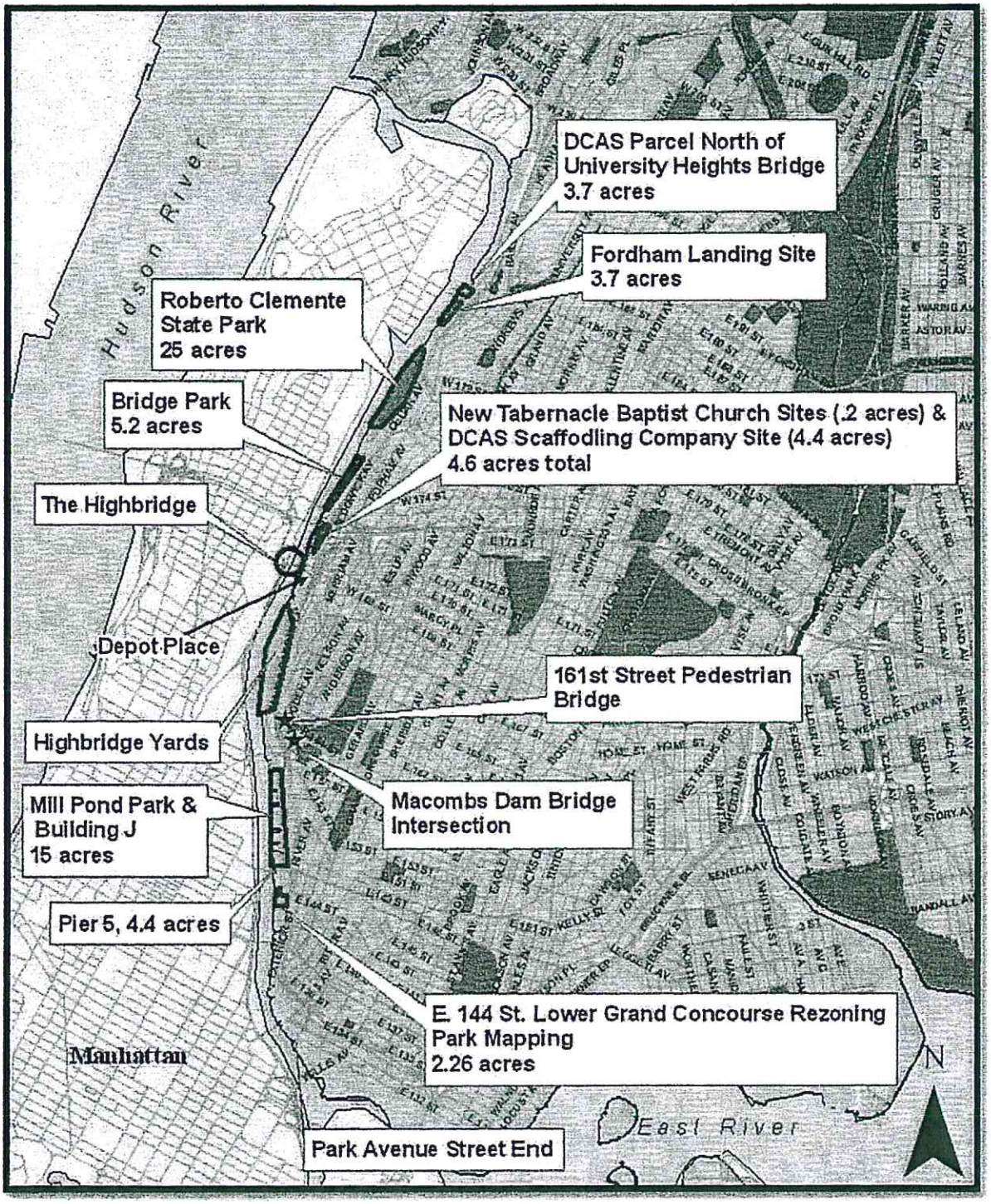
