

**Department of Environmental Conservation**

**Division of Marine Resources**

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**Restoration of Natural Resources through the  
Jamaica Bay Damages Account**

**Reconnaissance Phase Report**

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**September 30, 1994**

New York State Department of Environmental Conservation  
Mario M. Cuomo, *Governor*                      Langdon Marsh, *Commissioner*

## Executive Summary

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The Jamaica Bay Damages Account (JBDA) is a fund administered by the New York State Department of Environmental Conservation (DEC) for the purpose of "restoring, replacing or acquiring the equivalent of any natural resources determined to have been injured, destroyed or lost as a result of the release of hazardous substances" from five municipal landfills owned and operated by New York City. Three of the landfills, Edgemere, Pennsylvania Ave., and Fountain Ave., are located at Jamaica Bay. One landfill, Brookfield Ave., is in Staten Island (at Richmond Creek), and one, Pelham Bay Landfill, is in the Bronx (at Pelham Bay Park).

On behalf of the DEC in its role as trustee of the natural resources of New York, the DEC Division of Marine Resources has developed and is carrying out a plan to address injured natural resources and the lost use of those resources. This is the goal of the "Jamaica Bay Damages Account" Restoration Process. The process consists of three phases: Reconnaissance, Planning, and Implementation. The Reconnaissance Phase involves the compilation of a list of projects to be considered for implementation under the JBDA. Another aspect of the Reconnaissance Phase is the development of criteria to be used in prioritizing and selecting projects to be examined during the Planning Phase and carried out in the Implementation Phase. The Planning and Implementation phases involve further explorations of high priority projects, selection of projects for implementation, creation of detailed implementation plans, and finally, execution of the projects. This document is a report on the Reconnaissance Phase.

In support of the Reconnaissance Phase, a workshop was held to promote coordination with other agencies with planning responsibilities in the areas covered by the JBDA. Through the workshop and other methods, proposals for projects were solicited. In addition, input was gathered regarding priorities for selecting the types and geographic distribution of projects. Over 40 project proposals are included in this report along with annotated lists of criteria and standards for prioritization. The project proposals gathered involve various activities including habitat restoration, access control, and land transfers and acquisition.

One goal of the Reconnaissance Phase was to identify any projects which, due to special circumstances, need immediate attention. These projects would be considered for "fast-track" status. Projects qualify for "fast-track" status if they meet the following conditions: a) rank as high priorities using the criteria set forth in this report b) need to be implemented quickly either to avoid a nullifying situation (e.g. imminent development) or to take advantage of a time-limited opportunity (e.g. special matching funds). Additional administrative resources would be assigned, expediting the tasks specific to these projects in the Planning and Implementation phases.

As a result of the Reconnaissance effort, culminating with the workshop, several high priority projects were identified which meet the criteria for inclusion under JBDA. These projects involve a combination of inter-agency land transfers, land purchases, on-site access security, and on-site restoration of natural resources. It is recommended that these projects be given "fast-track" status, with expedition of the Planning and Implementation of these projects.

# Restoration of Natural Resources through the "Jamaica Bay Damages Account" (JBDA): Reconnaissance Phase

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## Three-Phase Process

The Reconnaissance Phase is the first of three phases in the JBDA restoration process. The second and third phases are *Planning* and *Implementation*, respectively. The three phase plan was defined and is being carried out by New York State Department of Environmental Conservation Division of Marine Resources with the involvement of the Division of Fish and Wildlife and other programs within the Office of Natural Resources. These three phases are more generally described below.

### Phase I: Reconnaissance

The goals of the Reconnaissance Phase are to:

- develop a list of *types* of projects to be considered for inclusion in the restoration plan,
- develop a list of possible projects,
- define options for prioritizing and grouping projects,
- identify 'fast-track' projects needing immediate attention,
- develop strategies for coordinating with other groups and getting public input,
- create a conditional time frame and procedures for carrying out the Planning and Implementation phases.

### Phase II: Planning

The goals of the Planning Phase are to:

- continue close coordination with other trustees, landowners, and agencies involved,
- narrow down the list of recommended projects,
- assemble a final implementation plan including supporting documents such as environmental impact statements, permit applications, property assessments, and detailed budgets.

### Phase III: Implementation

The goals of the Implementation Phase are to:

- carry out the final restoration plan,
- develop contracts,
- continue to coordination inter- and intra-agency effort,
- monitoring contract compliance,
- evaluate and monitor the success of each project.

## **Background Information**

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### **History of the Landfill Issues and Consent Orders**

In his role as Trustee of New York's natural resources, Commissioner Thomas C. Jorling commenced an action against responsible parties for the natural resource insults which occurred as a result of acts including the illegal disposal of hazardous substances at five New York City landfills. From associated legal actions, \$7 million have been recovered from the responsible parties. These monies may be used on "assessing or valuing injury to, destruction of or loss of natural resources of Jamaica Bay, and any other areas resulting from the release of hazardous substances from the Landfills... and restoring, replacing or acquiring the equivalent of any natural resources determined to have been injured, destroyed or lost as a result of the release of hazardous substances from the Landfills." *Restoration* actions are those actions undertaken to return an injured resource to its baseline condition (i.e. before the release of the toxic substances). *Replacement or acquisition of the Equivalent* means the substitution for an injured resource that provides the same or substantially similar services.

### **General Information About the Affected Areas**

All five of the landfills are sited on marine shoreline and were created by the filling in of coastal wetlands and open-water areas. Since the landfills are immediately adjacent to tidally-inundated surface water, any toxic substances which are released from the landfills would be expected to disperse throughout the larger tidal system. Of the three tidal ecosystems affected, two were affected by one landfill each: Pelham Bay Landfill at Eastchester Bay/Pelham Bay Park in the Bronx and Brookfield Ave. Landfill at Richmond Creek/La Tourette Park in Staten Island. Jamaica Bay, in Brooklyn and Queens, was affected by three landfills: Pennsylvania Ave., Edgemere, and Fountain Ave. Of the three tidal systems affected, Jamaica Bay is the largest contiguous ecosystem consisting of diverse marine, estuarine, coastal, and terrestrial habitats.

#### **Eastchester Bay/Pelham Bay Park**

The Pelham Bay landfill is situated in Pelham Bay Park at Eastchester Bay where the Hutchinson River flows into Long Island Sound. The landfill was created by dumping municipal solid waste into tidal wetland and marine surface waters due to lack of sufficient upland areas. Later, the landfill received final cover and was closed. Currently, there are significant post-closure actions occurring to remediate the effects of dumping toxic substances at the landfill.

#### **Richmond Creek/La Tourette Park**

The Brookfield Ave. landfill is situated at the upper tidally inundated section of Richmond Creek, a major tributary to Fresh Kill and the Arthur Kill. The immediate area is dominated by tidal wetland with adjacent coastal habitats. The area is highly stressed with ongoing toxic discharges by the densely situated industry in the vicinity, another major landfill at the adjacent Fresh Kill, and periodic oil spills.

## **Jamaica Bay**

Three landfills, Pennsylvania Ave., Fountain Ave., and Edgemere, were operated on the shore of Jamaica Bay. The landfills were created by building sand berms around the perimeter of the wetlands and then filling in behind them with municipal solid waste.

Jamaica Bay is an estuarine ecosystem composed of tidal wetlands, freshwater wetlands, upland fields and woods, active and inactive parkland and open space. The land surrounding Jamaica Bay is highly urbanized, and historically Jamaica Bay has suffered from the presence of landfills, point source and urban non-point source water pollution, dredging, filling of wetlands, and development of the shoreline and upland buffering lands. Today, much of the original tidal wetlands comprising Jamaica Bay has been filled with construction waste, incinerator and coal ash, and garbage. Large tracts of shoreline have had bulkheads erected cutting off normal wetland transitioning from water to land. Through these processes, the extent of Jamaica Bay and its wetlands has been reduced from over 25,000 acres to 13,000 acres. Parts of Jamaica Bay have been dredged leaving bottom habitat that supports little life. For instance, Grassy Bay, an unnaturally deep basin, was formed by dredging for source materials to construct JFK Airport. Several thousand acres of wetland were also filled in as part of the airport construction.

In spite of this chronic disruption, over 300 species of birds can be found at Jamaica Bay, many using the Bay as a migration stop. Each fall and spring, as they travel along the Atlantic Flyway, hundreds of thousands of birds use the natural resources at Jamaica Bay.

In the center of the Bay is the Jamaica Bay Wildlife Refuge which provides managed habitat including freshwater ponds created to provide a more diverse habitat for numerous species of reptiles, amphibians, birds, and mammals. Contiguous marine areas provide a unique refuge for the myriad of residential and migrating biota that occur in the area.

Jamaica Bay is designated a New York State Critical Environmental Area.<sup>2</sup> The uplands of the bay provide nesting and foraging habitat for resident and migrant birds. The grassy plains of the area are home to some species of birds not found anywhere else in New York City. Over 80 species of finfish,<sup>3</sup> resident and migratory, utilize the Jamaica Bay habitats for feeding reproduction, nursery, and growth of their populations. Dozens of kinds of reptiles and amphibians, many of them rare,<sup>4</sup> also persist in this critically important urban ecosystem.

Unfortunately, use of Jamaica Bay as wildlife habitat continues to be compromised by the historic loss of large areas of tidal wetlands and upland habitat to degradation, filling, and contamination and the chronic systemic stress associated.

## **Management of Jamaica Bay**

Much of Jamaica Bay is owned and managed by the National Park Service as part of the Gateway National Recreation Area. Other large tracts are controlled by New York City as parks, and as development sites. John F. Kennedy International Airport, managed by the Port Authority of New York and New Jersey, is a major operation dominating the eastern shore of the Bay. In addition,

substantial portions of the shoreline in Broad Channel and other parts of Queens and Brooklyn are developed as commercial and residential properties. As part of New York City, Jamaica Bay is surrounded by one of the most highly urbanized areas in the world.

## **Types of Projects Under Consideration**

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### **Solicitation of Project Proposals**

Agencies with an interest in the areas involved in the JBDA Restoration Process, were asked to submit projects for consideration. A workshop held on October 19, 1993 served as a forum for presenting and developing individual project. The workshop was attended by representatives of the following: New York State Department of Environmental Conservation (NYSDEC) Division of Marine Resources, NYSDEC Division of Fish and Wildlife, United States Department of Interior, Gateway National Recreation Area (National Park Service), New York City (NYC) Department of Parks and Recreation, NYC Department of Environmental Protection, the National Marine Fisheries Service, the United States Fish and Wildlife Service, The Trust for Public Land, and NYC Audubon Society. See *Appendix A: List of Workshop Participants* for a complete list of those who attended.

### **A Typology of Projects to be Considered**

Since the landfills are all situated directly in and adjacent to large tracts of marine wetlands, these habitats are the focus of the restoration process. The marine ecosystems in the vicinity of the landfills are exposed to the damage and stress caused by the release of toxics and priority attention will be given to restoring natural resources in the affected ecosystems. Since the effects of the landfills, in addition to being local and acute, are also spatially extensive, chronic, and systemic, the full range of habitats, plant and animal species, and ecosystem functioning in the area is affected.

An effort was made to gather as many ideas as possible. Projects were solicited that involved acquisition, replacement, or restoration of natural resources functionally associated with the five landfills. "Restoration" and "functionally associated" were imagined broadly at this stage, helping to garner a wide variety of proposals across the appropriate geographical areas.

The project types were further broken down into categories as follows. This list is not exclusive, it is illustrative, to aid in the process of developing project ideas within the framework of possible activities.

