Department of Environmental Conservation

Division of Marine Resources

Restoration of Natural Resources through the Jamaica Bay Damages Account

Reconnaissance Phase Report

September 30, 1994

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

Executive Summary

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

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

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."[1] *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.[2] 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,[3] 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,[4] 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

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

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

Proposal Number and Site Name		Description	Type	Location Map Number	
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

Proposal Number and Site Name		Description	Type	Location Map Number	
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

Proposal Number and Site Name		Description	Type	Location Map Number	
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

Proposal Number and Site Name		Description	Type	Location Map Number	
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

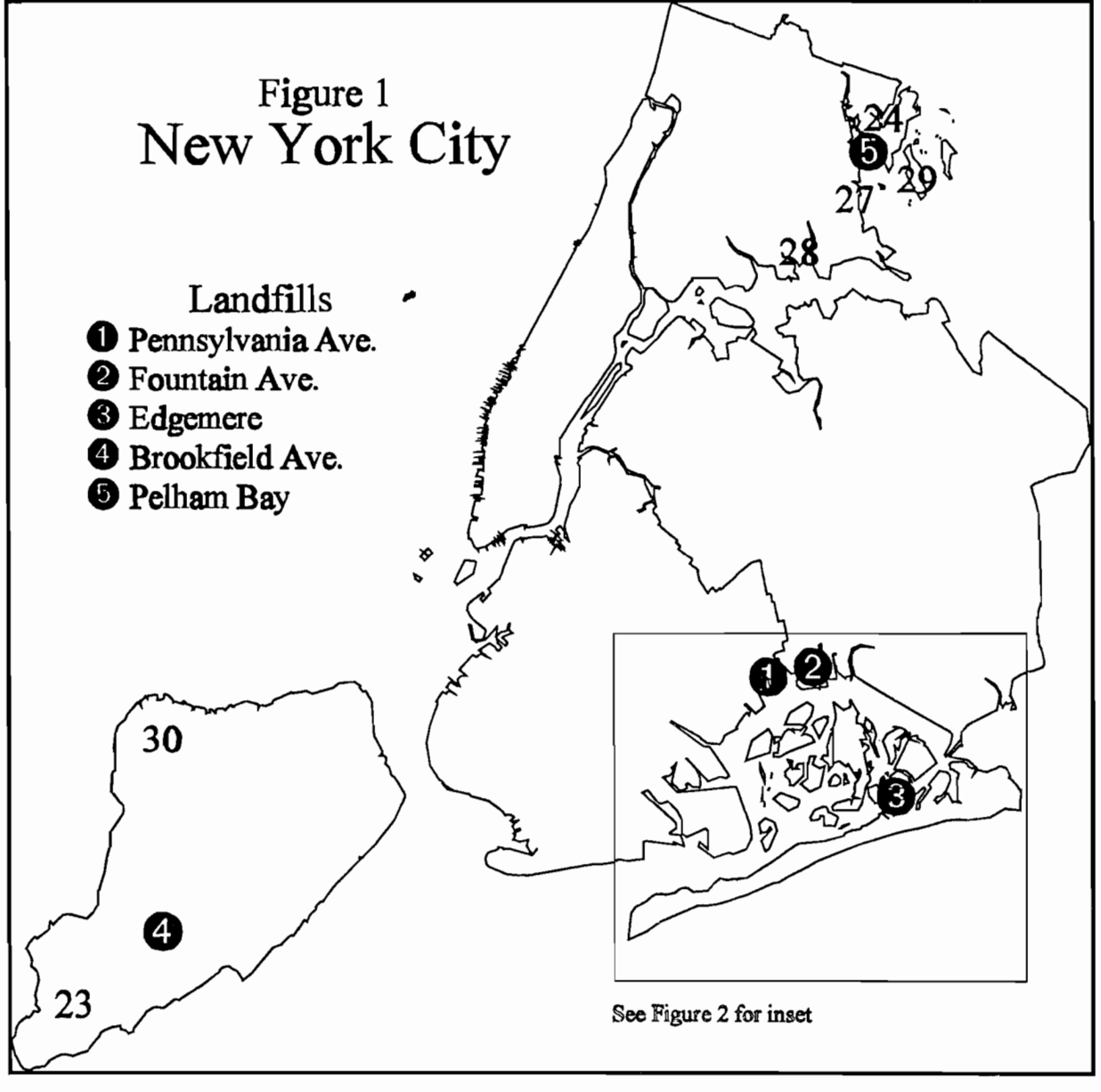
Figure 1
New York City
Landfills
1 Pennsylvania Ave.
2 Fountain Ave.
3 Edgemere
4 Brookfield Ave.
5 Pelham Bay
24
5
29
27
28
30
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23
1
2
3
See Figure 2 for inset