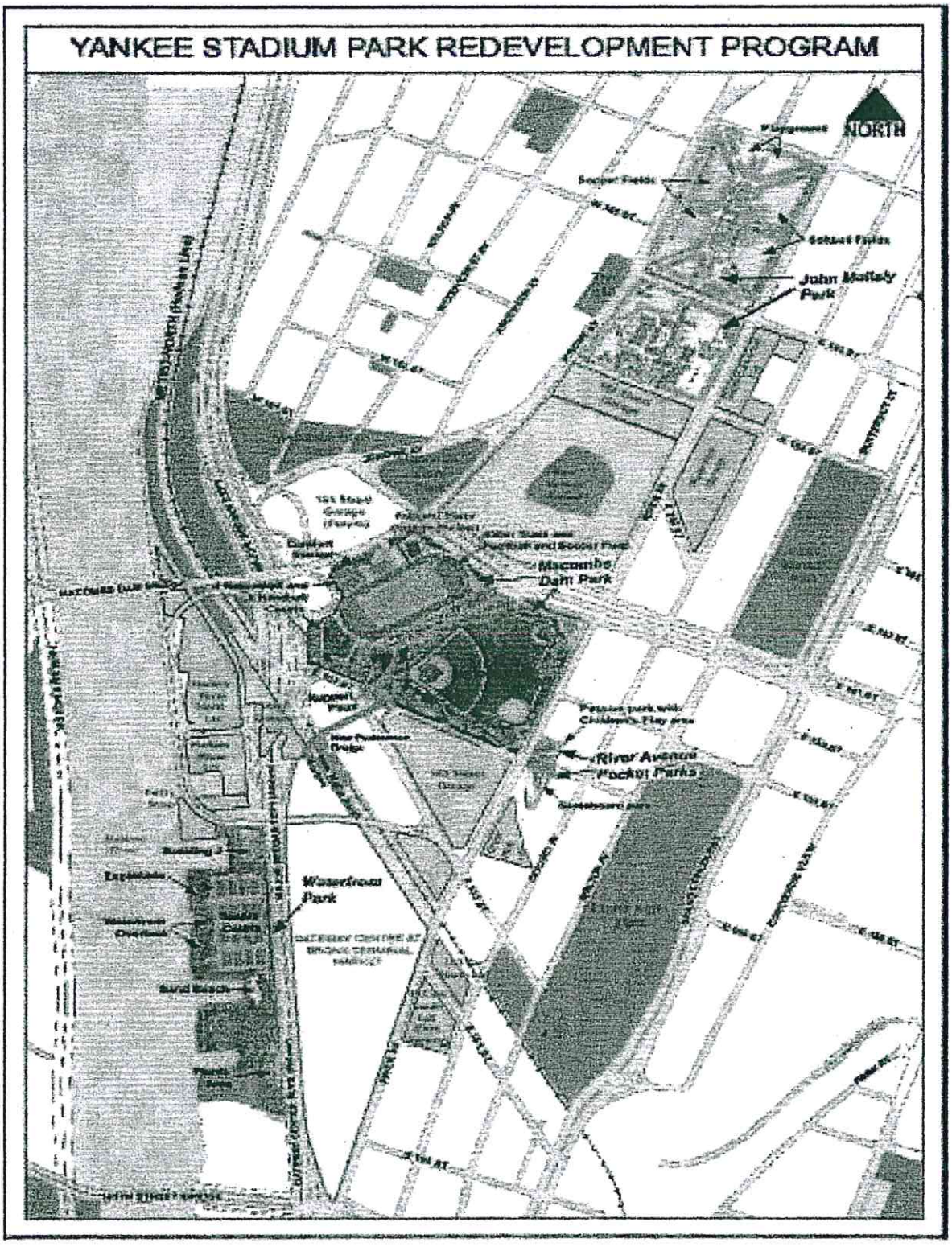
III. PROJECT SCHEDULE

