



# Natural Area Mapping and Inventory of Ferry Point Park 2011 Survey

Prepared by:



NYC Parks

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## **Ferry Point Park Natural Area Mapping & Inventory Surveyed 2011**

**413.80 acres**

### **Introduction**

The City of New York Parks & Recreation (Parks) manages one of the most extensive and varied parks systems of any city in the world. These 29,000 acres of city park property occupy about 15 percent of New York City's total area. In addition to flagship parks such as Central Park and Prospect Park, the city's parklands include over 11,000 acres of natural areas.

Until the 1980's, the Parks was primarily concerned with developed landscapes and recreation facilities rather than natural areas. In the absence of a comprehensive management policy, these areas succumbed to invasive species, pollution and erosion. In 1984, Parks established the Natural Resources Group (NRG) with a mandate to acquire, restore, and manage natural areas in New York City. The wetlands, forests, meadows, and shorelines under Parks' jurisdiction provide valuable habitat for hundreds of species, from rare wildflowers to endangered birds of prey. To facilitate the protection, management and restoration of natural areas, NRG began an inventory of parkland using entitation, a process of identifying and describing ecologically distinct plant communities (or entities).

### **Entitation**

Originally designed for European landscapes, the system was revised by NRG in 1985 for use in urban parkland. This method of inventory was chosen because it is well suited to the patchy environments often found in urban areas. The focus of this type of survey is to break down a landscape into discrete, manageable units based primarily on dominant vegetation; each unit is described as an "entitation unit". Entitation units are defined using a weighted list of criteria. The following distinctions qualify entitation units:

- Vegetation cover type (e.g. closed forest, vineland, scrub)
- Dominant canopy vegetation (e.g. Norway maple, hickory, oak)
- Understory vegetation type (e.g. herbs, vines, shrubs)

Additional factors, such as topography, current use, environmental disturbance and soil condition (e.g. wet, moist, and dry) are also taken into account. Using aerial photographs and field reconnaissance, a landscape can be delineated and mapped into distinct ecological entities. These maps and descriptions will serve as baseline ecological data to conduct natural areas management.

### **Data Collection**

To prepare for fieldwork, mapping technicians examine aerial photographs and delineate areas of similar cover and create a strategy for on the ground surveys. In the field, boundaries are identified as described based on ground cover and vegetation types. For each unit, staff records the data listed above, current uses, environmental disturbances, historical indicators, community stability, and a narrative description of the area including management concerns and notable other species present.

Once collected, all of this data is then entered into a central entitation database. The field maps are then digitized in ArcGIS with the boundaries of each unit recreated and linked to the entitation database. Once the digital map and database are linked, maps can be created and

information can be queried quickly. The final step is to convert the unit map and descriptions into a final report format.

### **Ferry Point Park Overview**

The site, a former landfill, is located in the Bronx adjacent to the Whitestone Bridge and is bounded by the Hutchinson River Parkway, the East River, Schley Avenue, Emerson Avenue, and Balcom Avenue. With one and a half miles of waterfront, Ferry Point Park offers unparalleled views of the East River, the Manhattan skyline, and of the Whitestone and Throgs Neck Bridges. One of the park's great attractions is the vast recreation opportunities such as cricket, soccer and football fields, and picnic areas. A current capital project to build a golf course is underway on the eastern side of the park.

### **Park History**

Historically farmland, the original parcel of 171 acres first came under Parks jurisdiction in 1937. It was purchased by the city in proceedings for acquiring land for the Bronx-Whitestone Bridge. The parcel was called Old Ferry and was located at the confluence of Westchester Creek and the Baxter Creek Inlet (later filled). The park was named for the ferries that traveled between the Bronx and Queens from 1910 to 1939.

In 1948 an additional 72 acres were acquired by condemnation. Over the next eighteen years, the Department of Sanitation used Ferry Point Park as a municipal waste importation site. Fill operations ceased at Ferry Point East in the 1960s, and the site was covered and left to naturalize. The City recognized the potential afforded by the large, undeveloped tract and under Mayor Giuliani began planning for the remediation and reclamation of the fallow site. With the golf course, community and waterfront park, this former landfill will be remediated into recreational use.