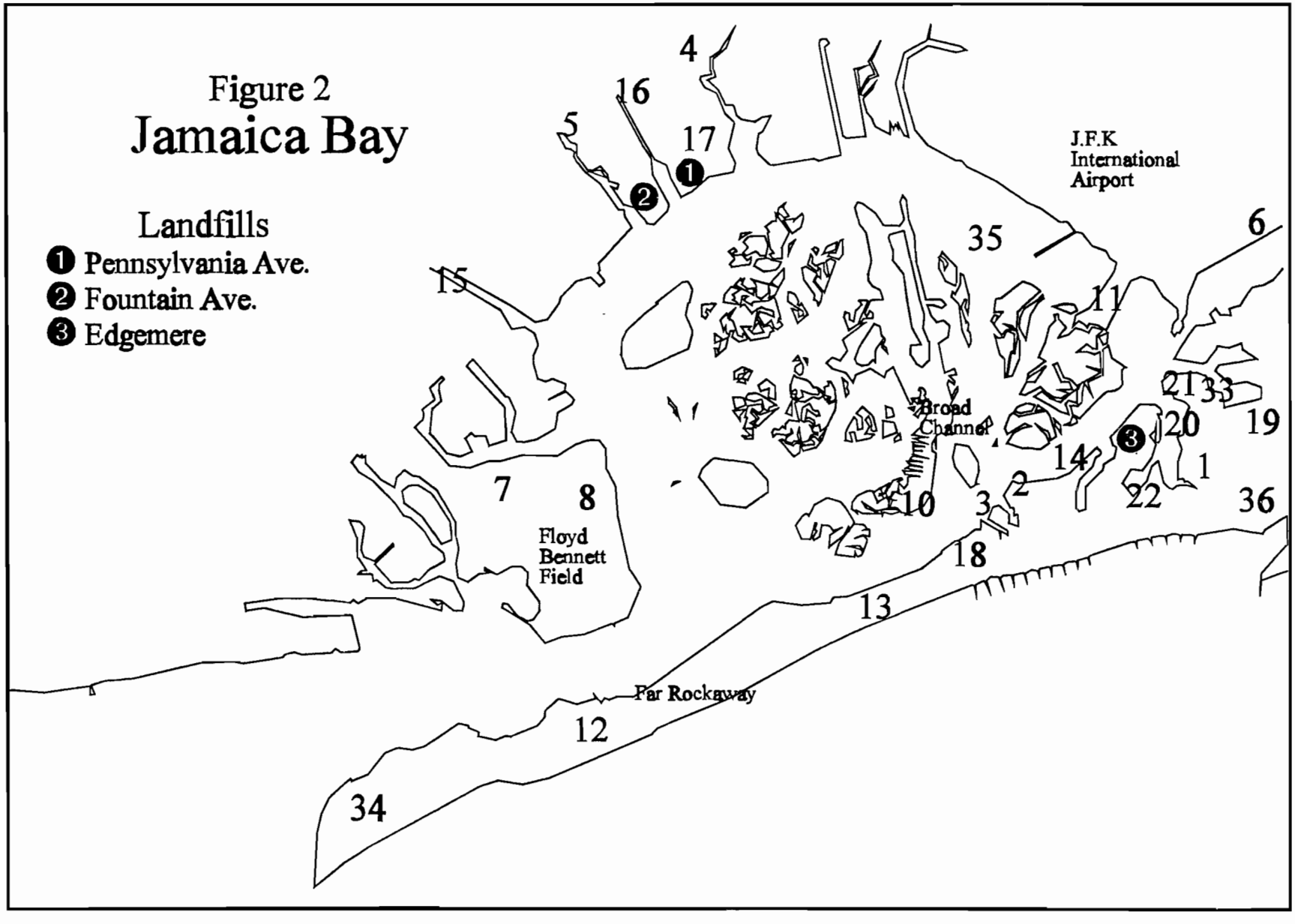
Figure 2
Jamaica Bay
Landfills
1 Pennsylvania Ave.
2 Fountain Ave.
3 Edgemere
J.F.K International Airport
Broad Channel
Floyd Bennett Field
Far Rockaway
4
16
5
17
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34

Preliminary Prioritization Criteria

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

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

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 other wise 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

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 neccessarily 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

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

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.