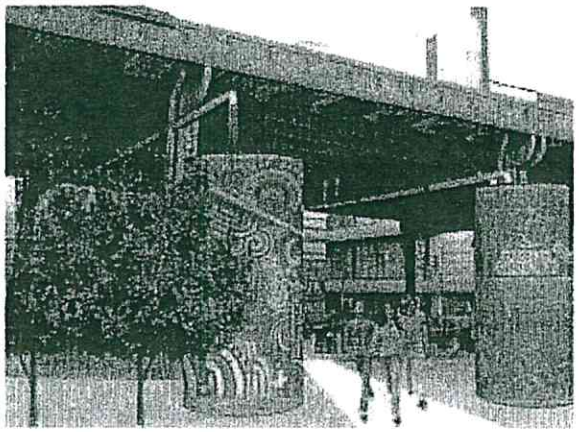
TIMETABLE	April – June 2012	July – Sept 2012	Oct – Dec 2012	Jan – March 2013
Stormwater Modules				
Bioremediation Monitoring				
Community Coordinator				
Consensus Visioning				
Community Maintenance				

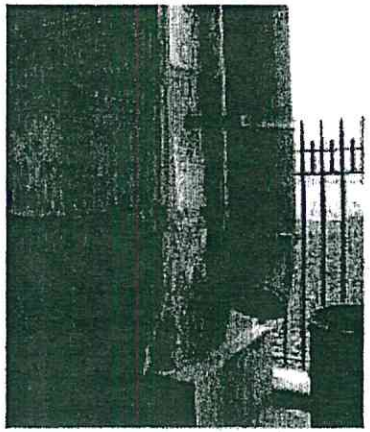


RIBBON OF PARKS ALONG THE BRONX SIDE OF THE HARLEM RIVER

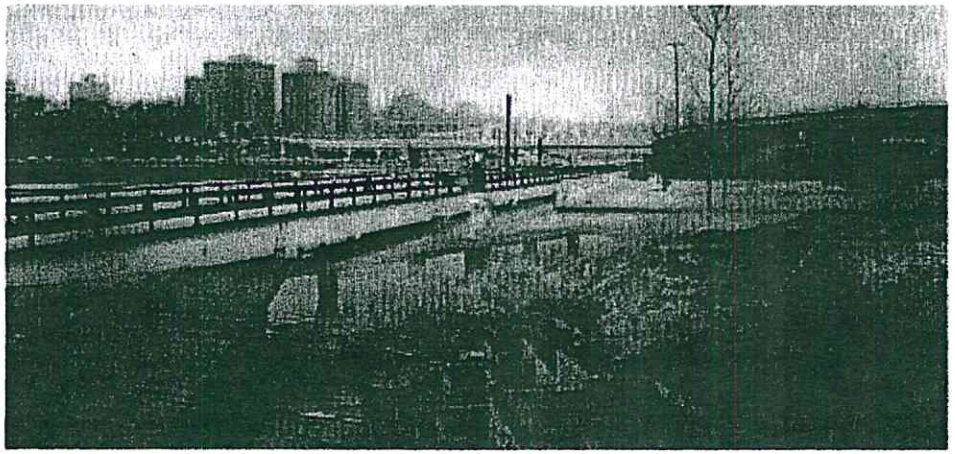