**Restoration**-Work on a damaged site, returning the ecosystem to baseline functioning, not beyond. This can be done by adding or removing physical structures to improve wetland functioning, better protect the wetland from further damage, or increase appropriate access and usability.

Restoration-Habitat Alteration

- Replacement of *Phragmites* with low marsh

#### Restoration-Functional Enhancement

- Restoring tidal flow with culverts or removing barriers

#### Restoration-Use/Access Enhancement

- Installing guardrails to protect from illegal dumping
- Restoring or creating recreational access through nature trails and structures to provide fishing access

#### **Replacement**-Creating a particular habitat or ecosystem function where there was none before.

##### Replacement-Wetlands

- Creation of a high salt marsh.

##### Replacement-Buffering Uplands

- Creation of a grassland in an abandoned land parcel.

##### Replacement-Artificial Reefs

- Lining the bottom of a water body with rock as habitat for fish that prefer rocky bottoms.

##### Replacement-Submerged Aquatics

- Planting and hydrologic alteration to establish or extend a bed of eel grass.

##### Replacement-Nesting Sites

- Building raptor nesting platforms.

#### **Acquisition**-Changing ownership of a piece of land to an agency whose mission is conservation of the land and natural resources.

##### Acquisition-Purchase

- Purchasing in fee simple a parcel of land from a private owner

##### Acquisition-Transfer

- Shifting ownership from one governmental agency to another that is charged with natural resource conservation or with managing public parks

##### Acquisition-Easement

- Purchase or transfer of the rights to use a parcel of land in a certain way (this may be a cash transaction where an agency acquires development rights which will then be retired, never to be used).
- An agreement that a land-owning agency manage or develop it in a certain way.

### **Specific Project Proposals**

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Prior to, during, and after the workshop, project proposals were compiled in a consistent format to aid in clarification and discussion of projects. These forms were distributed to workshop participants and later collected with their comments. The forms contained the following information:

**Proposal #** For internal reference.

**Site-Location:** Commonly used site name for the area of the project. The location is one of the three affected areas, Bronx, Staten Island, and Jamaica Bay.

**Map Number:** Refers to reference map, See Figures 1 and 2.

**Project:** A short description of the activity to be done.

**Type:** Based on project typology developed in this report.

**Proposed By:** For reference in case of questions about the project, does not necessarily imply strong support by the proposing agency.

**Contingent Upon:** Refers to any other proposals which must be implemented prior to implementation of this one.

**Description:**

Description of the proposed project.

**Estimated Cost:** Estimated cost of the proposed project

A compilation of the project proposal forms is included in *Appendix B: Project Proposal Information Sheets*.



## Summary of Project Proposals

The following table is a short summary of the proposed project under consideration from the Reconnaissance Phase of the process. Map Number refers to Figures 1 and 2 on pages 13 and 14.

**Table 1: Summary of Project Proposals**

Proposal Number and Site Name		Description	Type	Location Map Number	
1-A	Healy Ave.	Purchase parcel for addition to park	Acquisition-Purchase	Jamaica Bay	1
1-B	Healy Ave	Install guardrail / Restore wetlands	Restoration-Use/Access	Jamaica Bay	1
2-A	Brant Point	Purchase parcels to consolidate holdings	Acquisition-Purchase	Jamaica Bay	2
2-B	Brant Point	Wetlands enhancement/Shrub and meadow restoration	Restoration-Habitat Alteration	Jamaica Bay	2
3-A	Vernam-Barbados	Transfer of land from NYC Economic Development Corporation to NYC Parks	Acquisition-Transfer	Jamaica Bay	3
3-B	Vernam-Barbados	Restore maritime heathland and grassland / Create access road / Install protective guardrail	Restoration-Habitat Alteration and Use/Access	Jamaica Bay	3
4-A	Spring Creek	Purchase land for consolidation of holdings	Acquisition-Purchase	Jamaica Bay	4
4-B	Spring Creek	Salt marsh planting / Clean-up / Protective Guardrail	Replacement-Tidal Marsh Restoration-Use/Access	Jamaica Bay	4
5-A	Fresh Creek	Transfer from NYC Department of Real Property to NYC Parks	Acquisition-Transfer	Jamaica Bay	5
5-B	Fresh Creek	Purchase of land for consolidation of NYC Parks holdings	Acquisition-Purchase	Jamaica Bay	5
6-A	Hook Creek	Transfer of Parcels to NYC Parks	Acquisition-Transfer	Jamaica Bay	6

**Table 1 (Continued): Summary of Project Proposals**

<b>Proposal Number and Site Name</b>		<b>Description</b>	<b>Type</b>	<b>Location Map Number</b>	
6-B	Hook Creek	Purchase of In-Holding Private Land	Acquisition-Purchase	Jamaica Bay	6
6-C	Hook Creek	Install Guardrail for Security	Restoration-Use/Access	Jamaica Bay	6
7-A	Four Sparrow Marsh	Transfer of Land from NYC EDC to Parks (Or Agreement on Protection)	Acquisition-Easement	Jamaica Bay	7
7-B	Four Sparrow Marsh	Woodland/Shrub Plantings for Erosion Control and Installing a Protective Guardrail	Restoration-Upland and Use/Access	Jamaica Bay	7
8	Long Pond	Purchase Privately Held Parcels	Acquisition-Purchase	Staten Island	23
9	Butler Manor	Purchase Privately Held Parcels	Acquisition-Purchase	Staten Island	23
10	Pelham Bay	Intertidal Wetland Restoration	Restoration-Salt Marsh	Bronx	24
11	Twin Island Marsh	Restoring Tidal Inundation with Culverts	Restoration-Functional	Bronx	25
12	Turtle Cove	Restore Tidal Flushing - Bank Regrading	Restoration-Functional	Bronx	26
13	Unspecified	Artificial Reef	Replacement-Reef	Jamaica Bay	
14	Unspecified	Phragmites Management	Restoration-Habitat Alteration	All 3 Areas	
15	Navy Pier	Restore Fishing Access	Restoration-Use/Access	Jamaica Bay	8
16	Jamaica Bay	Restore Fishing Access (Various Projects)	Restoration-Use/Access	Jamaica Bay	
17	Broad Channel	Restore Interpretive Kiosk and Bathroom	Restoration-Use/Access	Jamaica Bay	10
18	Airport Extension at JoCo Marsh	Install Culverts to Restore Tidal Flow	Restoration-Functional	Jamaica Bay	11

**Table 1 (Continued): Summary of Project Proposals**

<b>Proposal Number and Site Name</b>		<b>Description</b>	<b>Type</b>	<b>Location Map Number</b>	
19	Jamaica Bay	Access Restriction	Restoration-Use/Access	Jamaica Bay	
20	Far Rockaway	Piping Plover / Least Terns	Restoration-Habitat	Jamaica Bay	12
21	Unspecified	Upland Sand Piper Habitat Creation	Replacement-Upland	All 3 Areas	
22	Unspecified	Enhancement of Public Access/Educational Materials	Restoration-Use/Access	All 3 Areas	
23	LILCO Property	Purchase Property	Acquisition-Purchase	Jamaica Bay	13
24	Hook Creek	Inter-Agency Transfer / Park Designation	Acquisition-Transfer	Jamaica Bay	6
25	Dubos Point	Purchase Land	Acquisition-Purchase	Jamaica Bay	14
26	Paerdegat Basin	Transfer Land to Parks and Protect	Acquisition-Transfer	Jamaica Bay	15
27	Hendrix Creek	Inter-Agency Transfer	Acquisition-Transfer	Jamaica Bay	16
28	Vandalia Dunes	Purchase Land - Limit Development	Acquisition-Purchase	Jamaica Bay	17
29	Beach 90th Street	Purchase Parcel	Acquisition-Purchase	Jamaica Bay	18
30	Mott Basin	Purchase Private Parcel	Acquisition-Purchase	Jamaica Bay	19
31	Mott Peninsula (Bayswater Park)	Acquire Several Private Parcels	Acquisition-Purchase	Jamaica Bay	20
32	Bayswater Park	Restoration of Tidal Wetlands	Restoration-Salt Marsh	Jamaica Bay	21
33	Norton Peninsula	Transfer and/or Open Space Easements and Acquisition	Acquisition-Transfer Acquisition-Easment	Jamaica Bay	22
34	Unspecified	Plant Submerged Aquatic Vegetation	Restoration-Habitat	All Three Areas	

**Table 1 (Continued): Summary of Project Proposals**

<b>Proposal Number and Site Name</b>		<b>Description</b>	<b>Type</b>	<b>Location Map Number</b>	
35	Grassy Bay	Rehabilitate Dredging Site	Restoration-Remediation	Jamaica Bay	35
36	Seagirt Ave.	Purchase Parcels Containing Tidal Wetlands	Acquisition-Purchase	Jamaica Bay	
37	Palmer's Inlet	Purchase of Parcels to Protect Access to Historic Fish Weir	Acquisition-Purchase	Bronx	27
38	Pugsley Creek	Purchase of Parcels or Easements to Consolidate HoldingS	Acquisition-Purchase, Easement	Bronx	28
39	City Island	Purchase land containing salt marsh	Acquisition-Purchase	Bronx	29
40	Harbor Herons	Public access	Restoration-Use/Access	Staten Island	30
	Bayswater Park Dubos Point	Restoration of Habitat [Note: This proposal is being combined into other proposals]	Restoration-Habitat Alteration	Jamaica Bay	
41	Pelham Bay Park	Eastchester Bay Coastline, Restore a highly altered coastline that was originally rocky	Restoration-Habitat Restoration	Bronx	31
42	Pelham Bay Park Ferry Point	Grasslands Restoration	Restoration-Habitat Alteration	Bronx	32
43	Greenwich Property	Creation of an Intern Center	Restoration-Use/Access	Jamaica Bay	33
44	Unspecified	Purchase boat for research and educational purposes	Restoration-Use/Access	All 3 Areas	
45	Breezy Point	Gull Management	Restoration-Use/Access	Jamaica Bay	34
46	Jamaica Bay	Rockaway/Gateway Greenway Bike Path	Restoration-Use/Access	Jamaica Bay	

**Table 1 (Continued): Summary of Project Proposals**

<b>Proposal Number and Site Name</b>		<b>Description</b>	<b>Type</b>	<b>Location Map Number</b>	
47	Jamaica Bay (Various Sites)	Grassland Restoration	Restoration-Habitat	Jamaica Bay	
48	Bronx River	Expansion of Water Quality Monitoring	Restoration-Use/Access	Bronx	
49	Bronx River	Shoreline Habitat Restoration for Soil Conservation	Restoration-Habitat Restoration	Bronx	
50	Bronx	Expand Community Education and Outreach Programs	Restoration-Use/Access	Bronx	
51	Paw-Paw Woods	Land Purchase	Acquisition-Purchase	Staten Island	23