### **Current Use**

With large expansive soccer fields, baseball diamonds and open lawns active recreation is frequent. The shorelines are often filled with fishermen and people out to get a glimpse of the New York City skyline. Large ornamental beech and oak trees offer shade along the rolling hills and small forest patches occur throughout the park offering unique habitat amidst the mostly landscaped park. Several recent forest restoration projects have been implemented yet some invasive species management and general park maintenance would improve the ecology of this park.

This inventory of Ferry Point Park was conducted in 2011 as part of NRG's long term commitment to inventorying and managing the natural areas of New York City parks. This ecological assessment of Ferry Point Park should be utilized as a tool to locate valuable and threatened areas and also serve as a baseline for measuring change over time. A total of 302 terrestrial acres were surveyed in the park with the majority of the park (212 acres) under construction.

### **Acknowledgements**

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# Ferry Point Park 2011 Entitation Bronx, NY



## Legend

Entitation Unit

0 240 480 960 1,440 1,920 Feet

**Unit:** 1 **Date of Visit:** 6/8/2011 **Species Changing:** No  
**Acreage:** 3.38 **Management Concern:** Yes **Community Structure Changing:** No  
**Classification:** IVA2i

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u> <u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Kentucky bluegrass	<5'	Yes	Sports	Soil
Deciduous	Cool season grass	<5'	No	Foot traffic	Dumping
Hemicryptophytes					Trash
Level					
Dry/Moist					

**Comments:**

This is an open sports field dominated by lawn grass and is located at the northern tip of the western section of the park. The sports field is made up of turfgrass and the surrounding area is bare with Kentucky bluegrass and other cool season grass. A stagnant pond exists on the west side and is full of mosquitoes. Phragmites borders the western edge of the unit and a landscaped woodland exists to the east. There is soil compaction and a large amount of trash scattered throughout.

**Unit:** 2 **Date of Visit:** 6/8/2011 **Species Changing:** No  
**Acreage:** 11.93 **Management Concern:** Yes **Community Structure Changing:** No  
**Classification:** IVA2i

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u> <u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Kentucky bluegrass	<5'	Yes	Picnic	Soil
Deciduous				Sports	Dumping
Hemicryptophytes				Foot traffic	Trash
Level					
Dry					

**Comments:**

This is a large open sports field including five soccer fields and two baseball diamonds. It has been mowed recently. It is dominated by Kentucky bluegrass and other cool season grass species. There is large amounts of trash throughout the unit. It is surrounded by a landscaped woodland unit. Other species present include clover and deer tounge.

**Unit:** 3                      **Date of Visit:** 6/8/2011                      **Species Changing:** No  
**Acreage:** 8.87              **Management Concern:** Yes                      **Community Structure Changing:** No  
**Classification:** IVA2i

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Kentucky bluegrass	<5'	Yes		Picnic	Soil
Deciduous	Clover, white	<5'	No		Sports	Dumping
Hemicryptophytes	Dandelion	<5'	No		Foot traffic	Trash
Level	Plantain, common	<5'	No			
Dry/Moist						

**Comments:**

This unit is a large open field without a designated sports area. It has been mowed recently and is actively used. It is dominated by Kentucky bluegrass. It is surrounded by landscaped woodland. Trash is scattered throughout.

**Unit:** 4                      **Date of Visit:** 6/8/2011                      **Species Changing:** No  
**Acreage:** 41.89              **Management Concern:** Yes                      **Community Structure Changing:** No  
**Classification:** IIB2a3

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Beech, blue	>30' & 5-	No	Road	Picnic	Soil
Deciduous	Oak, red	>30' & 5-	No	Fence	Campfire/	Dumping
Hemicryptophytes	Maple, red	>30' & 5-	No		Sports	Trash
Level	Oak, pin	>30' & 5-	No			
Dry/Moist	Sweetgum	>30' & 5-	No			
	Cool season grass	<5'	No			

**Comments:**

This unit is a landscaped woodland running north to south along the western section of the park. Major highway I-678 leading to the Throgs Neck Bridge is west of the unit. Many full crown mature landscaped trees are present with mowed grass in the understory. The area is used heavily for picnics and recreation. Large amounts of trash is present in this unit. The area is fenced off at the northern section. There are several paved footpaths that go through the unit. Other species include dandelion, clover, mugwort and crabgrass.