Pier **5 is north of the 149th Street Bridge.**

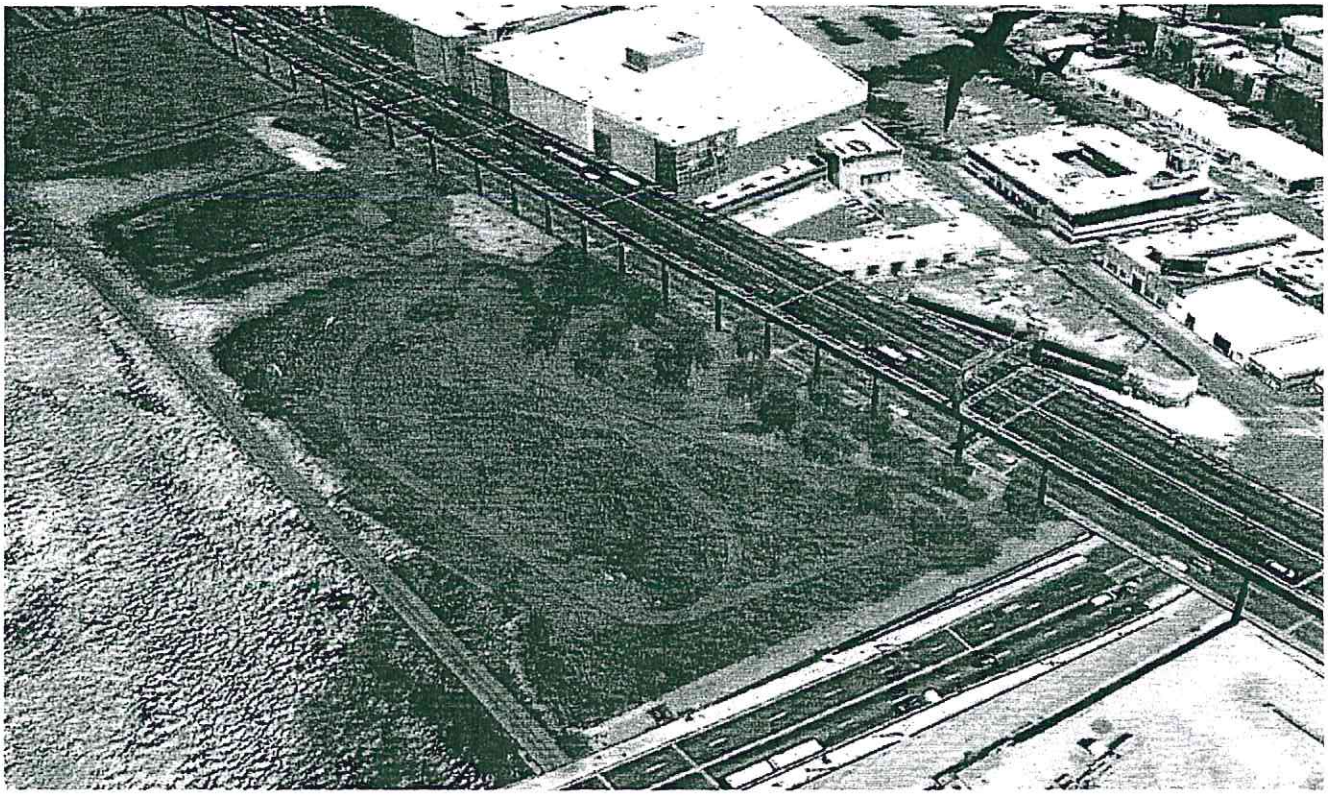




Pier 5



From the MIT students flyer



WCS - NOAA REGIONAL PARTNERSHIP GRANT

Bronx Council for Environmental Quality
P.O. Box 265
Bronx, NY 10464-0265

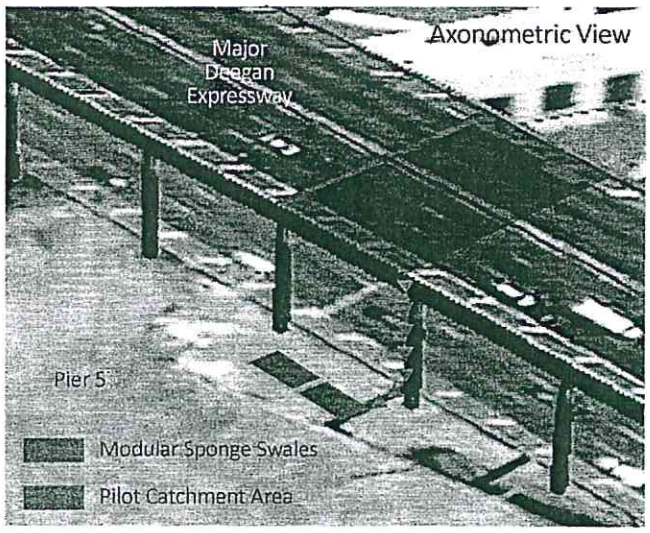
dlandstudio
137 Clinton St.
Brooklyn NY 11201
T 718-624-0244