Figure 1  
New York City

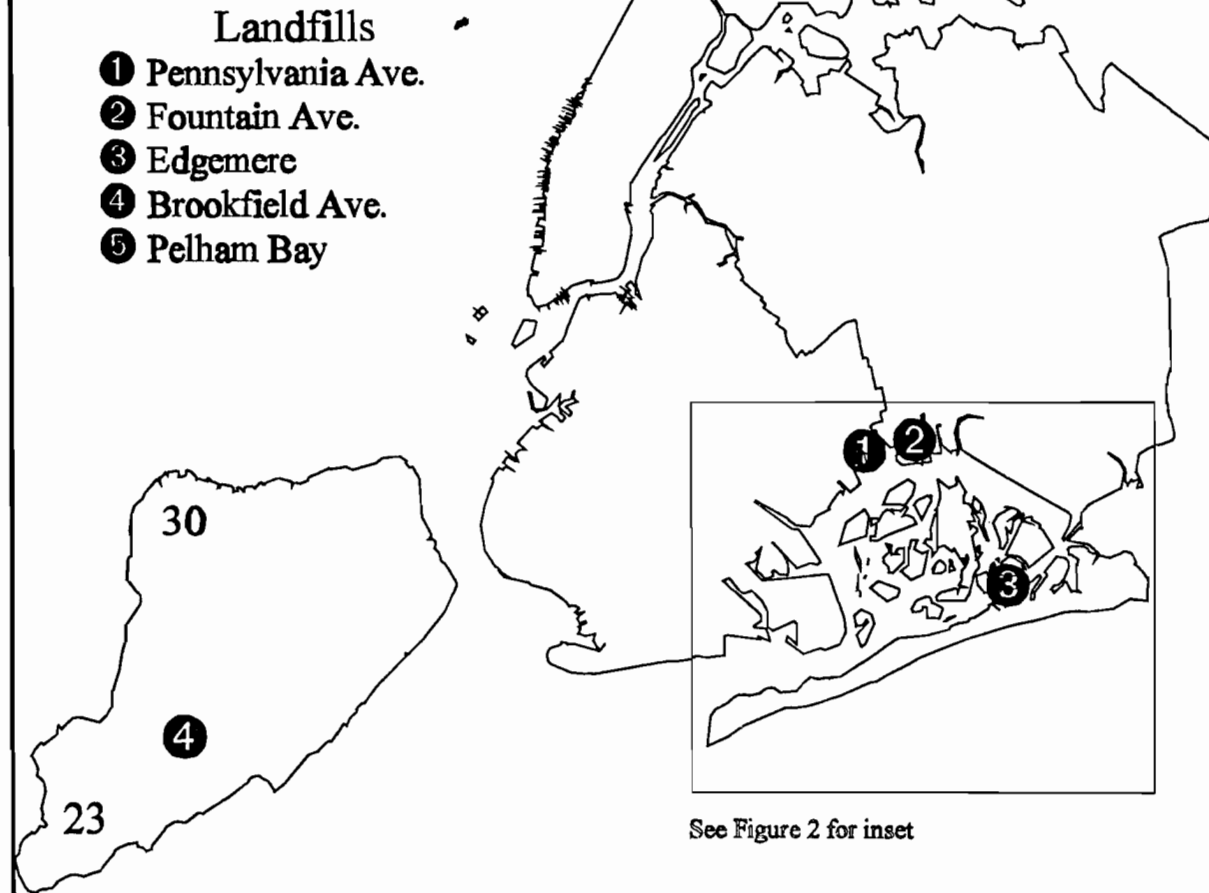
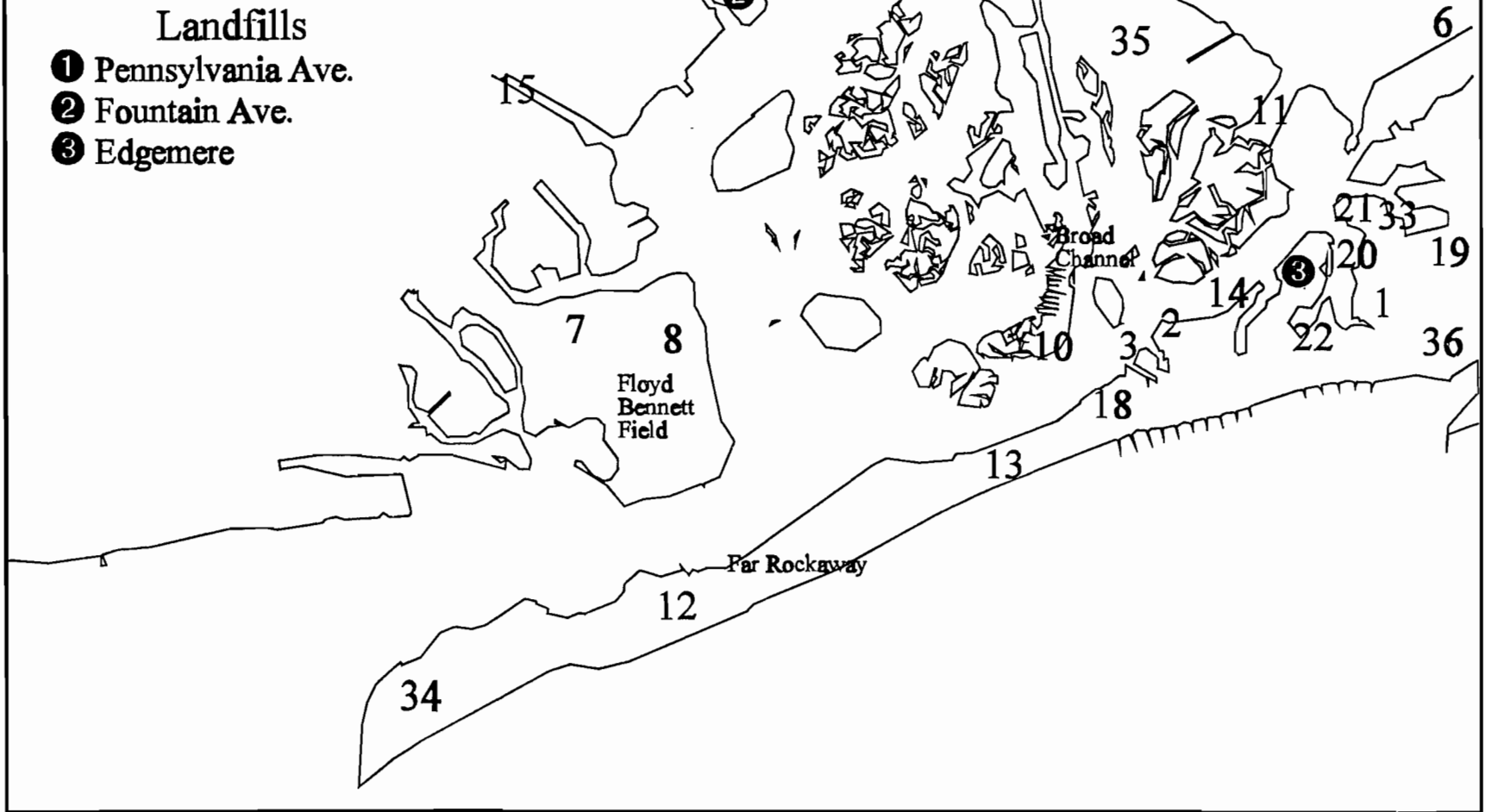


Figure 2  
Jamaica Bay



## **Preliminary Prioritization Criteria**

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Once inappropriate projects have been screened out, the remaining projects must be prioritized and a final set of projects selected for implementation. One goal of the Reconnaissance Phase is to begin to develop a set of criteria for prioritizing and selecting projects to carry out under the Jamaica Bay Damages Account. These criteria will be applied (with further refinement) in the Planning Phase.

### **Prioritization Criteria**

The criteria below will be used to distinguish between projects which should be given a high priority for implementation with the limited funds available and those that, while appropriate for consideration, may need to be funded through a different process.

### **High Priority Issues**

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**High Natural Values**-High priority should be given to projects involving lands with high actual or potential natural values. This includes richness of plant and animal species and positive contributions to ecosystem functioning.

**Diverse Natural Values**-High priority should be given to projects involving land which harbor a diversity of plants life or animal habitat on site or would add diversity to Jamaica Bay due to the presence of a rare habitat.

**Development Pressure**-High priority should be given to projects involving land which is in imminent danger of being developed for residential, commercial, or industrial use. Indicators of development pressure include recent transfer to a development company, application for extension of services such as streets, sewer, water, and utilities, application for zoning changes or subdivision of the property. Any land that has no intrinsic factors limiting development (i.e., in a flood plain, within wetland regulatory jurisdiction, etc.) should be considered under development pressure simply due to the urban location. Development pressure, in and of itself, is only important in the context of other threatened values.

**Consolidation of Protected Land**-High priority should be given to projects involving land which is adjacent to or an inholding of land that is already under some kind of protected status such as park land. The natural value of the protected land is improved by increasing the uninterrupted span of the land holdings. This also provides a buffer against incompatible land use.

**High Restoration Potential**-High priority should be given to projects judged to have a high chance of success. Implementation of restoration procedures that are experimental or have a low success rate, for example, should be avoided.



**Availability of Complementary Funding**-High priority should be given to projects currently possessing or having the potential for additional funding from other sources. Other sources might include Department of Transportation ISTEA Enhancement Grants and the Environmental Quality Bond Act, among others.

## **Priority Issues**

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**Access**-Priority should be given to projects involving the management of access to natural resources. The goal of managing access is to ensure public use and access to natural resources that are suitable for use while controlling access where it would potentially damage important wildlife habitat or result in an unsatisfactory recreational experience. Access management includes providing roads, boat landings, pier, nature trails, and facilities as well as the erecting of fence and guardrails to prevent illegal dumping of fill and garbage, exclusion of vehicles from fragile habitats such as sand dunes, and putting up signs to help discourage inadvertent damage from inappropriate access.

**High Social Value**-Priority should be given to projects which provide educational or recreational opportunities. This includes providing controlled access for shoreline recreation, bird watching, and hiking, the provision of interpretive nature trails, and of multi-purpose parkland and open space.

**Buffering**-Priority should be given to projects which help to provide a buffer between natural resources and activities which have a negative impact upon the functioning of the resources. This includes open fields between developed areas and natural areas to help capture and filter surface run-off, parklands with high intensity of use to lessen the use of sensitive natural areas, and "overflow" habitat to provide a safe place for animals to go in the event of damage to the primary habitats.

**Appropriateness of Adjoining Lands**-Priority should be given to projects whose goals are not undermined by incompatible uses on nearby lands. A project which will suffer continuing negative impacts from adjacent industrial activities, for example, may not be a location for successful restoration of habitat. However, a project may be effective by preventing a negative impact use of land that would be otherwise likely to occur. In other words, pre-empting a negative use with a neutral use may be as good as providing a positive use.

**Local Public Support**-Priority should be given to projects for which citizen constituency groups or elected officials have expressed advocacy. This advocacy may be for the specific project or generally in line with the stated goals of the project.

**Meets Existing Planning Priorities**-Priority should be given to projects which are identified as high priorities as part of other planning processes. Many local, state, federal, and private agencies set for land use and natural resource conservation plans. In addition to setting broad objectives, these plans often give specific guidance on strategies and priorities. Consultation of applicable plans will help to coordinate inter- and intra-agency efforts. These existing planning priorities must, of course, meet to goals of this plan to be considered.

## **Related Prioritization Issues**

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### **Description of the Geographic and Categorical Mix of Projects**

Three distinct ecosystems are affected by the five landfills covered under the Jamaica Bay Damages Account: Jamaica Bay, Eastchester Bay (Bronx), and Richmond Creek (Staten Island). The consent order governing the Damages Account does not in any way specify an apportionment, therefore any apportionment among the three affected areas will be necessarily arbitrary. Several factors may be considered in determining the geographic distribution of the final projects. The following list of factors is far from inclusive, it is rather a starting point for further refinement during the Planning Phase.

- The relative ecological integrity and importance of the three affected ecosystems may help determine the apportionment. Jamaica Bay is by far the largest and, by some measures, most ecologically important, of the three natural areas affected.
- Prioritization of individual projects may play a role. The money should go to where it can to the most good, regardless of location within the qualified areas. The prioritization criteria in this report give some guidance as to factors which make a project more or less likely to succeed.
- Three of the landfills are located in Jamaica Bay, while only one each are in Eastchester Bay (Bronx), and Richmond Creek (Staten Island). This ratio of 3:1:1 for landfills within each ecosystem may be used to guide apportionment among the areas. A more refined approach may be to take into consideration the relative sizes of the landfills or the estimated damage inflicted by each.