**Unit:** 5                      **Date of Visit:** 6/21/2011                      **Species Changing:** No  
**Acreage:** 2.11                      **Management Concern:** Yes                      **Community Structure Changing:** No  
**Classification:** VII1

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u> <u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Intertidal	Phragmites	<5'	Yes	Other: fishing	Dumping Trash
Deciduous	Mugwort	<5'	Yes		
Hydrophytes	Rush, saltmeadow	<5'	No		
Undulating	Pokeweed	<5' & 5-	No		
Moist	Big leaf marsh elder	<5'	No		

**Comments:**

This is an intertidal unit dominated by phragmites, mugwort, saltmeadow rush, pokeweed and big leaf marshelder. There is a significant amount of trash and dumping throughout the unit. This unit is bordered to the east by a sports field. Other species include populus spp. and eastern baccharis.

**Unit:** 6                      **Date of Visit:** 6/21/2011                      **Species Changing:** No  
**Acreage:** 0.92                      **Management Concern:** Yes                      **Community Structure Changing:** No  
**Classification:** IB2a4

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u> <u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Locust, black	5'-30'	Yes	Foot traffic	Soil Dumping Trash
Deciduous	Ailanthus	5'-30'	Yes		
Geophytes	Cottonwood, Eastern	5'-30'	No		
Level	Phragmites	<5'	Yes		
Moist	Mugwort	<5'	Yes		

**Comments:**

This unit is a closed forest dominated by black locust, Ailanthus and Eastern cottonwood and located at the northwest corner of the park and is bordered to the east by a parking area. It is a mostly invasive forest with a few Eastern cottonwoods. Phragmites is starting to invade the understory and mugwort and Oriental bittersweet are dominant. Management concern: trash and dumping.

**Unit:** 7                      **Date of Visit:** 6/21/2011                      **Species Changing:** No  
**Acreage:** 4.67              **Management Concern:** Yes                      **Community Structure Changing:** No  
**Classification:** IB2a3

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Cherry, black	5'-30'	No	Restoration	Picnic	Soil
Deciduous	Ailanthus	all	Yes		Campfire/	Dumping
Hemicryptophytes	Oak, black	>30' & 5-	No		Foot traffic	Trash
Level	Mulberry, white	>30'	Yes			
Moist	Locust, black	5'-30'	Yes			
	Mugwort	<5'	Yes			

**Comments:**

This is a closed forest patch on the west side of the park. It borders a phragmites unit and the East River on the west. This unit has a very invasive understory including mugwort, garlic mustard, multiflora rose, oriental bittersweet, and Ailanthus seedlings. The overstory is dense and dominated by black cherry, Ailanthus, black oak, white mulberry and black locust. Other trees include green ash, white oak, eastern cottonwood, Norway Maple, red maple, and black birch. Redbud was planted along the eastern edge. Many trails exist throughout this unit. There is an extreme amount of trash and dumping, partying, homeless camps, and human waste. Other species include smartweed, Virginia creeper, goldenrod, Japanese honeysuckle, poison ivy, phragmites, rubus, and milkweed.

**Unit:** 8                      **Date of Visit:** 6/21/2011                      **Species Changing:** No  
**Acreage:** 1.38              **Management Concern:** Yes                      **Community Structure Changing:** No  
**Classification:** VII1

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Intertidal	Phragmites	<5' & 5-	Yes		Sports	Dumping
Deciduous	Winged Sumac	<5' & 5-	No			Trash
Hydrophytes	Siltgrass	<5'	Yes			
Undulating						
Moist						

**Comments:**

This unit is bordered to the west by the East River and on the east by a closed forest. It is dominated by phragmites with sparse winged sumac and a few Eastern cottonwood and black locust. The understory is dominated by sparse grasses. This area is used for fishing. Management concern: trash.



**Unit:** 9                      **Date of Visit:** 6/21/2011                      **Species Changing:** No  
**Acreage:** 2.87                      **Management Concern:** Yes                      **Community Structure Changing:** No  
**Classification:** IVA3a4

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	<5' & 5-	Yes	Restoration		Dumping
Deciduous	Mugwort	<5'	Yes			Auto
Geophytes	Maple, red	5'-30'	No			Trash
Level						
Surface water						

**Comments:**

This unit surrounds a red maple swamp. There is a large patch of phragmites in standing water just west of the Throgs Neck Bridge and south of Lafayette Road. At the time of the survey this unit was wet and very hard to walk through. There are a few standing dead trees and large amounts of trash.