Project Site

SITE OVERVIEW

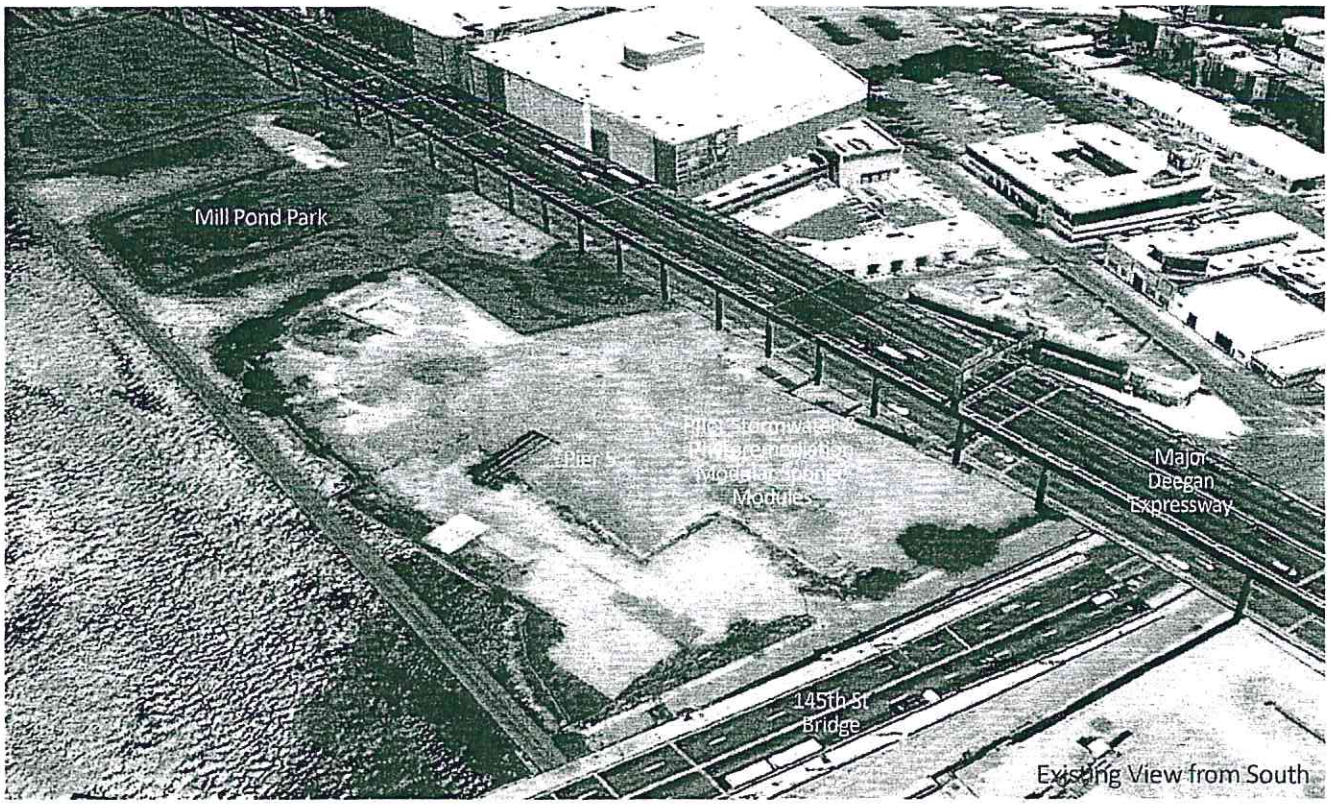
The proposed site for the proposed storm water and phytoremediation modular sponge swales is located on Pier 5 in Bronx, NY. Currently, Pier 5 is an under utilized parcel bound by elevated vehicular infrastructure on East and South and by the recently constructed Mill Pond Park on the North. Runoff from Major Deegan Expressway drains into Harlem River via existing storm drains on Exterior Street and Pier 5 is a brownfield site.

The storm water and phytoremediation modular sponge swales will be located on Pier 5, West of the Major Deegan Expressway near the historical intersection of 150th and Exterior Streets. Currently, stormwater runoff from the Major Deegan Expressway is directed to the storm drains located on Exterior Street. The pilot will intercept the runoff by redirecting the downspout into Pier 5 and channeling the runoff into a hybrid conveyance system that will collect sediments and direct the runoff into the modular sponge swales. The modular sponge swales will be sized to manage up to 1" storm volume per NYC DEP Green Infrastructure Guidelines.