## **Consideration of Projects for "Fast-track" Status**

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### **The "Fast-Track" Option**

It may be desirable to expedite the planning and implementation phases of some projects. This option should be used if it is determined, in the Reconnaissance Phase, that there is a proposal(s) which, due to special circumstances, needs to be carried out quickly. These circumstances may include especially favorable conditions in the real estate market (for acquisition), imminent development projects that would have an adverse effect if not immediately pre-empted, or complementary projects or matching funds with an expiring window of opportunity. Projects considered for "fast-track" status should pass an initial screening for being appropriate projects under the JBDA and rank high in project selection criteria. The initial screening and selection criteria are both addressed in this report.

## **"Fast-Track" Recommendations**

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Three projects meet the consideration criteria for "fast-track" status. A description of these projects is listed in the Table 2 (following), along with a summary of their priority attributes and the rationale for assigning them "fast-track" status. Additional resources should be devoted carrying out the Planning and Implementation Phases of these projects and an effort should be made to streamline any administrative barriers to completion.

**Table 2: "Fast-Track" Recommendations (Number 1 of 3)**

<b>Proposal #: Location</b> <b>Project Description</b> <b>Priority Attributes</b>	<b>Rationale for "Fast-Track"</b> <b>Designation</b>
<p><b>Proposals 1-A, B: Healy Ave., Jamaica Bay</b></p> <p>Purchase of 11-acre shoreline property from a private developer for addition to Bayswater Park, including:</p> <ul style="list-style-type: none"> <li>○ Cleaning up property for health and safety concerns,</li> <li>○ Establishment of access security through guardrails, fencing, and signage, and</li> <li>○ Restoration of natural habitats and degraded resources.</li> </ul> <hr/> <p><b>High Natural Values-Historic Shoreline and Upland Ecosystems</b>  <b>Diverse Natural Values-Variied Habitat Types</b>  <b>Consolidation of Protected Land-Adjacent to Public Open Space</b>  <b>Development Pressure-Privately Owned by Developer</b>  <b>Access Control-Terminal End of Roadway</b>  <b>Buffering-Multi-Acre Vegetated Natural Shoreline/Upland Area</b>  <b>High Restoration Potential-Rehabilitate Shore to Salt Marsh and Improve Upland Habitats</b>  <b>High Social Value-Controlled Recreational Access (Boat Ramp)</b>  <b>Meets Existing Planning Priorities-NY State Open Space Plan</b>  <b>Appropriateness of Adjoining Lands-Connects Parkland</b></p>	<ul style="list-style-type: none"> <li>•Development of this property is imminent upon improvement in the real estate market.</li> <li>•Is one of very few developable shoreline properties in the area.</li> <li>•Advantage can be taken of the depressed real estate market to pay a reasonable price.</li> </ul>

**Table 2 (Continued): "Fast-Track" Recommendations (Number 2 of 3)**

<b>Proposal #: Location</b> <b>Project Description</b> <b>Priority Attributes</b>	<b>Rationale for "Fast-Track"</b> <b>Designation</b>
<p><b>Proposal 6-A, B, C: Hook Creek, Jamaica Bay</b></p> <p>Purchase of several privately-owned wetland and upland properties in a park and open space area.</p> <ul style="list-style-type: none"> <li>○ Clean up property for health and safety concerns.</li> <li>○ Establish access security through guardrails, fencing, and signage</li> <li>○ Restoration of natural habitats and degraded resources.</li> </ul> <hr/> <p><b>High Natural Values</b>-Historic Shoreline and Coastal Ecosystems  <b>Diverse Natural Values</b>-Varied Habitat Types  <b>Consolidation of Protected Land</b>-Adjacent to Public Open Space  <b>Development Pressure</b>-Privately Owned by Developer  <b>Access Control</b>-Currently Used for Illegal Dumping  <b>Buffering</b>-Multi-Acre Vegetated Natural Shoreline/Coastal Area  <b>High Restoration Potential</b>-Formerly Connected Salt Marsh  <b>High Social Value</b>-Potential as Interpretive Nature Trail Park  <b>Local Public Support</b>-Local Community and Legislative Interest  <b>Meets Existing Planning Priorities</b>-NY State Open Space Plan  <b>Appropriateness of Adjoining Lands</b>-Connects Parkland</p>	<ul style="list-style-type: none"> <li>•Development of this property is imminent. Pre-application with DEC has occurred.</li> <li>•Is one of very few developable shoreline properties in the area.</li> <li>•Advantage can be taken of the depressed real estate market to pay a reasonable price.</li> </ul>

**Table 2 (Continued): "Fast-Track" Recommendations (Number 3 of 3)**

<b>Proposal #/Location</b> <b>Project Description</b> <b>Priority Attributes</b>	<b>Rationale for "Fast-Track"</b> <b>Designation</b>
<p><b>Proposals 2-A, B / Brant Point, Jamaica Bay</b></p> <p>Purchase of several fragmented land parcels to consolidate public holdings to create large <i>contiguous</i> open space, including:</p> <ul style="list-style-type: none"> <li>◦ Clean up property for health and safety concerns,</li> <li>◦ Establish access security through guardrails, fencing, and signage,</li> <li>◦ Wetlands enhancement and shrub/meadow restoration of existing habitat.</li> </ul> <hr/> <p><b>High Natural Values</b>-Historic Shoreline and Coastal Ecosystems  <b>Diverse Natural Values</b>-Varied Habitat Types  <b>Consolidation of Protected Land</b>-Inholdings to Public Open Space  <b>Development Pressure</b>-Privately Owned  <b>Access Control</b>-Currently Used for Illegal Dumping  <b>Buffering</b>-Multi-Acre Vegetated Natural Shoreline/Coastal Area  <b>High Restoration Potential</b>-Rehabilitate Shore to Salt Marsh and Improve Upland Habitats  <b>High Social Value</b>-Provide Access to Unimproved Natural Area, Scenic Views  <b>Local Public Support</b>-Local Environmental Groups Support  <b>Appropriateness of Adjoining Lands</b>-Connects Open Space  <b>Meets Existing Planning Priorities</b>-NY State Open Space Plan  <b>Availability of Complementary Funding</b>-Environmental Quality Bond Act Grant Recipient</p>	<ul style="list-style-type: none"> <li>•There is potential development of these parcels as private homes.</li> <li>•Is one of very few developable shoreline properties in the area.</li> <li>•Advantage can be taken of the depressed real estate market to pay a reasonable price.</li> </ul>

## **"JBDA" Restoration Process Administrative Plan Overview**

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This is an overview of the plan for carrying out the three phases of the "JBDA" Restoration Process. Less detail is included for the Reconnaissance Phase, which is covered in this report, and the Implementation Phase, which will be further detailed in the report at the end of the Planning Phase.

### **Reconnaissance Phase**

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The Reconnaissance Phase consists of four steps:

- Data Gathering
- Production of Draft Reconnaissance Report
- Public Comment and Review
- Production of Final Document

This report is the Draft Reconnaissance Report which will be disseminated for public comment and review.

### **Planning Phase**

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#### **Planning Phase Management**

Overall management of the Planning Phase involves carrying out the following tasks:

- Develop a list of tasks to be accomplished,
- Estimate the staff time needed to complete each task,
- Develop a time line that shows the order in which tasks need to be carried out (which tasks are dependent on others being done),
- Decide key staff responsible for each task, and the individual with overall responsibility for sections of the process,
- Provide appropriate staff,
- Determine the need for material resources (computers, etc.),
- Assign or acquire needed material resources.

#### **Planning Phase Overview**

The first task, developing a list of subtasks for each section of the overall process, involves two steps. First, project flow must be outlined. Second, the details of tasks that are repetitive for each project or type of project must be developed. The individual project planning is included below as a section in the overall planning outline.

#### ***Section 1: Pre-Evaluation***

The project proposals set forth in the Reconnaissance Phase need to be further explored. This involves some of the following activities for each project (although not required for every project). The goal is to gather enough information to make informed prioritization decisions.

- Narrowing down of sites-For the more general proposals, specific sites must be chosen for consideration.
- Tax Assessor maps need to be gathered for each of the sites. Tax Assessor information such as owner, etc and zoning information needs to be gathered.
- An initial on-site survey should be performed with notes as to the condition of the site with regard to the natural resources there and the

### *Section 2: Refining and Applying Project Prioritization Criteria*

Criteria for prioritizing and selecting projects have been outlined in the Reconnaissance Report. These criteria may be further developed as part of the Planning Process. The selection and prioritization process has several distinct but related aspects. These are: geographic distribution, mix of project types, and ranking of individual projects.

#### ○ Geographic Distribution

The issues around geographic distribution of the projects include determining the boundaries of the areas eligible for projects and then choosing how projects should be apportioned among the several affected ecosystems defined by those boundaries.

#### ○ Mix of Project Types

Various factors influence the final mix of projects. The quality of the individual projects proposed and the types of projects allowed for use of the JBDA have a great influence on the final mix. In addition, cost of projects, relative chance of project success, availability of complementary funding, and agreement with existing restoration and conservation goals, all affect the final mix of projects. Overall general guidance on mix of project types may need to be given early in the planning process to help narrow down choices.

#### ○ Ranking of Individual Projects

Individual projects will be ranked in priority order using the criteria developed in the Reconnaissance Phase and further refined at the beginning of the Planning Phase. Although there will be a list of projects in overall priority order, for flexibility, a variety of sublists need to be developed. These may be broken down by project type and by geographic distribution. That way, if it is determined that the next project chosen needs to be a restoration project in the Bronx, for example, there will be priority lists showing the most important restoration projects in the Bronx.

### *Section 3: Project Selection*

The process of project selection is somewhat open ended. From the prioritized list of projects will come a subset of "selected" projects. This subset may change if, with further research or effort, the project is shown to be unimplementable. In these instances, the next project on the prioritization list or lists would be selected for implementation.



#### *Section 4: Project Planning*

Each project needs a detailed list of project goals and tasks designed to reach those goals.

- Project Goals

Specific project goals (related to the prioritization and selection criteria) will be defined for each project. These goals form the basis for project planning, development of contract performance standards, and long-term monitoring plans. The goals of each project need to be defined in such a way so as to be measurable so that they can be translated into standards against which contract compliance is measured.

- Project Tasks

The tasks involved in reaching the goals of the project form the basis for the overall restoration plan. These tasks will become the core of an RFP. The project task list needs to be broken down into enough detail so as to be able to:

- Estimate staff time needed to accomplish each task
- Estimate materials/equipment needed to accomplish each task
- Estimate the duration of each task
- Show a direct connection between tasks and the achievement of project goals
- Plan for coordination with other agencies as necessary,
- Meet any applicable legal local, state, or federal legal requirements including application for required permits.

In addition to those goals and tasks limited to the immediate carrying out of a project, long term issues should be address such as monitoring and ongoing upkeep of land.

An effort should be made to also identify possible problems that may drive up the cost above estimates.

#### *Section 5: Inter-Project Coordination*

Inter-project coordination is required to provide cost effective use of resources for repetitive actions. For example, there may be a cost benefit to purchasing the materials for three similar projects at once instead of separately. Coordination of work plans may allow savings by grouping activities at nearby sites for work at the same time to reduce travel time and moving of equipment. For instance, a surveyor may be able to complete two nearby properties in much less time if done on the same day instead of separately. A plan for this sort of coordination is an important component of the Planning Phase.

### **Implementation Phase**

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The Implementation Phase consists primarily of carrying out work plans developed as part of the Planning Phase. The main components of this are:

- Project design
- RFP development
- Bid process
- Selection of contractor

- Contract monitoring
- Performance monitoring

Finalization of project designs and RFP development involves translating project task lists and goals into contract specifications and performance standards. Any inter-project coordination will be reflected in the suite of project contracts. Contractors selected to carry out the work may include private firms, other government agencies, and units within DEC.

Monitoring is necessary for establishing the success of a particular project. Two types of monitoring will be required for projects under the Jamaica Bay Damages Account. *Contract monitoring* consists of checking on whether or not the parts of a project contract were completed adequately. *Performance monitoring* consists of tracking the long-term status of project sites.

## Endnotes

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1. New York State Department of Environmental Conservation Case # D2-0001-90-11
2. Critical Environmental Areas are designated under the State Environmental Quality Review Act (SEQR). Designation is for areas with an exceptional or unique character and makes it more likely that projects in the area will be reviewed more stringently. The designation of Jamaica Bay applies to Jamaica Bay, Tributaries, Tidal Wetlands, and Regulated adjacent areas. Effective 2-1-90.
3. *Jamaica Bay Fisheries Survey, 1985-1986, 1988-1989*. U.S. Department of the Interior, National Park Service, Gateway National Recreation Area, Floyd Bennett Field, Brooklyn, NY 11234. Page 1.
4. *Gateway: Amphibians and Reptiles*. U.S. Department of the Interior, National Park Service, Gateway National Recreation Area, Floyd Bennett Field, Brooklyn, NY 11234.

## **Appendix A: List of Workshop Participants**

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### **Participants List**

#### **Jamaica Bay Damages Workshop**

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## Appendix B: Project Proposal Information Sheets

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Project Proposal Information Sheets are one page summaries of projects proposed for consideration for the restoration of natural resources through the Jamaica Bay Damages Account. The sheets provide a consistent format with which to compare projects and were used in the Jamaica Bay Damages Workshop for soliciting feedback from workshop participants.

### Proposal 1-A

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**Site:** Healy Ave

**Map Number:** 1

**Project:** Add Parcel to the Park

**Type:** Acquisition

**Proposed By:** NYC Parks and DEP

**Description:**

Just east of the Edgemere Landfill is an 11-acre parcel, currently in private ownership, that was previously mapped as an addition to Bayswater Park. We estimate that this parcel could be purchased for approximately \$1.5 million. The site contains excellent upland coastal meadow habitat including *Myrica pennsylvanica*, *Panicum virgatum*, and *Prunus maritima*, and salt marsh fringe of the sort eliminated by the landfills. *[See Proposal 1-B]* NRG has conducted an inventory of the site.

**Estimated Cost:** \$1.5 million (not including enhancement)

### Proposal 1-B

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**Site:** Healy Ave.

**Map Number:** 1

**Project:** Install Guard Rail and Restore Wetlands

**Type:** Restoration

**Proposed By:** NYC Parks

**Contingent Upon:** Proposal 1-A, Acquisition of Land

**Description:**

*[See Proposal 1-A]* Also recommended is \$200,000 to be allocated for guardrail to prevent illegal dumping of solid waste and restoration of the upland meadows and wetland enhancement. NRG has conducted an inventory of the site.

**Estimated Cost:** \$200,000

## **Proposal 2-A**

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**Site:** Brant Point

**Map Number:** 2

**Project:** Purchase Multiple Parcels to Consolidate Holdings

**Type:** Acquisition

**Proposed By:** NYC Parks and DEP

### **Description:**

Brant Point lies along the Southeastern Jamaica Bay shoreline, just west of Edgemere landfill. It is located west of Dubos Point, at the head of Vernam Basin. The 16-acre site, 2/3 of which is privately-owned, offers a magnificent view of the Bay, contains fine examples of salt marsh vegetation and shrubby high marsh of the type that would have been found in the landfill area. The site is rimmed by salt marsh including *Spartina alterniflora*, and *S. patens*. The meadows contain a mixture of native and non-native herbaceous species. Trees and shrubs including bayberry, groundsel-tree, and eastern cottonweed, also comprise the site. NYC Parks previously received \$800,000 in EQBA funds from NYS DEC to acquire a part of Brant Point.

The block and lots to be acquired are: Block 16056, Lots 27, 32, 33, 40; Block 16057, Lots 1, 26, 36, 38, 40, 45, 46; Block 16059, Lots 1, 21, 46; Block 16061, Lots 1, 2, 5, 12, 15, 17, 18, 22, 25, 30, 38, 41, 44, 46, 48; Street beds - Barbados Drive between Beach 72nd St. and Hillmeyer Ave., Bayfield Ave. between Beach 72nd St. and Barbadoes Dr., Decosta Ave. between 72nd St. and Jamaica Bay (this includes sites to be acquired with the EQBA money). *[See Proposal 2-B]*

**Estimated Cost:** \$750,000 (not incl. enhancement)

**Additional Funding:** \$800,000 in EQBA funds from NYS DEC

## **Proposal 2-B**

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**Site:** Brant Point

**Map Number:** 2

**Project:** Wetlands enhancement and shrub/meadow restoration of existing habitat

**Type:** Habitat Restoration

**Proposed By:** NYC Parks

**Contingent Upon:** Proposal 2-A, Acquisition of Land

### **Description:**

*[See Proposal 2-A]* An additional \$350,000 should be allocated for wetlands enhancement, and shrub/meadow restoration of the existing habitat. There is extensive concrete rip-rap which needs to be removed.

**Estimated Cost:** \$350,000

### **Proposal 3-A**

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**Site:** Vernam-Barbados

**Map Number:** 3

**Project:** Transfer of Land from NYC Economic Development Corporation to NYC Parks

**Type:** Acquisition

**Proposed By:** NYC Parks and DEP

**Description:**

This peninsula located just west of the Edgemere Landfill contains one of the best examples of mixed coastal dune and meadow habitat in the Bay. The site contains two globally-endangered communities: maritime heathland and maritime grassland. The New York State Natural Heritage Program rated these communities the highest state ranking: S1, "especially vulnerable to extirpation in NY State." The global ranking indicates that the communities are similarly rare, and threatened with extinction worldwide. Dominant meadow plants include little bluestem, switchgrass, and false heather. Shrub buffers include bayberry, sumac, and hawthorne, with fine examples of willow oak, and American holly. The site is rimmed with *Spartina alterniflora*. The area has great potential for restoration, and protection as a NYC Parks refuge. It is currently owned by the City and managed by the NYC Economic Development Corporation (EDC), and is slated for development. The lot and blocks to be transferred are: 16075-1 part of 120. 999 (street heds). *[See Proposal 3-B]*

**Estimated Cost:** Inter-Agency Transfer

### **Proposal 3-B**

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**Site:** Vernam-Barbados

**Map Number:** 3

**Project:** Restore maritime heathland and grassland and create access road and protective guardrail

**Type:** Restoration and Enhancement

**Proposed By:** NYC Parks

**Contingent Upon:** Proposal 3-A, Transfer of Land from NYC Economic Development Corporation to Parks

**Description:** *[See Proposal 3-A]* Under this proposal, \$750,000 would be allocated for the restoration of this area, contingent upon the City transferring 12 acres from EDC to Parks, together with space for an access road to allow for Parks maintenance. Perimeter protection such as guardrail would be included in the package, to prevent dumping. NRG/NRU have conducted a nat. resources inventory of the site.

**Estimated Cost:** \$750,000



## **Proposal 4-A**

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**Site:** Spring Creek

**Map Number:** 4

**Project:** Purchase Land for Consolidation of Holdings

**Type:** Acquisition

**Proposed By:** NYC Parks and DEP

**Description:** The largest parcel of undeveloped land and wetlands in northern Jamaica Bay, the Spring Creek site contains 40 acres of salt marsh along meandering tidal creeks, and 66 acres of upland (created from landfilled marsh). The creek itself flows between the Pennsylvania Avenue and Fountain Avenue landfills. Although the upland is in close proximity to the salt marsh, its elevation -- greater than ten feet above mean high tide -- places it outside State wetlands regulations. The site serves as a shorebird and waterfowl migration staging area, and as diamondback terrapin nesting area. These areas also serve as foraging areas for birds such as northern harrier (State threatened), which would otherwise use the landfills.

Although the City already owns much of the headwaters of this creek, intertidal acres remain in private ownership. These areas could be developed for projects such as marinas or docks which would seriously undermine the integrity of the parcels already in Parks ownership. These purchases would consolidate City ownership, and will facilitate all this area being transferred and mapped as parks. This unified public ownership would also permit more efficient and aggressive management of this environmentally vital habitat including marsh restoration. The block and lots to be acquired are: Brooklyn -- Block 4585. Lots 165, 167, 225; Queens -- Block 11455, Lot 8, Block 13932 Lot 16. NRG has conducted a natural resources inventory of the site. *[See*

*Proposal 4-B]*

**Estimated Cost:** < \$100,000

## **Proposal 4-B**

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**Site:** Spring Creek

**Map Number:** 4

**Project:** Salt Marsh Planting, Clean-up, Protective Guardrail

**Type:** Replacement/Restoration, Enhancement

**Proposed By:** NYC Parks

**Contingent Upon:** Proposal 4-B, Purchase of Land to Consolidate Holdings

**Description:** *[See Proposal 4-A]* While the remediation of the landfills will have a beneficial impact on these areas, active on-site restoration, such as guardrail, cleanup and salt marsh planting is needed.

**Estimated Cost:** Not Given

## **Proposal 5-A**

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**Site:** Fresh Creek

**Map Number:** 5

**Project:** Transfer from NYC Department of Real Property to NYC Parks

**Type:** Acquisition (Transfer)

**Proposed By:** NYC Parks and DEP

**Description:** *[See Proposal 5-B]* Transfer of the disputed 90,000 square feet currently in Department of Real Property jurisdiction should also be part of this action.

**Estimated Cost:** Inter-Agency Transfer

## **Proposal 5-B**

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**Site:** Fresh Creek

**Map Number:** 5

**Project:** Purchase of Land for Consolidation of NYC Parks Holdings

**Type:** Acquisition-Purchase

**Proposed By:** NYC Parks

**Contingent Upon:** Proposal 9, Transfer of Land from NYC Department of Real Property to NYC Parks

**Description:** Fresh Creek is a one and one-half mile meandering tidal creek flanked by 56 acres of mostly Park-owned land. Similar to the situation in Spring Creek, the City already owns much of the wetlands and uplands bordering this creek, which flows just to the west of the Pennsylvania Avenue Landfill. The majority of the city-owned land in this Basin has been assigned to NYC Parks. Two parcels, Block 8235, part of Lot 30, and Lots 316, 322 and Block 8273, Lots 155, 160, 165, approximately two acres total of intertidal in-holdings, should be purchased to consolidate public ownership and permit better management. *[See Proposal 5-A]*

Consolidation of the remaining parcels would add continuity to the nearly 100-acre Park Preserve. NRG has conducted an ecological assessment of the site.

**Estimated Cost:** < \$100,000

## **Proposal 6-A**

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**Site:** Hook Creek

**Map Number:** 6

**Project:** Transfer of Parcels to NYC Parks

**Type:** Acquisition (Transfer)

**Proposed By:** NYC Parks and DEP

**Description:** *[See Proposal 6-B]* Several other parcels abutting these sites are in City ownership and they need to be investigated to determine recommendations for transfer. *[See Proposal 6-C]*  
**Estimated Cost:** Inter-Agency Transfer

## **Proposal 6-B**

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**Site:** Hook Creek

**Map Number:** 6

**Project:** Purchase of In-Holding Private Land

**Type:** Acquisition-Purchase

**Proposed By:** NYC Parks and DEP

**Contingent Upon:** Proposal 11, Transfer of Land from NYC Agencies to NYC Parks

**Description:** Along Brookville Avenue, directly contiguous to a large assemblage of NYC Parks and Division of Real Property owned tidal wetlands are a number of private inholdings. The inholdings, near the intersection of Rockaway and Brookville Avenues and approximately two miles from the Edgemere Landfill, abut a magnificent stretch of high and low marsh. Species found at this site include, snowy egret, glossy ibis, black crowned night heron, and birds foraging here are likely to forage also on landfill areas. The parcels in question, approximately 3 1/2 acres, are at Brookville North. This site was recommended for protection in the Buffer the Bay, Revisited, report.

The northern most extent of high marsh which is now considered formerly connected tidal marsh is still a healthy, vital part of the Hook Creek system. Although most of the area is part of New York City's Brookville Park, the parcels of wetlands and adjacent area bounded by 226th and 230th Streets and 148th Avenue should be acquired as part of this package, for consolidation into the park. *[See Proposal 6-A]* *[See Proposal 6-C]*

**Estimated Cost:** \$600,000

## **Proposal 6-C**

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**Site:** Hook Creek

**Map Number:** 6

**Project:** Install Guardrail for Security

**Type:** Restoration-Use/Access

**Proposed By:** NYC Parks

**Contingent Upon:** Proposal 12, Purchase of In-Holding Private Land

**Description:** *[See Proposal 6-B]* *[See Proposal 6-A]* The acquired sites will be appropriately guardrailed to secure perimeter control against dumping.

**Estimated Cost:** Not Given.

## **Proposal 7-A**

**Site:** Four Sparrow Marsh

**Map Number:** 7

**Project:** Transfer of Land from NYC EDC to Parks (Or Agreement on Protection)

**Type:** Acquisition-Easement/Transfer

**Proposed By:** NYC Parks Natural Resource Group (NRG) and DEP

**Description:** The site contains a 2/3 mile shoreline along Mill Basin, which feeds directly into Jamaica Bay, east of the Pennsylvania Avenue Landfill. The site, which is ecologically very similar to the landfill sites prior to their being filled, is utilized by a host of wading birds. There are mussel beds, numerous crab species, snails, and healthy shellfish and fish population. Nesting sharp-tailed sparrow, sea side sparrow, green backed heron, black crowned night heron, clapper rail and diamond back terrapin also use the site.

Of its total 73 acres, 30 acres are salt marsh, among the most pristine in the City. The remaining 43 acres are landfilled upland, unregulated by the State, because of elevation greater than ten feet above mean high tide. Though unprotected, the uplands are an important buffer for the marsh. If developed, structures and pavement would interfere with percolation of water through the soil and into the marsh, upsetting the balance of fresh and salt water. EDC plans to extend Flatbush Ave. commercial strip here and has plans to build condos on the uplands. In preliminary meetings, EDC has agreed to protect the upland wooded area. The site, currently in EDC jurisdiction would be transferred to Parks pending proposed buffer enhancements and restoration. Block 8591 - 100, part of 125. *[See Proposal 7-B]*

**Estimated Cost:** Inter-Agency Transfer

## **Proposal 7-B**

**Site:** Four Sparrow Marsh

**Map Number:** 7

**Project:** Woodland/Shrub Plantings for Erosion Control and Installing a Protective Guardrail

**Type:** Restoration-Use/Access Enhancement, Habitat Alteration

**Proposed By:** NYC Parks

**Contingent Upon:** Proposal 14, Transfer of Land from NYC EDC to Parks (Or Agreement)

**Description:** *[See Proposal 7-A]*

NRG conducted an ecological assessment. Our proposal calls for woodland and shrub buffer plantings to filter potential runoff from proposed commercial development. The site would also require guardrail to secure it from dumping. In order to enhance wetland functioning, a connecting culvert may need to be retro-fitted.

**Estimated Cost:** \$350,000

## **Proposal 8**

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**Site:** Long Pond, Staten Island

**Map Number:** 23

**Project:** Purchase Privately Held Parcels

**Type:** Acquisition-Purchase

**Proposed By:** NYC Parks and DEP

**Description:** We propose that \$1.5 million be used to purchase two large privately held parcels -- those at Long Pond, threatened by development and the 4.3 acre Butler Manor land, south of Hylan Boulevard. The Tax Lots for Butler Manor include Block 7710, Lot 400. The Tax Lots for Long Pond include: Block 7744, Lots 1, 2, 50, 60, and 115. (315,700 square ft.) and Block 7740, Lot 1, 100, 150, 200, and Block 7741, Lots 1 and 68. NRG has conducted a detailed natural resources inventory of the site. *[See also Proposal 9]*

**Estimated Cost:** (\$1.5 million with Proposal 9)

## **Proposal 9**

---

**Site:** Butler Manor, Staten Island

**Map Number:** 23

**Project:** Purchase Privately Held Parcels

**Type:** Acquisition-Purchase

**Proposed By:** NYC Parks and DEP

**Description:** We propose that \$1.5 million be used to purchase two large privately held parcels -- those at Long Pond, threatened by development and the 4.3 acre Butler Manor land, south of Hylan Boulevard. The Tax Lots for Butler Manor include Block 7710, Lot 400. The Tax Lots for Long Pond include: Block 7744, Lots 1, 2, 50, 60, and 115. (315,700 square ft.) and Block 7740, Lot 1, 100, 150, 200, and Block 7741, Lots 1 and 68. NRG has conducted a detailed natural resources inventory of the site. *[See also Proposal 8]*

**Estimated Cost:** (\$1.5 million with Proposal 8)

## **Proposal 10**

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**Site:** Pelham Bay Lagoon, Bronx

**Map Number:** 24

**Project:** Intertidal Wetland Restoration

**Type:** Restoration-Habitat Alteration

**Proposed By:** NYC Parks

**Description:** Intertidal wetland restoration will improve one-thousand feet of shoreline in Pelham Bay Park for erosion control and habitat restoration. The Pelham Bay Lagoon area,

located just north of the Pelham Bay Landfill, supports 26.29 acres of vegetated tidal wetland, extensive mudflats and an upland buffer of native woodlands and shrubs. Lagoon edges that have been filled in the past are now covered with Phragmites, evidence of the lack of tidal flushing. Improvements to the remaining marshland will protect and enlarge the habitat available to migrating and resident wildlife.

The proposal has several parts. First, a barrier must be created to dissipate the wave action. This could be achieved by constructing an "atoll". This restoration would require regrading the shoreline, and placement of fines, possibly the spoil from other Parks restorations, to provide appropriate growing conditions for *Spartina alterniflora*, which will hold the fines in place. This design approach provides two intertidal zones in the enclosed water space between the atoll and the shoreline. The GAIA Institute has worked on design of this project in coordination with NRG and the Pelham Bay Park Administrators office.

**Estimated Cost:** \$400,000

## **Proposal 11**

**Site:** Twin Island Marsh, Bronx

**Map Number:** 24

**Project:** Restoring Tidal Inundation with Culverts

**Type:** Restoration-Functional

**Proposed By:** NYC Parks

**Description:** This restoration involves restoring tidal flow and re-creation of salt marsh that existed prior to the construction of Orchard Beach, less than one-half mile from the landfill. Additional planting of salt marsh vegetation will stabilize this newly created site, and displace Phragmites monoculture.

In thriving salt marsh, outside of the carriage road dike, egrets and herons wade and fish at low tide; ducks congregate in the small bay during higher tides. Tidal flushing has been eliminated for more than fifty years and the former salt marsh is now filling in with Phragmites. A sustainable ecosystem will be established by restoring tidal inundation, installing culverts beneath the carriage road.

A site survey has been completed and a consultant hired to design the restoration. Excavated material will be stored within the Park, perhaps used in the shoreline stabilization and salt marsh restoration at the Lagoon. Nearly one-half of the \$250,000 necessary to complete this project has already been awarded to Parks by NYS DEC (1972 EQBA). The project is currently on-hold, awaiting further funding.

**Estimated Cost:** \$140,000

**Additional Funding:** approx. \$110,000 in EQBA funds from NYS DEC

## **Proposal 12**

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**Site:** Turtle Cove, Bronx

**Map Number:** 24

**Project:** Restore Tidal Flushing - Bank Regrading

**Type:** Restoration-Functional

**Proposed By:** NYC Parks

**Description:** Tidal flushing will be restored through bank regrading and breaching an old dike near Glover's rock. Salt marsh vegetation will be planted to accelerate establishment.

Turtle Cove is rimmed by a band of salt marsh bordered by Phragmites, evidence of mosquito control ditching earlier in the century. The upland forest contains uncommon swamp white oak and persimmon. Sesame grass, rare in New York State, dominates a small meadow on the east side of the cove. Regrading to reestablish salt marsh will provide extensive habitat for intertidal species and the wildlife who depend on them.

**Estimated Cost:** \$500,000

## **Proposal 13**

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**Site:** Jamaica Bay /

**Map Number:**

**Project:** Artificial Reef

**Type:** Replacement-Reef

**Proposed By:** DEC Division of Marine Resources

**Description:** Placing an artificial reef in an area of Jamaica Bay where the water is relatively deep would provide habitat for recreational fish species which prefer a rocky/hard bottom.

Further evaluation of possible sites needs to be done.

**Estimated Cost:** Not Given

## **Proposal 14**

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**Site:** Jamaica Bay, Bronx, Staten Island

**Map Number:**

**Project:** Phragmites Management

**Type:** Restoration-Habitat Alteration

**Proposed By:** DEC Division of Marine Resources

**Description:** Restoring tidal flow and replacing *Phragmites* dominated habitat with *Spartina alterniflora*, high marsh, and shrub species will increase ecological productivity in these areas. This project will enhance habitat for a variety of biota including birds, marine vertebrates and

invertebrates. The benefits are an increase in all of the functions and values of wetlands and vegetated buffers such as pollutant filtering and primary productivity.

This project would involve selecting areas currently dominated by *Phragmites* and attempt to eradicate or limit the spread of this nuisance species. Activities would include physical alteration of the existing contours and the removal of plant stock. Fencing of these areas would be required to prevent future illegal filling once the area has been restored.

**Estimated Cost:** \$650,000 for five acres

Fill Removal and Disposal	3 ft fill X 5 acres @ \$5/yd <sup>3</sup>	\$211,000
Fencing--Labor	50 days @ \$100/day	\$5,000
Fencing--Materials	5,000 feet @ \$11/foot	\$55,000
Warning Signs and Posts	30 signs @ \$81/each	\$2,430
Obstruction Removal	10 days @ \$2,000/day	\$20,000
Plant Material		
Grass Seeds	250,000 ft <sup>2</sup> @ \$15/five lbs	
		\$62,500
Small Shrubs	500 shrubs @ \$25/each	\$12,500
Small Trees	500 trees @ \$25/each	\$12,500
Fertilizer	7,500 lbs @ \$7/25 lbs	\$2,100
<i>Spartina</i> Transplants		\$100,000
Labor for Planting		\$163,350
		<hr/>
		\$646,380

## **Proposal 15**

**Site:** Ranger Road Bulkhead and Navy Pier

**Map Number:** 8

**Project:** Restore Fishing Access

**Type:** Restoration-Use/Access Enhancement

**Proposed By:** DEC Division of Marine Resources, Gateway National Recreation Area

**Description:** This project involves rehabilitation of a bulkhead adjacent to the old Navy Pier and the Pier itself, at Floyd Bennett Field. Recreational fishing is limited in Jamaica Bay, this project addresses this deficiency. Site is in the Gateway National Recreation Area and so would need US Parks cooperation. This is one of three similar projects proposed. [See Proposals 24, 25]

**Estimated Cost:** \$1,000,000



## **Proposal 16**

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**Site:** Jamaica Bay

**Project:** Restore Fishing Access

**Type:** Restoration-Use/Access Enhancement

**Proposed By:** New York City Department of Environmental Protection

**Description:** The New York City Department of City Planning is completing a comprehensive look at the needs for recreational fishing enhancement in the Bay area and has determined that more area is needed to restore and enhance the recreational use of Jamaica Bay. A number of sites are being considered, with varying capital expenditures needed. When this study is available, some of the projects may be appropriate for consideration.

**Estimated Cost:** Variable

## **Proposal 17**

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**Site:** Broad Channel

**Map Number:** 10

**Project:** Restore Interpretive Kiosk and Bathroom

**Type:** Restoration-Use/Access Enhancement

**Proposed By:** DEC Division of Marine Resources

**Description:** This project site is an area popular for fishing in Broad Channel and involves restoration of an interpretive center/kiosk and a bathroom. Recreational fishing is limited in Jamaica Bay, this project addresses this deficiency. Site is in the Gateway National Recreation Area and so would need US Parks cooperation. This is one of three similar projects proposed.

[See Proposals 23, 24]

**Estimated Cost:** \$74,000

## **Proposal 18**

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**Site:** Kennedy Airport Runway Extension at JoCo Marsh

**Map Number:** 11

**Project:** Install Culverts to Restore Tidal Flow

**Type:** Restoration

**Proposed By:** DEC Division of Marine Resources

**Description:** The Kennedy Airport runway extension effectively interrupts tidal flow for a significant part of Jamaica Bay. Placing culverts underneath the runway extension would restore this flow, better flushing a portion of the bay. Since the part of the bay in question is adjacent to the airport making it likely to be contaminated, and has been subject to extensive dredging in the past, the effects of adding culverts is not intuitively obvious and would require further study.

This project is a candidate for an ISTE A Enhancement Grant.

**Estimated Cost:** Not Given.

## **Proposal 19**

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**Site:** Jamaica Bay

**Project:** Access Enhancement/Control

**Type:** Restoration-Use/Access Enhancement

**Proposed By:** DEC Division of Marine Resources

**Description:** A major problem throughout Jamaica Bay is a lack of control on access to sensitive areas. The problems caused by this include illegal dumping (fill, toxic substances, garbage) and vehicular recreational traffic on fragile lands.

A comprehensive plan needs to be developed to address access problems. A list of appropriate access limiting strategies (guardrail, fences, etc.) needs to be developed along with a list of sites where implementation of these strategies is essential. In addition, increasing the number of controlled and appropriate access sites may help alleviate undesirable access.

**Estimated Cost:** Not Given.

## **Proposal 20**

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**Site:** Far Rockaway

**Map Number:** 12

**Project:** Piping Plover / Least Terns

**Type:** Restoration-Use/Access Enhancement

**Proposed By:** DEC Division of Fish and Wildlife

**Description:** The piping plover and least tern are both listed as New York State Endangered Species. The endangered status of these two species is largely due to increased human disturbance and habitat loss. Plovers and terns nest predominantly in areas of wide sand beaches and vegetated dunes.

DEC staff have identified nesting sites of plovers and terns on Far Rockaway. The project proposed is to design site specific activities (signs, fencing, etc.) for each site so as to protect the nesting adults and young.

**Estimated Cost:** Not Given.

## **Proposal 21**

**Site:** JFK Airport and other Jamaica Bay Sites

**Project:** Upland Sand Piper

**Type:** Replacement-Upland Habitat

**Proposed By:** DEC Division of Fish and Wildlife

**Description:** The upland sand piper is identified as a species of special concern by the State of New York. The species is found in short-grass fields, old pastures, and plains. Habitat alterations, such as conversion of grasslands to residential developments, have had an adverse impact on this species. Currently, the species persists in area that still maintain the necessary habitat requirements. This species has been a confirmed breeder at JFK Airport for several years.

Several sites may be appropriate for this project. In addition, grasslands habitat might be created on portions of the closed landfills. The project will determine if grassland species, such as the grassland sand piper, can be attracted to and establish on these restored habitats.

**Estimated Cost:** Not given.

## **Proposal 22**

**Site:** Unspecified

**Project:** Enhancement of Public Access and Educational Materials

**Type:** Restoration-Use/Access Enhancement

**Proposed By:** Gateway National Recreation Area

**Description:** Improvements may be made to access trails for wildlife watching, interpretive nature trails, and the Jamaica Bay Wildlife Refuge educational programs and materials. The goals is to channel use of Jamaica Bay toward more compatible and controlled activities.

**Estimated Cost:** Not Given.

## **Proposal 23**

**Site:** LILCO Property

**Map Number:** 13

**Project:** Purchase Parcel to Consolidate Holdings

**Type:** Acquisition-Purchase

**Proposed By:** NYC Department of Environmental Protection

**Description:** This property is Block 16166 lots 110, 177 (Queens) roughly bounded by Beach Channel Drive, Rockaway Blvd., Beach 108th Street and an extension of Beach 113 Street with some frontage on the water. This property abuts NYC DEP facilities and is adjacent to City Board of Education, Parks, and DGS properties.

**Estimated Cost:** Not Given.

## **Proposal 24**

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**Site:** Hook Creek

**Map Number:** 6

**Project:** Inter-Agency Transfer / Park Designation

**Type:** Acquisition-Transfer

**Proposed By:** Buffer the Bay Revisited-XIV

**Description:** A largely city-owned and extensive wetland is in need of full recognition and protection. The Hook Creek wetlands and immediately adjacent undeveloped uplands, whether private or city-owned, should be protected either through interagency transfer or acquisition and should receive official park designation.

**Estimated Cost:** Inter-Agency Transfer

## **Proposal 25**

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**Site:** Dubos Point

**Map Number:** 14

**Project:** Purchase Land

**Type:** Acquisition-Transfer

**Proposed By:** Buffer the Bay Revisited-X

**Description:** After the initial *Buffer the Bay* Report (1987) Dubos Point became the Dubos Point Wildlife Refuge, with the transfer of city land from NYC Housing Authority and Division of Real Property to the Parks Department and the acquisition of some private land. Additional private and city-owned lands should be acquired as buffer for the refuge and for Sommerville Basin.

**Estimated Cost:** Unknown

## **Proposal 26**

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**Site:** Paerdegat Basin

**Map Number:** 15

**Project:** Transfer Land to Parks and Protect

**Type:** Acquisition-Transfer

**Proposed By:** Buffer the Bay Revisited-II

**Description:** Beyond the natural wetland immediately north of Joseph Thomas McGuire Park, which is expected to be transferred to NYC Department of Parks and Recreation, the future of open space at Paerdegat Basin is uncertain. Alternative plans for the site are being investigated by

NYC DEP and the Economic Development Corporation. Protection and consolidation of all wetlands and adjacent undeveloped uplands at Paerdegat Basin are a high priority.

**Estimated Cost:** Inter-Agency Transfer

### **Proposal 27**

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**Site:** Hendrix Creek

**Map Number:** 16

**Project:** Inter-Agency Transfer

**Type:** Acquisition-Transfer

**Proposed By:** Buffer the Bay Revisited-IV

**Description:** The remaining shoreline open space at Hendrix Creek has been modified by filling and channelization but a rim of *Phragmites* wetland and mudflats persists. DEP facilities occupy much of the northern and western bank of the creek. Attention should be given to the protection and reclamation of the Hendrix Creek shoreline, in coordination with potential protective measures at the contiguous Vandalia Dunes area to the east.

**Estimated Cost:** Inter-Agency Transfer

### **Proposal 28**

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**Site:** Vandalia Dunes

**Map Number:** 17

**Project:** Purchase Land - Limit Development

**Type:** Acquisition

**Proposed By:** Buffer the Bay Revisited-V

**Description:** Extensive sand-filled uplands, which have been proposed as an urban renewal site, hold significant promise for restoration as a natural area, linking Buffer the Bay sites and inlets at Spring Creek and Hendrix Creek and in close proximity to the parklands of Fresh Creek and Gateway National Recreation Area. Represents a significant grassland habitat resource because of its large size, 230 acres, of which 120 acres is grassland or sandy dune. This property is under extreme development pressure.

**Estimated Cost:** Not Given.

### **Proposal 29**

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**Site:** Beach 90th Street

**Map Number:** 18

**Project:** Acquire Parcel

**Type:** Acquisition

**Proposed By:** Buffer the Bay Revisited-VII

NYC DEP and the Economic Development Corporation. Protection and consolidation of all wetlands and adjacent undeveloped uplands at Paerdegat Basin are a high priority.

**Estimated Cost:** Inter-Agency Transfer

### **Proposal 27**

---

**Site:** Hendrix Creek

**Map Number:** 16

**Project:** Inter-Agency Transfer

**Type:** Acquisition-Transfer

**Proposed By:** Buffer the Bay Revisited-IV

**Description:** The remaining shoreline open space at Hendrix Creek has been modified by filling and channelization but a rim of *Phragmites* wetland and mudflats persists. DEP facilities occupy much of the northern and western bank of the creek. Attention should be given to the protection and reclamation of the Hendrix Creek shoreline, in coordination with potential protective measures at the contiguous Vandalia Dunes area to the east.

**Estimated Cost:** Inter-Agency Transfer

### **Proposal 28**

---

**Site:** Vandalia Dunes

**Map Number:** 17

**Project:** Purchase Land - Limit Development

**Type:** Acquisition

**Proposed By:** Buffer the Bay Revisited-V

**Description:** Extensive sand-filled uplands, which have been proposed as an urban renewal site, hold significant promise for restoration as a natural area, linking Buffer the Bay sites and inlets at Spring Creek and Hendrix Creek and in close proximity to the parklands of Fresh Creek and Gateway National Recreation Area. Represents a significant grassland habitat resource because of its large size, 230 acres, of which 120 acres is grassland or sandy dune. This property is under extreme development pressure.

**Estimated Cost:** Not Given.

### **Proposal 29**

---

**Site:** Beach 90th Street

**Map Number:** 18

**Project:** Acquire Parcel

**Type:** Acquisition

**Proposed By:** Buffer the Bay Revisited-VII

### **Proposal 33**

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**Site:** Norton Peninsula

**Map Number:** 22

**Project:** Transfer and/or Open Space Easements and Acquisition

**Type:** Acquisition

**Proposed By:** Buffer the Bay Revisited-XII

**Description:** Despite fragmentation patterns of ownership and jurisdiction, the perimeter of Norton Peninsula and adjacent shorelines harbor potential open space under HPD plans for the Edgemere Urban Renewal Area.

**Estimated Cost:** Not Given.

### **Proposal 34**

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**Site:** Jamaica Bay

**Project:** Plant Submerged Aquatic Vegetation

**Type:** Restoration

**Proposed By:** DEC Division of Marine Resources

**Description:** Submerged aquatic vegetation such as eel grass once existed in Jamaica Bay. These plants provide an important habitat because..... These plants do not survive well in the current environmental status of the Bay. They suffer in the presence of high turbidity, ..... Restoration requires the presence of existing habitat to expand upon. The lack thereof in Jamaica Bay makes restoration at this time very difficult. This type of project may have to wait until the water quality of Jamaica Bay improves sufficiently.

**Estimated Cost:** Not Given.

### **Proposal 35**

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**Site:** Grassy Bay, Jamaica Bay

**Map Number:** 35

**Project:** Rehabilitate Dredging Site

**Type:** Restoration

**Proposed By:** DEC Division of Marine Resources

**Description:** Grassy Bay was dredged to provide material to fill wetlands for a portion of JFK Airport. The bottom is largely "dead," supporting little in the way of plant or animal life and highly contaminated with a variety of toxic substances. Several proposals have been made to "cap" the toxic sediments, sealing them off and then raising the level of the bottom to provide a shallow habitat for plants and animals. Due to the nature of the problem other funds may be available for this projects including those from the Port Authority, Army Corps of Engineers, and

NYC DEP Watershed Plan. The status of these options should be determined before proceeding.  
**Estimated Cost:** Not Given.

### **Proposal 36**

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**Site:** Seagirt Ave., Jamaica Bay

**Map Number:** 36

**Project:** Purchase Parcels Containing Tidal Wetlands

**Type:** Acquisition-Purchase

**Proposed By:** New York City Department of Environmental Protection

**Description:** This area is bounded by Seagirt Blvd., Seagirt Ave., Beach 9th Street, and the roadway leading to the Atlantic Beach bridge (Doughty Blvd.). This tidal wetland area contains open water with Spartina islands and fringes. It is used by many birds such as egrets and kingfishers. Other than some weedy invasion of the upland edge there is little human disturbance.  
**Estimated Cost:** Not Given.

### **Proposal 37**

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**Site:** Palmer's Inlet, Eastchester Bay

**Map Number:** 27

**Project:** Purchase of Parcels to Protect Access to Historic Fish Weir

**Type:** Acquisition-Purchase

**Proposed By:** New York City Department of Environmental Protection

**Description:** This area is a natural sheltered inlet of Eastchester Bay which contains salt marsh, rocky shoreline, and open water. At the mouth of the creek, visible at low tide is an historic Indian fish weir. The upland area around the inlet is developed with single family residences except for the prominent land form which juts out into the Bay on the north side of the Inlet. This vacant parcel, which includes a mapped but unbuilt street, is privately owned. It is vegetated with trees, shrubs, and grasses and affords an extraordinary view of the Eastchester Bay to Long Island Sound. Along with the New York City street ownership and an abutting sewer easement, purchase of the property would consolidate public ownership of this natural area.  
**Estimated Cost:** Not Given.

### **Proposal 38**

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**Site:** Pugsley Creek, Eastchester Bay

**Map Number:** 28

**Project:** Purchase of Parcels or Easements to Consolidate Holdings

**Type:** Acquisition-Purchase, Easement

**Proposed By:** New York City Department of Environmental Protection



**Description:** Pugsley Creek is an intertidal inlet of the East River just south of Westchester Creek and the Whitestone Bridge. The majority of the shoreline supports intertidal marsh with several areas of high marsh dominated by *Spartina patens* and *Salicornia*. The upland areas are vegetated with a range of meadow areas, shrub, and thickets with some dense wooded area. Wading bird use is high. Local environmental groups have carried out numerous vegetation restoration programs and clean-up efforts. there is a large, privately held parcel, formerly part of the YMCA which fragments the continuous Department of Parks holdings around the Creek. the purchase of this parcel or the establishment of a conservation easement would consolidate the wetlands area and management.

**Estimated Cost:** Not Given.

## **Proposal 39**

**Site:** City Island, Eastchester Bay

**Map Number:** 29

**Project:** Purchase of Land Parcels

**Type:** Acquisition-Purchase

**Proposed By:** New York City Department of Environmental Protection

**Description:** From the western end of Ditmars Street to Tier Street, between Hunter Avenue to 100 feet from the western coast is a special example of an intertidal marsh with an upland and transition zone. Approximately 16 acres of wooded and shrub/thicket are grades down to a thriving salt marsh which is frequently used by many shore birds. This area is bounded by publicly woned shoreline and two street ends. It is the largest undeveloped space in the tightly packed marine island community.

**Estimated Cost:** Not Given.

## **Proposal 40**

**Site:** Harbor Herons & CSX Railline, Staten Island

**Map Number:** 30

**Project:** Purchase of Parcels

**Type:** Acquisition-Purchase

**Proposed By:** NYC Audubon Society

**Description:** Purchase of land parcels with on-site restoration. More information needed on this proposal.

**Estimated Cost:** Not Given.

### **Proposal 41**

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**Site:** Pelham Bay Park, Bronx

**Map Number:** 24

**Project:** Removal of concrete from shoreline

**Type:** Restoration

**Proposed By:** NYC Audubon Society

**Description:** Removal of concrete from the shoreline restoring it to its natural rocky state and general restoration of landscape in southern zone of Pelham Bay Park

**Estimated Cost:** Not Given

### **Proposal 42**

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**Site:** Pelham Bay Park and Ferry Pt. Park

**Map Number:** 24

**Project:** Grasslands Management

**Type:** Restoration-Habitat Alteration

**Proposed By:** NYC Audubon Society

**Description:** Management of grasslands habitat in the uplands adjacent to the shore and wetlands.

**Estimated Cost:** Not Given.

### **Proposal 43**

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**Site:** Greenwich Property, Bayswater Park

**Map Number:** 33

**Project:** Intern Center

**Type:** Restoration-Use/Access

**Proposed By:** NYC Audubon Society

**Description:** Build and outfit a center for a staff of student interns working on restoration and research projects.

**Estimated Cost:** Not Given.

## **Proposal 44**

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**Site:** All Three Areas

**Project:** Research/Educational Boat

**Type:** Restoration-Use/Access Enhancement

**Proposed By:** NYC Audubon Society

**Description:** This proposal entails the purchase of a boat and then outfitting it for educational and scientific purposes.

**Estimated Cost:** Not Given.

## **Proposal 45**

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**Site:** Breezy Point, Jamaica Bay

**Map Number:** 34

**Project:** Gull Control

**Type:** Restoration-Habitat Alteration

**Proposed By:** US Fish and Wildlife Service (Chuck Merckel)

**Contingent Upon:** Cooperation with Gateway National Recreation Area

**Description:** Gull populations have greatly expanded their historic range and abundance in response to increased food sources that man has inadvertently provided at municipal landfills and other locations. Both Black-backed Gulls and Herring Gulls have established nesting colonies on Breezy Point, which are continuing to expand. It is likely this territorial expansion was initially associated with the increase in food abundance at nearby landfills. These gull populations appear to be continuing their expansion despite the closure of local landfills. These gull colonies have apparently come into territorial conflict with Piping Plover nesting sites (and possibly with other species such as skimmer and terns). Since these gulls are known predators on the nests and young of these species their presence may be limiting the success of the local Piping Plover population which has experienced a recent decline (Piping Plover are a Federal threatened species).

The Service recommends that action be taken to manage the gull colonies on Breezy Point. The colonies should be displaced or eradicated in a manner so as not to interfere with the safety or breeding success of the Plovers or other breeding species of the area. The program should be conducted in conjunction with Proposal 20 which seeks to enhance the survivability of both Plovers and Terns. Monitoring of the success of this remedial measure should be included in the final proposal.

The National Park Service is already implementing gull management in this area, if additional funds or coordination of effort is needed, JBDA monies may be appropriate.

**Estimated Cost:** Dependent on management method chosen

## **Proposal 46**

**Site:** Jamaica Bay

**Project:** Rockaway/Gateway Greenway

**Type:** Restoration-Use/Access Enhancement

**Proposed By:** NYS Department of Environmental Conservation

**Description:** To provide matching funds for a project funded through an ISTEA enhancement grant. The total amount is \$1.25 million, with \$950,000 coming from Federal sources and \$300,000 from the Jamaica Bay Damages Account. This project involves the "design and construction of a Class 1 bike/pedestrian path on Cross Bay Blv. from 165th Street to the Cross Bay Blvd. Bridge and provide for signage and striping of the entire 20 miles of the Rockaway/Gateway Greenway." The Rockaway/Gateway Greenway is a proposed "urban greenway linking Gateway National Recreation Area's Brooklyn and Queens units with a bicycle/pedestrian path, providing both recreational and utilitarian uses."

**Note:** Quoted material from the Rockaway/Greenway Advisory Board Meeting of August 1993.

**Estimated Cost:** \$300,000

## **Proposal 47**

**Site:** Various Sites in Jamaica Bay

**Project:** Restore Upland Grasslands

**Type:** Restoration-Habitat

**Proposed By:** NYS DEC

**Description:** Several sites were originally suggested as possible mitigation sites for the habitat which would be destroyed by the Gateway Estates project. The sites include Marine Park East, Spring Creek Park, Floyd Bennett Field, and JFK West.

**Estimated Cost:** N/A

## **Proposal 48**

**Site:** Bronx River

**Project:** Expansion of Water Quality Monitoring

**Type:** Restoration-Use/Access

**Proposed By:** Bronx River Restoration Project

**Description:** Expansion of the current water quality monitoring program to include sampling for nitrates, phosphates, and coliform count, and to initiate sampling of riverbed sediment and sampling for benthic macroinvertebrates. Covered in the cost would be training of local Bronx youth in these scientific techniques.

Bronx River Restoration has technical assistance for these projects available through and Urban Resource Partnership (URP) contract from the US Department of Agriculture. Funds from the Jamaica Bay Damages Account will be used to implement the projects. All of these projects can be initiated starting in 1994 and continuing in 1995.

**Estimated Cost:** \$25,000

## **Proposal 49**

**Site:** Bronx River

**Project:** Shoreline Habitat Restoration for Soil Conservation

**Type:** Restoration-Habitat Restoration

**Proposed By:** Bronx River Restoration Project

**Description:** Planting for soil conservation along the river, including removal of intrusive exotic plants and replacement with native species; survey and mapping of plant life along the river; wetlands restoration in the estuarine section of the river; stabilization of eroding riverbanks. Covered in the cost would be expansion of the current Conservation Program with Bronx youth to help implement these projects.

Bronx River Restoration has technical assistance for these projects available through and Urban Resource Partnership (URP) contract from the US Department of Agriculture. Funds from the Jamaica Bay Damages Account will be used to implement the projects. All of these projects can be initiated starting in 1994 and continuing in 1995.

**Estimated Cost:** \$45,000

## **Proposal 50**

**Site:** Bronx

**Project:** Expand Community Education and Outreach Programs

**Type:** Restoration-Use/Access

**Proposed By:** Bronx River Restoration Project

**Description:** Expand current community education and outreach programs for people of all ages, including environmental education with youth, to reach a larger number of people and more Bronx neighborhoods.

Bronx River Restoration has technical assistance for these projects available through and Urban Resource Partnership (URP) contract from the US Department of Agriculture. Funds from the Jamaica Bay Damages Account will be used to implement the projects. All of these projects can be initiated starting in 1994 and continuing in 1995.

**Estimated Cost:** \$25,000

## **Proposal 51**

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**Site:** Paw-Paw Woods

**Map Number:** 23

**Project:** Land Purchase

**Type:** Acquisition-Purchase

**Proposed By:** NYC Parks

**Description:** Paw-Paw Woods is in close proximity to Butler Manor located at the southwest corner of Hylan Blvd. on Page Avenue. Paw-Paw Woods contains the finest example of rare coastal oak barren containing white, black, red, and pin oak in addition to uncommon post, chestnut, blackjack, scrub oaks, and rare hybridized species including Quercus Rudkini and Quercus heterophylla (Bartram's Oak). The site also contains State endangered species such as bleeding heart (G5, S1), willow oak (G5, S1), and paw-paw (G5, S2), and a glorious hibiscus pond.

**Estimated Cost:** Not given.

## **Proposal (Blank Proposal Form)**

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**Site:**

**Map Number:**

**Project:**

**Type:**

**Proposed By:**

**Description:**

**Estimated Cost:**