**Unit:** 10                      **Date of Visit:** 6/21/2011                      **Species Changing:** No  
**Acreage:** 4.27                      **Management Concern:** Yes                      **Community Structure Changing:** No  
**Classification:** IIB2a1

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Maple, red	all	No	Fence		Dumping
Deciduous	Beech, blue	>30' & 5-	No	Restoration		Trash
Phanerophytes	Ash, green	>30' & 5-	No			Vandalism
Level	Oak, swamp chestnut	<5' & 5-	No			
Wet	Mugwort	<5'	Yes			
	Sweetgum	5'-30'	No			

**Comments:**

This unit is west of the Whitestone bridge and is bordered by long phragmites strip. It contains wet depressions where there is standing water and also a reforestation area. Some areas are wet while others are full of mugwort in the understory. The reforestation site contains swamp white oak, dogwood spp., witchhazel, sumac, sweetgum, red oak, red maple, chestnut oak, pin oak, eastern red cedar, blackgum. There is trash littered throughout, signs of partying, litter, and vandalism. There are trees in standing water. Other species include sweet pepperbush siltgrass, willow oak, tulip tree, mugwort, green ash, Virginia creeper, pokeweed, porcelainberry, multiflora rose, garlic mustard, and oriental bittersweet.

**Unit:** 11      **Date of Visit:** 8/24/2011      **Species Changing:** Yes  
**Acreage:** 2.53      **Management Concern:** Yes      **Community Structure Changing:** Yes  
**Classification:** IVA2c

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Mugwort	<5' & 5-	Yes	Other	Construction	
Deciduous	Cottonwood, Eastern	all	Yes			
Hemicryptophytes						
Slope						
Dry						

**Comments:**

This unit is at the southeastern tip of the park and just south of construction site. It contains a large amount of cottonwood regeneration. The area is disturbed and covered with thick tall mugwort.

**Unit:** 12      **Date of Visit:** 8/24/2011      **Species Changing:** Yes  
**Acreage:** 4.16      **Management Concern:** Yes      **Community Structure Changing:** Yes  
**Classification:** IVB1b

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	<5' & 5-	Yes		Construction	
Deciduous	Mugwort	<5' & 5-	Yes			
Hemicryptophytes	Sumac, winged	5'-30'	No			
Slope						
Dry/Moist						

**Comments:**

This unit borders the southeastern edge of the construction site at the park. It borders the East River on the east and a dirt road/footpath on the west. This area is covered with tall phragmites with some sumac at the northern end.

**Unit:** 13      **Date of Visit:** 8/24/2011      **Species Changing:** Yes  
**Acreage:** 0.82      **Management Concern:** Yes      **Community Structure Changing:** Yes  
**Classification:** IX

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u> <u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Aquatic (fresh)				Construction	
Deciduous					
Hemicryptophytes					
Level					
Moist					

**Comments:**

This unit is a constructed pond within the capital project construction site at the park. The pond lined with plastic.

**Unit:** 14      **Date of Visit:** 8/24/2011      **Species Changing:** Yes  
**Acreage:** 212.33      **Management Concern:** Yes      **Community Structure Changing:** Yes  
**Classification:** IV2c

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u> <u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	5'-30'	Yes	Construction	
Deciduous	Mugwort	5'-30'	Yes		
Hemicryptophytes	Lamb's quarters	5'-30'	Yes		
Slope					
Dry					

**Comments:**

This unit is a large capital project construction site. It contains large patches of bare dirt where construction is taking place or large patches of tall invasive plant species. There are a few trees, mostly along the border, that are not doing very well including basswood, Eastern cottonwood, and winged sumac that declining. Other species include black locust, Eastern cottonwood, pokeweed, basswood, willowcrab apple, green ash, common juniper. The understory is dominated by a mix of invasive plants including mugwort, phragmites, smartweed, woodland sunflower, white wood aster, thistle, Ailanthus, honey locust, peppergrass, Queen Anne's lace, mugwort, white mulberry, Japanese hops, ragweed, Japanese knotweed, black cherry, sycamore maple, Oriental bittersweet, winged sumac, lamb's quarters and box elder.