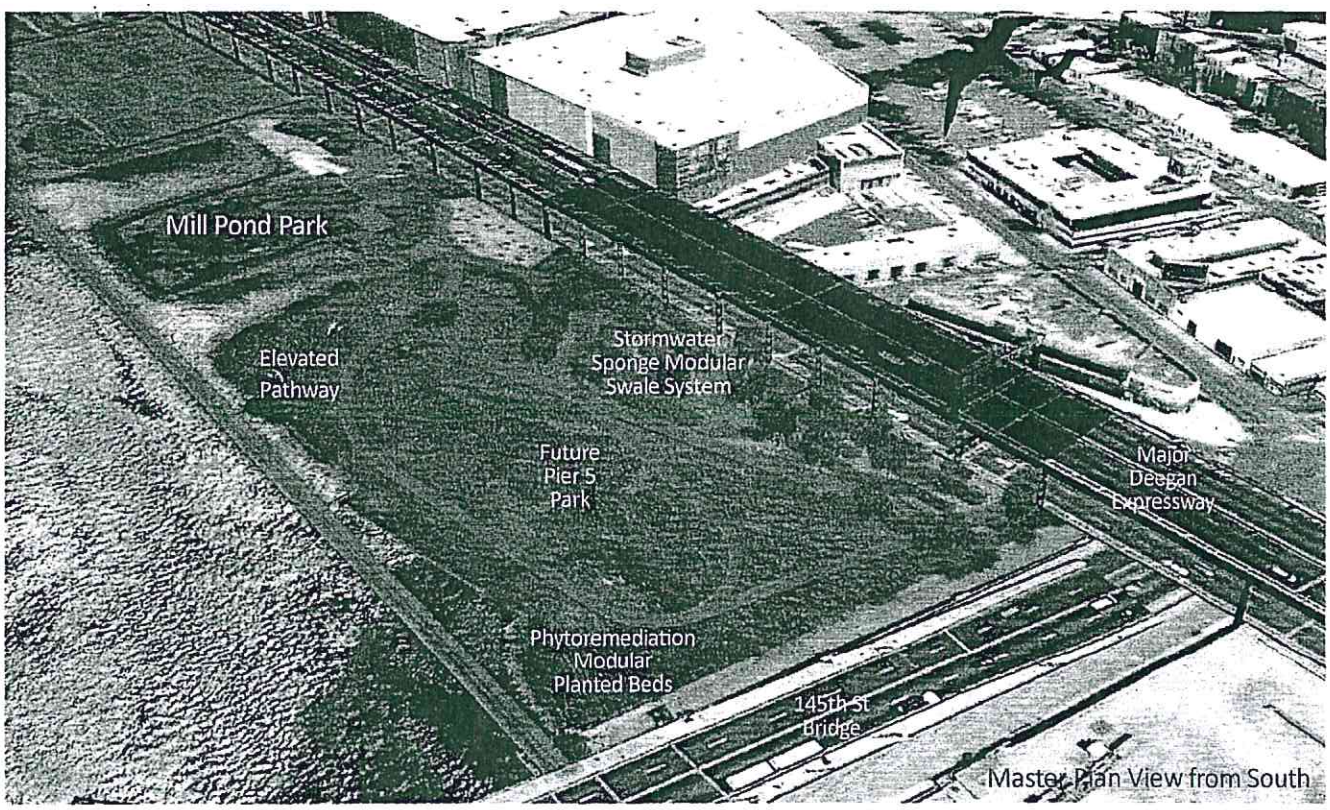


POTENTIAL STORMWATER CATCHMENT AREA CALCULATIONS:

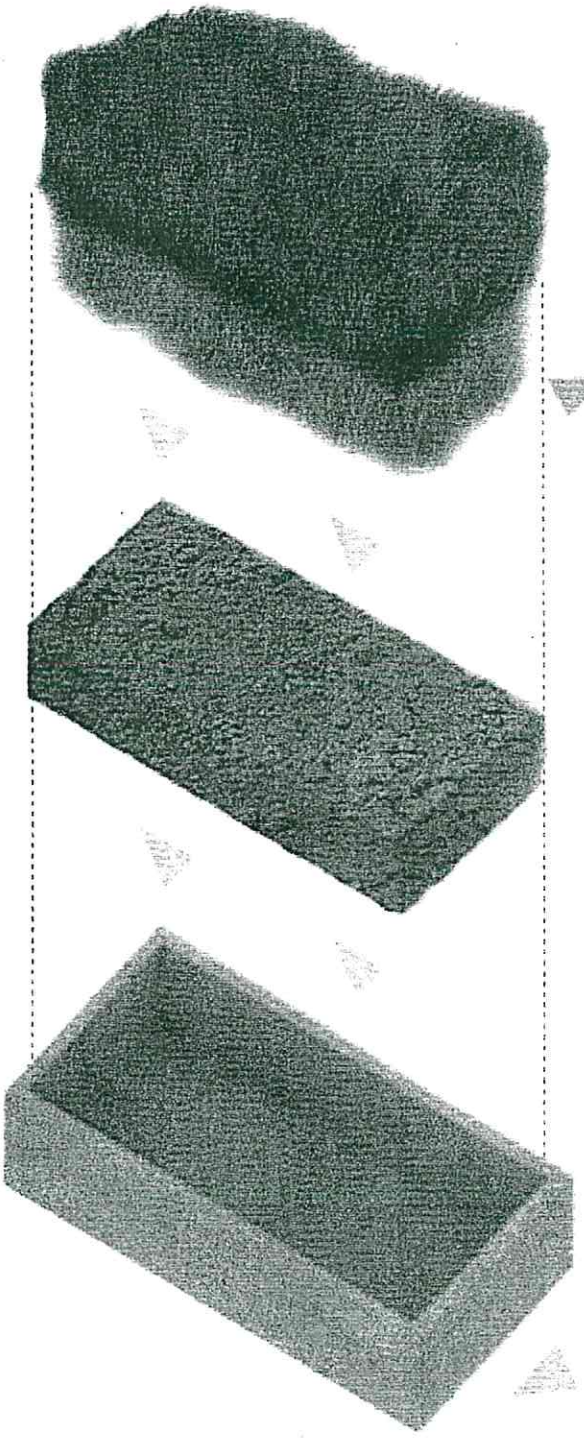
Tributary Area	= 60' X 90' Section = **5,520 sf or 0.126 acre**
P	= 1.0 (Per NYC DEP)
I	= 100% (percent impervious cover)
Rv	= 0.05+0.009*(I) = 0.95
WQv	= (P*Rv*A)/12 = **0.009975 acre-feet or 434.51cu ft or 3250 gallons**



The stormwater and phytoremediation modular sponge swales can be expanded to create a park which provides a public amenity and utilizes ecological strategies to remediate existing and future soil and water contaminations.



STORMWATER MODULE ELEMENTS



I. PHYTOREMEDITATIVE PLANTS

- Extraction of First Flush Contaminants
- Water retention
- Evapo-Transpiration
- Promotes Microhabitat

Redirected Runoff from Major Deegan Expressway

II. NEW ENGINEERED SOIL

- Filter media
- Water retention

III. PREFABRICATED STRUCTURE BASE

- Waterproof separation between BMP installation and brown field site
- Precast Structure

PHYTOREMEDIATION PLANT PALETTE

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HYDROCARBONS DEGRADATION / ACCUMULATION

Little Blue Stem
scopariu Schizachyrium m (Michx.) Nash

PAH

Switchgrass
Panicum virgatum

PAH

Red Fescue
Festuca rubra L.

PAH TPH

HEAVY METALS ACCUMULATION

Yarrow
Achillea millefolium

Cd

Drooping Sedge
Carex Pendula

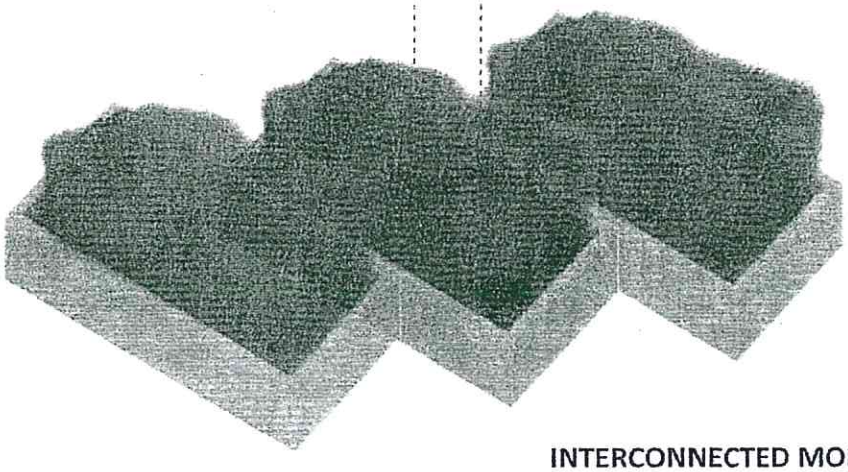
Pb Zn Cd

Indian Mustard
Brassica juncea

Mg Pb Zn

Canadian Wild Rye
Elymus canadensis L.

HC



INTERCONNECTED MODULES

- Overflow strategy allows water to flow from one module to another
- Increase capacity and flexibility of the Stormwater management system

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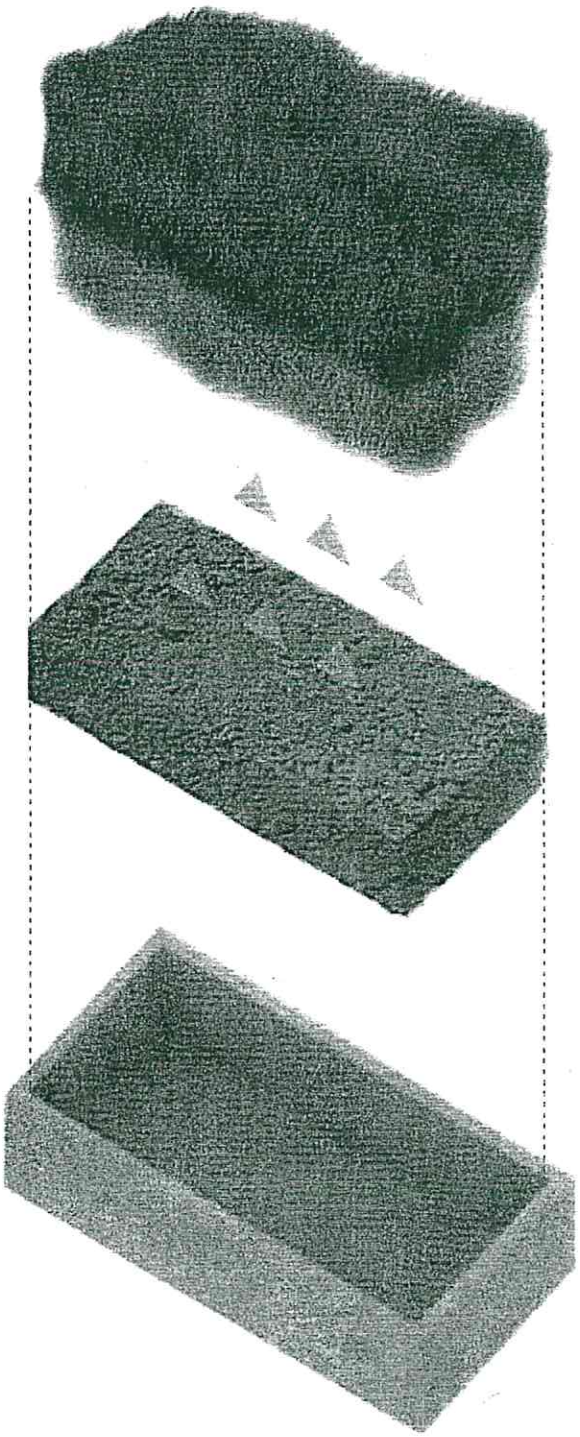
PHYTOREMEDIATION MODULE ELEMENTS



I. PHYTOREMEDITATIVE NATIVE PLANTS

- Extraction of contaminants in soil
- Promotes Microhabitat

II. EXISTING CONTAMINATED SOIL

- Excavated soil from modular sponge swale

III. PREFABRICATED STRUCTURE BASE

- Waterproof separation between BMP installation and brown field site
- Precast Structure

PROJECT IMPLEMENTATION

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PROJECT DURATION: 14 Months from signing of contract

EXPECTED COMPLETION DATE: SPRING, 2013

IMPLEMENTATION: