

Natural Area Mapping and Inventory of Willowbrook Park 2009 - 2011 Survey



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Section I. Willowbrook Park Natural Area Mapping & Inventory

226 acres

Introduction

The City of New York Parks & Recreation (DPR) 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 DPR 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, the DPR 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 NRG's jurisdiction provide valuable habitat for hundreds of species, from rare wildflowers to endangered birds of prey. In addition to the goals mentioned above, NRG serves as a clearinghouse for technical research to aid in the protection and restoration of the city's natural resources.

With protected space for wildlife alongside its variety of recreational facilities, Willowbrook Park is one of Staten Island's most popular Greenbelt parks. Willowbrook Park offers a wonderful chance to escape into a more peaceful setting. Hikers explore its woods, while many species of birds take advantage of the five-acre lake to nest and eat. Willowbrook Park is part of Staten Island's 2800 acre Greenbelt, a collection of public and private properties, and one of the largest urban parks in the country; a flagship park of the New York City Parks system. The Greenbelt, established in 1984, links the large parks of Staten Island in a continuous band of green and open space through the center of the island and is managed by the DPR Greenbelt Administration and the Greenbelt Conservancy.

The Willowbrook neighborhood of Staten Island is mentioned in colonial records as early as 1683. Its many streams and waterways attracted early industrialists. By 1760, Willowbrook would boast of at least one sawmill and a number of factories producing metal tools. During the American Revolution, patriots of the Committee of Safety held their secret sessions in the area. Most industries closed in the early 20th century when development caused a drop in the water level. The original 105 acres of Willowbrook Park were acquired by the City from the Staten Island Water Supply in 1909 and assigned to DPR by the Sinking Fund on November 20, 1929. The second and third parcels of land that make up today's park came in 1939 and 1940 as part of land condemned for the Willowbrook Parkway extension which was never built. The Willowbrook neighborhood developed significantly following the opening of the Verrazano Narrows Bridge in 1964. Formerly a sparsely populated, watery landscape, the present-day Willowbrook neighborhood is home to a large number of one and two family housing developments. Additional parcels have been added over the years. There is evidence of settlement in the area such as low rock walls that mark old property boundaries, old culverts and evidence of roads now gone, and the occasional non-native tree planting.

Willowbrook Park, a combination of natural wilderness and recreational facilities, draws a variety of visitors, particularly in the summer months. The 226 acres of green offers a contrast to the bustling neighborhood and traffic-lined streets that surround it. The northern part of the park includes both natural areas and recreational areas, while the central and southern parts are natural. Among the recreational facilities are ball fields, tennis courts, a boathouse, a playground, a picnic area and an archery range. Willowbrook Lake, the first man-made

water body on Staten Island was constructed in 1932 by DPR Commissioner John J. O'Rourke. Once stocked with fish, the five acres are also a bird sanctuary. In 1989, the park received \$1.2 million worth of improvements, including six new tennis courts, gravel for the roads, and an asphalt pedestrian walkway providing handicapped access to the lake. A popular feature in the park is the Carousel for All Children, opened in May 1999. Designed by Gabriella Ward and Jonna Carmona-Graf, the carousel has 51 hand-created animals, and panels depicting Staten Island scenes. The carousel is completely accessible to children and adults with disabilities. Begun by citizen efforts in 1993, the greater part of the funds for the \$2,216,000 carousel project came from Borough President, Guy V. Molinari. The Greenbelt Conservancy raised an endowment for its maintenance, and operates the Carousel under a long-term concession agreement with DPR.

The natural features in Willowbrook Park include a large tract of lowland forest where tuliptrees (*Liriodendron tulipifera*), sweetgum (*Liquidambar styraciflua*) and red maples (*Acer rubrum*) proliferate in hardwood swamps. The White trail which starts in the north part of the park at Victory Boulevard and Morani Street, continues into the natural areas of the south where it crosses streams over wooden bridges and eventually leads to the boundary of the park at Forest Hill Road. A spur trail (Nature Trail) also parallels a part of the White Trail.

To the east of the park is the Staten Island Development Center, the 240-acre campus belonging to the College of Staten Island, a branch of the City University of New York and the New Springfield Little League. The busy thoroughfares of Forest Hill Road, Richmond Avenue and Victory Boulevard border the southern, western and northern boundaries respectively. Residences and businesses line parts of the west boundary and the southwest boundaries of the park, including homes and townhomes on Ashworth Ave. that are directly across from the park.

The Greenbelt Natural Resource Team (GNRT) oversees the development and implementation of ecologically based management practices throughout Willowbrook Park and the entire Staten Island Greenbelt to preserve the environmental integrity of the natural parkland. In 2009, to begin addressing the natural resource management and restoration needs of the Staten Island Greenbelt, an inventory of Willowbrook Park was conducted by GNRT with the assistance of a New York State Department of Environmental Conservation Urban and Community Forestry Grant and through the New York City Environmental Fund. GNRT utilized entitiation, a process of identifying and describing ecologically distinct plant communities, using aerial photographs and field reconnaissance. The plant communities were delineated into entitiation units, based on cover type, understory structure, species composition, and topography. Evidence of historical use, current use, environmental disturbance, and additional notes were also recorded for each unit. Entitiation of Willowbrook Park resulted in maps and a database that can be used to locate valuable and threatened areas, plan invasive species management, track future restoration efforts, and indicate possible capital improvement projects in and around the park. The maps and database also serve as a baseline for measuring change over time. Both maps and a report from the database are included in this survey report.

Entitation

Entitation is a type of plant community inventory well suited to the patchy environments often found in urban areas. Originally designed for European landscapes, the system was revised by NRG in 1985 for use in New York City's urban parklands. NRG has used entitation widely and successfully to facilitate acquisition and restoration decisions. Put simply, entitation is a process of breaking up a park into manageable parts called "entities" or "entitation units." Entitation units are defined using a weighted list of criteria. Distinction is based on:

- Cover type (e.g. closed forest, vineland, scrub)
- Canopy species composition
- Understory type (e.g. herbs, vines, shrubs),
- Understory species composition.
- Additional factors that define entitation units, such as topography and soil condition (e.g. wet, moist, dry) are recorded.

To prepare for fieldwork, GNRT examines aerial photographs and delineates areas of similar cover. The staff uses the aerial information to create a strategy for delineating entitation units in the area. In the field, boundaries are identified as described above. For each unit, staff records the data listed above, as well as current uses, environmental disturbances, historical indicators, community stability, and comments.

In Willowbrook Park, staff identified 180 discrete vegetation units. To date, both High Rock Park and Willowbrook Park have completed entitation inventories in the Greenbelt. High Rock Park was numbered Units 1 to 60, and Willowbrook Park begins with Unit #61, ending with Unit #240.

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Acknowledgements

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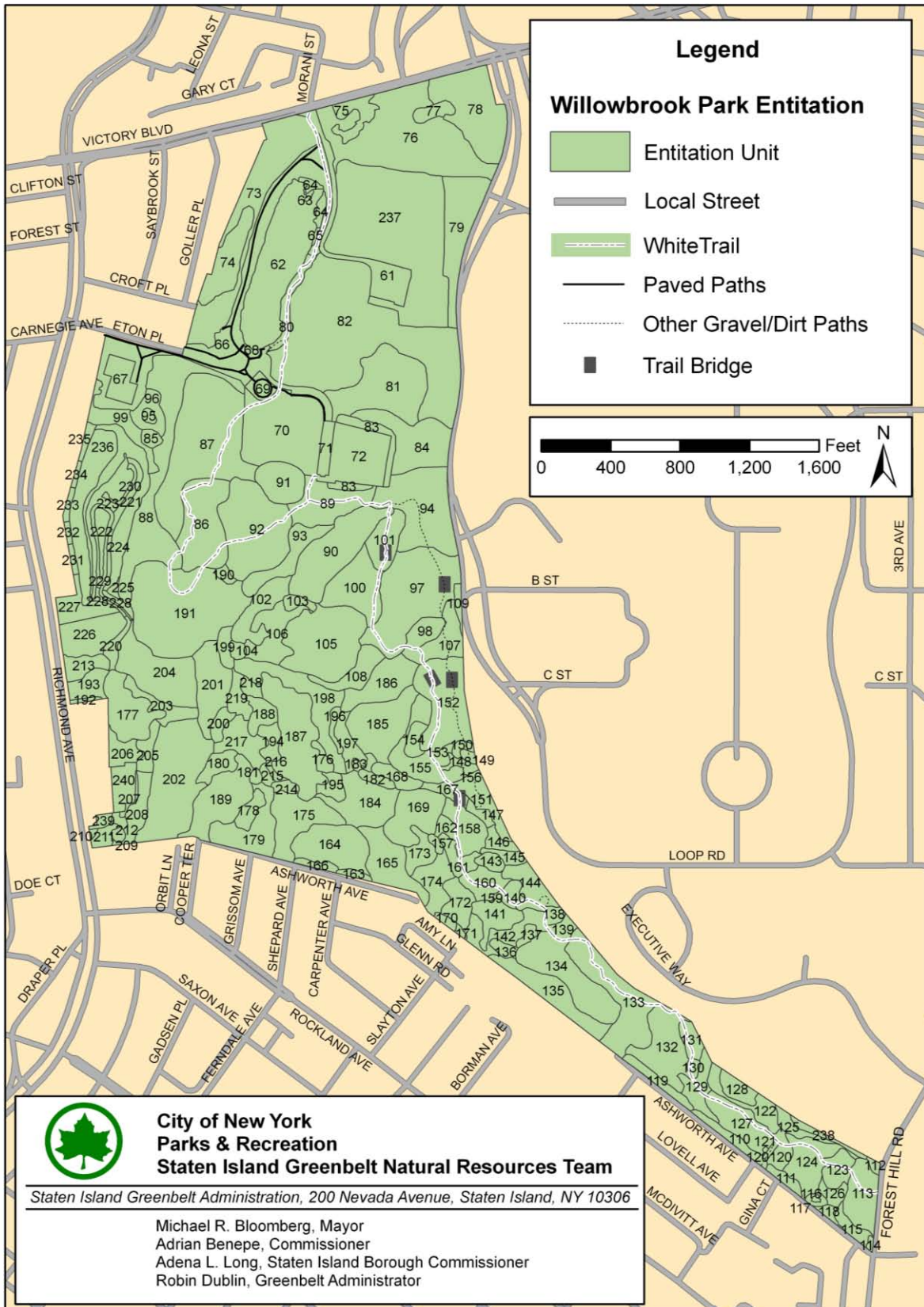
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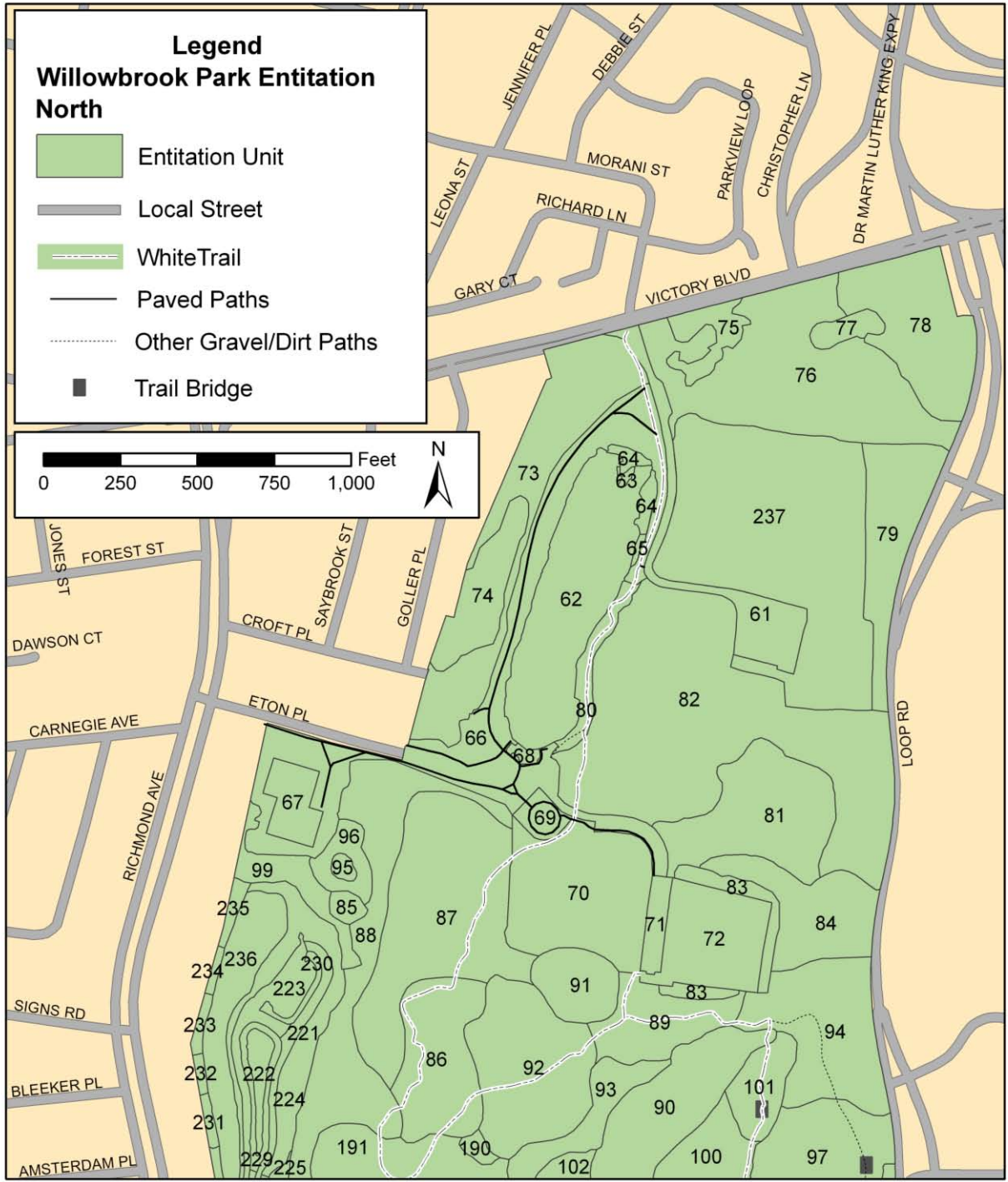
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Section II. Entitment Maps

Willowbrook Park Entitment



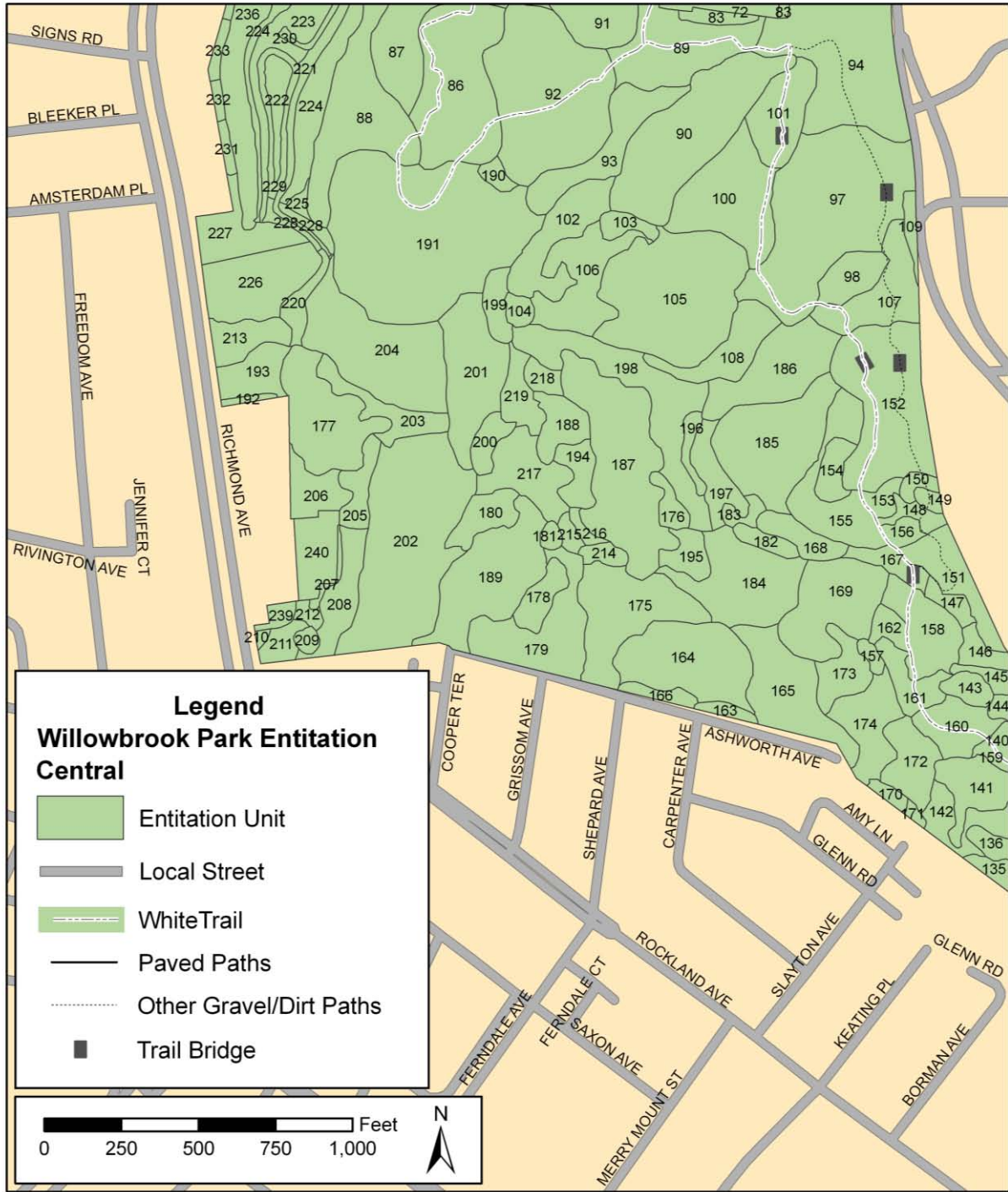


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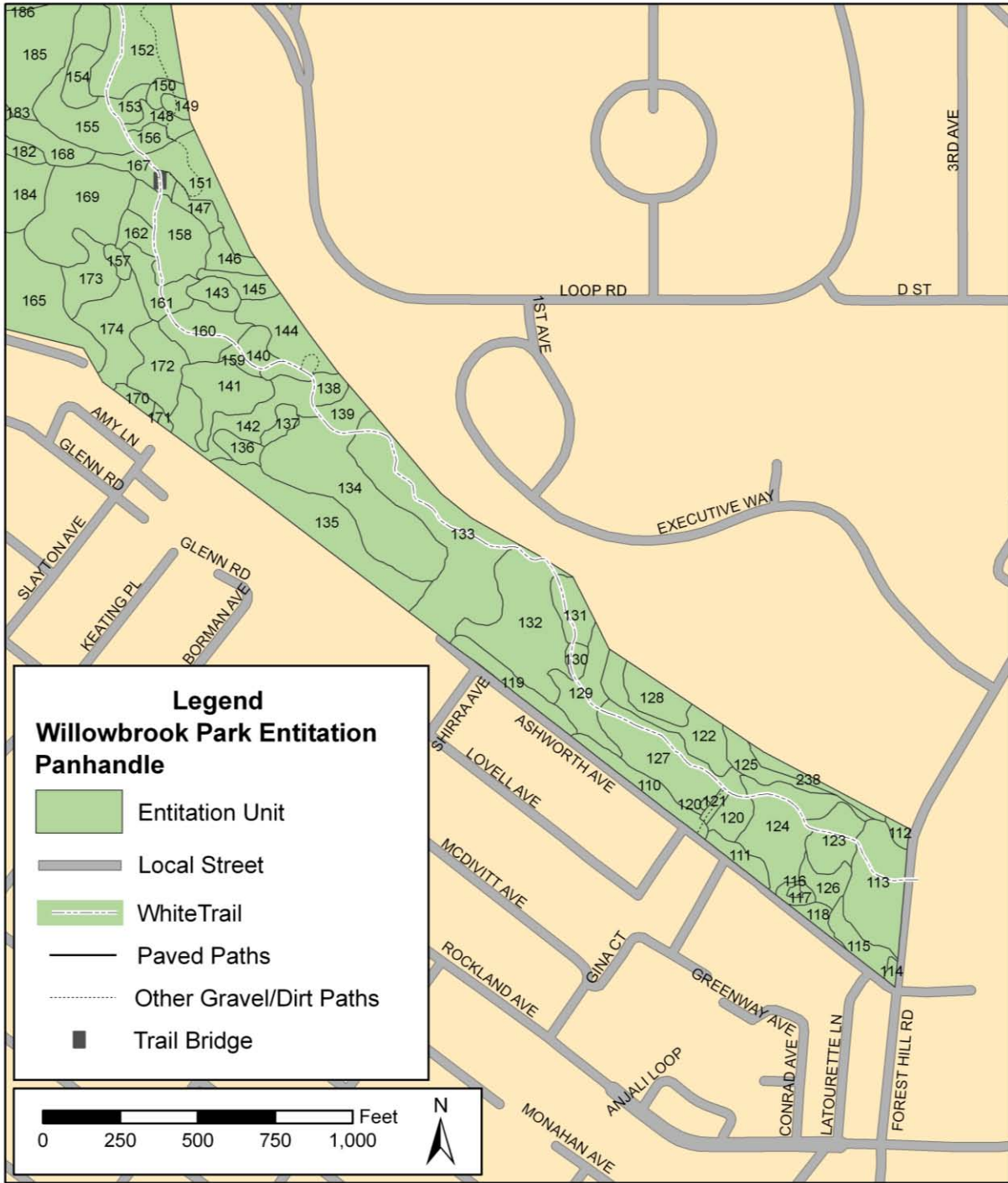
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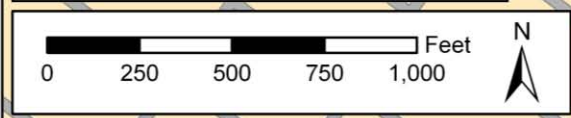

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Legend
Willowbrook Park Entitation Panhandle

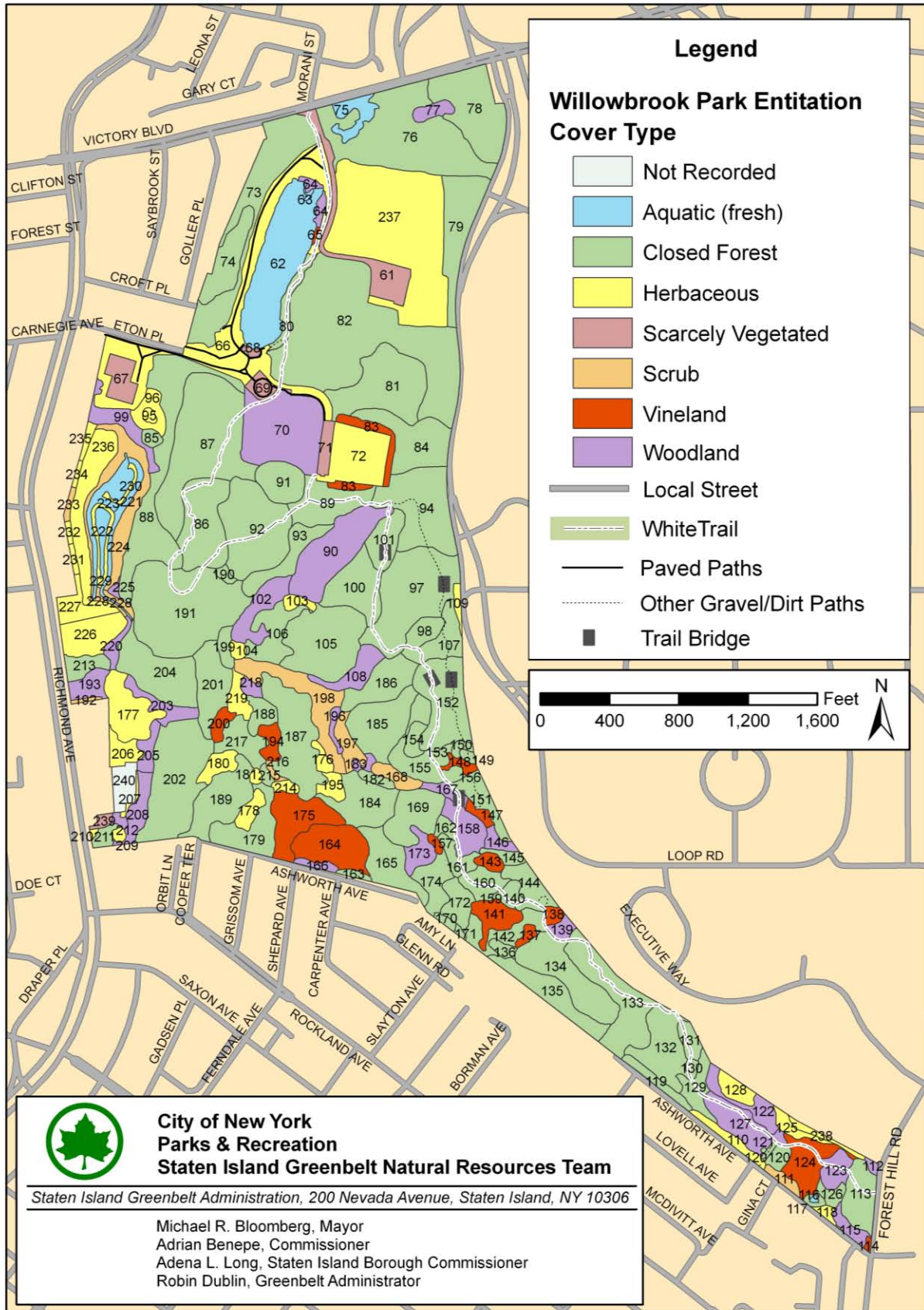
- Entitation Unit
- Local Street
- White Trail
- Paved Paths
- Other Gravel/Dirt Paths
- Trail Bridge

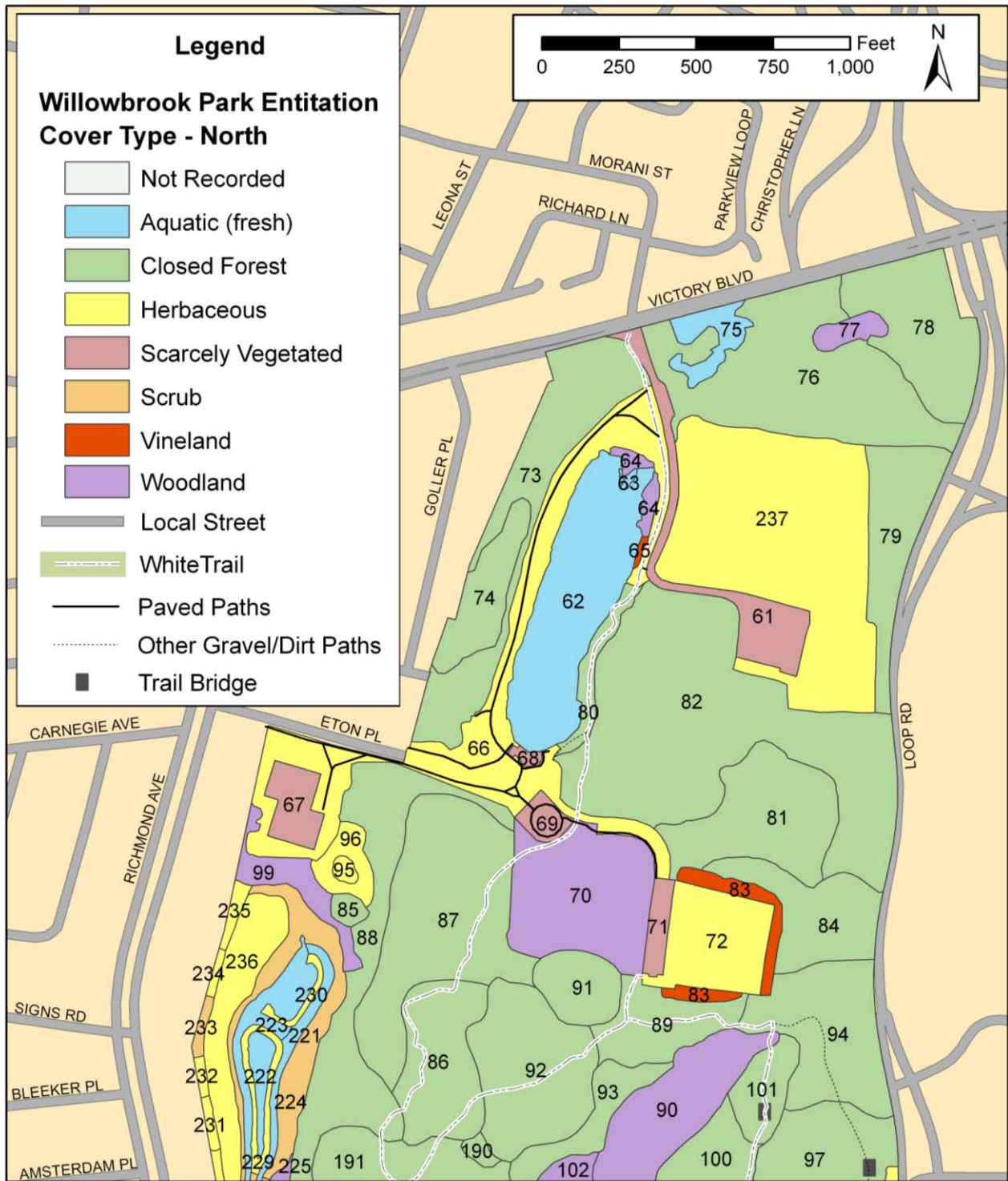



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Cover Type



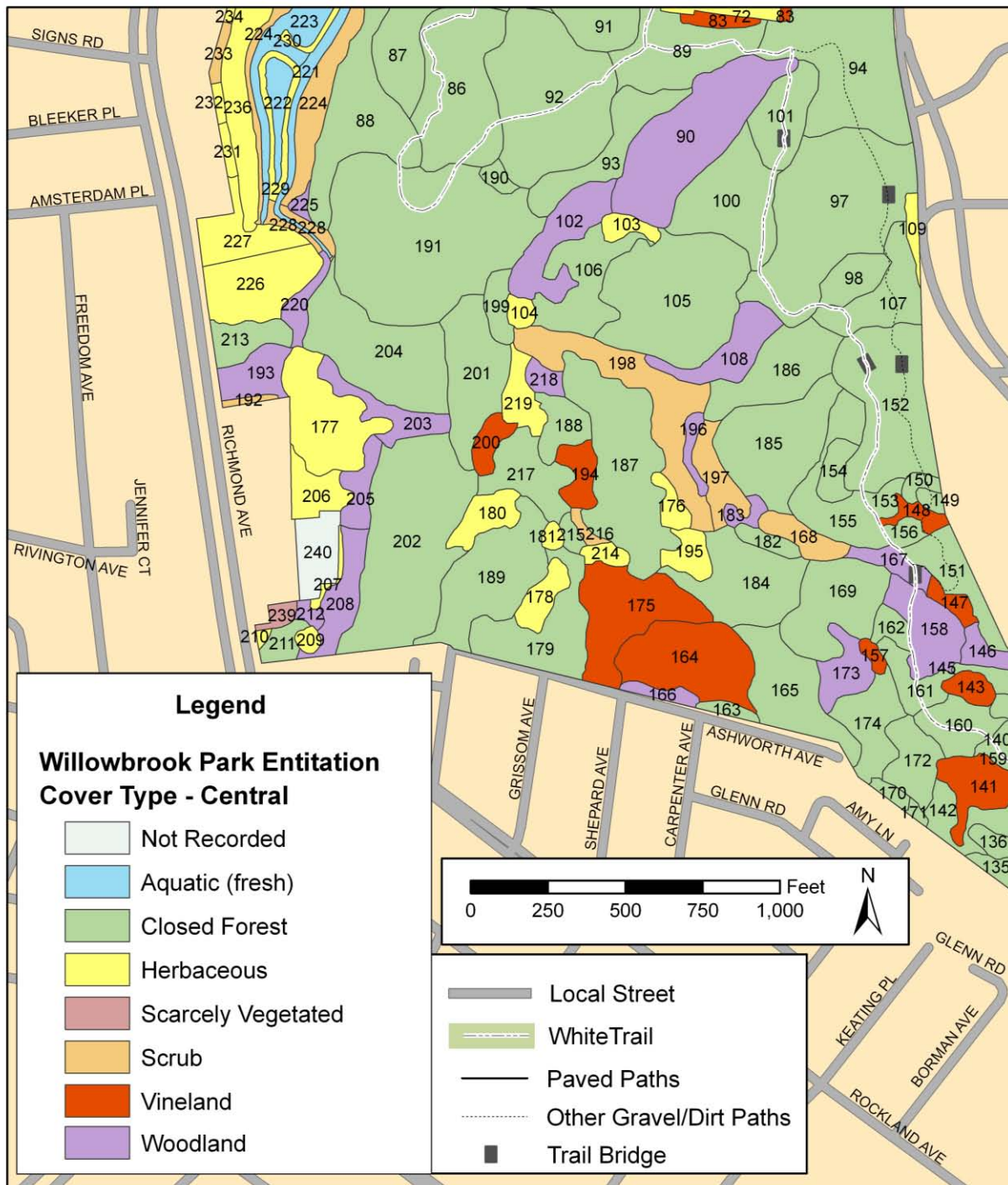


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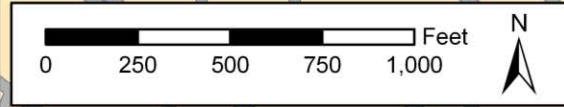





Legend

**Willowbrook Park Entitation
Cover Type - Central**

- Not Recorded
- Aquatic (fresh)
- Closed Forest
- Herbaceous
- Scarcely Vegetated
- Scrub
- Vineland
- Woodland



- Local Street
- White Trail
- Paved Paths
- Other Gravel/Dirt Paths
- Trail Bridge

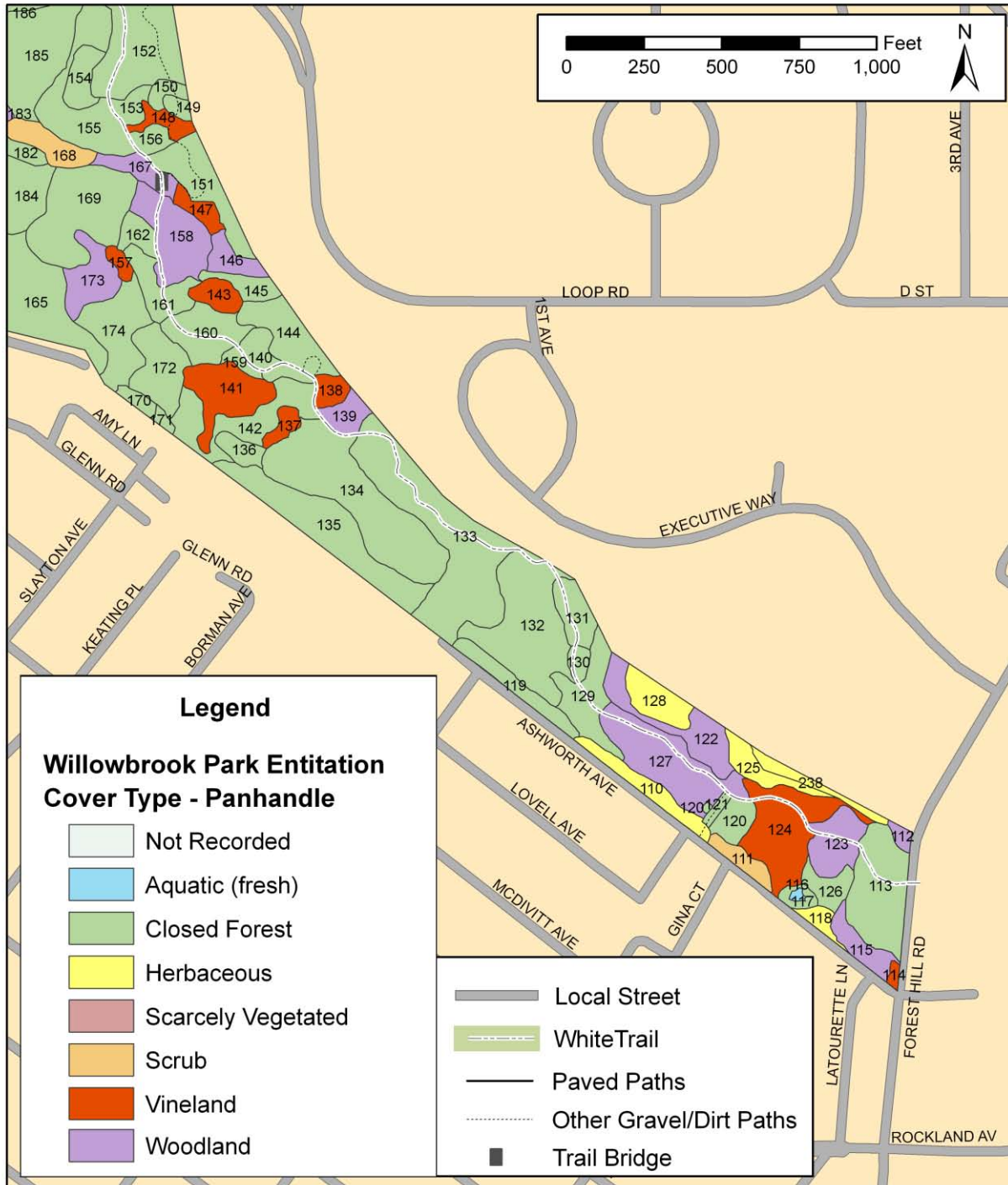



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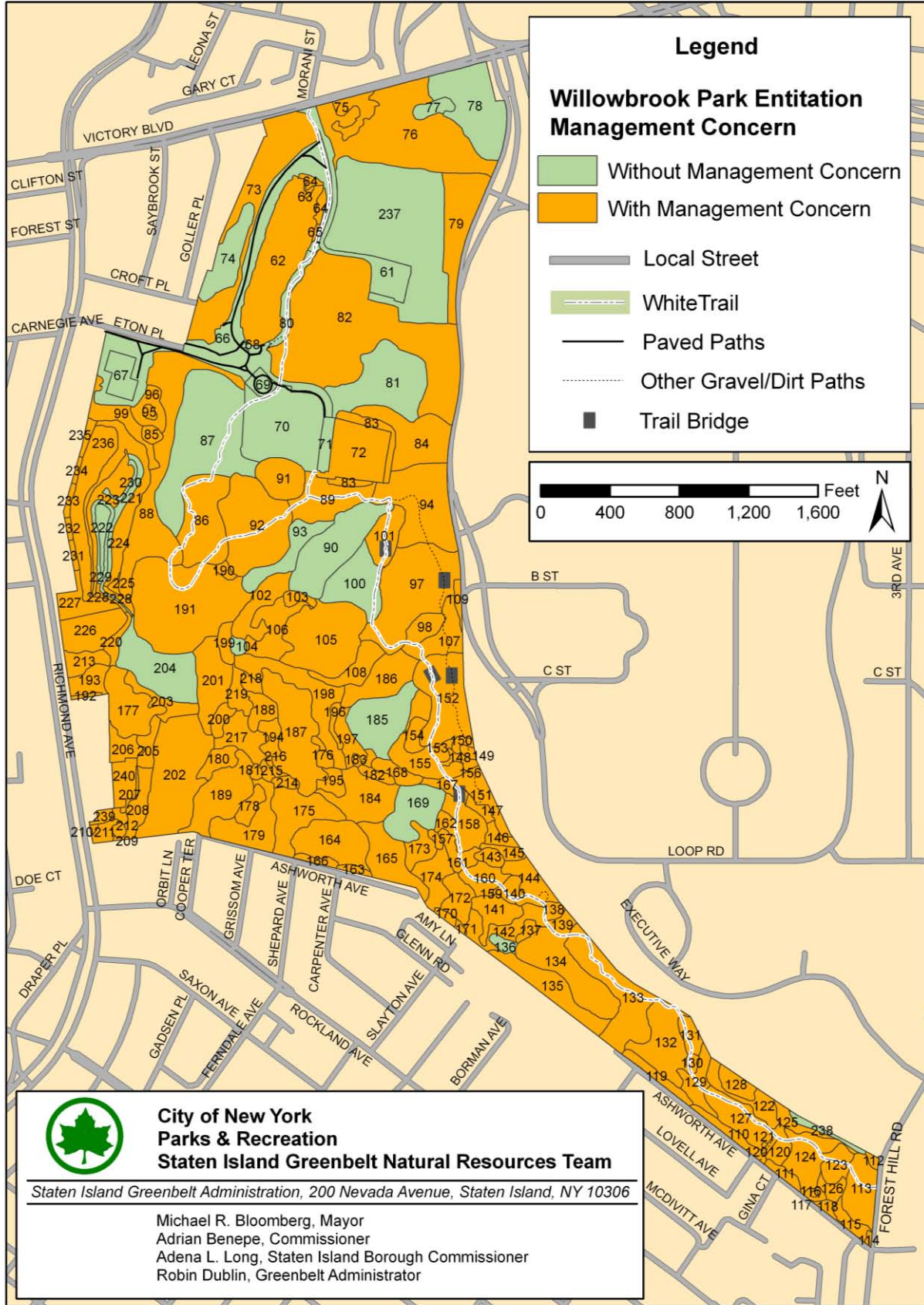
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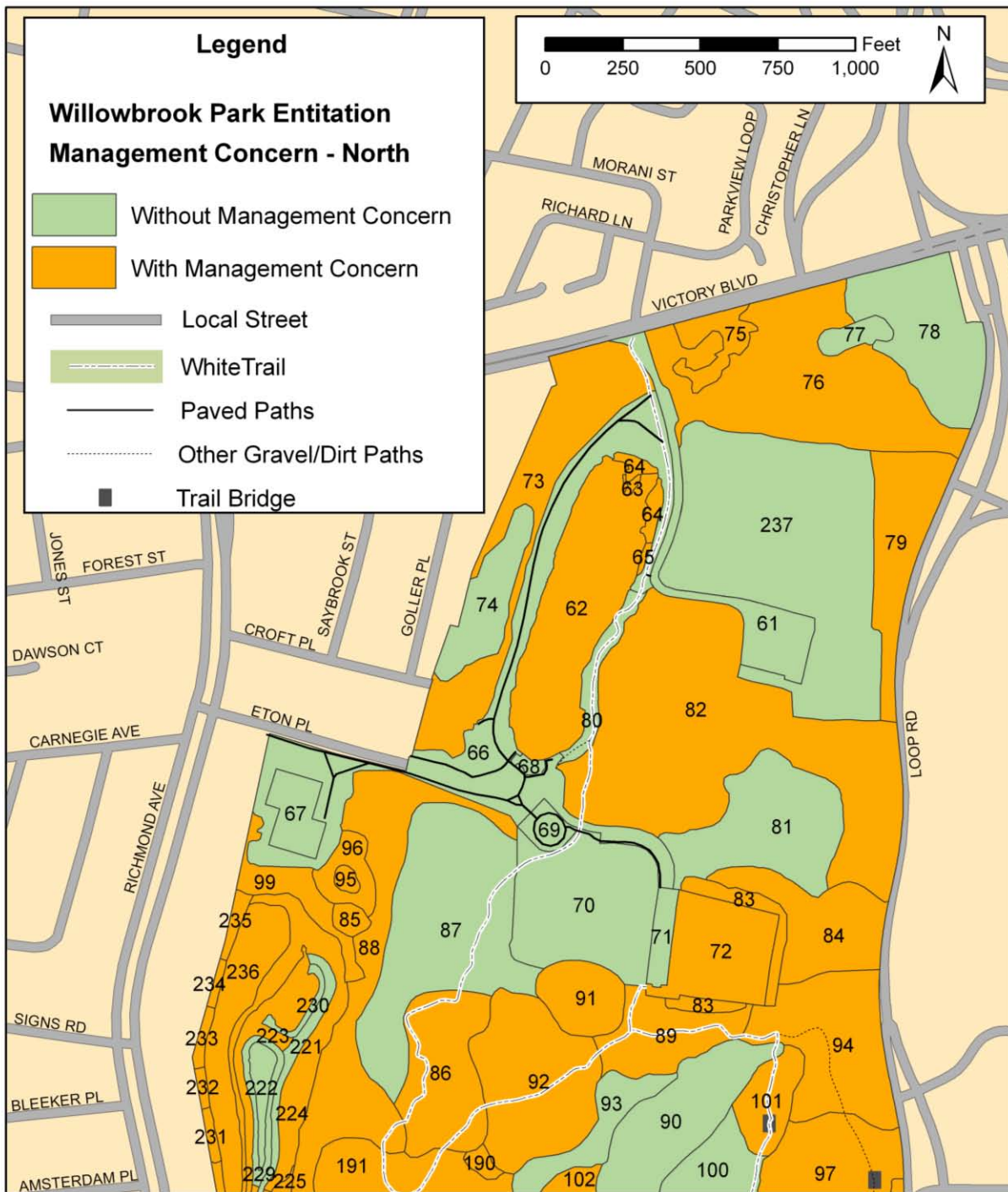
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Management Concern



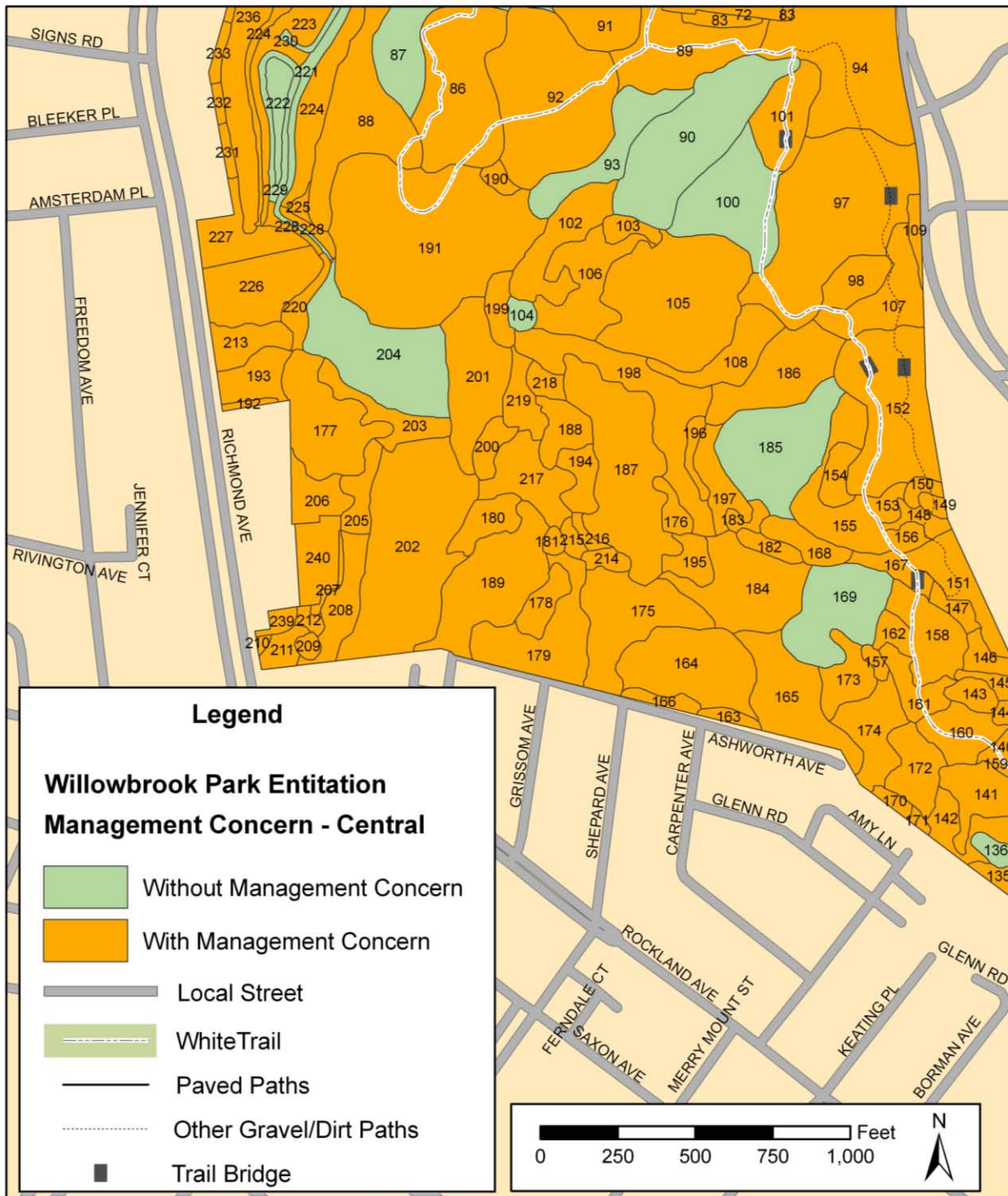



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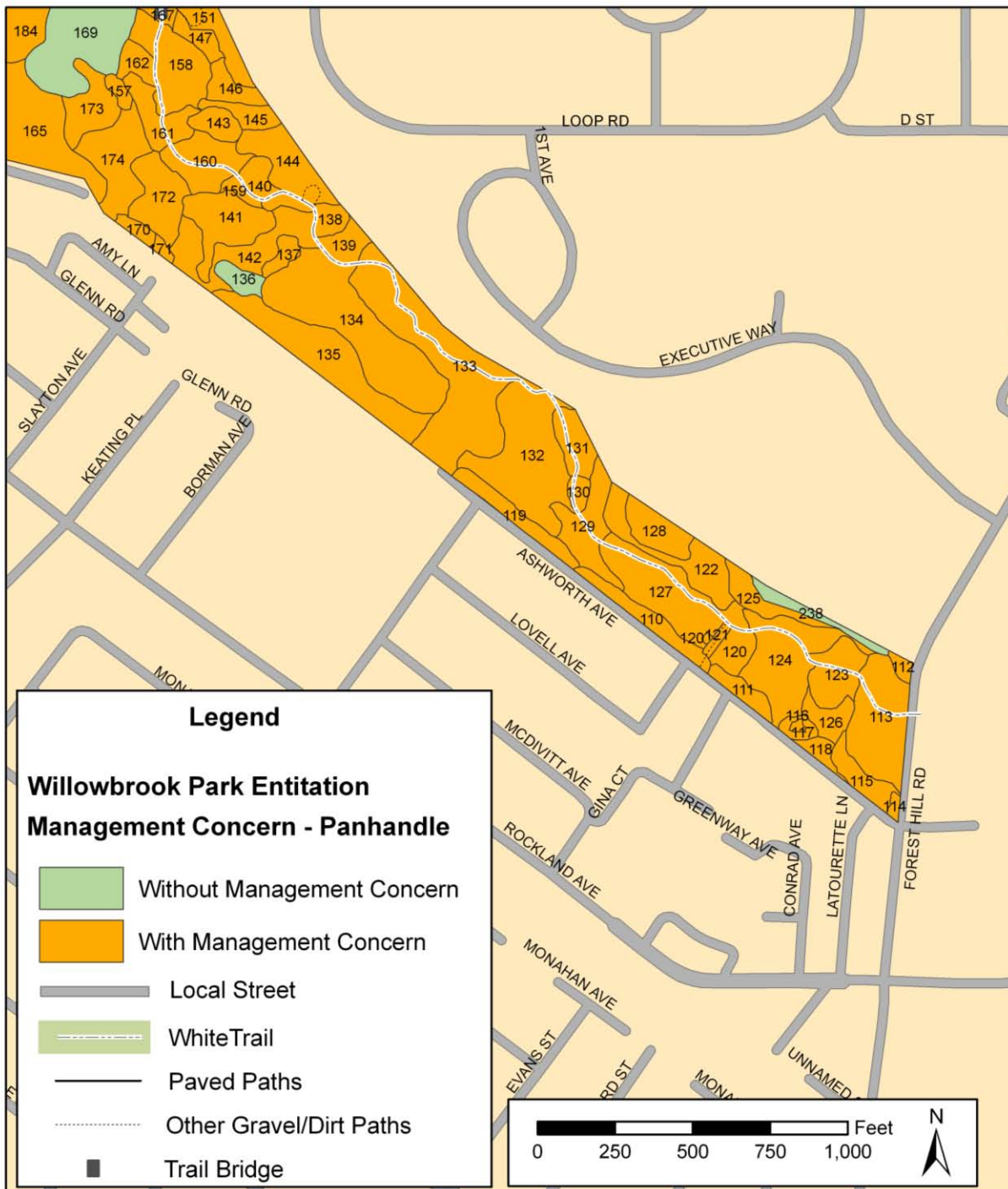


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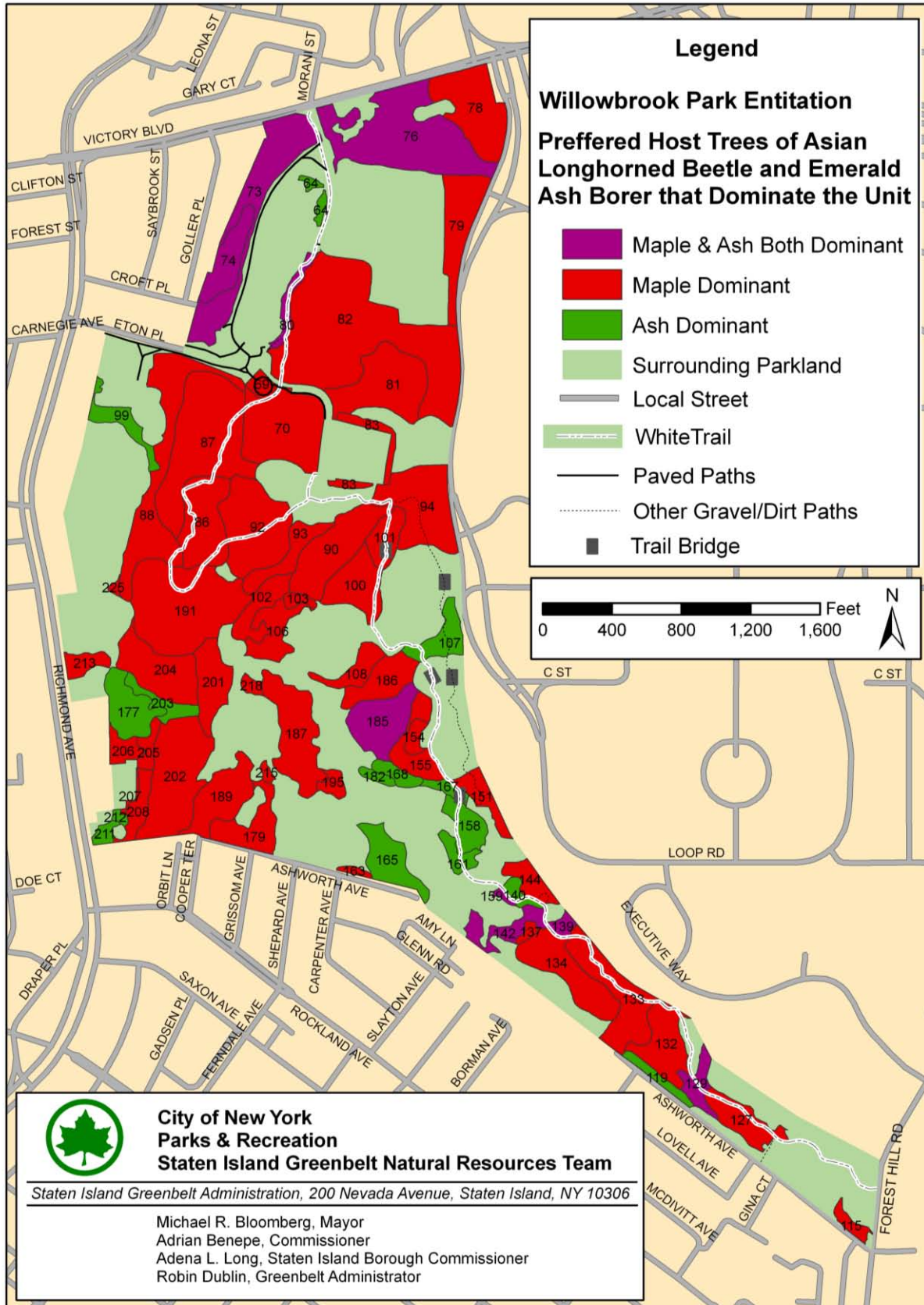
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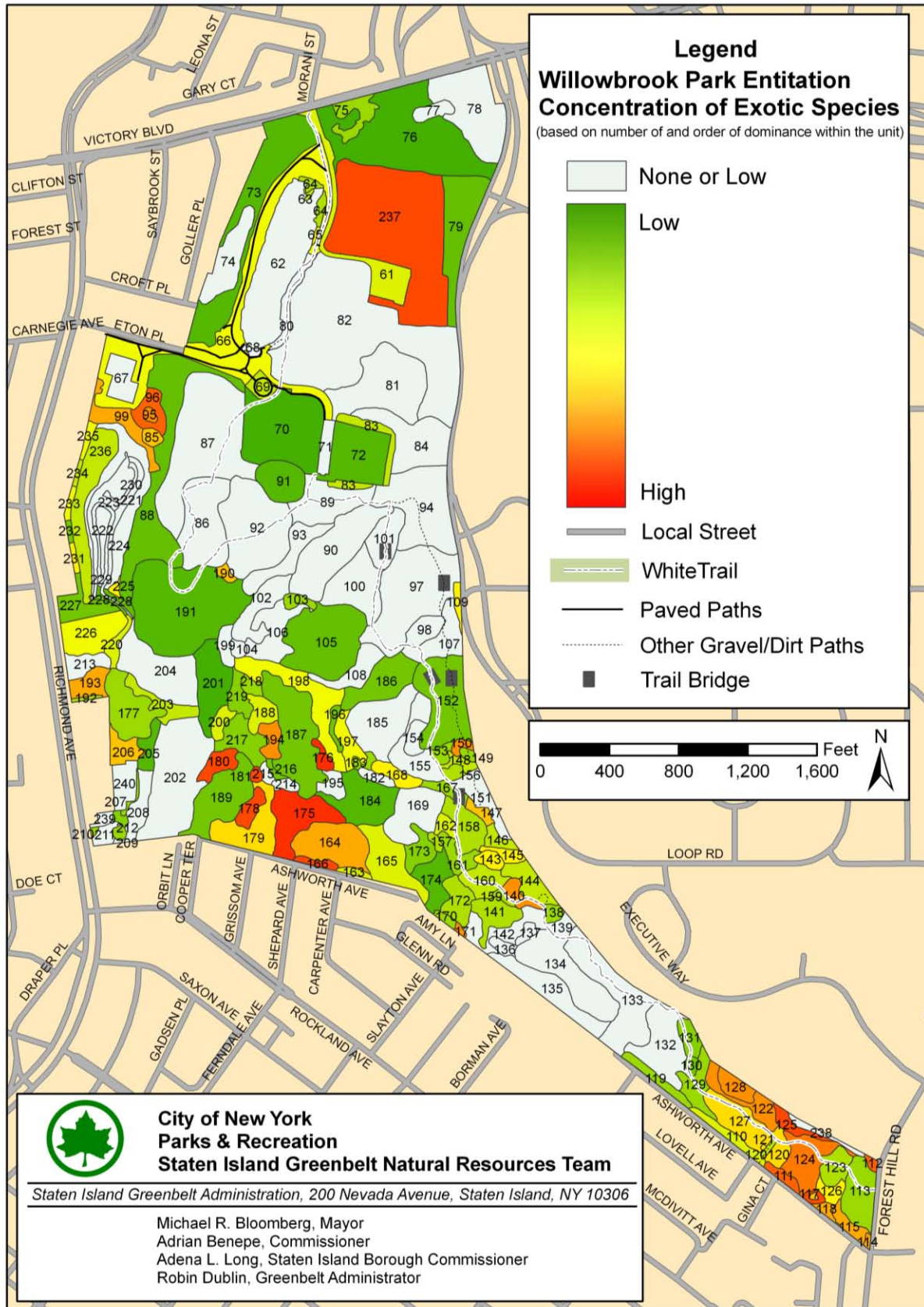
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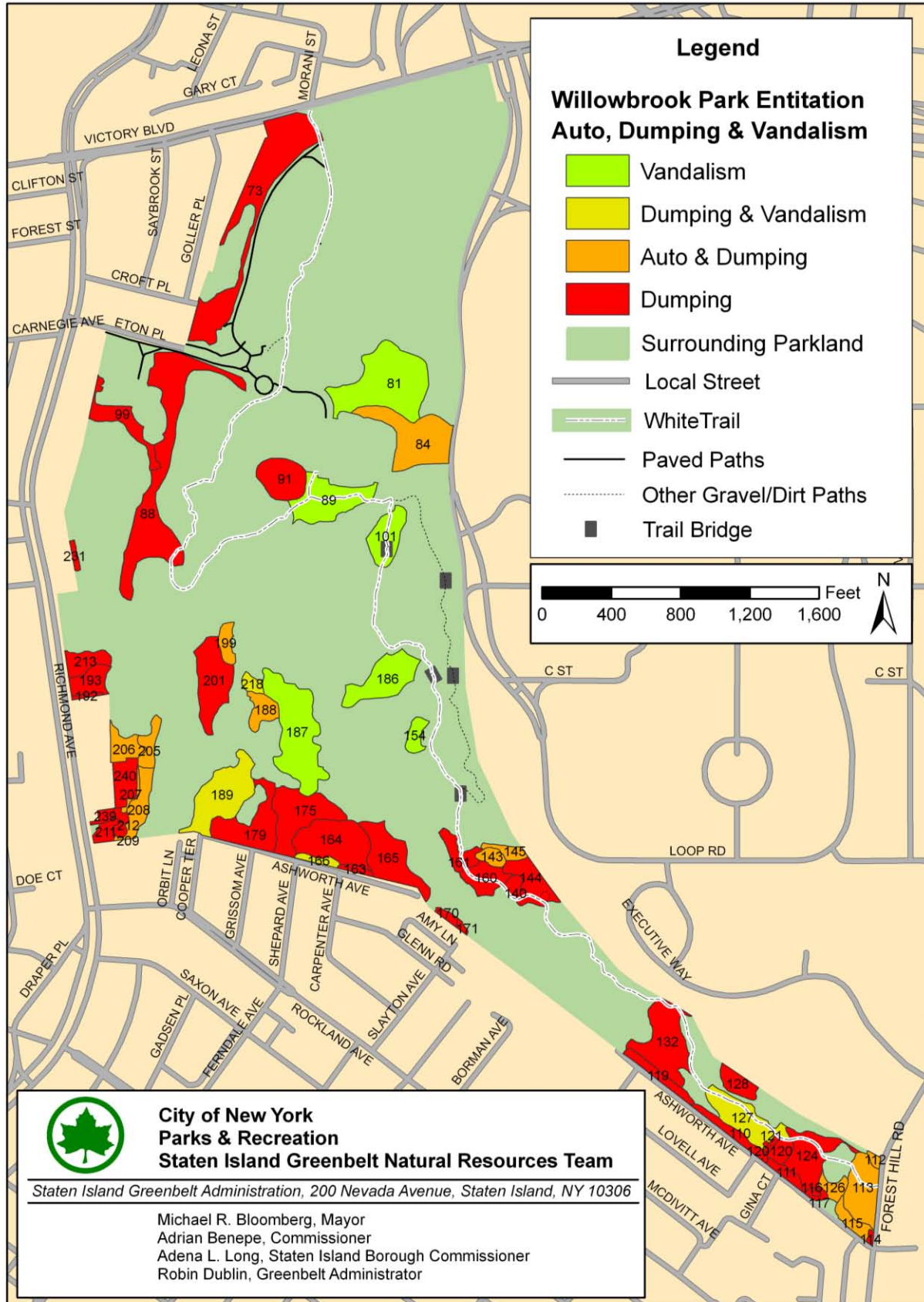
Distribution of Asian Longhorned Beetle (ALB) and Emerald Ash Borer (EAB) Host Species



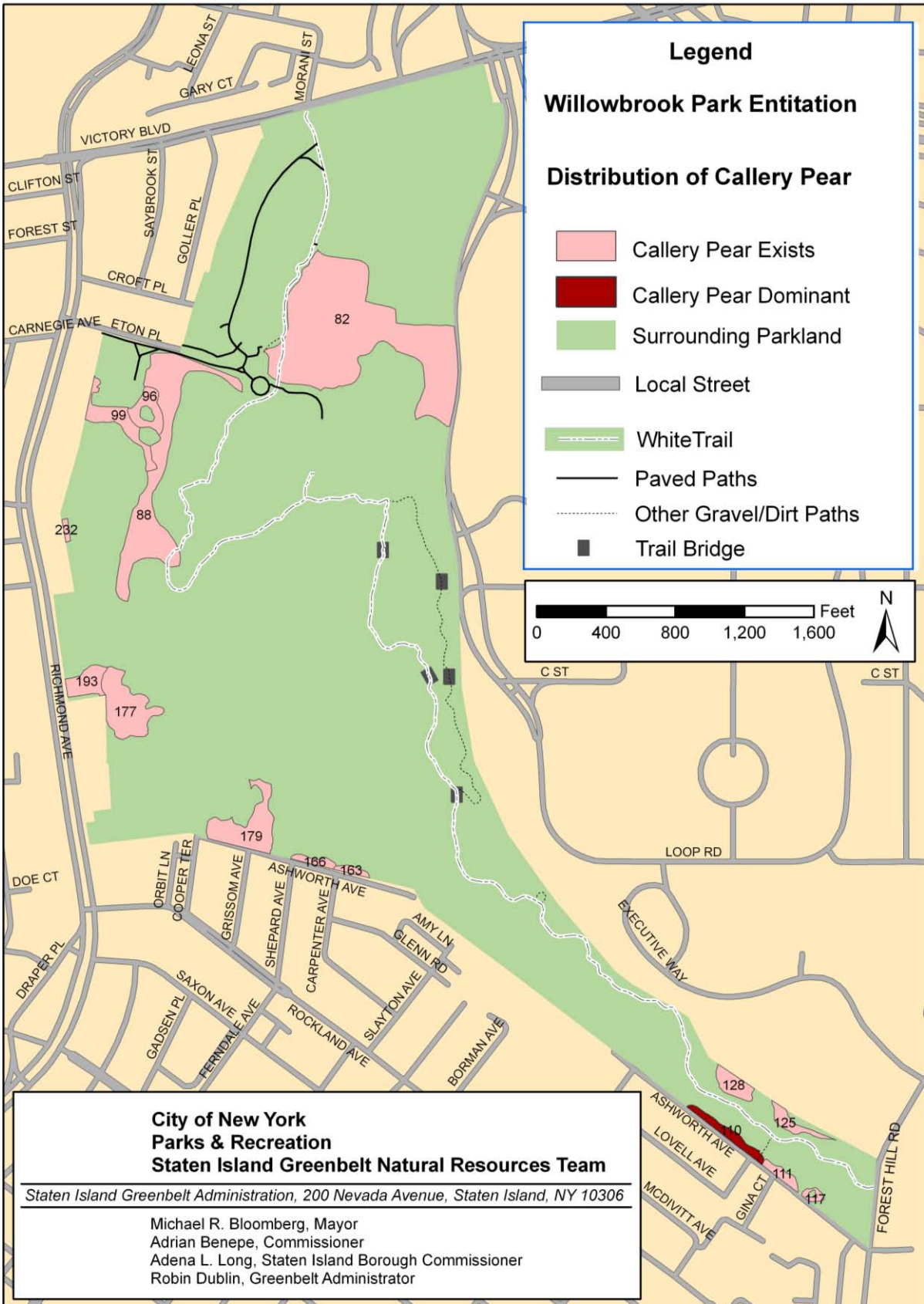
Concentration of Exotic Species by Entitation Unit



Distribution of Autos, Auto Parts, Dumping & Vandalism



Distribution of Callery Pear



Section III. Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 61
Acreage 1.8948
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scarcely Vegetated	Grass spp.	<5'		Road	Vehicle Access	
	Plantain, common	<5'	Yes			
Hemicryptophytes	Clover spp.	<5'	Yes			
Level						
Dry						

Comments

This unit is a scarcely vegetated area, a park road starting from Morani St. then ending as a parking lot in front of baseball fields. The White trail begins in the unit at the corner of Morani St. and Victory Blvd.

Unit: 62
Acreage 5.0630
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Aquatic (fresh)	Algae spp.	<5'		Culvert	Sports	Erosion
	Duckweed	<5'				Trash
Hydrophytes						
Depression						
Surface water						

Comments

This unit is an aquatic fresh water lake: Willowbrook Lake. There are two culverts at the north end of the lake, and the Willowbrook Park boathouse is located south of the lake. There is one pipeline in the lake. MC: shoreline erosion, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 63
Acreage 0.0468
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Aquatic (fresh)	Cattails	<5' & 5-30'				
	Phragmites	<5'	Yes			
Geophytes	Loosestrife, fringed	<5'				
Depression	Rose mallow, swamp	<5'				
Wet	Porcelain-berry	<5'	Yes			
	Morning glory	<5'	Yes			

Comments

This unit is a fresh water wetland. It is located at the north end of the lake at the shoreline. There are some Green ash sprouting up in the middle of the unit. A small amount of Phragmites can be found throughout the unit. Other spp. include: Small-head rush, Sedges, Sweet Joe-Pye weed. MC: Porcelain-berry, Morning glory and Phragmites.

Unit: 64
Acreage 0.3319
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Willow, black	>30' & 5-30'			Foot Traffic	
Deciduous	Ash, green	>30' & 5-30'				
Geophytes	Multiflora rose	<5' & 5-30'	Yes			
Depression	Cottonwood, Eastern	>30' & 5-30'				
Wet	Locust, black	5'-30'	Yes			
	Phragmites	<5' & 5'-30'	Yes			

Comments

This unit is a woodland/wetland (swamp) located on the northeast and north ends of the pond. The unit is split into two parts. It is a transitional area from swamp to woodland and many types of species exist. Other spp.: Poison ivy, Virginia creeper, Black cherry, Pin oak, Elm spp., Gray dogwood, Grape, Cattails, Arrowwood, Eastern cottonwood, Jewelweed, Green milkweed, Silver maple. MC: Multiflora rose, Black locust, Phragmites, Porcelain-berry, White mulberry, Japanese knotweed, Japanese honeysuckle, Morning glory.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 65
Acreage 0.0454
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Porcelain-berry	<5' & 5-30'	Yes		Foot Traffic	
Deciduous	Phragmites	<5' & 5-30'	Yes			
Lianas	Jewelweed	<5'				
Level	Joe-Pye weed	<5'				
Moist	Rubus	<5'				

Comments

This is a small unit, a vineland, located at the northeast end of Willowbrook Lake adjacent to a path that encircles the lake. Other spp.: Stinging nettle, Black willow, Pin oak, Baldcypress. MC: Phragmites and invasive vines are taking over the area, including Porcelain-berry.

Unit: 66
Acreage 6.9419
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Grass spp.	<5'		Hedgerow	Vehicle Access	Soil compaction
Deciduous	Clover, spp.	<5'	Yes	Full-Crown Tree	Sports	
Hemicryptophytes	Plantain, common	<5'	Yes	Exotic Planting	Foot Traffic	
Level	Tuliptree	5'-30'				
Dry/Moist	Oak, pin	5'-30'				
	Cherry, ornamental	5'-30'	Yes			

Comments

This unit is a lawn with scattered trees, surrounding Willowbrook Lake and the boathouse, and the unit continues down around the tennis courts. The unit also includes the Eton Pl. entrance road to the beginning of the archery field parking lot. There are large rocks near the boathouse and a sewer drain near the tennis courts. There are also hedgerows of tree plantings due to the PlaNYC planting effort. There are gardens planted at the entrance to the park by Signs Road and in front of the parking lot. The White trail passes through two areas of the unit. Other spp.: Serviceberry, Eastern redbud, Eastern hemlock, Blackgum, Crabapple, Flowering dogwood, Sweetgum, Eastern white pine, American holly, Red maple, Silver linden, Red spruce, Black willow, Swamp white oak, Baldcypress, Crapemyrtle, White mulberry.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 67
Acreage 0.8718
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scarcely Vegetated					Sports	

Level
 Dry

Comments

This unit is the tennis courts. It is located on the northwest side of Willowbrook Park. It is situated south of Eton Pl. and surrounded by a lawn with trees.

Unit: 68
Acreage 0.1030
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scarcely Vegetated					Park House	

Level
 Dry

Comments

This unit is the Willowbrook Park boathouse. It is at the southern most part of the Willowbrook Lake. It is maintained by NYC Parks employees. Plants adjacent and/or up against the building are included in the adjacent herbaceous unit.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 69
Acreage 0.4115
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scarcely Vegetated	Grass spp.	<5'			Foot Traffic	
Deciduous	Clover, spp.	<5'	Yes		Carousel	
Hemicryptophytes	Red maple	5'-30'				
Level	Crabapple	5'-30'	Yes			
Dry						

Comments

This unit is the carousel near the Willowbrook Park boathouse and is adjacent to a road that leads to the archery field. There is a lawn surrounding it with 2 trees, and a fence defines the boundary of the unit.

Unit: 70
Acreage 4.2232
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Sweetgum	>30'			Picnic	Soil compaction
Deciduous	Oak, pin	>30'				
Hemicryptophytes	Red maple	>30'				
Level	Tuliptree	>30'				
Dry/Moist	Oak, white	>30'				
	Cool season grass	<5'	Yes			

Comments

This unit is a woodland located southeast of the carousel. There are picnic tables, a playground and some barbeque grills. The White trail passes through the northwest part of the unit. Large Oaks, Sweetgums and Tuliptrees dominate the canopy and in general are full crown tree specimens. Other spp.: Common plantain.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 71
Acreage 0.4799
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scarcely Vegetated	Cool season grass	<5'			Parking Lot Vehicle Access	
Hemicryptophytes Level Dry						

Comments

This unit is a parking lot between the archery field and a woodland picnic area. There is an entrance point to the White Trail that starts at the end of the unit as well as an entrance point to the archery field.

Unit: 72
Acreage 2.4376
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Grass spp.	<5'			Sports	Soil compaction
Deciduous	Sweetgum	5'-30'			Archery	
Hemicryptophytes	Ivy, poison	5'-30'				
Level	Sassafras	5'-30'				
Dry/Moist	Porcelain-berry	5'-30'	Yes			

Comments

This unit is an archery field dominated by Grass spp. (herbaceous community) with some trees and vines along the perimeter. This field is located on the east side of the parking lot. Other species include Smartweed, Black cherry, Sumac, Bitternut hickory, Virginia creeper. MC includes invasive species along fenceline, including Porcelain-berry, Garlic mustard, Common plantain, Multiflora rose, Japanese honeysuckle, White mulberry, soil compaction.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 73
Acreage 4.3528
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Ash, green	>30'				Dumping
Deciduous	Oak, pin	>30'				Trash
Phanerophytes	Elm, slippery	5'-30'				
Level	Silver maple	5'-30'				
Dry/Moist	Mulberry, white	5'-30'	Yes			
	Arrowwood	5'-30'				

Comments

This unit is a closed forest. There is a small narrow stream in the northern part that flows east to west. There was a cement structure found in the southern part of unit, 3ft high 15 ft long with a 30 degree incline. The White trail passes through the northeast part of the unit. Other spp.: Spicebush, Houstonia spp., Black cherry, White cedar. Poison ivy, Virginia creeper, Jewelweed, Leersia spp., Nightshade spp. MC: Ailanthus, White mulberry, Multiflora rose, Porcelain-berry, Japanese knotweed, Garlic mustard, Norway maple, Mugwort, English ivy, Asiatic bittersweet, Morning glory, Japanese scholar tree, dumping, trash.

Unit: 74
Acreage 1.6150
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Ash, green	>30'				
Deciduous	Oak, pin	>30'				
Phanerophytes	Red maple	5'-30'				
Level	Elm, slippery	5'-30'				
Wet	Loosestrife, fringed	<5'				
	Buttonbush	5'-30'				

Comments

This unit is a closed forest with wet soil on the west side of the Willowbrook Lake. There is Fringed loosestrife regeneration on the ground level.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 75
Acreage 0.7786
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Aquatic (fresh)	Phragmites	5'-30'	Yes			
Deciduous	Jewelweed	<5'				
Hemicytrophytes	Boneset, rough	<5'				
Depression						
Surface water						

Comments

This unit is an aquatic plant unit dominated by Phragmites. It is located near Morani St. and Victory Blvd. It has a swamp like structure with a small amount of surface water. Other spp.: Silver maple, Black willow, Skunk cabbage, Moonseed, Swamp loosestrife. MC: Phragmites, Porcelain-berry, Multiflora rose, Japanese honeysuckle.

Unit: 76
Acreage 6.8527
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Red maple	>30'			Campfire/Party	Trash
Deciduous	Sweetgum	>30'				
Chamaephytes	Virginia creeper	<5'				
Level	Arrowwood	5'-30'				
Moist	Ash, green	>30'				
	Knotweed, Japanese	5'-30'	Yes			

Comments

This unit is a closed forest located west of the ball fields. It borders a stream on the south and Victory Blvd. on the north. At the north end of the unit there is high regeneration of Red maples. Other spp.: Poison Ivy, Sweetgum, Red maple, Green ash, Black cherry, Arrowwood viburnum, Goldenrod, Virginia creeper, Hay-scented fern, Slippery elm, Lady fern. MC: Asiatic bittersweet, Japanese knotweed, trash and social gatherings.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 77
Acreage 0.4181
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Sumac, staghorn	5'-30'				
Deciduous	Arrowwood	5'-30'				
Chamaephytes	Virginia creeper	<5'				
Level	Ivy, poison	<5'				
Moist	Sweetgum	5'-30'				

Comments

This unit is a Sumac woodland mixed with Arrowwood, scattered with larger tree species. It is located south of Victory Blvd. Vines dominate the space between the trees, mostly Virginia creeper, Poison ivy and some Japanese honeysuckle along the ground. There are a few Sweetgum saplings. Other Species include: Black walnut, White mulberry, Japanese honeysuckle.

Unit: 78
Acreage 3.3907
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, pin	>30'				
Deciduous	Red maple	5'-30'				
Chamaephytes	Cherry, black	<5', 5-30', >30'				
Level	Viburnum spp.	5'-30'				
Dry/Moist	Sweetgum	5'-30'				

Comments

This unit is a closed forest. It is situated south of Victory Blvd and west of Campus Drive adjacent to the College of Staten Island. Red maple regeneration is occurring in the understory. Other species include: Poison ivy, Virginia creeper, Porcelain-berry, Multiflora rose.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 79
Acreage 2.5512
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	>30'				Fence
Deciduous	Oak, pin	>30'				Boundary
Lianas	Red maple	>30'				
Level	Honeysuckle, Japanese	<5'	Yes			
Dry/Moist	Arrowwood	5'-30'				

Comments

This unit is a closed forest located north of the ball fields. There is a border fence running through the unit that does not line up with the park's border. Other species include: Pin oak, Red maple, Poison ivy, Green ash, Gray birch. MC: Porcelain-berry, Japanese honeysuckle, boundary.

Unit: 80
Acreage 0.6712
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Red maple	>30'			Foot Traffic	Soil compaction
Deciduous	Oak, pin	>30'				
Phanerophytes	Ivy, poison	<5'				
Level	Ash, green	5'-30'				
Moist	Elm, American	>30'				
	Arrowwood	5'-30'				

Comments

This is a closed forest on the east side of Willowbrook Lake. A maintained gravel trail runs through it from the boathouse to the baseball fields. It is a heavily used path and compacted in which most of it is maintained as a section of the White trail. There are many Red maples and Pin oaks. Other species include: Swamp chestnut oak, Sweetgum, Serviceberry, Cool season grass, Roundleaf dogwood, Moss spp., Multiflora rose.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 81
Acreage 3.6201
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Beech, American	>30' & 5-30'			Foot Traffic	Trash
Deciduous	Oak, northern red	>30'				Vandalism
Hemicryptophytes	Sweetgum	>30'				
Level	Red maple	>30' & 5-30'				
Dry/Moist	Fern spp.	<5'				
	Virginia creeper	<5'				

Comments

This is a closed forest primarily of American beech and Northern red oak. There is an ephemeral stream that runs east to west through the unit. Around the stream are Jewelweed, Ferns and Spicebush. Other spp.: Black cherry saplings, Blackgum, Chokecherry, Arrowwood, Poison ivy, American hornbeam, Black birch, False Solomon's seal, Sassafras, Elderberry. There are recent canopy openings due to a fallen American beech.

Unit: 82
Acreage 11.7998
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	>30'		Bike Ramps	Foot Traffic	Trash
Deciduous	Red maple	>30'				Uprooted Trees
Chamaephytes	Oak, Northern red	>30'				Boundary
Level	Arrowwood	5'-30'				
Dry/Moist	Beech, American	>30' & 5-30'				
	Oak, pin	>30'				

Comments

This is a closed forest unit. Sweetgum was found primarily throughout the unit with Red maple and Arrowwood to a lesser degree. The unit is large and is east of Willowbrook Lake, south of the ball fields, and west of the College of Staten Island. A section of the White trail goes through the eastern part of the unit. Other species include Poison ivy, Elderberry, Black cherry, Hickories, Jewelweed, Ferns, Blackgum, American hornbeam, Black birch, Serviceberry, Green ash, Mapleleaf viburnum, False Solomon's seal. Along the edges were Virginia creeper, Goldenrod, Canada mayflower, Roundleaf dogwood, Silver maple. MC: Callery pear, Norway maple, Multiflora rose, White mulberry, Japanese honeysuckle, Asiatic bittersweet, Mugwort, Porcelain-berry, Ailanthus, trash, uprooted trees, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 83
Acreage 0.8158
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Sweetgum	>30'		Fence		Trash
Deciduous	Red maple	>30'				
Lianas	Multiflora rose	<5'	Yes			
Level	Porcelain-berry	<5' & 5-30'	Yes			
Dry/Moist	Ivy, poison	<5'				
	Honeysuckle, Japanese	<5'	Yes			

Comments

This is a vineland bordering the archery field, and is separated into two parts. Invasive vine species are overtopping some of the native tree species in the area. Other species found in this unit are Tuliptree, Sweetgum, Sassafras, Red maple, Black birch, Jewelweed, Virginia creeper, Goldenrod, Hickories, Blackgum, Arrowwood, Pin oak. MC: White mulberry, Japanese honeysuckle, Japanese knotweed, Multiflora rose, Garlic mustard, Japanese barberry, Mugwort, Norway maple, Asiatic bittersweet, Porcelain-berry, trash.

Unit: 84
Acreage 2.4432
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Hickory, bitternut	>30'		Fence	Foot Traffic	Dumping
Deciduous	Oak, northern red	>30'				Auto
Phanerophytes	Arrowwood	5'-30'				Trash
Level	Tuliptree	>30'				
Dry/Moist	Sweetgum	5'-30'				
	Fern, hay-scented	<5'				

Comments

This unit is a closed forest located between a vineland and the College of Staten Island. There is a derelict car dumped in the unit near the archery field, and rolled wire fencing in piles near the fence. This is a forest with a majority of Northern red oak and Hickories with some large Tuliptrees. Other spp.: Virginia creeper, American hornbeam, Mockernut hickory, Shagbark hickory, Swamp chestnut oak, False Solomon's seal, Mapleleaf viburnum, Poison ivy, White oak, Serviceberry, Sassafras, Jewelweed, Black birch, American beech, Blackgum, Black cherry, Red maple, Catbrier, Spicebush. MC: Multiflora rose, dumping, auto, trash, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 85
Acreage 0.2289
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Pine, white	>30'				Trash
Evergreen	Ailanthus	>30'	Yes			
Geophytes	Multiflora rose	<5'	Yes			
Level	Knotweed, Japanese	<5'	Yes			
Dry/Moist	Virginia creeper	<5'				
	Porcelain-berry	<5'	Yes			

Comments

This is a closed evergreen forest. Location of this unit is between the mitigated wetland and Oak/Sweetgum unit. This looks like a restoration tree planting of about 25 Eastern white pines. The invasive vines surround the edges and have taken down some of the trees. Other species include Poison ivy, Arrowwood, Black cherry, Pokeweed. MC: Ailanthus, Multiflora rose, Japanese knotweed, Phragmites, Garlic mustard, Mugwort, Porcelain-berry, trash.

Unit: 86
Acreage 2.9274
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, northern red	>30'			Foot Traffic	
Deciduous	Hickory, bitternut	>30'				
Phanerophytes	Beech, American	>30'				
Level	Red maple	>30'				
Dry/Moist	Fern, hay-scented	<5'				
	Sassafras	>30' & 5-30'				

Comments

This is a closed forest. This unit is bordered by a Sweetgum forest to the east and the western boundary is approximately 500 feet west from the wetland mitigation site. The White trail passes through and there are some downed and decaying trees along the trail. There are large areas of Hay-scented fern cover and many Sassafras saplings. Other species include Mockernut hickory, Sweetgum, Arrowwood, Black birch, Pin oak, White oak, False Solomon's seal, Poison ivy, Virginia creeper, Aster spp. MC: Mugwort, hazard trees (dead and over the trail).

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 87
Acreage 6.3494
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, northern red	>30'			Foot Traffic	
Deciduous	Sweetgum	>30'				
Hemicryptophytes	Red maple	>30'				
Level	Hickory spp.	>30'				
Dry/Moist	Sassafras	5'-30'				
	Fern, hay-scented	<5'				

Comments

This is a closed forest south of the boathouse, east of the mitigated wetland and borders a woodland picnic area. The White trail goes through the eastern part of the unit. There are canopy openings in the unit with a lot of Ferns and Sassafras saplings. There are large Northern red oaks, White oaks and Hickories. Other species include Black birch, Black cherry, American hornbeam, American beech, Arrowwood, Goldenrod, Quaking aspen, White oak, Blackgum, False Solomon's seal, Virginia creeper, Poison ivy, Canada mayflower, Catbrier, Smooth Solomon's seal, Pinkster azalea, Aster spp., Tuliptree, Carolina fern, Green ash, Pin oak, Norway maple. Eastern box turtle was also found.

Unit: 88
Acreage 4.7112
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Red maple	>30'			Foot Traffic	Dumping
Deciduous	Sweetgum	>30'				
Chamaephytes	Oak, pin	>30'				
Level	Multiflora rose	<5'	Yes			
Dry/Moist	Arrowwood	5'-30'				
	Blackgum	>30'				

Comments

This is a closed forest. The unit is east of the tennis courts and the wetland mitigation site starting from Eton Pl. The White trail runs through the southeast area of the unit. The unit is dominated by Sweetgum/Red maple with an abundance of Pin oak. On the edges are invasive species. Other species include Green ash, Catbrier, Poison ivy, Virginia creeper, Hickories, Canada mayflower, Eastern cottonwood, White oak, Jewelweed, Sassafras, Black cherry, False Solomon's seal, Goldenrod, Quaking aspen, Sumac, American beech, American elm, Pinkster azalea, Aster spp., Elderberry, Wild strawberry, Carolina fern, Hay-scented fern, Honeysuckle spp. MC: Multiflora rose, Japanese knotweed, Japanese honeysuckle, Mugwort, Asiatic bittersweet, Phragmites, Callery pear, Ailanthus, dumping.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 89
Acreage 1.9020
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	>30'			Picnic	Soil compaction
Deciduous	Oak, northern red	>30'			Foot Traffic	Trash
Lianas	Beech, American	>30'			Social Gathering	Vandalism
Undulating	Tuliptree	>30'				
Dry/Moist	Blackgum	>30'				
	Arrowwood	5'-30'				

Comments

This is a closed forest unit between a vineland unit and the Red maple/Sweetgum swamp unit. The White trail goes through the center of the unit. It is highly accessible from the archery field parking lot and the picnic tables are heavily used. There are several hazard trees along the White trail. There are many Sweetgums and Northern red oaks. On the west side are large American beech and Tuliptrees, while on the east side it shifts to mainly Blackgum. Other species include Hay-scented fern, Carolina fern, Leersia spp., Poison ivy, False Solomon's seal, Smooth Solomon's seal, Catbrier, Jewelweed, Black cherry, White oak, Mapleleaf viburnum, Red maple, Black birch, Virginia creeper, Canada mayflower, Sassafras, Flowering dogwood, Elderberry, Aster spp., Rubus, American elm. MC: Asiatic bittersweet, Multiflora rose, Norway maple, soil compaction, trash, vandalism, hazard trees.

Unit: 90
Acreage 3.1685
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Sweetgum	>30' & 5-30'			Foot Traffic	Erosion
Deciduous	Red maple	>30' & 5-30'				Trash
Chamaephytes	Pepperbush, sweet	5'-30'				
Level	Water pepper, mild	<5'				
Wet	Blueberry, highbush	5'-30'				
	Blackgum	>30' & 5-30'				

Comments

This is a woodland/wetland (swamp) with the dominant tree species being Sweetgum and Red maple. Many of the Sweetgum are looking sparse and may be dying. This unit is south of the archery field and directly north of a small Phragmites unit. A small section of the White trail runs through the northeast part of the unit. There is some standing water and ephemeral streams, mud and Moss spp. There are islands of trees formed by erosion. There is a diversity of herbaceous species including Pickerelweed, Water plantain, Silky dogwood, Spicebush, Fetterbush, Mannagrass (Glycera), Arrowwood, Virginia creeper, Swamp white oak, Ovate spikerush, Common cattail, Carolina fern, Netted chain fern, Highbush blueberry, Swamp honeysuckle, Blackgum, Jewelweed, Algae, Chokeberry, Gray birch, White wood Aster, Joe-Pye weed, Ditch stonecrop, Enchanter's nightshade, Mad-dog skullcap, Arrowleaf tearthumb, Bittersweet nightshade, Phragmites.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 91
Acreage 1.2719
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, northern red	>30'		Other		Dumping
Deciduous	Tuliptree	>30' & 5-30'				Trash
Phanerophytes	Birch, black	>30' & 5-30'				
Level	Ivy, poison	5'-30'				
Dry/Moist	Multiflora rose	<5'	Yes			
	Aster	<5'				

Comments

This is a closed forest bordering a woodland picnic area and a Sweetgum unit. There are several very large trees (Northern red oaks and Black birch). There is a plot of young Tuliptrees and a plot of Black birch which appear to have been planted. The understory is relatively sparse, but there are large patches of invasive species. Other species include: Violet, Virginia creeper, Blackgum, Arrowwood, Spicebush, Solomon's seal (True & False), Elderberry, Black cherry, other Cherry species, Sassafras, Red maple, Sweetgum, White oak, Hay-scented fern, Enchanter's nightshade, Canada mayflower, Catbrier, Goldenrod. MC: Multiflora rose and some Japanese barberry, Japanese knotweed, Asiatic bittersweet, Porcelain-berry, Ailanthus, Norway maple, Mugwort, dumping, trash.

Unit: 92
Acreage 4.0038
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	>30'			Foot Traffic	Trash
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes	Spicebush	<5' & 5-30'				
Level	Red maple	5'-30'				
Dry/Moist						

Comments

This is a closed forest bordering the Beech/Hickory unit. The White trail runs through the unit. The canopy is almost exclusively Sweetgum, and the midstory is mostly Red maple. Other species include: Canada mayflower, Solomon's seal, Elderberry, Virginia creeper, Carolina fern, Hay-scented fern, Poison ivy, Enchanter's nightshade, Violet, Tuliptree, Sassafras, Rubus, Aster spp., Leersia spp.. MC: Japanese angelica-tree, Japanese knotweed, Multiflora rose, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 93
Acreage 1.2954
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	<5', 5-30', >30'				
Deciduous	Oak, pin	>30'			Foot Traffic	
Phanerophytes	Arrowwood	5'-30'				
Level	Red maple	>30' & 5-30'				
Dry/Moist	Tuliptree	>30' & 5-30'				
	Canada mayflower	<5'				

Comments

This is a closed forest with a few canopy openings. The unit is wedged in between a swamp and Sweetgum unit. There are tall Pin oaks in this unit. There is a desire line coming off the White trail into this unit. Other species include Black birch, Virginia creeper, Blackgum, Poison ivy, Carolina fern, Northern red oak, Spicebush, Hay-scented fern, Cool season grass, New York fern, Leersia spp., and a small amount of Multiflora rose.

Unit: 94
Acreage 3.6534
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, northern red	>30'		Fence	Campfire/Party	Trash
Deciduous	Hickory, mockernut	>30' & 5-30'			Foot Traffic	Other
Hemicryptophytes	Viburnum, mapleleaf	<5'				Boundary
Undulating	Red maple	>30' & 5-30'				
Dry/Moist	Hickory, pignut	>30' & 5-30'				
	Virginia creeper	<5'				

Comments

This is a closed forest bordering College of Staten Island (CSI) and the north edge of the Sweetgum/Red Maple swamp. There is a spur trail running through the unit with White trail markings. Part of the White trail runs through the unit. The unit has a diverse understory, and most of the existing invasive species are on the CSI side of the fence that runs through the unit. Some uncommon species were found in the unit, including American strawberry-bush and experimental hybrid planting of American/Chinese chestnut. Other species include: White oak, Black oak, Tuliptree, American hornbeam, Black birch, Sweetgum, Black cherry, American beech, Poison ivy, Hay-scented fern, Canada mayflower, False Solomon's seal, Enchanter's nightshade, Spicebush, Pokeweed, Arrowwood, Bitternut hickory, Catbrier, Aster spp., Smartweed, Northern hackberry, Sassafras, Smooth Solomon's seal, White spotted wintergreen, Flowering dogwood, Green ash, Rubus. MC: Japanese barberry, Asiatic bittersweet, Ailanthus, Wineberry, Phragmites, Russian thistle, Multiflora rose, Porcelain-berry, Burning bush, Morning glory, trash, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 95
Acreage 0.1263
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Lady's thumb	<5'	Yes			
Deciduous	Loosestrife, purple	<5'	Yes			
Hemicryptophytes	Cool season grass	<5'	Yes			
Depression	Rush spp.	<5'				
Moist	Ditch stonecrop	<5'				
	Woolgrass	<5'				

Comments

This unit is a herbaceous community. This a seasonal wetland dotted with a couple of tree species along the perimeter. Phragmites are encroaching from the surrounding unit. The unit is more than 50% Lady's thumb with clumps of Purple loosestrife. Other species include: Green ash, American elm, Silky dogwood, Silver maple, Cool season grass, Spiked rush, Soft rush, Sedges, Monkeyflower, Carex rosea. There were a great number of bees (pollinators) in the unit. MC: Phragmites, Lady's thumb, Purple loosestrife.

Unit: 96
Acreage 0.6591
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	<5' & 5-30'	Yes			Trash
Deciduous	Porcelain-berry	<5' & 5-30'	Yes			
Hemicryptophytes	Dogwood, silky	5'-30'				
Level	Knotweed, Japanese	<5' & 5-30'	Yes			
Moist	Honeysuckle, Japanese	<5'	Yes			
	Multiflora rose	<5' & 5-30'	Yes			

Comments

This is a herbaceous unit. Phragmites dominate and there are a few trees interspersed throughout the unit with many invasive vines. This unit surrounds a seasonal wetland of Lady's thumb and Purple loosestrife. The unit is north of the Eastern white pine grove. There is a large amount of Japanese knotweed in the unit. Other species include: Green ash, American elm, Silky dogwood, Rubus, Sweetgum, Red maple, Pussy willow, Black willow, Milkweed, Arrowwood, Quaking aspen, Poison ivy, Virginia creeper, Goldenrod, Enchanter's nightshade, Hedge bindweed, Jewelweed, Pokeweed, Black cherry, Groundsel tree, Cool season grass, Deer-tongue grass, Curly dock, Clover, Ditch stonecrop, Silver maple, Water horehound, Carex rosea. MC: Phragmites, Japanese knotweed, Asiatic bittersweet, Multiflora rose, Japanese honeysuckle, Callery pear, Porcelain-berry, White mulberry, Mugwort, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 97
Acreage 4.6574
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Hickory, mockernut	<5', 5-30', >30'		Fence	Foot Traffic	Trash
Deciduous	Hickory, shagbark	<5', 5-30', >30'				Boundary
Chamaephytes	Hickory, bitternut	<5', 5-30', >30'				
Slope	Spicebush	<5' & 5-30'				
Dry/Moist	Viburnum, mapleleaf	<5'				
	Oak, northern red	>30' & 5-30'				

Comments

This is a closed forest dominated by Hickories, and bordering College of Staten Island (CSI). A fence runs through the unit that separates CSI from the park. A spur trail with White trail markings also runs through the unit adjacent to the fence. The White trail runs through the southwest section of the unit. Other species include: Sassafras, Pignut hickory, Black oak, Blackhaw, Poison ivy, Virginia creeper, White oak, Chestnut oak, White wood aster, Red maple, Sweetgum, Catbrier, Arrowwood, American hornbeam, White spotted wintergreen, False Solomon's seal, Enchanter's nightshade, Chokecherry, Groundsel tree, New York fern, Hay-scented fern, Tuliptree, Beaked hazelnut, Black cherry, Green ash, Mad-dog skullcap, Violet, Rubus, other Cherry spp., Smooth and Staghorn sumacs, Flowering dogwood, Black birch, experimental hybrid planting of American/Chinese chestnut, Highbush blueberry, American beech. Rare species include: experimental hybrid planting of American/Chinese chestnut and American strawberry-bush. MC: Multiflora rose, Wineberry, Ailanthus, Norway maple, Japanese angelica-tree, Asiatic bittersweet, Japanese barberry, Japanese honeysuckle, Porcelain-berry, trash, boundary.

Unit: 98
Acreage 0.6160
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, northern red	>30'		Other	Foot Traffic	Fire
Deciduous	Viburnum, mapleleaf	<5'				
Chamaephytes	Sassafras	<5' & >30'				
Level	Sweetgum	<5', 5-30', >30'				
Dry/Moist	Virginia creeper	<5'				
	Tuliptree	<5' & 5-30'				

Comments

This is a closed forest that shows signs of fire damage to the understory. This unit is bordered by the White trail and a spur trail with White trail markings. Historical Indicator #1: Other = saplings were planted here before the fire, and some are resprouting. The herbaceous understory is coming back. Other species include: Tuliptree, Red maple, Hickories, Enchanter's nightshade, White spotted wintergreen, False Solomon's seal, American beech, Black oak, White oak, Rubus, Black cherry, American hornbeam, Pokeweed. Rare species include experimental hybrid planting of American/Chinese chestnut. MC: Porcelain-berry, Bittersweet nightshade.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 99
Acreage 0.9847
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Knotweed, Japanese	<5' & 5-30'	Yes	Exotic Planting	Other	Dumping
Deciduous	Willow, black	<5' & 5-30'		Other		Trash
Geophytes	Multiflora rose	<5' & 5-30'	Yes			
Level	Porcelain-berry	<5' & 5-30'	Yes			
Dry/Moist	Ash, green	<5', 5-30', >30'				
	Locust, black	<5', 5-30', >30'	Yes			

Comments

This unit is a woodland, and the dominant species in the understory is Japanese knotweed. The unit is located between the tennis court lawn area and mitigated wetland. The unit borders a grove of Eastern white pine and a T.D. Bank parking lot. There is a significant amount of dumping, trash and social gatherings. A pipe runs through the unit to the mitigated wetland. Other species include Buttonbush, Silky dogwood, Black cherry, Hedge bindweed, Poison ivy, Enchanter's nightshade, Red maple, American elm, Honeylocust, Arrowwood, Rubus, Milkweed, Jewelweed, Sweetgum, Pin oak, Pokeweed, and Gray birch, Virginia creeper. MC: Japanese knotweed, Multiflora rose, Porcelain-berry, Black locust, Japanese honeysuckle, Callery pear, Norway maple, Purple loosestrife, Phragmites, dumping, trash.

Unit: 100
Acreage 2.0635
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, northern red	<5' & >30'				
Deciduous	Pepperbush, sweet	<5' & 5-30'				
Phanerophytes	Fern spp.	<5'				
Level	Blackgum	<5', 5-30', >30'				
Dry/Moist	Red maple	<5' & 5-30'				
	Oak, white	<5', 5-30', >30'				

Comments

This is a closed forest bordering the Sweetgum/Maple swamp in the park, and the White trail goes through the eastern part of the unit. It has a thick mid-story, with a variety of tree species, and a forest floor dominated by Fern species. Other species include Sassafras, Black birch, Spicebush, Tuliptree, Blackhaw, Black cherry, Hickory, Mapleleaf viburnum, Arrowwood, Catbrier, Poison ivy, Virginia creeper, Indian cucumber root, Sweetgum, Black oak, Canada mayflower, False Solomon's seal, Highbush blueberry, New York fern, Carolina fern, Hay-scented fern, Pinkster azalea, White wood aster, Deertongue grass, Enchanter's nightshade, American hornbeam, and Silky dogwood.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 101
Acreage 1.1218
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, northern red	<5' & >30'			Foot Traffic	Soil compaction
Deciduous	Jewelweed	<5'				Trash
Hemicryptophytes	Red maple	>30' & 5-30'				Vandalism
Level	Nightshade, enchanter's	<5'				
Dry/Moist	Oak, pin	>30'				
	Spicebush	<5' & 5-30'				

Comments

This is a closed forest. The defining species of the unit are Pin oak, Red maple and Jewelweed. The unit is bordered by the Maple/Sweetgum swamp in the park, and the White trail traverses the unit. The first bridge crossing heading south on the trail is included. Other species include Hickories, Virginia creeper, Curly dock, American beech, Sweetgum, Violet, Bittersweet nightshade, Poison ivy, American elm, American hornbeam, Silky dogwood, and White oak. MC: Multiflora rose, Japanese knotweed, Japanese stiltgrass, Siebold viburnum, vandalism along the trail, soil compaction and trash.

Unit: 102
Acreage 1.2857
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Red maple	>30' & 5-30'			Vagabond	
Deciduous	Sweetgum	>30' & 5-30'				
Chamaephytes	Oak, pin	<5' & >30'				
Level	Arrowwood	<5' & 5-30'				
Wet	Nettle, false	<5'				

Comments

This is a woodland unit, but a swamp (wetland) in nature. The dominant species are mostly Sweetgum and Red maple. This unit is southwest of a larger swamp area. There is some standing water and it is muddy. Other spp.: Poison ivy, Virginia creeper, Clover, American elm, Swamp white oak, Canada mayflower, Jewelweed, Elderberry, Bittersweet nightshade, Mad-dog skullcap, Trillium, Ditch stonecrop, Silky dogwood, Spicebush, Water horehound, Moss spp., Water plantain, Green ash, Blackgum, Bentgrass spp. MC: Japanese stiltgrass, and a make-shift camp at the southern end of the unit near a meadow.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 103
Acreage 0.2666
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	<5' & 5-30'	Yes		Foot Traffic	
Deciduous	Red maple	>30' & 5-30'			Other	
Geophytes	Dogwood, silky	<5' & 5-30'				
Level	Jewelweed	<5'				
Dry/Moist						

Comments

This is a herbaceous unit composed primarily of Phragmites. It is adjacent to the Red maple/Sweetgum swamp. There is wetland monitoring instrument in the unit. Current Use #2: Other = wetland monitoring. Other spp.: Spicebush, American elm, Arrowwood, Virginia creeper, False nettle, Poison ivy, Mad-dog skullcap, Bittersweet nightshade, Catbrier, Grape, Rubus, Swamp smartweed, Swamp white oak. MC: Phragmites, Multiflora rose.

Unit: 104
Acreage 0.1884
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Rice cutgrass	<5'				
Deciduous	Water pepper, mild	<5'				
Geophytes	Ovate spikerush	<5'				
Depression	Nettle, false	<5'				
Moist	Bittercress	<5'				

Comments

This is a herbaceous unit southwest of a swamp. The canopy is open and the ground is covered by Rice cutgrass where it seems to be outcompeting other plant species. Dominant species are Rice cutgrass, Water pepper, Ovate spikerush, False nettle, Bittercress. There is one Green ash in the southwest corner of the unit. There are several downed logs and a stump in the middle of the unit. Other spp.: Water horehound, small oak seedlings, Moss spp., Elderberry, Common nightshade, Virginia horehound, Sedges, False pimpernel.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 105
Acreage 3.7290
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	>30' & 5-30'				Trash
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes	Spicebush	<5' & 5-30'				
Level	Multiflora rose	<5' & 5-30'	Yes			
Dry	Virginia creeper	<5', 5-30', >30'				
	Ivy, poison	<5', 5-30', >30'				

Comments

This unit is a closed forest dominated by Sweetgum. The unit is located south of the Sweetgum/Red maple swamp and west of the White trail. There is dense Arrowwood in the understory. Other spp.: American basswood, Managrass, False nettle, Moss spp., Blackhaw, Jewelweed, Sedges, American elm, Black cherry, Highbush blueberry, Catbrier, Silky dogwood, Bitternut hickory, Canada mayflower, Cherry spp., Grape, Sensitive fern, Red maple, Rubus, Green ash, Trillium, Carolina fern, Enchanter's nightshade, Water pepper. MC: trash, Japanese knotweed, Multiflora rose, Japanese honeysuckle, Asiatic bittersweet.

Unit: 106
Acreage 1.4509
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Hickory, bitternut	<5', 5-30', >30'				Trash
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes	Sweetgum	<5', 5-30', >30'				
Undulating	Oak, pin	>30' & 5-30'				
Dry/Moist	Red maple	>30' & 5-30'				
	Virginia creeper	<5', 5-30', >30'				

Comments

This unit is a closed forest. It borders between the lower Sweetgum/Red maple swamp unit and a Sweetgum/Arrowwood unit. There is an ephemeral stream that cuts through the unit. There are large amounts of invasive vines. Other spp.: Catbrier, Enchanter's nightshade, Shagbark hickory, Spicebush, Grape, American elm, Sedges, Poison ivy, Black cherry, Gray birch, Swamp white oak, Blackhaw, Violet, Pokeweed, Canada mayflower, False Solomon's seal, Rubus. MC: Asiatic bittersweet, Japanese honeysuckle, Multiflora rose, Norway maple, Porcelain-berry, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 107
Acreage 1.2377
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, northern red	>30' & 5-30'		Fence	Foot Traffic	Boundary
Deciduous	Oak, black	>30' & 5-30'				
Phanerophytes	Viburnum, mapleleaf	<5'				
Slope	Hickory complex, multiple	<5', 5-30', >30'				
Dry/Moist	Ash, green	<5', 5-30', >30'				
	Catbrier	<5' & 5-30'				

Comments

This is a closed forest bordering College of Staten Island and the burned unit with the White trail running through the western edge. The Nature trail (spur trail) runs through the eastern part of the unit. There is abundant Green ash and Hickory regeneration in the understory. Within 10 years Hickory and Green ash may be the more dominant species in the overstory. Other spp.: Black cherry, Blackgum, Blackhaw, Arrowwood, Spicebush, False Solomon's seal, Virginia creeper, Poison ivy, White oak, Flowering dogwood, Red maple, Enchanter's nightshade, Sassafras, American hornbeam, Bigtooth aspen, White spotted wintergreen, Sweetgum, Blueberry spp., Pokeweed, Tuliptree, American elm, Smooth sumac, Staghorn sumac, American beech. MC: Japanese barberry, Japanese honeysuckle, Multiflora rose, boundary.

Unit: 108
Acreage 0.9637
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Oak, pin	>30'				
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes	Red maple	>30' & 5-30'				
Undulating	Dogwood, silky	<5' & 5-30'				
Dry/Moist						

Comments

This unit is a woodland wedged in between a vineland and Sweetgum forest; just west of the White trail. It is distinguished by large Pin oaks. The species composition may change in the next 10 years because of invasive species within the unit and the large amount of Multiflora rose in the bordering units. Other spp.: Blackgum, Canada mayflower, White spotted wintergreen, Poison ivy, Highbush blueberry, Black birch, Bitternut hickory, Spicebush, Black cherry, Sweetgum, False Solomon's seal, Jewelweed, Virginia creeper, Swamp white oak, American elm, Green ash, Mockernut hickory, American hazelnut. MC: Japanese honeysuckle, Porcelain-berry, Catbrier, Multiflora rose, Privet.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 109
Acreage 0.1980
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Cool season grass	<5'	Yes	Other	Foot Traffic	Soil compaction
Deciduous	Multiflora rose	<5'	Yes			Trash
Geophytes	Ivy, poison	<5'				Boundary
Slope	Virginia creeper	<5'				
Dry						

Comments

This unit is a herbaceous community. It borders the eastern boundary of the park. It is adjacent to the Loop Road and includes a deteriorating paved walkway that has been there for some time, and parallels the road. The unit is of particular concern, because it contains an extensive amount of invasive exotic species. Historical Indicator #1: Other = deteriorating paved walkway. Other spp.: Water pepper, Groundsel tree, White oak, Pokeweed, Staghorn sumac, Smooth sumac, Common plantain, Curly dock, Sassafras. MC: Multiflora rose, Ailanthus, Porcelain-berry, White mulberry, Mugwort, boundary, soil compaction, trash.

Unit: 110
Acreage 0.5341
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Mugwort	<5'	Yes	Exotic Planting	Foot Traffic	Dumping
Deciduous	Grass spp.	<5'				Trash
Hemicryptophytes	Goldenrod	<5'				
Undulating	Milkweed, purple	<5'				
Dry	Callery pear	5'-30'	Yes			
	Multiflora rose	5'-30'	Yes			

Comments

This is a herbaceous unit. The unit is along Ashworth Ave. and is within the Southwest border of the park adjacent to a residential community development. Other spp.: American elm, Sweetgum, Green ash, Groundsel tree, Curly dock, Silky dogwood, Black willow, Common milkweed, Black cherry, Arrowwood, Sedges, Thyme-leafed speedwell. MC: Crabapples, Phragmites, Porcelain-berry, Japanese honeysuckle, Mugwort, Callery pear, Multiflora rose, trash, dumping.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 111
Acreage 0.2848
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scrub	Mugwort	<5'	Yes		Foot Traffic	Dumping
Deciduous	Multiflora rose	5'-30'	Yes			Trash
Hemicryptophytes	Porcelain-berry	5'-30'	Yes			
Slope	Elm, American	5'-30'				
Dry	Locust, black	5'-30'	Yes			
	Grass spp.	<5'				

Comments

This is a scrubland unit. The unit parallels Ashworth Ave. and Conrad Ave. by the Southwest border of Willowbrook Park. Other spp.: Winged sumac, Virginia creeper, Smooth sumac, Catalpa spp., Green ash, Goldenrod, Wild indigo, Curly dock, Groundsel tree, Wild carrot, Thyme leafed speedwell. MC: Japanese honeysuckle, Phragmites, Crabapple, Porcelain-berry, Callery pear, Common plantain., Mugwort, Multiflora rose, Black locust, trash, dumping.

Unit: 112
Acreage 0.1025
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Multiflora rose	5'-30'	Yes			Dumping
Deciduous	Knotweed, Japanese	<5' & 5'-30'	Yes			Auto
Chamaephytes	Locust, black	5'-30'	Yes			Trash
Level	Cherry, black	5'-30'				
Dry/Moist	Mugwort	<5'	Yes			
	Spicebush	5'-30'				

Comments

This unit is a woodland. The unit is along Forest Hill Road adjacent to New Springville Little League fields. Various tree species have small metal tags (unknown entity). There is a utility pole with the label "NYT 43S" within the unit. A lot of dumping and concrete is evident in the area. Other spp.: Violet, Arrowwood, American elm, Sassafras, Bitternut hickory, Deer-tongue grass, Boxelder, False Solomon's seal, Virginia creeper, Foxtails, Sweetgum, Great ragweed. MC: Garlic mustard, Smartweed, Norway maple, Phragmites, Multiflora rose, Japanese knotweed, Mugwort, Black locust, dumping, auto, trash, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 113
Acreage 1.4571
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Hickory spp.	5'-30'		Culvert	Foot Traffic	Dumping
Deciduous	Multiflora rose	5'-30'	Yes			Auto
Chamaephytes	Spicebush	5'-30'				Trash
Undulating	Virginia creeper	<5'				
Dry/Moist	Jewelweed	<5'				
	Knotweed, Japanese	<5' & 5-30'	Yes			

Comments

This is a closed forest located in the south tip of the Willowbrook Park panhandle adjacent to Forest Hill Road. An old culvert enters the unit from Forest Hill Road. The interior of the unit has extensive amounts of trash and historical dumping as well as along the edge of Forest Hill Road. The unit undulates and has several rock outcroppings. A seasonal stream traverses the unit, westbound. There are metal tags on the trees. Other spp.: American elm, Nightshade species, Black cherry, Blackgum, Fox grape, False Solomon's seal, Violet, Aster spp., Sassafras, Pin oak, Black oak, Chestnut oak, White oak, Goldenrod, Poison ivy, Catbrier, Ragweed spp., Pokeweed, Woodland sunflower, Blackhaw, Arrowwood, Red maple, Sugar maple, Grass spp. MC: Porcelain-berry, Asiatic bittersweet, Japanese honeysuckle, Mugwort, Burning bush, Japanese barberry, Common plantain, Multiflora rose, Japanese knotweed, dumping, auto, trash.

Unit: 114
Acreage 0.0614
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Porcelain-berry	5'-30'	Yes			Dumping
Deciduous	Mugwort	<5' & 5-30'	Yes			Trash
Lianas	Ragweed, common	<5'				
Level	Cool season grass	<5'	Yes			
Dry/Moist						

Comments

This unit is a vineland. It is on the corner of Ashworth Ave and Forest Hill Rd. There is trash, dumping and concrete slabs. Other species: American elm, Black locust. MC: Phragmites, Porcelain-berry, Mugwort, trash, dumping.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 115
Acreage 0.4091
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Multiflora rose	<5' & 5-30'	Yes		Foot Traffic	Dumping
Deciduous	Knotweed, Japanese	<5' & 5-30'	Yes		Powerline	Auto
Chamaephytes	Red maple	>30' & 5-30'				Trash
Undulating	Ivy, poison	<5', 5-30', >30'				
Dry/Moist	Porcelain-berry	5'-30'	Yes			
	Lamb's quarters	<5'	Yes			

Comments

This unit is a woodland. It borders Ashworth Ave near the corner of Forest Hill Rd. The unit is invaded by a patch of Japanese knotweed from an adjacent herbaceous unit. There are large amounts of concrete slabs, derelict cars and parts. Along the edge is landscaping debris (i.e. garden clippings, grass). Other spp.: Clover, Green ash, Black locust, Silver maple, Virginia creeper, Blackhaw, Sweetgum, American elm, Common ragweed, Foxtail, Pin oak, Sassafras, White oak. MC: Lamb's quarters, Mugwort, Porcelain-berry, Japanese honeysuckle, Japanese knotweed, Multiflora rose, Common plantain, trash, concrete, dumping, auto, derelict car.

Unit: 116
Acreage 0.0355
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Aquatic (fresh)	Grass, barnyard	<5'	Yes			Dumping
	Arrowwood	<5'				Trash
Geophytes	Watercress	<5'	Yes			
Depression	Water plantain	<5'				
Wet	Nightshade, bittersweet	<5'	Yes			
	Cool season grass	<5'	Yes			

Comments

This is an aquatic unit, surrounded by a grove of black alder. Other spp.: Common ragweed, Pokeweed, Jewelweed, Smartweed spp., Sedges, Moss spp., Lichens, Hedge bindweed, Cattail spp., Deer-tongue grass, Cursed crowfoot. MC: Porcelain-berry, Smartweed, Bittersweet nightshade, trash, dumping, Barnyard grass, Dodder spp.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 117
Acreage 0.1381
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Multiflora rose	<5' & 5-30'	Yes	Fence		Trash
Deciduous	Knotweed, Japanese	<5' & 5-30'	Yes			Dumping
Geophytes	Alder, black	>30' & 5-30'	Yes			
Level	Porcelain-berry	<5' & 5-30'	Yes			
Dry/Moist	Willow, black	<5' & >30'				

Comments

This unit is a closed forest that surrounds a wetland depression. It also borders a unit with Japanese knotweed and a herbaceous unit that is along Ashworth Ave. Other spp.: Winged sumac, American elm, Black locust, Curly dock, Goldenrod, Foxtail, Poison ivy, Smartweed spp. MC: Mugwort, Lamb's quarters, Japanese honeysuckle, Porcelain-berry, Multiflora rose, Ailanthus, White mulberry, Callery pear, Black alder, Japanese knotweed, trash, dumping.

Unit: 118
Acreage 0.1760
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Mugwort	<5' & 5-30'	Yes	Fence		Trash
Deciduous	Knotweed, Japanese	<5' & 5-30'	Yes			
Hemicryptophytes	Goldenrod	<5'				
Level	Porcelain-berry	<5' & 5-30'	Yes			
Dry/Moist	Grass spp.	<5'				

Comments

This unit is a herbaceous community adjacent to Ashworth Ave. and is in front of townhomes at the corner of Conrad Ave. Other spp.: Groundsel tree, Eastern cottonwood, Black locust, Poison ivy, Wild carrot, Wild indigo, Common ragweed, Daisy fleabane, Hedge bindweed, Elm spp. and Red maple seedlings. MC: Multiflora rose, Phragmites, Common plantain, White mulberry, Red clover, Japanese honeysuckle, Japanese knotweed, Mugwort, black alder, Porcelain-berry, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 119
Acreage 0.5115
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Ash, green	5'-30'		Full-Crown Tree	Foot Traffic	Soil compaction
Deciduous	Elm spp.	5'-30'				Dumping
Hemicryptophytes	Mugwort	<5'	Yes			Trash
Slope	Ragweed, great	<5'				
Dry	Multiflora rose	5'-30'	Yes			
	Grass spp.	<5'				

Comments

This is a closed forest. It parallels Ashworth Ave. and Shirra Ave. A vernal stream runs east to west within the unit and consists of an even-stand second generation canopy cover. Other spp.: Sweetgum, Tulip-poplar, Black willow, Catalpa spp., Poison ivy, Virginia creeper, Groundsel tree, Wild indigo, Catbrier, Red maple, London planetree, White ash, Grape, Goldenrod, Wild carrot, Gray dogwood, Foxtail, Eastern cottonwood. MC: Lamb's quarters, Phragmites, Asiatic bittersweet, Norway maple, Japanese honeysuckle, Mugwort, Multiflora rose, Thistle, Ornamental honeysuckle vine, Common plantain, Porcelain-berry, Black alder, Ailanthus, soil compaction, dumping, trash.

Unit: 120
Acreage 0.3605
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Alder, black	>30' & 5-30'	Yes		Foot Traffic	Soil compaction
Deciduous	Birch, gray	>30' & 5-30'				Dumping
Chamaephytes	Multiflora rose	<5' & 5-30'	Yes			Trash
Level	Catbrier	<5'				
Dry	Honeysuckle, Japanese	<5'	Yes			
	Ivy, poison	5'-30'				

Comments

This unit is a closed forest. The unit is divided into two segments. A homeless encampment is on the eastern perimeter of the unit with fencing. It is situated between the White trail and Ashworth Ave., perpendicular to the New Springville Little League field and Lovell Ave. Other spp.: Arrowwood, Spicebush, Sweetgum, Red maple, Virginia creeper, Goldenrod, Bitternut hickory, Elderberry, Green ash, Slippery elm, Clover, Wild strawberry, Rubus, Enchanter's nightshade. MC: English ivy, Japanese knotweed, Amur honeysuckle, Porcelain-berry, Asiatic bittersweet, Black alder, Multiflora rose, Japanese honeysuckle, soil compaction, dumping, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 121
Acreage 0.0888
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Catbrier	>30' & 5-30'		Fence	Foot Traffic	Soil compaction
Deciduous	Ivy, poison	5'-30'		Exotic Planting		Dumping
Lianas	Multiflora rose	<5' & 5-30'	Yes			Trash
Level	Privet	5'-30'	Yes			
Dry	Oak, pin	>30'				
	Honeysuckle, Japanese	<5' & 5-30'	Yes			

Comments

This is a closed forest. There is a desire line that connects to the White trail from Ashworth Ave. at Lovell Ave., and continues northbound. A few old utility poles are by the northeast border of the unit. Other spp.: Red maple, Elm spp., Sweetgum, Virginia creeper, Green ash, Black cherry, Warm season grass, Pokeweed, Rubus, Goldenrod, Swamp white oak, Aster spp., Spicebush, Arrowwood. MC: Ailanthus, Black locust, Mugwort, Porcelain-berry, Japanese knotweed, Norway maple, Multiflora rose, Privet, Japanese honeysuckle, soil compaction, dumping, trash.

Unit: 122
Acreage 0.8564
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Mugwort	<5' & 5-30'	Yes		Foot Traffic	Soil compaction
Deciduous	Cottonwood, Eastern	>30' & 5-30'				
Hemicryptophytes	Multiflora rose	<5'	Yes			
Level	Locust, black	<5', 5-30', >30'	Yes			
Dry/Moist	Porcelain-berry	<5' & 5-30'	Yes			

Comments

This unit is a woodland dominated by Mugwort in the understory and Eastern cottonwood in the overstory. It is west of the New Springville Little League field and is just northeast of the White trail. Other spp.: American elm, Poison ivy, Rubus, Green ash. MC: Crabapple, Multiflora rose, Porcelain-berry, Black locust, Mugwort, Watercress, Japanese knotweed, Garlic mustard, White mulberry, Cool season grass, soil compaction.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 123
Acreage 0.6944
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Arrowwood	5'-30'			Foot Traffic	Trash
Deciduous	Multiflora rose	<5' & 5-30'	Yes			Boundary
Chamaephytes	Catbrier	5'-30'				
Level	Cherry, black	5'-30'				
Dry/Moist	Knotweed, Japanese	<5' & 5-30'	Yes			
	Oak, pin	<5', 5-30', >30'				

Comments

This is a woodland. It is south of the New Springville Little League field and parking lot. At its mid-point is the White trail, and a seasonal stream is on the southern border. Other spp.: Rubus, Shagbark hickory, Poison ivy, Virginia knotweed, Goldenrod, Spicebush, Virginia creeper, White oak, Blackhaw, Elderberry, Bitternut hickory, Jewelweed, Green ash, American hornbeam, Winterberry. MC: Mugwort, Japanese honeysuckle, Porcelain-berry, English ivy, Asiatic bittersweet, Japanese knotweed, Multiflora rose, trash, boundary.

Unit: 124
Acreage 1.4980
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Porcelain-berry	<5' & 5-30'	Yes	Culvert	Foot Traffic	Dumping
Deciduous	Knotweed, Japanese	<5' & 5-30'	Yes			Trash
Lianas	Catbrier	<5' & 5-30'				Boundary
Undulating	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Dry/Moist	Multiflora rose	<5' & 5-30'	Yes			
	Cherry, black	5'-30'				

Comments

This is a vineland. The northern limit of the unit is the New Springville Little League field, and the southern limit of the unit is by Ashworth Ave. Near Ashworth Ave. is an old stone culvert. The White trail bisects the unit. A seasonal stream runs within the unit. Other spp.: Swamp white oak, American elm, Catbrier, Black cherry, Green ash, Poison ivy, Pin oak, Rubus, Sweetgum, Sassafras, Arrowwood, Spicebush, Grape, Virginia creeper, Bitternut hickory, Sedges, Red maple, Pokeweed, Beaked hazelnut, Wild lettuce. MC: Multiflora rose, Porcelain-berry, Japanese knotweed, Japanese honeysuckle, Norway maple, Catbrier, dumping, trash, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 125
Acreage 0.4099
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Mugwort	<5' & 5-30'	Yes	Road	Foot Traffic	Trash
Deciduous	Phragmites	<5' & 5-30'	Yes	Fence		Boundary
Hemicytrophytes	Multiflora rose	<5' & 5-30'	Yes			
Level	Locust, black	5'-30'	Yes			
Dry/Moist	Cottonwood, Eastern	5'-30'				

Comments

This is a herbaceous unit. It hugs the New Springville Little League field and a fence divides it into two parts. A few utility poles are adjacent to the fence. Part of the park boundary extends into the field. Other spp.: Sedges, Warm season grass, Pokeweed, Sumac, Goldenrod, American elm, Daisy fleabane, Black willow, Foxtails, Virginia creeper, Clover. MC: Callery pear, Multiflora rose, Mugwort, Phragmites, Black locust, Porcelain-berry, Ailanthus, Bittersweet nightshade, Smartweed, trash, boundary.

Unit: 126
Acreage 0.3449
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Elm, American	5'-30'				Dumping
Deciduous	Knotweed, Japanese	<5' & 5-30'	Yes			Auto
Geophytes	Multiflora rose	5'-30'	Yes			Trash
Undulating	Virginia creeper	5'-30'				
Dry/Moist	Porcelain-berry	<5' & 5-30'	Yes			

Comments

This unit is a closed forest. This unit has large amounts of railroad ties, dumped utility poles and concrete. Japanese knotweed is growing in the understory with Porcelain-berry. Other spp.: Red maple, Black cherry, Pokeweed, Pin oak, Poison ivy, Rubus, Spicebush. MC: Black locust, Garlic mustard, Japanese angelica-tree, Multiflora rose, Porcelain-berry, Japanese knotweed, dumping, auto, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 127
Acreage 1.5540
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Multiflora rose	<5' & 5-30'	Yes		Foot Traffic	Dumping
Deciduous	Honeysuckle, Japanese	<5' & 5-30'	Yes			Trash
Lianas	Ivy, poison	<5' & 5-30'				Vandalism
Level	Catbrier	<5' & 5-30'				
Dry/Moist	Red maple	5'-30'				
	Porcelain-berry	<5' & 5-30'	Yes			

Comments

This is a woodland. The White trail traverses the unit. The understory has extensive lianas mixed with sapling trees and Multiflora rose thickets. The largest woodland trees are Green ash and Sweetgum. Other spp.: Hickories, Elderberry, Sassafras, Pin oak, Black cherry, Gray birch, Virginia creeper, Trumpetweed, Grape, Pokeweed, Goldenrod, Sweetgum, Deer-tongue grass, Rubus, Cool-season grass, Clover, Arrowwood, Spicebush, Gray dogwood, American elm. MC: Multiflora rose, Porcelain-berry, Catbrier, Ailanthus, Mugwort, Phragmites, English ivy, Common plantain, Japanese knotweed, Asiatic bittersweet, Japanese honeysuckle, dumping, trash, vandalism.

Unit: 128
Acreage 0.5469
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Mugwort	<5' & 5-30'	Yes	Landfill		Soil compaction
Deciduous	Phragmites	5'-30'	Yes			Dumping
Hemicryptophytes	Locust, black	>30' & 5-30'	Yes			Trash
Level	Cottonwood, Eastern	>30' & 5-30'				
Dry	Goldenrod	<5'				

Comments

This unit is a herbaceous unit. It is dominated by Mugwort with some large patches of Phragmites. There are a few trees. This unit borders the north boundary of the panhandle section of the park, and is northeast of the White trail. It also borders an Eastern cottonwood unit. The unit looks like it was filled in with concrete, bricks and other debris at one time. Other spp.: American elm, Smooth sumac, Green ash. MC: Callery pear, Crabapple, Black locust, Mugwort, Multiflora rose, Phragmites, soil compaction, dumping, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 129
Acreage 0.8378
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Multiflora rose	<5' & 5-30'	Yes		Foot Traffic	Trash
Deciduous	Catbrier	<5' & 5-30'				
Chamaephytes	Red maple	>30' & 5-30'				
Level	Elm, American	>30' & 5-30'				
Dry/Moist	Ash, green	>30' & 5-30'				
	Ivy, poison	<5', 5-30', >30'				

Comments

This is a closed forest unit. The White trail runs through the unit and it is located in the panhandle section of the park. The understory is thick with Multiflora rose and Catbrier. Other spp.: Rubus, Cool season grass, Virginia creeper, Deer-tongue grass, Arrowwood, Spicebush, Swamp white oak, Black cherry, Shagbark hickory, Bitternut hickory, Enchanter's nightshade, Sweetgum, Pokeweed. MC: Ailanthus, Multiflora rose, Asiatic bittersweet, Mugwort, Porcelain-berry, Japanese honeysuckle, Phragmites, Norway maple, trash.

Unit: 130
Acreage 0.1564
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sassafras	>30' & 5-30'			Foot Traffic	
Deciduous	Cherry, black	>30' & 5-30'				
Chamaephytes	Multiflora rose	<5'	Yes			
Undulating	Ivy, poison	<5', 5-30', >30'				
Dry/Moist	Arrowwood	5'-30'				

Comments

This is a closed forest unit. It is located off the White trail in the panhandle of the park. There are down trees and snags in the center of the unit. Other spp.: Red maple, Spicebush, Hickory, Solomon's seal, Virginia creeper, Sweetgum, American hazelnut, Catbrier. MC: Norway maple, Asiatic bittersweet, Multiflora rose, Japanese honeysuckle.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 131
Acreage 0.4791
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	>30' & 5-30'			Foot Traffic	
Deciduous	Multiflora rose	<5' & 5-30'	Yes			
Chamaephytes	Ivy, poison	<5' & 5-30'				
Slope	Arrowwood	<5' & 5-30'				
Dry/Moist						

Comments

This is a closed forest. It borders the Staten Island Developmental Disabilities Services Office property (SIDDSO), and the New Springville Little League field natural areas. The forest canopy cover is primarily composed of Sweetgum and the White trail runs through the unit. There is a good amount of Hickory regeneration. Other spp.: Virginia creeper, Grape, Hickory, Blackhaw, Red maple, Tuliptree, Spicebush, Sassafras, American elm. MC: Autumn olive, Burning bush, Asiatic bittersweet, Norway maple, Multiflora rose.

Unit: 132
Acreage 2.1413
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Spicebush	<5' & 5-30'			Foot Traffic	Dumping
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes	Red maple	<5', 5-30', >30'				
Undulating	Oak, northern red	>30' & 5-30'				
Dry/Moist	Cherry, black	<5', 5-30', >30'				
	Ivy, poison	5'-30'				

Comments

This is a closed forest. The northern border is lined by the White trail and has a thicket of Multiflora rose, while the southern border contains more Catbrier thickets. Other spp.: Virginia creeper, Woodland aster, False Solomon's seal, Mapleleaf viburnum, American hornbeam, Blackgum, Sweetgum, White oak, Pin oak, London planetree, Hickory, Green ash, American elm, American basswood, Blackhaw, Sassafras, Black cherry. MC: Multiflora rose, Japanese honeysuckle, Porcelain-berry, Asiatic bittersweet, Norway maple, dumping.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 133
Acreage 3.0501
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, northern red	5'-30'			Foot Traffic	Trash
Deciduous	Blackgum	5'-30'				
Chamaephytes	Red maple	5'-30'				
Level	Spicebush	5'-30'				
Dry/Moist	Arrowwood	5'-30'				
	Fern spp.	<5'				

Comments

This is a closed forest south of the White trail. The understory is more open and large Northern red oaks tower in parts of the canopy. The northern border is adjacent to SIDDSO and part of the southern border is adjacent to Ashworth Ave. near the tennis courts. There is a desire line that crisscrosses from the White trail towards Ashworth Ave. Other spp.: Canada mayflower, False Solomon's seal, Virginia creeper, American elm, Catbrier, American hornbeam, Poison ivy, Hickories, Tuliptree, Pin oak, Virginia knotweed, Blackhaw, Black cherry, Mapleleaf viburnum, Aster spp., Hay-scented fern, New York fern, Green ash, White oak, Sweetgum, American beech, Swamp white oak. MC: Multiflora rose, Japanese honeysuckle, Norway maple, Porcelain-berry, White mulberry, trash.

Unit: 134
Acreage 2.7113
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	<5', 5-30', >30'				
Deciduous	Red maple	<5', 5-30', >30'				
Chamaephytes	Arrowwood	5'-30'				
Level	Beech, American	>30' & 5-30'				
Dry/Moist	Spicebush	5'-30'				
	Catbrier	<5' & 5-30'				

Comments

This is a closed forest. It is located in between Glenn Rd. and SIDDSO. There are large Red maple, Pin oak, Northern red oak, and Sweetgum canopy trees in the unit. The understory towards the west contains more Blackgum regeneration mixed in with more Catbrier overgrowth. Other spp.: Ferns, Black cherry, American hornbeam, Poison ivy, White oak, Northern red oak, Pin oak, Green ash, Virginia creeper, Hickory, Blackhaw, Tuliptree, Wild strawberry, False Solomon's seal, Mapleleaf viburnum. MC: Norway Maple.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 135
Acreage 1.7204
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Catbrier	<5' & 5-30'				Trash
Deciduous	Hickory spp.	<5', 5-30', >30'				
Lianas	Blackgum	>30' & 5-30'				
Level	Arrowwood	<5' & 5-30'				
Dry/Moist	Oak, northern red	>30' & 5-30'				

Comments

This unit is a closed forest which borders the southwest boundary of the park panhandle. Along the boundary is a tennis court/pool complex and a large empty lot off of Slayton Ave. The unit is dominated by Hickory and Oak with Catbrier in the understory. Other spp.: Goldenrod, Aster spp., Sedges, Cool season grass, Black oak, Black cherry, Poison ivy, False Solomon's seal, Rubus, Virginia creeper, Canada mayflower, Ferns, White oak, Tuliptree, Grape, Spicebush, Swamp white oak, Red maple, Pin oak, Sweetgum, American hornbeam, Wild strawberry, American hazelnut, Blackhaw, Sassafras, Pokeweed. MC: Japanese honeysuckle, Multiflora rose, Catbrier, Japanese holly, Asiatic bittersweet, Japanese barberry, trash.

Unit: 136
Acreage 0.2489
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Blackgum	<5', 5-30', >30'				Trash
Deciduous	Sweetgum	5'-30'				
Chamaephytes	Catbrier	<5' & 5-30'				
Slope						
Dry/Moist						

Comments

This is a closed forest mainly of Blackgum. The intersection of Amy Ln. and Slayton Ave. is directly east of the unit. The understory has Hickory regeneration. Other spp.: Virginia creeper, Red maple, Hickory, Virginia knotweed, Arrowwood, Black cherry.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 137
Acreage 0.1927
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Grape, fox	<5' & 5-30'				
Deciduous	Catbrier	<5'				
Lianas	Arrowwood	5'-30'				
Level	Red maple	5'-30'				
Dry/Moist	Pokeweed	<5'				

Comments

This is a vineland. Catbrier and Grape resides over Arrowwood and Red maple saplings. Other spp.: Virginia creeper, Blackgum, Rubus, Hickory, Sassafras, Sweetgum, Spicebush. MC: Multiflora rose, Japanese angelica-tree.

Unit: 138
Acreage 0.2323
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Deciduous	Grape, wild	<5' & 5-30'				
Lianas	Rubus	5'-30'				
Level	Catbrier	5'-30'				
Dry/Moist						

Comments

This is a vineland. It borders along the park boundary and the White trail. Other spp.: Woodland sunflower, Virginia creeper, Hickory, Elderberry, Spicebush, Pokeweed, Blackgum. MC: Morning glory, Garlic mustard, Japanese angelica-tree, Multiflora rose, Japanese honeysuckle.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 139
Acreage 0.3293
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Ash, green	>30' & 5-30'				
Deciduous	Red maple	>30'				
Chamaephytes	Spicebush	<5' & 5-30'				
Level	Arrowwood	<5' & 5-30'				
Dry/Moist	Grape, wild	>30' & 5-30'				

Comments

This is a woodland. An ephemeral stream meanders through the unit. Large Ash and Maple make up the canopy. Other spp.: Sassafras, Virginia creeper, Hickory, Pokeweed, Rubus, Elderberry, Blackgum, Aster spp., Poison ivy, Sedges, Clover. MC: Japanese honeysuckle, Multiflora rose, Bittersweet nightshade.

Unit: 140
Acreage 0.4166
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Japanese angelica-tree	<5' & 5-30'	Yes	Can Dump	Foot Traffic	Dumping
Deciduous	Honeysuckle, Japanese	<5' & 5-30'	Yes			Trash
Chamaephytes	Multiflora rose	<5' & 5-30'	Yes			
Undulating	Catbrier	<5' & 5-30'				
Dry/Moist	Hickory complex, multiple	<5' & 5-30'				
	Ash, green	<5' & >30'				

Comments

This unit is a closed forest. The White trail runs through the unit. The unit is in the panhandle section of the park between SIDDSO and Slayton Ave. The unit is dominated by Japanese angelica-tree and Multiflora rose in the understory. There is an old can dump here (historical bottles and cans). Other spp.: Black cherry, Blackhaw, Blackgum, Woodland sunflower, Goldenrod, Spicebush, Arrowwood, American hazelnut, Sedges, Rubus, Red maple, Virginia creeper, Sassafras, Poison ivy, American basswood, Pin oak, Leersia spp., Black oak, White oak, American hornbeam, Deer-tongue grass, Sweetgum, Warm season grass, Grape, White wood aster, Pokeweed, Northern hackberry. MC: Wild onion, Japanese honeysuckle, Multiflora rose, Japanese angelica-tree, Privet, Ailanthus, Garlic Mustard, Burning bush, Mugwort, Japanese knotweed, trash, dumping.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 141
Acreage 0.9485
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Grape, wild	<5', 5-30', >30'				Trash
Deciduous	Catbrier	<5' & 5-30'				
Lianas	Multiflora rose	<5' & 5-30'	Yes			
Slope	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Moist						

Comments

This unit is a vineland. It is located in the panhandle area of the park south of a grove of Japanese angelica-trees and south of the White trail. There are two ephemeral streams that go through the unit. This unit has a small patch of Mile-a-minute and was recorded with a GPS unit to monitor. Other spp.: Woodland sunflower, Virginia creeper, Green ash, Black walnut, Hickory, Gray dogwood, Spicebush, Arrowwood, Sassafras, Pokeweed, Red maple, Cool season grass, Goldenrod, Blackhaw, Black Cherry, Hazelnut spp., Pin oak, Rubus, Elderberry, Nightshade spp., Smartweed, Eastern cottonwood, Poison ivy. MC: Japanese knotweed, Japanese honeysuckle, Porcelain-berry, Multiflora rose, Catbrier, Asiatic bittersweet, Mile-a-minute, trash.

Unit: 142
Acreage 1.1264
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Spicebush	5'-30'				Trash
Deciduous	Red maple	>30' & 5-30'				
Chamaephytes	Blackgum	>30' & 5-30'				
Slope	Green ash	>30' & 5-30'				
Dry/Moist	Catbrier	5'-30'				

Comments

This is a closed forest. It hugs a vineland and is a long stretched-out unit in the panhandle section of the park that falls between the White trail and southwest boundary of the park near Amy Ln. and Slayton Ave. There is an abundance of Black cherry regeneration. There is a seasonal stream in the unit. Other spp.: Blackhaw, American hazelnut, Hickories, Black cherry, Pokeweed, Rubus, Woodland sunflower, Arrowwood, American hornbeam, Poison ivy, Sweetgum, Sassafras, Gray dogwood, Virginia creeper, Pin oak, Aster spp., Grape. MC: Asiatic bittersweet, Japanese angelica-tree, Japanese honeysuckle, Multiflora rose, Mugwort, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 143
Acreage 0.3075
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Honeysuckle, Japanese	<5' & 5-30'	Yes	Can Dump		Auto
Deciduous	Catbrier	<5' & 5-30'				Trash
Lianas	Rubus	<5'				Dumping
Level	Multiflora rose	<5'	Yes			
Moist	Knotweed, Japanese	<5' & 5-30'	Yes			

Comments

This unit is a vineland located between the White trail and fenceline that separates the park from the College of Staten Island and almost across from Loop Rd. There is a significant amount of trash, and a historical can dump (bottles and cans). Other spp.: Grape, American hazelnut, Sassafras, Black cherry, Watercress, Black walnut, Pokeweed, Geums, Poison ivy, Bigtooth aspen, Hickories, Pin oak, Virginia creeper, Spicebush. MC: Privet, Japanese honeysuckle, Porcelain-berry, Multiflora rose, Asiatic bittersweet, Mugwort, Catbrier, Japanese knotweed, Garlic mustard, Burning bush, auto, trash, dumping.

Unit: 144
Acreage 0.8697
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Hickory complex, multiple	>30' & 5-30'		Can Dump		Dumping
Deciduous	Honeysuckle, Japanese	<5'	Yes	Fence		Trash
Lianas	Red maple	>30' & 5-30'				Boundary
Level	Multiflora rose	<5' & 5-30'	Yes			
Dry/Moist	Catbrier	<5' & 5-30'				
	Rubus	<5'				

Comments

This unit is a closed forest of native trees with an abundance of invasive species in the understory. The unit borders the White trail, and a fenceline (College of Staten Island boundary). A small spur loop of the White trail goes through the unit. There is some historical can dumping (bottles and cans) in the unit. Other spp.: American Basswood, Blackgum, Black cherry, American hazelnut, White oak, Sweetgum, Spicebush, Tuliptree, Blackhaw, Mapleleaf viburnum, Aster spp., Goldenrod, Virginia creeper, Pin oak, Northern red oak, Poison ivy, Green ash, White wood aster, Sassafras, Warm season grass, Grape. MC: Wild onion, Japanese angelica-tree, Multiflora rose, Japanese honeysuckle, Porcelain-berry, Catbrier, trash, Garlic mustard, dumping, Norway maple, Privet, Ailanthus, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 145
Acreage 0.2980
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Multiflora rose	<5' & 5-30'	Yes	Fence		Dumping
Deciduous	Honeysuckle, Japanese	<5' & 5-30'	Yes			Auto
Chamaephytes	Sassafras	<5', 5-30', >30'				Trash
Level	Catbrier	<5' & 5-30'				
Dry/Moist						

Comments

This unit is a closed forest dominated by Sassafras in the overstory and Multiflora rose in the understory. There is dumping in the area: cans, carts, auto parts, chairs, etc. The unit is located west of and adjacent to College of Staten Island, and the unit is northeast of a vineland. Other spp.: Virginia creeper, Poison ivy, Waterleaf, Sedges, American elm, Black cherry, Black walnut, Blackgum, Blackhaw, Sweetgum, Bigtooth aspen, Hickory, Pin oak, Ferns, Spicebush, Rubus. MC: Norway maple, Japanese knotweed, Garlic mustard, White mulberry, Privet, Ailanthus, Jetbead, Japanese honeysuckle, Multiflora rose, Catbrier, trash, dumping, auto, boundary.

Unit: 146
Acreage 0.3387
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Multiflora rose	<5' & 5-30'	Yes	Fence		Trash
Deciduous	Blackgum	<5', 5-30', >30'				Erosion
Chamaephytes	Spicebush	<5' & 5-30'				Boundary
Depression	Waterleaf	<5'				
Wet	Honeysuckle, Japanese	<5' & 5-30'	Yes			

Comments

This unit is a woodland with a stream running through it. A fence runs through the unit and the unit is adjacent to College of Staten Island. The stream runs northwest to the White trail. Crayfish were seen in the stream. Other spp.: Black cherry, Northern hackberry, Virginia creeper, Red maple, Green ash, Hickories, Ginger, Blackhaw, Poison ivy, Sassafras, Deer-tongue grass, Clover, Warm season grass, Sedges. MC: Wild onion, Japanese barberry, White mulberry, Norway maple, Asiatic bittersweet, Porcelain-berry, Japanese knotweed, Japanese stiltgrass, Garlic mustard, Smartweed, Japanese honeysuckle, Multiflora rose, erosion, trash, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 147
Acreage 0.2435
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Honeysuckle, Japanese	<5' & 5-30'	Yes			Trash
Deciduous	Multiflora rose	<5' & 5-30'	Yes			
Chamaephytes	Walnut, black	>30' & 5-30'				
Depression	Catbrier	<5' & 5-30'				
Wet	Porcelain-berry	<5' & 5-30'	Yes			
	Waterleaf	<5'				

Comments

This unit is a vineland located along a stream wetland corridor. It is between the Ruins, located on the White trail and an upper unit along the stream adjacent to College of Staten Island. Other spp.: Jewelweed, American hazelnut, Spicebush, Witch-hazel, Sedges, Cool season grass, Pokeweed, Green ash, Red maple, Ginger, Grape, Poison ivy, Black cherry, American hornbeam, Clovers, Hickory, Woodland sunflowers, Northern hackberry, Rubus, Dogwoods, American elm. MC: Asiatic bittersweet, Smartweed, Japanese honeysuckle, Multiflora rose, Japanese stiltgrass, Catbrier, Porcelain-berry, Wild onion, Siebold viburnum, Burning bush, Ailanthus, trash.

Unit: 148
Acreage 0.2585
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Catbrier	<5' & 5-30'		Fence	Foot Traffic	Boundary
Deciduous	Japanese angelica-tree	<5' & 5-30'	Yes			
Lianas	Rubus	<5' & 5-30'				
Level	Honeysuckle, Japanese	<5'	Yes			
Dry/Moist	Grass, deer-tongue	<5'				

Comments

This unit is a vineland with Japanese angelica-tree and a couple of other tree species in the overstory. A nature trail runs through the unit, as well as a fence on the perimeter. The Ruins are nearly visible from the unit. Other spp.: Pokeweed, Moss spp., Lichens, Cool season grass, Grape, American hazelnut, Bigtooth aspen, American elm, Hickory, Smooth sumac, Goldenrod, Arrowwood, Calico aster, Tuliptree, Wild lettuce. MC: Asiatic bittersweet, Ailanthus, Morning glory, Multiflora rose, Porcelain-berry, Garlic mustard, Catbrier, Japanese angelica-tree, Japanese honeysuckle, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 149
Acreage 0.1207
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Aspen, bigtooth	>30'		Fence	Foot Traffic	Boundary
Deciduous	Catbrier	<5' & 5-30'				
Lianas	Honeysuckle, Japanese	<5', 5-30', >30'	Yes			
Level	Rubus	<5' & 5-30'				
Dry/Moist	Multiflora rose	<5' & 5-30'	Yes			

Comments

This unit is a closed forest with a vine understory. It is adjacent to a vineland/Japanese angelica-tree unit. The Nature trail and a fence runs through the unit. Other spp.: Elderberry, Green ash, Sweetgum, Pokeweed, Virginia creeper, Aster spp., Pin oak, Enchanter's nightshade, Cool season grass, Goldenrod, American hazelnut. MC: Catbrier, Japanese honeysuckle, Multiflora rose, Porcelain-berry, boundary.

Unit: 150
Acreage 0.1747
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Ailanthus	>30' & 5-30'	Yes	Fence	Foot Traffic	Boundary
Deciduous	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Lianas	Multiflora rose	<5'	Yes			
Level	Sassafras	<5', 5-30', >30'				
Dry/Moist	Hickory complex, multiple	<5', 5-30', >30'				

Comments

This unit is a closed forest composed mostly of Ailanthus in the overstory and Japanese honeysuckle in the understory. The Nature trail and a fence pass through the unit. On the other side of the fence is College of Staten Island, and the unit is north of a patch of Japanese angelica-trees and a grove of Bigtooth aspen. Other spp.: Blackhaw, Enchanter's nightshade, Pin oak, Virginia creeper, Black cherry, Poison ivy, Rubus, Geums, Cool season grass, Black walnut, Spicebush, American hazelnut, American elm. MC: Amur honeysuckle, Garlic mustard, Norway maple, Burning bush, boundary, Ailanthus, Japanese honeysuckle, Multiflora rose.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 151
Acreage 0.9230
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Red maple	>30' & 5-30'		Fence	Foot Traffic	Boundary
Deciduous	Catbrier	<5' & 5-30'				
Lianas	Oak, northern red	<5', 5-30', >30'				
Slope	Spicebush	<5' & 5-30'				
Dry/Moist	Ivy, poison	<5'				

Comments

This unit is a closed forest located next to riparian units along a stream that is adjacent to the Ruins. A fence and the Nature trail run through the unit, and College of Staten Island is on the other side of the fence. The White trail is on the western boundary of the unit. Other spp.: American elm, American hornbeam, Hickory, Black cherry, Aster spp., Pin oak, Sassafras, Tuliptree, Virginia creeper, Arrowwood, Witch-hazel, Sweetgum, Green ash, Goldenrod, Rubus, Deer-tongue grass, Cool season grass, Moss spp., Woodland sunflower. MC: Ailanthus, Multiflora rose, Catbrier, boundary, Japanese stiltgrass.

Unit: 152
Acreage 2.9606
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Hickory complex, multiple	<5', 5-30', >30'		Fence	Foot Traffic	Boundary
Deciduous	Oak, northern red	<5', 5-30', >30'			Geocaching	
Chamaephytes	Multiflora rose	<5' & 5-30'	Yes			
Slope	Viburnum, mapleleaf	<5'				
Dry/Moist	Sassafras	<5', 5-30', >30'				
	Tuliptree	<5', 5-30', >30'				

Comments

This unit is a closed forest with both the White trail and the Nature trail running through it. The fence that separates the park from College of Staten Island is in the eastern part of the unit. The southern part of the unit borders a grove of Ailanthus, and the middle bridge on the White trail is within the unit. A blue geocaching box was found under a rock. Other spp.: Snakeroot, American elm, American hornbeam, Catbrier, Bigtooth aspen, Blackhaw, Aster spp., American hazelnut, Black cherry, Arrowwood, Spicebush, Black oak, Pin oak, White oak, Green ash, Blackgum, Sweetgum, False Solomon's seal, Poison ivy, Barnyard grass, Grape, Cherry spp., Rubus, Hay-scented fern, Goldenrod, Deer-tongue grass, Sedges, Virginia creeper, Cool season grass, Red maple. MC: Wild onion, Asiatic bittersweet, boundary, Japanese honeysuckle, Multiflora rose, Garlic mustard, Privet, Japanese barberry, Burning bush.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 153
Acreage 0.2380
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Arrowwood	5'-30'			Foot Traffic	Trash
Deciduous	Mustard, garlic	<5'	Yes			
Hemicryptophytes	Cherry, black	5'-30'				
Level	Ivy, poison	<5', 5-30', >30'				
Dry/Moist	Hickory complex, multiple	5'-30'				
	Honeysuckle, Japanese	<5'	Yes			

Comments

This unit is a closed forest. The White trail is the west boundary, and the unit is adjacent to a vineland and Hickory/Sassafras unit. Other spp.: Virginia creeper, Pin oak, Rubus, Sweetgum, Red maple, Spicebush, Sassafras, Enchanter's nightshade, American elm, Grape, False Solomon's seal. MC: Multiflora rose, Garlic mustard, Japanese honeysuckle, trash.

Unit: 154
Acreage 0.3936
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, pin	>30' & 5-30'				Vandalism
Deciduous	Red maple	5'-30'				
Chamaephytes	Hickory complex, multiple	5'-30'				
Level	Blackgum	5'-30'				
Dry/Moist	Arrowwood	<5' & 5-30'				

Comments

This is a closed forest. The understory is sparse with Arrowwood regeneration. A white frame was found in the north part of the unit. Other spp.: Tuliptree, Virginia creeper, False Solomon's seal, Sweetgum, Black cherry, Catbrier, American hazelnut, Blackhaw, Rubus, Spicebush, Coral fungi, Poison ivy, White spotted wintergreen, Mapleleaf viburnum. MC: Burning bush, Multiflora rose, vandalism: white frame in the woods.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 155
Acreage 1.3906
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, pin	>30' & 5-30'				Trash
Deciduous	Sweetgum	>30' & 5-30'				
Chamaephytes	Red maple	>30' & 5-30'				
Level	Arrowwood	5'-30'				
Moist	Catbrier	5'-30'				

Comments

This is a closed forest. Ephemeral streams are along the northern border of the unit. The White trail borders the south part of the unit. Other spp.: Green ash, American elm, Blackgum, Highbush blueberry, Black cherry, American hazelnut, Rubus, Poison ivy, Virginia creeper, Smartweed, White oak, Carolina fern, Winterberry, Spicebush, Grape, Hickory, Aster spp., Enchanter's nightshade. MC: Wild onion, Multiflora rose, Asiatic bittersweet, Japanese honeysuckle, Garlic mustard, trash.

Unit: 156
Acreage 0.2197
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	>30' & 5-30'				
Deciduous	Ailanthus	5'-30'	Yes			
Lianas	Arrowwood	5'-30'				
Level	Catbrier	<5'				
Dry/Moist	Honeysuckle, Japanese	<5'	Yes			

Comments

This is a closed forest. It is adjacent to the White trail. The understory has Catbrier and has several fallen trees/snags. Other spp.: Red maple, Virginia creeper, Tuliptree, Spicebush, New York fern, Black cherry, Bitternut hickory, Rubus, Grape, Enchanter's nightshade, Poison ivy, Pin oak, Blackgum, Green ash, Warm season grass, Wild strawberry. MC: Multiflora rose, Catbrier, Ailanthus, Japanese honeysuckle, Japanese angelica-tree.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 157
Acreage 0.1278
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Catbrier	<5' & 5-30'				Trash
Deciduous	Arrowwood	5'-30'				
Lianas	Honeysuckle, Japanese	<5'	Yes			
Depression	Porcelain-berry	<5'	Yes			
Moist						

Comments

This is a vineland. It is north from a seasonal stream, which looks man-made. It is east from the White trail. There are large thickets of Arrowwood. Other spp.: Rubus, Blackgum, Pokeweed, Virginia creeper, Black walnut, Grape, Calico aster, Gray dogwood, Black cherry, Bitternut hickory, Pin oak, Poison ivy, Spicebush. MC: Porcelain-berry, Garlic mustard, Wild onion, Multiflora rose, Japanese honeysuckle, trash.

Unit: 158
Acreage 1.1090
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Cherry, black	<5' & 5-30'				
Deciduous	Hickory complex, multiple	<5' & 5-30'				
Chamaephytes	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Level	Multiflora rose	<5' & 5-30'	Yes			
Dry/Moist	Blackgum	<5' & 5-30'				
	Ash, green	>30' & 5-30'				

Comments

This is a woodland with a highly disturbed understory formed by exotic species. The overall formation is a woodland with a few sections as closed forest. The species composition and distribution is mixed. The unit includes a section of the White trail and the Ruins are within the unit. Other spp.: Poison ivy, Warm season grass, Pokeweed, Deer-tongue grass, Calico aster, Black walnut, Hazelnut spp., Bigtooth aspen, Virginia creeper, Spicebush, Goldenrod, American elm, Grape, Sassafras, Sweetgum, Red maple. MC: Wild onion, Asiatic bittersweet, Porcelain-berry, Japanese honeysuckle, Multiflora rose, Burning bush, Crabapple, Japanese knotweed, Privet, Garlic mustard.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 159
Acreage 0.1290
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Red maple	<5', 5-30', >30'			Foot Traffic	Trash
Deciduous	Oak, pin	<5', 5-30', >30'				
Phanerophytes	Multiflora rose	<5' & 5-30'	Yes			
Level	Honeysuckle, Japanese	<5'	Yes			
Dry/Moist	Ash, green	<5', 5-30', >30'				
	Hazelnut, American	<5' & 5-30'				

Comments

This unit is a closed forest. It is wedged between the White trail and an open vineland, located in the panhandle section of the park. There are different patches of invasive species and trees in the understory. Other spp.: Black cherry, Spicebush, Hickories, Arrowwood, Grape, Poison ivy, Catbrier, Blackhaw, Virginia creeper, Rubus, Gray dogwood, Sassafras, Leersia spp.. MC: Wild onion, Multiflora rose, Norway maple, Japanese honeysuckle, Catbrier, Asiatic bittersweet, Japanese knotweed, trash.

Unit: 160
Acreage 0.8214
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Multiflora rose	<5' & 5-30'	Yes		Foot Traffic	Dumping Trash
Deciduous	Spicebush	<5' & 5-30'				
Chamaephytes	Cherry, black	<5', 5-30', >30'				
Level	Oak, pin	<5', 5-30', >30'				
Dry/Moist	Honeysuckle, Japanese	<5', 5-30', >30'	Yes			
	Hickory complex, multiple	<5', 5-30', >30'				

Comments

This is a closed forest in the north panhandle section of the park. The unit borders a couple of open vineland units. The White trail passes through the middle of the unit, and there is a historical can dump (cans, bottles, etc.) in the unit. Other spp.: Rubus, Catbrier, Poison ivy, Green ash, Blackgum, Bigtooth aspen, Virginia creeper, Gray birch, Goldenrod, Red maple, Sassafras, Arrowwood, Lowbush blueberry, Northern red oak, Sweetgum, Spicebush, American hazelnut, Blackhaw, Grape, White oak. MC: Wild onion, Japanese knotweed, Privet, Burning bush, Asiatic bittersweet, Norway maple, Garlic mustard, Multiflora rose, Japanese honeysuckle, dumping, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 161
Acreage 0.5839
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Hickory complex, multiple	<5', 5-30', >30'			Foot Traffic	Dumping
Deciduous	Honeysuckle, Japanese	<5' & 5-30'	Yes			Trash
Lianas	Ivy, poison	<5', 5-30', >30'				
Slope	Ash, green	<5', 5-30', >30'				
Dry/Moist	Catbrier	<5', 5-30', >30'				
	Multiflora rose	<5' & 5-30'	Yes			

Comments

This unit is a closed forest between Ashworth Ave. and College of Staten Island. The White trail runs through the unit and the unit is approximately 200 feet south of the Ruins. There is some dumping in the unit. An Eastern box turtle was found in the unit. Other spp.: Enchanter's nightshade, American elm, Rubus, Smooth Solomon's seal, American hazelnut, Pin oak, Spicebush, Red maple, Virginia creeper, Blackgum, Black cherry, Bigtooth aspen, Warm season grass, Arrowwood, Deer-tongue grass, Wild strawberry, Calico aster, Goldenrod, Sassafras, Sedges. MC: Japanese honeysuckle, Multiflora rose, Japanese angelica-tree, Privet, dumping, trash.

Unit: 162
Acreage 0.2765
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Blackgum	<5', 5-30', >30'			Foot Traffic	
Deciduous	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Chamaephytes	Multiflora rose	<5' & 5-30'	Yes			
Slope	Ivy, poison	<5', 5-30', >30'				
Dry/Moist	Oak, pin	<5', 5-30', >30'				
	Spicebush	<5' & 5-30'				

Comments

This unit is a closed forest, west of the White trail and just south of the Ruins. The unit abuts an ephemeral stream on the western boundary. There are many Blackgum saplings in the understory. Other spp.: Deer-tongue grass, American hazelnut, White oak, Pokeweed, Black cherry, Hickory, Catbrier, Arrowwood, Sweetgum, Ferns, Virginia creeper, Rubus, Red maple, Goldenrod, Green ash, Northern hackberry, Warm season grass. MC: Crabapple, Wild onion, Asiatic bittersweet, Japanese honeysuckle, Japanese angelica-tree, Ailanthus, Multiflora rose, Garlic mustard.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 163
Acreage 0.1660
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Silver maple	>30' & 5-30'		Full-Crown Tree	Foot Traffic	Soil compaction
Deciduous	Dandelion	<5'	Yes	Exotic Planting		Dumping
Geophytes	Mustard, garlic	<5'	Yes			Trash
Level	Aster	<5'				
Dry	Ivy, poison	<5' & 5-30'				
	Oak, pin	<5', 5-30', >30'				

Comments

This unit is a closed forest located on Ashworth Ave. and begins at a utility pole on Carpenter Ave., and ends halfway down towards the end of Ashworth Ave. heading east. The unit hugs the street and has been maintained by neighbors in the area with tree plantings and landscaping. There is dumping, including landscaper garden scraps. Other spp.: Hydrangea spp., Lily spp., Purpleleaf plum, Hosta, American elm, Ornamental euonymus, Clover, Sweetgum, Pokeweed, Virginia creeper, Rubus, Geums, Lemon balm, Yew, Northern hackberry, Green ash, Black cherry, Arborvitae, Hickory. MC: Privet, Asiatic bittersweet, Japanese stiltgrass, Multiflora rose, Dandelion, Garlic mustard, Porcelain-berry, White mulberry, Japanese honeysuckle, Mugwort, Callery pear, soil compaction, dumping, trash, vandalism, raccoons.

Unit: 164
Acreage 2.0957
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Porcelain-berry	<5', 5-30', >30'	Yes	Other	Foot Traffic	Dumping
Deciduous	Grape, wild	<5', 5-30', >30'			Social Gathering	Trash
Lianas	Multiflora rose	<5' & 5-30'	Yes			
Level	Ailanthus	<5', 5-30', >30'	Yes			
Dry/Moist	Cherry, black	>30' & 5-30'				
	Asiatic bittersweet	<5', 5-30', >30'	Yes			

Comments

This unit is a vineland located near Ashworth Ave. between Shepard Ave. and east of Carpenter Ave. The unit is east of a very open Phragmites/Porcelain-berry unit. There is a lot of trash in the unit and some foot traffic access from Ashworth Ave. A lot of social gatherings are taking place in the unit. Most of the trees are Black cherry, mostly covered in vines. Other spp.: Pokeweed, Arrowwood, Red maple, Northern hackberry, Poison ivy, Grape, Gray dogwood, Rubus, Pin oak, Gray birch, Green ash, Hickory, Catbrier, Spicebush. MC: Mugwort, Japanese honeysuckle, Norway maple, Multiflora rose, Porcelain-berry, Ailanthus, Asiatic bittersweet, White mulberry, Wineberry, Garlic mustard, Japanese angelica-tree, Japanese knotweed, trash, dumping, social gatherings.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 165
Acreage 1.7267
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Multiflora rose	<5' & 5-30'	Yes	Other	Foot Traffic	Soil compaction
Deciduous	Spicebush	<5' & 5-30'				Dumping
Chamaephytes	Cherry, black	>30' & 5-30'				Trash
Level	Honeysuckle, Japanese	<5', 5-30', >30'	Yes			
Dry/Moist	Ash, green	<5', 5-30', >30'				
	Ivy, poison	<5', 5-30', >30'				

Comments

This unit is a closed forest dominated by Black cherry in the overstory and Multiflora rose, Spicebush, and Japanese honeysuckle in the understory. The east part of the unit has significant amounts of large Sassafras and smaller Sassafras seedlings. The west is being encroached upon by invasive vines and trees. The unit is located off Ashworth Ave. starting at the fourth house down to the end of the street. There are large amounts of dumping and trash, including landscaper clippings/trimmings. There was a feral cat observed. Other spp.: Milkweed, Foxtail, Cool season grass, Common nightshade, Pokeweed, Clover, Aster spp., Arrowwood, Pin oak, Grape, Red maple, Northern red oak, Sweetgum, Blackgum, Bigtooth aspen, Rubus, Virginia creeper, Hickory, False Solomon's seal, Blackhaw, Gray birch, Catbrier, Yew. MC: Crabapple, Wild onion, Amur corktree, Asiatic bittersweet, Burning bush, Norway maple, Mugwort, Porcelain-berry, Multiflora rose, Japanese honeysuckle, Japanese knotweed, White mulberry, trash, dumping, soil compaction, Garlic mustard, Ailanthus, Privet, Japanese angelica-tree, Smartweed, Common plantain, Periwinkle.

Unit: 166
Acreage 0.2211
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Multiflora rose	<5' & 5-30'	Yes	Exotic Planting	Social Gathering	Dumping
Deciduous	Mugwort	<5' & 5-30'	Yes		Foot Traffic	Trash
Chamaephytes	Honeysuckle, Japanese	<5' & 5-30'	Yes			Vandalism
Undulating	Cherry, black	<5', 5-30', >30'				
Dry	Mustard, garlic	<5'	Yes			
	Ailanthus	<5', 5-30', >30'	Yes			

Comments

This unit is a woodland that is without canopy cover near the road and with a few canopy openings in the interior. It looks as if some of it, if not all, was maintained at one time due to the exotic plantings. It is located on Ashworth Ave. approximately between Shepard Ave. and Carpenter Ave. There is active dumping and access points into the interior for social gatherings. Other spp.: Yew, Silver maple, Basil, Aster spp., Lemon balm, Red maple, Green ash, Grape, Northern hackberry, Warm season grass, London planetree, Catalpa spp. MC: Wild onion, Japanese stiltgrass, Multiflora rose, White mulberry, Smartweed, Porcelain-berry, Garlic mustard, Callery pear, Mugwort, Japanese honeysuckle, Phragmites, Ailanthus, Norway maple, Asiatic bittersweet, dumping, trash, vandalism, social gathering.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 167
Acreage 0.3875
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Multiflora rose	<5' & 5-30'	Yes		Foot Traffic	Soil compaction
Deciduous	Ash, green	>30' & 5-30'				Trash
Chamaephytes	Spicebush	<5' & 5-30'				
Depression	Arrowwood	<5' & 5-30'				
Wet						

Comments

This unit is a woodland and a riparian zone with a stream running through it. It includes a stream and the south bridge of the White trail. There is some trash that has been carried down the stream. An Eastern box turtle, water spider and fish were observed. Other spp.: American basswood, Virginia creeper, Waterleaf, Witch-hazel, Black cherry, Enchanter's nightshade, Grape, Pokeweed, Sassafras, Green ash, Jewelweed, American elm, Poison ivy, Red maple, Cool season grass, Warm season grass, Elderberry, Northern hackberry, Northern red oak, Sweetgum, Water plantain, Curly dock, Water lettuce, Watercress. MC: Wild onion, Garlic mustard, Porcelain-berry, Japanese stiltgrass, Multiflora rose, Norway maple, Paulownia, Japanese barberry, Smartweed, Japanese honeysuckle, Lesser celandine, soil compaction, trash.

Unit: 168
Acreage 0.5130
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scrub	Multiflora rose	<5' & 5-30'	Yes			Trash
Deciduous	Honeysuckle, Japanese	<5', 5-30', >30'	Yes			
Chamaephytes	Ash, green	>30' & 5-30'				
Depression	Grape, wild	<5', 5-30', >30'				
Moist						

Comments

This unit is a scrubland with a riparian zone that runs through it; the same stream that runs besides the Ruins. The unit is west of the White trail. Other spp.: Curly dock, Pokeweed, Waterleaf, Watercress, Virginia creeper, Enchanter's nightshade, False nettle, Gray dogwood, Jewelweed, Calico aster, Black walnut, American hazelnut, American elm, Stinging nettle, Green ash, Barnyard grass, Warm season grass, Hickory, Poison ivy, Pin oak, Wild cucumber vine, Spicebush, Sedges, Sweetgum, Cool season grass, Rubus, Carolina fern, Clearweed, Arrowwood, Blackgum, American cranberrybush viburnum. MC: Japanese honeysuckle, Multiflora rose, Paulownia, Japanese stiltgrass, Porcelain-berry, Asiatic bittersweet, Mugwort, Japanese knotweed, Garlic mustard, Lesser celandine, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 169
Acreage 1.8147
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Blackgum	<5', 5-30', >30'				
Deciduous	Spicebush	<5' & 5-30'				
Chamaephytes	Oak, pin	<5', 5-30', >30'				
Level	Sweetgum	<5', 5-30', >30'				
Dry/Moist	Arrowwood	<5' & 5-30'				

Comments

This unit is a closed forest located west of an ephemeral stream and south of an open woodland and riparian zone. The unit is west of the Ruins. The unit is dominated by Pin oaks and Blackgum with an open understory. Other spp.: Tuliptree, Winterberry, Catbrier, Black cherry, Gray birch, Virginia creeper, Bigtooth aspen, Blackhaw, Red maple, Rubus, White oak, Black oak, Poison ivy, American holly, Multiflora rose.

Unit: 170
Acreage 0.1413
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Multiflora rose	<5' & 5-30'	Yes	Fence	Social Gathering	Dumping
Deciduous	Cherry, black	<5', 5-30', >30'				Trash
Chamaephytes	Sassafras	<5', 5-30', >30'				
Slope	Arrowwood	<5' & 5-30'				
Dry/Moist	Catbrier	<5', 5-30', >30'				

Comments

This unit is a closed forest in back of the houses on Amy Ln. It is dominated by Black cherry and Sassafras in the overstory. There is trash, dumping, beer cans, landscape clippings, plants, bricks, etc. Other spp.: Grape, Virginia creeper, Hickories, Spicebush, Northern red oak, Red maple, Poison ivy, Green ash. MC: Wild onion, Japanese honeysuckle, Multiflora rose, Norway maple, Ailanthus, trash, dumping.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 171
Acreage 0.0707
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Ailanthus	>30' & 5-30'	Yes	Fence	Social Gathering	Dumping
Deciduous	Multiflora rose	<5' & 5-30'	Yes			Trash
Chamaephytes	Honeysuckle, Japanese	<5'	Yes			
Slope	Arrowwood	<5' & 5-30'				
Dry/Moist						

Comments

This unit is a closed forest behind the houses on Amy Ln. There is trash and dumping such as beer cans, landscape clippings, plants, bricks, cooking pots, etc. Other spp.: Poison ivy, Hickory, Black cherry, American elm, Sassafras, Virginia creeper, Bigtooth aspen, Red maple. MC: Wild onion, Norway maple, Garlic mustard, Japanese honeysuckle, Multiflora rose, Ailanthus, trash, dumping.

Unit: 172
Acreage 0.8341
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Blackgum	<5', 5-30', >30'				
Deciduous	Spicebush	<5' & 5-30'				
Chamaephytes	Multiflora rose	<5' & 5-30'	Yes			
Undulating	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Dry/Moist	Arrowwood	<5' & 5-30'				

Comments

This unit is a closed forest that is in the north panhandle section of the park between Amy Ln. and the White trail. It is dominated by Blackgum in the overstory; Multiflora rose and Spicebush in the understory. Other spp.: Rubus, Black cherry, Catbrier, Sassafras, Red maple, Pin oak, Virginia creeper, Poison ivy, Pokeweed, Highbush blueberry. MC: Multiflora rose, Crabapple, Japanese honeysuckle, Norway maple, Japanese angelica-tree.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 173
Acreage 0.6583
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Catbrier	<5', 5-30', >30'				Trash
Deciduous	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Lianas	Hickory complex, multiple	>30' & 5-30'				
Undulating	Sassafras	>30' & 5-30'				
Moist	Arrowwood	<5' & 5-30'				

Comments

This unit is a woodland. It is bordered by a Sassafras/Black cherry unit and Pin oak/Blackgum unit. The unit falls roughly between Ashworth Ave. and the White trail, and is about 300 feet southwest of the Ruins. Invasive vines dominate the understory and an ephemeral stream runs through the unit. Other spp.: Pokeweed, Gray dogwood, Red maple, Pin oak, Bigtooth aspen, Blackhaw, Blackgum, Black cherry, Poison ivy, Spicebush, Virginia creeper, Elderberry, Rubus, Green ash, Grape. MC: Norway maple, Multiflora rose, Japanese honeysuckle, Asiatic bittersweet, Catbrier, Garlic mustard, trash.

Unit: 174
Acreage 1.0542
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Blackgum	<5', 5-30', >30'			Social Gathering	Trash
Deciduous	Oak, pin	>30' & 5-30'				Boundary
Phanerophytes	Catbrier	<5' & 5-30'				
Undulating	Spicebush	<5' & 5-30'				
Moist	Multiflora rose	<5'	Yes			
	Arrowwood	<5'				

Comments

This unit is a closed forest. It is located between Ashworth Ave. and the White trail. There is an ephemeral stream that runs through it. The unit is dominated by tall Pin oaks and Blackgum with a lot of Blackgum regeneration in the understory. Other spp.: Red maple, American elm, Virginia creeper, Poison ivy, White oak, Mapleleaf viburnum, Rubus, Ferns, Black cherry, Green ash, Grape, Hickory, Pokeweed. MC: Wild onion, Multiflora rose, Catbrier, Garlic mustard, Burning bush, Norway maple, trash, social gathering, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 175
Acreage 1.9623
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Honeysuckle, Japanese	<5' & 5-30'	Yes			Dumping
Deciduous	Mugwort	<5' & 5-30'	Yes			Trash
Lianas	Multiflora rose	<5' & 5-30'	Yes			
Level	Porcelain-berry	<5', 5-30', >30'	Yes			
Moist	Cherry, black	>30' & 5-30'				
	Asiatic bittersweet	<5', 5-30', >30'	Yes			

Comments

This unit is a vineland off of Ashworth Ave. and Shepard Ave. It is dominated by vines with almost no tree cover in the unit. There are a lot of downed trees beneath the vines. Along Ashworth Ave. is more Mugwort and trees. Other spp.: Sweetgum, Catalpa spp., Winged sumac, Green ash, Virginia creeper, Rubus, White mulberry, Groundsel tree, Aster spp., Goldenrod, Arrowwood, Pin oak, Gray birch, Witch-hazel, Elderberry, Pokeweed, Black Willow. MC: Wild onion, Japanese honeysuckle, Mugwort, Multiflora rose, Porcelain-berry, Asiatic bittersweet, trash, dumping, Phragmites, White mulberry, Garlic mustard, Japanese knotweed, Smartweed.

Unit: 176
Acreage 0.2745
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	<5' & 5-30'	Yes		Foot Traffic	
Deciduous	Multiflora rose	<5' & 5-30'	Yes			
Geophytes	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Level	Polygonum spp.	<5'	Yes			
Dry/Moist	Dogwood, graystem	<5' & 5-30'				
	Cool season grass	<5'	Yes			

Comments

This unit is a herbaceous community located approximately 550 feet west of the White trail and 700 feet north of Ashworth Ave. and Cooper Terr. It is a large opening that contains mostly Phragmites, Japanese honeysuckle and Multiflora rose. There are deer paths and desire lines through the unit. Other spp.: Red maple, Arrowwood, Bigtooth aspen, Green ash, Goldenrod, Gray birch, Elderberry, Hawthorn, Pin oak, Grape, Sedges, Pokeweed, American elm, Clovers, Deer-tongue grass, Watercress, Poison ivy. MC: Wild onion, Ailanthus, Phragmites, Multiflora rose, Japanese honeysuckle.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 177
Acreage 1.8259
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	<5' & 5-30'	Yes		Foot Traffic	Trash
Deciduous	Ash, green	>30' & 5-30'				
Geophytes						
Depression						
Moist						

Comments

This is a herbaceous unit almost exclusively Phragmites, but with a few stands of Green ash along the perimeter. This is north of a landscape business center and adjacent to a multi-business development by Richmond Ave. Other species: Pokeweed, Arrowwood, Rubus, Virginia creeper, Gray dogwood, Sedges, Grape, Gray birch, Goldenrod, Elderberry, Watercress. MC: Asiatic bittersweet, Multiflora rose, Callery pear, Wild onion, Phragmites, trash.

Unit: 178
Acreage 0.4680
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Knotweed, Japanese	<5' & 5-30'	Yes			Trash
Deciduous	Asiatic bittersweet	5'-30'	Yes			
Geophytes	Honeysuckle, Japanese	5'-30'	Yes			
Level	Multiflora rose	5'-30'	Yes			
Dry/Moist	Pokeweed	<5' & 5-30'				

Comments

This is a herbaceous unit. It is enclosed within a cherry forest and 250 feet from Ashworth Ave. and Grissom Ave. Trees species within the unit are being girdled by invasive vines. Other species: Rubus, Grape, Red maple, Black cherry, Catbrier. MC: Privet, Wild onion, Porcelain-berry, Multiflora rose, Asiatic bittersweet, Japanese honeysuckle, Japanese knotweed, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 179
Acreage 1.6786
Mgmt. Concern: Yes

<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', 5-30', >30'		Exotic Planting	Vagabond	Trash
Deciduous	Multiflora rose	<5' & 5-30'	Yes		Campfire/Party	Dumping
Chamaephytes	Honeysuckle, Japanese	<5' & >30'	Yes		Foot Traffic	
Undulating	Asiatic bittersweet	<5', 5-30', >30'	Yes			
Dry/Moist	Red maple	>30' & 5-30'				
	Oak, pin	<5', 5-30', >30'				

Comments

This unit is a closed forest with vines and invasive species in the understory. It is located off Ashworth Avenue roughly between Grissom Ave. and Cooper Terr. with a large vine unit to the east, a Japanese knotweed patch to the north and another vine/Japanese knotweed patch on part of the western boundary. The north boundary of the unit is approx. 350 feet away from Ashworth Ave. and Grissom Ave. There are a couple of desire lines that traverse the unit. There is trash in the unit, especially along Ashworth Ave. in the berm/trench area. There are a couple of social hangout areas. Other spp.: Eastern cottonwood, Pokeweed, White ash, Arrowwood, Sweetgum, Green ash, Blackhaw, Poison ivy, American elm, Rubus, Catbrier, Goldenrod, Virginia creeper, Grape, Northern red oak, Warm season grass, Ragweed, Common nightshade, Foxtail. MC: Japanese knotweed, Japanese honeysuckle, Porcelain-berry, Ailanthus, English ivy, Norway maple, Multiflora rose, Asiatic bittersweet, Euonymus spp., Lamb's quarters, Garlic mustard, Privet, Mugwort, Porcelain-berry, White mulberry, Phragmites, Callery pear, trash, dumping, campfires, Dandelion, Smartweed.

Unit: 180
Acreage 0.5773
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Knotweed, Japanese	<5' & 5-30'	Yes			Trash
Deciduous	Multiflora rose	<5' & 5-30'	Yes			
Geophytes	Asiatic bittersweet	5'-30'	Yes			
Level	Honeysuckle, Japanese	5'-30'	Yes			
Dry/Moist	Cherry, black	5'-30'				

Comments

This is a herbaceous unit. It is 600 feet north of Ashworth Ave. and Cooper Terr. The perimeters are lined with trees covered with invasive vines and Multiflora rose in the understory. Other species: Black cherry, Pokeweed, Dogwood spp., Virginia creeper, Red maple, Elm spp., Arrowwood, Rubus, Grape, Poison ivy, Sweetgum. MC: Multiflora rose, Japanese honeysuckle, Asiatic bittersweet, Japanese knotweed, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 181
Acreage 0.1187
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Knotweed, Japanese	<5' & 5-30'	Yes			
Deciduous	Multiflora rose	<5' & 5-30'	Yes			
Geophytes	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Level	Asiatic bittersweet	<5' & 5-30'	Yes			
Dry/Moist						

Comments

This unit is a herbaceous unit. This site is one of a few Japanese knotweed-dominated patches in the area and is 400 feet north of Ashworth Ave. at Grissom Ave. Other species include: Elderberry, Red Maple, Arrowwood, Rubus, Spicebush, Pokeweed, Sweetgum. MC: Japanese knotweed, Multiflora rose, Japanese honeysuckle, Asiatic Bittersweet, Ailanthus.

Unit: 182
Acreage 0.2625
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Ash, green	5'-30'				
Deciduous	Arrowwood	5'-30'				
Phanerophytes						
Slope						
Wet						

Comments

This is a closed forest. It stretches and links two wetland units/areas and forms an Ash dominant corridor. It is 300 feet west of the White trail. Two vernal streams traverse through the unit. Other species: Pin oak, Sweetgum, Cool season grass, Red maple, Blackgum, Spicebush, Virginia creeper, Poison ivy, Ferns, American cranberrybush viburnum, Chokeberry, Elm spp. MC: Multiflora rose, Japanese honeysuckle, Lesser celandine, Phragmites.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 183
Acreage 0.1849
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Multiflora rose	<5' & 5-30'	Yes			Trash
Deciduous	Grape, fox	5'-30'				
Chamaephytes	Dogwood, graystem	5'-30'				
Level	Arrowwood	5'-30'				
Moist						

Comments

This is a woodland. Vines are overtopping tree species in the unit. The understory has a mixed abundance of Multiflora rose, Arrowwood and Japanese honeysuckle. The ash saplings appear to have deer rub. It is a transitional unit between two wet areas. Other spp.: Ferns, Green ash, Cool season grass, Spicebush, Sweetgum, Poison ivy, Pin oak, Black walnut, Elm spp. MC: Multiflora rose, Japanese honeysuckle, Lesser celandine, Porcelain-berry, Wild onion, trash.

Unit: 184
Acreage 1.9392
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	5'-30'				Trash
Deciduous	Blackgum	5'-30'				
Phanerophytes	Arrowwood	5'-30'				
Level	Oak, pin	5'-30'				
Dry/Moist	Multiflora rose	<5' & 5-30'	Yes			

Comments

This is a closed forest. It is an unit between a cherry dominant forest to the west and open wet meadow units/area to the north. It is 350 feet west of the White trail. The understory exhibits good regeneration of Blackgum. Other spp.: Virginia creeper, Black cherry, Blueberry spp., Sassafras, Arrowwood, Red maple, Poison ivy, Pokeweed, Cool season grass, Rubus, Ferns, Blackhaw, Bitternut hickory, Swamp white oak, Catbrier, Spicebush, Grape, Green ash, Sedges, Bigtooth aspen, American elm, Moss spp., Scarlet oak, Goldenrod. MC: Multiflora rose, Garlic mustard, Japanese honeysuckle, Wild onion, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 185
Acreage 2.3504
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Red maple	5'-30'				
Deciduous	Oak, pin	5'-30'				
Lianas	Catbrier	<5' & 5-30'				
Level	Ash, green	<5' & 5-30'				
Moist	Sweetgum	5'-30'				

Comments

This is a closed forest. It forms a peninsula leading into a wet woodland type formation. The understory is lined with Catbrier mixed with regenerating shrubs. It is approximately 100 feet west of the White trail and one can see a two story building complex in the College of Staten Island campus area in the north. Other species: Watercress, Black cherry, Spicebush, Arrowwood, Virginia creeper, Poison ivy, Wild strawberry, Moss spp., Smartweed, Swamp white oak, Red/Black oaks, Blackgum, Ferns, Gray birch, Bigtooth aspen, Shagbark hickory, Hickories, Rubus, Wild onion, Garlic Mustard, Japanese honeysuckle, Multiflora rose.

Unit: 186
Acreage 1.6500
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Red maple	5'-30'			Vagabond	Vandalism
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes	Multiflora rose	5'-30'	Yes			
Level	Catbrier	<5'				
Wet						

Comments

This is a closed forest. The canopy is dominated by Red maple with a few openings of dead Sweetgum. The area is wet and vernal streams are throughout the unit. The White trail is 300 feet east of the unit where a foot bridge exists. North of the unit is a large wet open meadow habitat, functioning as the hydrologic drainage basin for the general area. Other spp.: Cool season grass, White oak, Swamp white oak, Poison ivy, Sweetgum, Blackgum, Gray dogwood, Grape, Sassafras, Smartweed, Pin oak, Green ash, Spicebush, Tuliptree, Sedges, Ferns, Elm spp., Curly dock, Goldenrod, Watercress, Bigtooth aspen, Hickories, Moss spp., Rubus. MC: Japanese honeysuckle, Multiflora rose, Porcelain-berry, Lesser celandine, Phragmites, Bush honeysuckle, Wild onion, White mulberry, vandalism.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 187
Acreage 3.2291
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	5'-30'			Sports	Vandalism
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes	Multiflora rose	<5' & 5-30'	Yes			
Level	Red maple	5'-30'				
Wet	Aspen, bigtooth	>30' & 5-30'				
	Aspen, quaking	>30' & 5-30'				

Comments

This is a Sweetgum forest. The forest understory contains Arrowwood shrubbery. The area floods, forming seasonal streams or pools that drain northbound. In the unit a deer outpost/hunting set-up was found on a Silver maple tree. The southern border is covered with Phragmites and the northern border is lined with Dogwood species. The center of the unit is about 1,000 feet north of Sheppard Ave. Other spp.: Green ash, Cool season grass, Spicebush, Pokeweed, Watercress, Gray birch, Lily sp, Goldenrod, Black cherry, Pin oak, Silver maple, Grape, Highbush blueberry, Catbrier, Elderberry, Gray dogwood, Blackgum, Ferns, Poison ivy. MC: Japanese honeysuckle, Garlic mustard, Multiflora rose, Mugwort, Ailanthus, vandalism.

Unit: 188
Acreage 0.5938
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Aspen, bigtooth	5'-30'				Dumping
Deciduous	Honeysuckle, Japanese	<5'	Yes			Auto
Chamaephytes	Multiflora rose	<5' & 5-30'	Yes			
Undulating	Arrowwood	<5' & 5-30'				
Moist	Sweetgum	5'-30'				
	Sassafras	<5', 5-30', >30'				

Comments

This is a Bigtooth aspen closed forest. The understory consists of a mix of Japanese honeysuckle and Asiatic bittersweet vines with a shrub layer of Arrowwood and Spicebush. Adjacent to this unit is a Sweetgum forest to the northeast. Derelict vehicles are throughout the unit, approx. 3 cars. The center of the unit is 800 feet from Grissom /Ashworth Ave. Other spp.: Sassafras, Pin oak, Rubus, Goldenrod, Grape, Spicebush, Black cherry, Gray birch, Red maple, Poison ivy, Cool season grass, Virginia creeper, Black oak, American elm, Ferns, Gray dogwood. MC: Japanese knotweed, Multiflora rose, Japanese honeysuckle, Asiatic bittersweet, derelict cars (auto), recent dumping.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 189
Acreage 2.2489
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	5'-30'		Landfill	Campfire/Party	Trash
Deciduous	Red maple	5'-30'			Foot Traffic	Vandalism
Chamaephytes	Multiflora rose	<5' & 5-30'	Yes			Dumping
Undulating						
Dry/Moist						

Comments

This is a Sweetgum/Red maple closed forest. Parts of the understory are sparsely vegetated and the unit borders the nearby Ashworth Ave and Cooper Terrace intersection. Several desire lines exist, along with trash throughout the unit, and there is one main desire line starting from Ashworth Ave/Cooper Terrace. Other items to look for in the area are large rocks/boulders scattered around with graffiti on many. Other spp.: Black cherry, Holly, Grape, Poison ivy, English ivy, Hawthorn, Pin oak, Cool season grass, Catbrier, Pokeweed, Eastern cottonwood, Elderberry, Arrowwood, Elm spp., Goldenrod, Aster spp., Sedges, Sassafras. MC: Multiflora rose, Japanese honeysuckle, Ailanthus, Japanese knotweed, Mugwort, Wild onion, Japanese holly, trash, vandalism, dumping.

Unit: 190
Acreage 0.1721
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Ailanthus	>30'	Yes			
Deciduous	Honeysuckle, Japanese	<5'	Yes			
Lianas	Arrowwood	<5' & 5-30'				
Level	Nettle, stinging	<5'				
Dry/Moist	Multiflora rose	<5'	Yes			

Comments

This a closed forest. The unit is about 50 feet south of the White trail, 800 feet east of a mitigated wetland. This unit is dominated by Ailanthus in the canopy. Other spp.: Catbrier, Hickories, Sweetgum, Spicebush, Black cherry, Moss spp., Rubus. MC: Ailanthus, Japanese honeysuckle, Multiflora rose, Phragmites.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 191
Acreage 6.3333
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	<5', 5-30', >30'			Foot Traffic	
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes	Red maple	<5', 5-30', >30'				
Level	Oak, pin	>30' & 5-30'				
Dry/Moist	Multiflora rose	<5'	Yes			
	Spicebush	<5' & 5-30'				

Comments

This unit is a closed forest. The White trail runs through the unit, and a small part of it borders the eastern edge of the mitigated wetland. The unit is large and dominated by Sweetgum. Other spp.: Poison ivy, White oak, American beech, Catbrier, Highbush blueberry, Hickories, Bitternut hickory, Black cherry, American holly, Gray birch, Grape, Northern red oak, Spicebush, Sassafras, Blackhaw, Blackgum, Pin cherry, Bigtooth aspen, Tuliptree, Sedges, Cool season grass, Goldenrod, Virginia creeper. MC: Multiflora rose, Japanese honeysuckle, Mugwort.

Unit: 192
Acreage 0.0814
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scrub	Arborvitae	<5' & 5-30'		Hedgerow	Parking Lot	Dumping
Deciduous	Elm, American	>30'			Other	Trash
Chamaephytes	Ailanthus	>30'	Yes			Boundary
Slope	Dandelion	<5'	Yes			
Dry/Moist						

Comments

This unit borders the parking lot of 2025 Plaza/Richmond Ave. It is landscaped with Arborvitae (the dominant species of the unit) in which most of it is dead or brown. Other spp.: Juniper, Woolly mullein, Yellow woodsorrel, Watercress, Cool season grass, Black willow, Common groundsel. MC: Ailanthus, Dandelion, Garlic mustard, Japanese knotweed, Mugwort, Multiflora rose, Wild onion, Japanese honeysuckle, dumping, trash, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 193
Acreage 0.6726
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Elm, American	>30' & 5-30'		Fence		Dumping
Deciduous	Knotweed, Japanese	<5' & 5-30'	Yes			Trash
Geophytes	Ailanthus	>30' & 5-30'	Yes			
Undulating	Multiflora rose	<5' & 5-30'	Yes			
Dry/Moist	Mustard, garlic	<5'	Yes			
	Dogwood, graystem	<5' & 5-30'				

Comments

This unit is a woodland with American elm in the canopy and Japanese knotweed in the understory. It is adjacent to 2025 Plaza/Richmond Ave and along the fence on Richmond Ave. The unit is next to a small grove of Sweetgum to the north and a large Phragmites unit to the east. Other spp.: Honeylocust, Pokeweed, Rubus, Green ash, Bitternut hickory, Red maple, Watercress, Cool season grass, Black cherry, Pin oak, Poison ivy, Black willow. MC: Japanese knotweed, Ailanthus, Multiflora rose, Garlic mustard, Phragmites, Callery pear, Black locust, trash, dumping, Norway maple, Bush honeysuckle, Wild onion.

Unit: 194
Acreage 0.4742
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Deciduous	Phragmites	<5' & 5-30'	Yes			
Lianas	Multiflora rose	<5' & 5-30'	Yes			
Level						
Dry/Moist						

Comments

This unit is a vineland located approximately 700 feet north of Ashworth Ave. near Grissom Ave. There is a Sassafras and Bigtooth aspen unit at the northwest border of this unit. Although a vineland, much of it is dominated by Phragmites in the understory. Other species: Sweetgum, Gray birch, Black cherry, Grape, Cool season grass, Green ash, Sassafras, Arrowwood, Bigtooth aspen, Elderberry, Stinging nettle, Deer-tongue grass, Watercress, Rubus, Smooth sumac, Goldenrod, American elm, Poison ivy, Virginia creeper, Pin oak. MC: Phragmites, Japanese honeysuckle, Asiatic bittersweet, Porcelain-berry, Mugwort, Garlic mustard, European buckthorn, Multiflora rose.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 195
Acreage 0.4209
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Goldenrod	<5'				Trash
Deciduous	Sweetgum	>30'				
Hemicryptophytes	Red maple	>30'				
Depression	Smartweed	<5'				
Wet						

Comments

This unit is a herbaceous unit that is a swamp located south of a large patch of Phragmites and approximately 350 feet north of Ashworth Ave. and Carpenter Ave. Some of the trees are dead or sparse. Other species: Gray dogwood, American elm, Elderberry, Arrowwood, Poison ivy, Virginia creeper, Cool season grass, Pin oak, Rubus, Green ash, Thinleaf cotton-grass. MC: Phragmites, Lesser celandine, Japanese honeysuckle, trash.

Unit: 196
Acreage 0.2196
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Sweetgum	<5', 5-30', >30'				Trash
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Level	Sumac spp.	<5' & 5-30'				
Dry/Moist						

Comments

This unit is a woodland located south of a large Sweetgum unit. The unit is an island of trees surrounded by units of Catbrier, Multiflora rose and Phragmites. Other species include: American elm, Shagbark hickory, Pin oak, Goldenrod, Green ash, Gray birch. Black cherry, Cool season grass, Poison ivy, Wild strawberry, Red maple, Rubus, Grape, Arrowwood, Gray dogwood. MC: Wild onion, Lesser celandine, Privet, Multiflora rose, Asiatic Bittersweet, Japanese honeysuckle, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 197
Acreage 0.6397
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scrub	Multiflora rose	<5' & 5-30'	Yes		Foot Traffic	
Deciduous	Catbrier	<5' & 5-30'				
Chamaephytes	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Depression	Oak, pin	<5', 5-30', >30'				
Moist						

Comments

This unit is a scrubland. It is located west of the White trail and east of a large vine area. A small creek runs through the unit. Other spp.: Grape, Gray dogwood, Poison ivy, American elm, Red maple, Green ash, Arrowwood, Elderberry, Sumac, Goldenrod, Lily spp., Cool season grass, Rubus, Red maple, Pin oak, Black cherry, Hickories, Sweetgum. MC: Catbrier, Multiflora rose, Japanese honeysuckle, Porcelain-berry, Asiatic bittersweet, Garlic mustard.

Unit: 198
Acreage 2.2106
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scrub	Dogwood, graystem	<5' & 5-30'		Culvert	Foot Traffic	
Deciduous	Multiflora rose	<5' & 5-30'	Yes			
Chamaephytes	Arrowwood	<5' & 5-30'				
Depression	Honeysuckle, Japanese	<5'	Yes			
Wet	Phragmites	5'-30'	Yes			

Comments

This is a scrubland. The area has a stream that flows into a culvert at the northwest border. It is approximately 1000 feet north of Ashworth Ave. The unit is disturbed with exotic species. Other spp.: Dogbane, Tuliptree, Pin oak, Rubus, Watercress, American hazelnut, Curly dock, Grape, Deer-tongue grass, Cool season grass, Green ash, Sweetgum, Virginia creeper, Red maple, Spicebush, Catbrier, Black cherry, Climbing boneset, Viburnums. MC: Multiflora rose, Japanese honeysuckle, Wild onion, Lesser celandine, Asiatic bittersweet, Porcelain-berry, Mugwort, Phragmites, Dodder spp.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 199
Acreage 0.3892
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Blackgum	5'-30'			Foot Traffic	Auto
Deciduous	Oak, pin	>30'				Dumping
Phanerophytes	Arrowwood	<5' & 5-30'				
Level	Sweetgum	5'-30'				
Dry/Moist						

Comments

This is a closed forest. Canopy includes Pin oak, Blackgum trees. The understory has Blackgum regeneration with Arrowwood shrubbery throughout the unit. An old segment of the White trail still exists with markers on tall Pin oaks but is closing up naturally in the unit. Derelict vehicle remains are in the unit. Some of the surrounding units are open meadow habitats. Other spp.: Poison ivy, Virginia creeper, Gray dogwood, American hornbeam, Black cherry, Blackhaw, American elm, Spicebush, Cool season grass. MC: Japanese honeysuckle, Multiflora rose, auto, dumping.

Unit: 200
Acreage 0.3543
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Vineland	Catbrier	<5', 5-30', >30'				
Deciduous	Multiflora rose	<5' & 5-30'	Yes			
Lianas	Honeysuckle, Japanese	<5', 5-30', >30'	Yes			
Level						
Dry/Moist						

Comments

This unit is a vineland located 800 feet north of Ashworth Ave. and Cooper Terr. It is surrounded by a Hickory unit and a Bigtooth aspen unit. Other spp.: Spicebush, Hickories, Black cherry, Rubus, Pokeweed, Virginia creeper, Poison ivy, Grape. MC: Asiatic bittersweet, Garlic mustard, Multiflora rose, Japanese honeysuckle, Catbrier.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 201
Acreage 1.7951
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Arrowwood	<5' & 5-30'		Berm		Dumping
Deciduous	Hickory spp.	<5', 5-30', >30'		Other		
Chamaephytes	Spicebush	<5' & 5-30'				
Undulating	Red maple	<5', 5-30', >30'				
Dry/Moist	Oak, pin	<5', 5-30', >30'				
	Ailanthus	<5', 5-30', >30'	Yes			

Comments

This unit is a closed forest, and it is approximately 800 feet north of Ashworth Ave. and Cooper Terr. This unit contains a berm/property landmark (line of rocks). Other sp, Rubus, Grape, Virginia creeper, American elm, American hornbeam, Blackhaw, White oak, Black cherry, Blackgum, American hazelnut, Sassafras, Sweetgum. MC: Multiflora rose, Asiatic bittersweet, Japanese honeysuckle, Garlic mustard, Ailanthus, dumping.

Unit: 202
Acreage 4.4502
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Red maple	5'-30'			Campfire/Party	Trash
Deciduous	Oak, pin	>30' & 5-30'				
Phanerophytes	Arrowwood	<5' & 5-30'				
Slope	Cherry, black	5'-30'				
Dry/Moist	Sweetgum	5'-30'				
	Sassafras	5'-30'				

Comments

This is a closed forest. The canopy is mixed with large Red maple, Sweetgum, Pin oak trees with a few Cherry spp. The understory has extensive Arrowwood shrubbery. Black cherry saplings in understory are covered with fungi. The southern border of the unit is near Ashworth Ave. and Cooper Terrace and is a party spot with trash. Other spp.: Virginia creeper, Northern red oak, Rubus, Poison ivy, Catbrier, Dogwood spp., Ferns, Spicebush, American elm, Grape. MC: Trash, Multiflora rose, Asiatic bittersweet, Japanese honeysuckle, Garlic mustard.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 203
Acreage 0.7250
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Ash, green	5'-30'				Trash
Deciduous	Porcelain-berry	5'-30'	Yes			
Lianas	Dogwood, graystem	<5' & 5-30'				
Depression	Multiflora rose	<5' & 5-30'	Yes			
Moist	Arrowwood	<5' & 5-30'				

Comments

This is a Green ash woodland. It is adjacent to a Phragmites unit and overlooks a business complex by Richmond Ave. Several of the ash trees are covered by Porcelain-berry. The understory has Gray dogwood and Multiflora rose shrubbery mixed with invasive vines. The area is seasonally flooded and has vernal streams. Two deer were spotted while entitating. Other spp.: Hawthorn, Spicebush, Arrowwood, Pokeweed, Enchanter's nightshade, Cool season grass, Poison ivy, Virginia creeper, Pin oak, Grape, American cranberrybush viburnum, American elm, Bitternut hickory, Black cherry, Sassafras. MC: Japanese knotweed, Japanese honeysuckle, Phragmites, Asiatic bittersweet, Porcelain-berry, Multiflora rose, White mulberry, Garlic mustard, Wild onion, trash.

Unit: 204
Acreage 2.7341
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Oak, pin	>30'				
Deciduous	Red maple	5'-30'				
Chamaephytes	Sweetgum	5'-30'				
Level	Arrowwood	<5' & 5-30'				
Dry/Moist						

Comments

This is a closed forest with large stands of Pin oak and Sweetgum. The understory has Arrowwood shrubbery with regenerating Blackgum saplings. Other spp.: Black cherry, Spicebush, Catbrier, Poison ivy, American elm, Blackgum, Green ash, Virginia creeper, Multiflora rose, Japanese honeysuckle, Japanese knotweed, Rubus, London planetree, Ailanthus.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 205
Acreage 0.4882
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Red maple	5'-30'				Dumping
Deciduous	Sedge spp.	<5'				Auto
Geophytes	Cardinal Flower	<5' & 5-30'				
Depression	Dogwood, graystem	<5' & 5-30'				
Wet	Knotweed, Japanese	<5' & 5-30'	Yes			

Comments

This is a woodland. The canopy is made of Red maple and the understory has small mounds of Sedges where a wetland persists for most of the year. There is Cardinal flower in the unit, and there are a few patches of Japanese knotweed. The unit is adjacent to a Phragmites unit, borders a landscaping business and a large Red maple/Sweetgum unit. Other spp.: American elm, Northern hackberry, Arrowwood, American cranberrybush viburnum, Black locust, Poison ivy, Burning bush, Green ash, Virginia creeper. MC: Multiflora rose, Phragmites, Japanese knotweed, dumping, auto parts.

Unit: 206
Acreage 0.6151
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Knotweed, Japanese	<5' & 5-30'	Yes	Fence		Dumping
Deciduous	Elm spp.	5'-30'		Exotic Planting		Trash
Geophytes	Privet	<5' & 5-30'	Yes	Berm		Auto
Undulating	Norway maple	5'-30'	Yes			
Dry/Moist	Virginia creeper	<5' & 5-30'				

Comments

This is a Japanese knotweed unit. It borders along a landscaping business. Several piles of construction materials are scattered within the area. Other spp.: Black willow, Tuliptree, Red maple, Virginia creeper, Pin oak, Poison ivy, Green ash, Arrowwood. MC: Norway maple, Phragmites, Black locust, Japanese knotweed, Multiflora rose, Wild onion, Garlic mustard, Privet, Japanese honeysuckle, Japanese black pine, Colorado blue spruce, dumping, trash, auto parts, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 207
Acreage 0.1041
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Knotweed, Japanese	<5' & 5-30'	Yes	Fence		Dumping
Deciduous	Elm spp.	5'-30'				Trash
Geophytes	Red maple	5'-30'				Auto
Undulating	Sweetgum	5'-30'				
Dry/Moist						

Comments

This is a Japanese knotweed unit. It hugs the fenceline of a landscaping business. Extensive dumping and construction debris are scattered throughout the area. It is very close to Richmond Ave. Other spp.: Virginia creeper, Catbrier, Black willow, Green ash. MC: Japanese knotweed, Multiflora rose, Black locust, White mulberry, Wild onion, dumping, trash, auto parts, boundary.

Unit: 208
Acreage 0.8249
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Red maple	5'-30'				Dumping
Deciduous	Arrowwood	<5' & 5-30'				Auto
Chamaephytes	Sweetgum	5'-30'				
Depression	Dogwood, graystem	<5' & 5-30'				
Wet						

Comments

This is a woodland. Streams cross throughout the unit. It is located near a landscaping business and Richmond Ave. The unit borders the southwest edge of Willowbrook Park. Other spp.: Elm spp., Cursed crowfoot, Purple aster, Gray birch, Gray dogwood, Catbrier, Sassafras, Pin oak, Sedges, Pokeweed, Rubus, Green ash, Black cherry, Elderberry, Poison ivy, Virginia creeper, Grass spp. MC: Japanese honeysuckle, Grape, Ailanthus, Multiflora rose, Phragmites, Japanese knotweed, dumping, auto.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 209
Acreage 0.1245
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous Deciduous Geophytes Depression Wet	Phragmites	5'-30'	Yes			Dumping Trash

Comments

This is a Phragmites unit. It is adjacent to a parking lot and nearby Richmond Ave. Other spp.: Gray dogwood, Red maple, Green ash, Catbrier. MC: Phragmites, Multiflora rose, dumping, trash.

Unit: 210
Acreage 0.0459
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous Geophytes Slope Dry/Moist	Knotweed, Japanese Grass spp.	<5' & 5-30' <5'	Yes			Trash Boundary

Comments

This is a Japanese knotweed unit. It borders Richmond Ave. and a Pool and Patio business. Other spp.: Pokeweed, Lamb's quarters. MC: Wild onion, Japanese knotweed, Garlic mustard, trash, boundary.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 211
Acreage 0.3020
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Ash, green	5'-30'				Dumping
Deciduous	Ivy, poison	5'-30'				Trash
Lianas	Elm spp.	5'-30'				
Depression						
Wet						

Comments

This is a Green ash unit. It is adjacent to Richmond Ave and slopes into a depression from the sidewalk. Runoff from Richmond Ave. drains into this unit. Other spp.: Arrowwood, Cool season grass, Silver maple, Cursed crowfoot, Geums, Virginia creeper, Elderberry. MC: Japanese honeysuckle, Crabapple, Wild onion, Multiflora rose, Japanese knotweed, dumping, trash.

Unit: 212
Acreage 0.1298
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Elm spp.	5'-30'			Construction	Dumping
Deciduous	Knotweed, Japanese	<5' & 5-30'	Yes		Parking Lot	Trash
Geophytes	Ash, green	5'-30'				Soil Compaction
Level						
Dry/Moist						

Comments

This is a woodland next to a Pool & Patio business. There is extensive soil degradation on the edge of the unit along with the parking of vehicles. Other spp.: Cursed crowfoot, Cool season grass, Poison ivy. MC: Japanese knotweed, Multiflora rose, White mulberry, Garlic mustard, dumping, trash, soil compaction.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 213
Acreage 0.6213
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	<5', 5-30', >30'		Fence		Dumping
Deciduous	Arrowwood	<5' & 5-30'				Trash
Chamaephytes	Oak, pin	>30'				
Level	Red maple	<5', 5-30', >30'				
Moist	Cherry, black	<5', 5-30', >30'				

Comments

This unit is a closed forest located south of a large mitigated wetland area dominated by Phragmites. The unit is also adjacent to Richmond Ave. Tall Sweetgum dominate the overstory and Arrowwood is in the understory. Other species include: Poison ivy, Rubus, Green ash, Hickories, American hazelnut, Gray dogwood. MC: Multiflora rose, Japanese honeysuckle, Crabapple, Garlic mustard, Ailanthus, Asiatic bittersweet, Norway maple, Japanese knotweed, Phragmites, Mugwort, dumping, trash.

Unit: 214
Acreage 0.2100
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Aster, small white	<5'			Foot Traffic	
Deciduous	Rush spp.	<5'				
Hemicryptophytes	Dogwood, graystem	<5' & 5-30'				
Level						
Dry/Moist						

Comments

This is a herbaceous unit. It is north of a large vineland and surrounded by woodland and closed forest type communities. Other spp.: Geums, Wild strawberry, Rubus, Gray birch, Grape, Polygonum vine, Deer-tongue grass, Arrowwood, Poison ivy, Rushes. MC: Japanese honeysuckle, Multiflora rose, Wild onion, Mile-a-minute, Garlic mustard.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 215
Acreage 0.1469
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Red maple	>30'			Campfire/Party	Trash
Deciduous	Arrowwood	<5' & 5-30'				
Chamaephytes						
Level						
Moist						

Comments

This is a Red maple closed forest. The understory is sparse with a few Arrowwood shrubs. The area is trashed and used as a party spot. Other spp.: Poison ivy, Blackhaw, Gray dogwood, Gray birch, Grape. MC: Wild onion, Multiflora rose, Privet, trash.

Unit: 216
Acreage 0.1198
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scrub	Arrowwood	<5' & 5-30'				Trash
Deciduous	Dogwood, graystem	<5' & 5-30'				
Chamaephytes	Honeysuckle, Japanese	<5', 5-30', >30'	Yes			
Level	Aster	<5'				
Wet						

Comments

This unit is a wet scrubland between a Phragmites unit and an open meadow. The unit is approximately 600 feet north of Ashworth Ave. and Grissom Ave. The unit is of major concern containing a Mile-a-minute vine finding. Other spp.: Geums, Cool season grass, Rubus, Poison ivy, Virginia creeper, Elderberry, American elm, Red maple, Sweetgum. MC: Phragmites, Japanese honeysuckle, Multiflora rose, Mile-a-minute, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 217
Acreage 1.0995
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Closed Forest	Sweetgum	5'-30'			Foot Traffic	Trash
Deciduous	Elm spp.	<5' & >30'				
Chamaephytes	Arrowwood	<5' & 5-30'				
Level	Multiflora rose	<5' & 5-30'	Yes			
Dry/Moist	Honeysuckle, Japanese	<5'	Yes			

Comments

This is a closed forest. It is adjacent to a Quaking aspen and a Phragmites unit. It is 650 ft north of Ashworth Ave and Grissom Ave. There are some large Arrowwoods in the unit. Other spp.: Pin oak, Hickories, Green ash, Poison ivy, Black cherry, Red maple, Pokeweed, Bigtooth aspen, Tuliptree, Virginia creeper, Goldenrod, Rubus, Spicebush. MC: Asiatic bittersweet, Ailanthus, Japanese honeysuckle, Japanese knotweed, Crabapple, Multiflora rose, trash.

Unit: 218
Acreage 0.2399
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Sweetgum	5'-30'				Dumping
Deciduous	Oak, pin	5'-30'				Trash
Chamaephytes	Multiflora rose	<5' & 5-30'	Yes			Vandalism
Level	Red maple	5'-30'				
Dry/Moist	Honeysuckle, Japanese	<5'	Yes			

Comments

This is a woodland. It is adjacent to a riparian unit and an open meadow type formation. It is 750 feet west from the White trail and 950 feet from Ashworth Ave. & Grissom Ave. An Ashworth Ave. and Cooper Terrace DOT sign, Forever Wild sign and other traffic signs were found in the unit. Other spp.: Hickories, Black cherry, Grape, Gray dogwood, Poison ivy, Virginia creeper, Catbrier, Rubus, Goldenrod, Gray birch, Bigtooth aspen, Sedges, Arrowwood. MC: Multiflora rose, Japanese honeysuckle, Privet, dumping, trash, vandalism.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 219
Acreage 0.5347
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Goldenrod	<5'			Foot Traffic	
Deciduous	Honeysuckle, Japanese	<5'	Yes			
Hemicryptophytes	Sumac, smooth	<5' & 5-30'				
Level	Arrowwood	<5' & 5-30'				
Dry/Moist						

Comments

This is a herbaceous unit. It is adjacent to a unit lined with rock walls low to the ground; it is possibly an old foundation. Stands of Ailanthus trees are in the unit. There is deer rub on some of the shrubs and saplings. Other spp.: Sweetgum, Pokeweed, Red maple, Deer-tongue grass, Hickories, Black cherry, Gray dogwood, Elderberry, Gray birch, Oaks, Grass spp., Sedges, Grape, Crabapple, Green ash, Aster spp.. MC: Japanese honeysuckle, Multiflora rose, Ailanthus.

Unit: 220
Acreage 0.3450
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Locust, black	<5' & 5-30'	Yes			
Deciduous	Rubus	<5'				
Geophytes	Grass spp.	<5'				
Undulating	Pussy willow	5'-30'				
Dry/Moist	Asiatic bittersweet	<5', 5-30', >30'	Yes			
	Honeysuckle, Japanese	<5', 5-30', >30'	Yes			

Comments

This unit is a woodland, a transition zone between two open herbaceous units. The mitigated wetland is directly north of the unit. Although a woodland, there is an abundance of grasses and vines in the understory. Dominate Grass species include Rice cutgrass and Switchgrass. There is an abundance of deer activity. Other spp.: Hawthorn, Gray birch, Silky dogwood, Red maple, Green ash, Goldenrod, American cranberrybush viburnum, Quaking aspen, Grape, Smooth sumac, Sweetgum, Black willow, Groundsel tree, Hophornbeam, Rushes, Bitternut hickory, Poison ivy, Pokeweed, Aster spp., Arrowwood, Spicebush, Pin oak, Elderberry. MC: Japanese honeysuckle, Multiflora rose, Asiatic bittersweet, Japanese knotweed, Phragmites, Mugwort, Black locust, Ailanthus.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 221
Acreage 0.6151
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Aquatic (fresh)	Cattails, common	<5' & 5-30'				

Geophytes
 Depression
 Surface water

Comments

This is a pond (aquatic formation) created as part of a mitigated wetland project in the last 10 years. The shoreline is covered by Cattails with a few breaks in between. The south end of the unit has a culvert that empties into the main wetland pond.

Unit: 222
Acreage 0.3964
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Aquatic (fresh)	Pickerelweed	<5'				
	Arrowhead	<5'				

Hemipterophytes
 Depression
 Surface water

Comments

This is a pond (aquatic formation) created as part of a mitigated wetland project in the last 10 years. It is encapsulated by an mid-pond peninsula dominant with Rushes. This unit is in the southern half of the wetland. Other spp.: bulrush spp., Water plantain, Swamp rose-mallow, Sedges, Algae, Lizard's tail, Grass spp.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 223
Acreage 1.0848
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Aquatic (fresh)	Arrowhead Pickerelweed	<5' <5'		Culvert		Trash
Hemicryptophytes Depression Surface water						

Comments

This is a pond (aquatic formation) created as part of a mitigated wetland project in the last 10 years. The northern tip has a culvert system and the western shores have three main swale outlets. The southern tip contains the outflow drain for the entire wetland pond. Other spp.: Algae, Bulrush, Sedges, Swamp rose-mallow, Lizard's tail, Blueflag. MC: trash by the outflow drainage.

Unit: 224
Acreage 2.1884
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scrub	Groundsel tree	<5' & 5-30'				
Deciduous	Grass spp.	<5'				
Geophytes	Rush spp.	<5'				
Slope	Sedge spp.	<5'				
Dry/Moist						

Comments

This is a scrubland. It circles the wetland pond perimeter and was created as part of a mitigated wetland project in the last 10 years. Other spp.: American hornbeam, Sweetgum, Red maple, Sumac, Spicebush, Sweet pepperbush, Meadowsweet, Rubus, Witch-hazel, Arrowwood, Primrose, Goldenrod, Boneset, Milkweed, Lizard's tail, Swamp rose-mallow, New York Ironweed, Turtlehead, Green ash, Gray birch, Grape, Gray dogwood. MC: Black locust, Multiflora rose, Mugwort, Phragmites, Japanese knotweed.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 225
Acreage 0.0988
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Woodland	Knotweed, Japanese	<5' & 5-30'	Yes			
Deciduous	Locust, black	<5' & >30'	Yes			
Geophytes	Red maple	>30'				
Slope	Rubus	<5' & 5-30'				
Dry/Moist	Dogwood, graystem	<5' & 5-30'				

Comments

This is a woodland. It is located south of the wetland pond and 300 feet east of the entrance gate to the mitigated wetland area. Other spp.: Primrose, Grape, Pin oak, Poison ivy, Grass spp. MC: Japanese knotweed, Black locust, Multiflora rose, Mugwort.

Unit: 226
Acreage 1.5518
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	<5' & 5-30'	Yes	Berm		Trash
Deciduous	Groundsel tree	<5'				
Geophytes	Mugwort	<5' & 5-30'	Yes			
Level	Rubus	<5' & 5-30'				
Moist	Sumac, staghorn	<5'				
	Sedge spp.	<5'				

Comments

This is a herbaceous unit located by Richmond Avenue, just north of a unit with tall Sweetgum. The unit was created as part of a mitigated wetland project in the last 10 years, and in Spring 2010 there was a supplemental planting of trees at the site as part of PlaNYC. The site is dominated by Phragmites with newly planted trees that are both above and below the Phragmites. Other spp.: Water pepper, Thistle spp., Rushes, Warm season grass, Pussy willow, Black willow, Gray birch, Green ash, Red maple, Sweetgum, Eastern redcedar, Northern red oak, Elderberry, Silky dogwood, Swamp white oak, Black walnut, American elm, Goldenrod, Sassafras, Deer-tongue grass. MC: Phragmites, Black locust, White mulberry, Mugwort, Japanese knotweed, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 227
Acreage 0.9256
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Grass, switch	<5'				Trash
Deciduous	Groundsel tree	5'-30'				
Geophytes	Mugwort	<5' & 5-30'	Yes			
Slope	Goldenrod	<5'				
Dry/Moist						

Comments

This unit is a herbaceous unit located adjacent to Richmond Avenue and is south/bordering 1949 Richmond Avenue. The unit was created as part of a mitigated wetland project in the last 10 years. Switchgrass is the dominate grass species in the unit. Other spp.: Silky dogwood, Groundsel tree, Eastern cottonwood, Serviceberry, other Warm season grass. MC: Black locust, Phragmites, Mugwort, trash.

Unit: 228
Acreage 0.2753
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scrub	Grass spp.	<5'				
Deciduous	Rush spp.	<5'				
Geophytes	Dogwood, graystem	5'-30'				
Undulating	Locust, black	5'-30'	Yes			
Moist	Willow, pussy	5'-30'				
	Groundsel tree	5'-30'				

Comments

This is a scrubland. It is the head portion of the wetland pond with a narrow stream path dividing the unit into two parts. The unit is part of a mitigated wetland project designed by Langan Engineering. The scrubland has several planted tree saplings along the banks and upland portions of the unit. Other spp.: American hornbeam, Goldenrod, Gray birch, Pin oak, Witch-hazel, Rubus, Groundsel tree, Sumac, Sedges, Sweetgum, Switchgrass. MC: Black locust, Phragmites, Japanese honeysuckle, Multiflora rose.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 229
Acreage 0.4517
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Rush spp.	<5'		Berm		
Deciduous	Rose mallow, swamp	<5'				
Geophytes	Cattails, common	5'-30'				
Level						
Wet						

Comments

This is a herbaceous unit. It is a ringed island in the mitigated wetland that surrounds an aquatic unit (water body). Other spp.: Silky dogwood, Pussy willow, Ferns, Polygonum spp.

Unit: 230
Acreage 0.1705
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Rush spp.	<5'		Berm		
Deciduous	Rose mallow, swamp	<5'				
Geophytes						
Level						
Wet						

Comments

This is a herbaceous unit. It is an island in the mitigated wetland. Other spp.: Silky dogwood, Pussy willow, Ferns, Warm season grass, Sedges, Dodder spp.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 231
Acreage 0.1286
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Mugwort	<5'	Yes	Fence		Dumping
Deciduous	Honeysuckle, Japanese	5'-30'	Yes			Trash
Hemicryptophytes	Warm season grass	<5'				
Level						
Moist						

Comments

This is a herbaceous unit and an edge unit that is adjacent to a fenceline. The unit is behind a building complex at 1931 Richmond Ave. There is an Eastern cottonwood in the center of the unit. Other spp.: Eastern cottonwood, Dogbane. MC: Japanese knotweed, Mugwort, Multiflora rose, Japanese honeysuckle, White mulberry, dumping, trash.

Unit: 232
Acreage 0.0945
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Rush spp.	<5'		Fence		Trash
Deciduous	Warm season grass	<5'				
Geophytes	Mugwort	<5'	Yes			
Level						
Wet						

Comments

This is a herbaceous unit that is adjacent to a fence at 1911 Richmond Ave. It is a small edge unit with a vernal pond. Along the fence is Mugwort and some trees with additional trees scattered throughout the unit. Other spp.: Dogbane, Pussy willow, Groundsel tree, Silky dogwood, Primrose, Goldenrod, Eastern cottonwood. MC: Callery pear, Mugwort, Japanese honeysuckle, Phragmites, trash.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 233
Acreage 0.1480
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scrub	Rubus	<5'			Fence	
Deciduous	Multiflora rose	<5' & 5-30'	Yes			
Chamaephytes	Dogwood, silky	<5' & 5-30'				
Depression	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Wet	Mulberry, white	<5' & 5-30'	Yes			
	Warm season grass	<5'				

Comments

This unit is a scrubland located behind several properties on Richmond Ave. and is west of the mitigated wetland. Other spp.: Pin oak, Sweetgum, Red maple, Rushes, Sedges, Pussy willow, American hornbeam, Ragweed, Groundsel tree, Elderberry, Black willow, Goldenrod. MC: Multiflora rose, Phragmites, Japanese knotweed, Japanese honeysuckle, White mulberry.

Unit: 234
Acreage 0.0939
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Sedge spp.	<5'			Fence	
Deciduous	Multiflora rose	<5' & 5-30'	Yes			
Geophytes	Rush spp.	<5'				
Depression	Honeysuckle, Japanese	<5' & 5-30'	Yes			
Wet						

Comments

This unit is a herbaceous community. This unit is located behind several businesses on Richmond Ave. and is west of the mitigated wetland. An ephemeral stream runs through the unit. Other spp.: Ragweed, Pin oak, Silky dogwood, Groundsel tree, American cranberrybush viburnum, Deer-tongue grass, Wild strawberry, Virginia creeper, Aster spp. MC: Black locust, Phragmites, Multiflora rose, Japanese honeysuckle.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 235
Acreage 0.1948
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	<5' & 5-30'	Yes	Fence		
Deciduous	Rubus	<5'				
Geophytes	Multiflora rose	<5' & 5-30'	Yes			
Depression						
Wet						

Comments

This unit is a herbaceous community located behind several businesses on Richmond Ave. and is west of the mitigated wetland. Other spp.: Sweetgum, Ragweed, Red maple, Buttonbush, Green ash. MC: Phragmites, Japanese honeysuckle, Black locust, White mulberry, Japanese knotweed, Multiflora rose.

Unit: 236
Acreage 2.2415
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Phragmites	<5' & 5-30'	Yes	Berm		
Deciduous	Warm season grass	<5'				
Geophytes	Rubus	<5'				
Knoll	Groundsel tree	<5' & 5-30'				
Dry/Moist	Knotweed, Japanese	<5' & 5-30'	Yes			

Comments

This unit is a herbaceous unit on top of a berm created for the mitigated wetland. The unit is west of the open water units in the wetland and is divided by three swale outlets. Other spp.: Ragweed, Red maple, Silky dogwood, Arrowwood, Sumac, Witch-hazel, Oaks, Pussy willow. MC: Phragmites, Japanese knotweed, Multiflora rose.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 237
Acreage 10.0094
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Cool season grass	<5'	Yes	Hedgerow	Sports	Soil compaction
Deciduous	Plantain, common	<5'	Yes			
Hemicryptophytes	Clover spp.	<5'	Yes			
Level	Dandelion	<5'	Yes			
Dry/Moist						

Comments

This unit is a herbaceous unit consisting of five Baseball fields. The unit is mostly Cool season grass with recently planted evergreen and deciduous trees, planted around most of the perimeter. Other species included Spruce, Pin oak, Ornamental Cherry spp., Linden spp., Green ash.

Unit: 238
Acreage 0.2943
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Herbaceous	Cool season grass	<5'		Fence	Sports Parking Lot	Boundary
Hemicryptophytes						
Level						
Dry						

Comments

This unit includes parts of a baseball field (mostly Cool season grass), gravel walkways and a gravel parking lot, all of which are part of the New Springfield Little League complex. The unit is located in the panhandle section of the park. The crew map indicates that this unit does fall within the boundaries of the park.

Willowbrook Park Unit Descriptions, Surveyed 2009 to 2011

Unit: 239
Acreage 0.1660
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Scarcely Vegetated	Cool season grass	<5'		Fence Road	Parking Lot Building	Dumping Boundary
Hemicryptophytes Level Dry						

Comments

This unit is a gravel parking area and contains a storage building. MC: dumping, boundary.

Unit: 240
Acreage 0.7741
Mgmt. Concern: Yes

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
				Landfill Fence	Other	Dumping Boundary

Comments

This unit includes two sections: one with small swimming pools, parts and materials, and the other section includes landscaping materials and nursery materials including potted and balled/burlapped trees. MC: dumping, boundary.

Section IV. APPENDIX 1: Glossary

Many of these definitions are adapted from Marge Garguillo's unpublished *Plants of New York City Natural Areas: An Ecological Manual* (2005).

Chamaephyte: Mature branch or shoot system remaining perennially less than or equal to 100 in above ground. Buds are produced on aerial branches close to the soil. (e.g. shrubs)

Closed forest: An area formed by trees at least 15 feet tall with interlocking crowns and at least 80% canopy closure.

Competition: The ability of one plant to overwhelm another plant by shading it out or otherwise overwhelming it.

Deciduous: Majority of trees shed their foliage in the autumn months.

Depression: A hollow, or low point, as compared to the surrounding topography. May or may not contain water.

Dominant: The most abundant plants in a particular plant community. A codominant plant is about equally as abundant as the dominant species.

Exotic: A species that does not naturally inhabit a specific area. An exotic plant may or may not be invasive where it is introduced.

Exotic planting: A gardened area where non-native species (e.g. privet, periwinkle) are tended.

Full-crown tree: Initially open-grown and free of competition: currently very large with a dominating crown.

Geophyte: Plants with buds or shoots surviving below the ground (rhizomes, bulbs, stem tubers, root tubers.)

Graminoid: Grasses and grass-like plants.

Hedgerow: Evidence of trees or shrubs planted in line i.e., maple or privet along road or path.

Hemicryptophyte: Shoots die back to ground level.

Herb: Plants without woody tissues that die back to the ground in the winter. This classification is usually applied to broad-leaved plants rather than grasses, but includes grasses for the purpose of entitation.

Herbaceous community: An area where grasses, grass like plants, and herbaceous plants are predominant. Woody plants may be sparingly present, but cover less than 30% of area.

Intertidal community: Substrate is exposed and flooded by tides, includes the associated splash zone.

Invasive plant: A plant species that grows and reproduces without constraint, crowding or shading out other plants. The term is usually applied to plants that are not native to the given region. Invasiveness in a plant that is native to the region is rare and probably caused by unusual circumstances.

Knoll: A small isolated hillock.

Landfill: Topography altered by previous filling or dumping: i.e., while building a road or altering a wetland area. Look for rubble on the soil surface or sudden changes in grade.

Lianas: Vascular plants needing support, rooting in the ground permanently (vines).

Native plant: Plants that were growing in this region before Europeans came to North America. Native plants are adapted to the climate and soils of their region. They have relationships with birds, mammals, insects, and fungi and are integrated into the ecology of the region. New York City's native plants come from seed that spread northward after the last glaciers melted thousands of years ago.

Ornamental: Plants used as horticultural specimens in gardens or developed parks, not intended to reproduce or be part of a natural plant community. Very often they are non-native plants.

Phanerophyte: Plants that grow taller than 100 in. or whose shoots do not die back periodically to that height (e.g., trees).

Scrub: A shrubland or thicket, mainly composed of woody plants 1.5 to 15 feet tall.

Slope: Ground that forms a natural or artificial incline.

Soil compaction: Increasing soil density and decreasing porosity due to application of mechanical forces to the soil: i.e. due to vehicle, horse, or foot traffic.

Species: A group of organisms that can interbreed to produce fertile young.

Understory: Habitat below the tree canopy of a forest. The understory is a plant community of tree saplings, shrubs, herbs, graminoids, and mosses that can live in shade or part shade.

Undulating: The area has a wavy surface. It is neither a slope, a level area, or a depression, but rather a combination of all three.

Vineland: An area formed by at least 30% vines. Vines may be supported by vegetation, artificial means or ground surface. Often occurs on the forest or shrub border.

Woodland: An area formed by trees at least 15 feet tall, with most of their crowns not touching each other, but at least 30% canopy closure.

Section V. APPENDIX 2: Species List

The following list of species are found in the Northeast United States.

Common Name	Scientific Name	Common Name	Scientific Name
Adam's needle	<i>Yucca filamentosa</i>	arrow arum	<i>Peltandra</i> spp.
adder's-mouth orchid	<i>Malaxis</i> spp.	arrowfeather threeawn	<i>Aristida purpurascens</i>
agrimony	<i>Agrimonia gryposepala</i>	arrowhead	<i>Sagittaria</i> spp.
alder	<i>Alnus</i> spp.	arrowhead rattlebox	<i>Crotalaria sagittalis</i>
alfalfa	<i>Medicago</i> spp.	arrowleaf tearthumb	<i>Polygonum sagittatum</i>
algae spp.		arrowleaf violet	<i>Viola sagittata</i>
alkaligrass	<i>Puccinellia</i> spp.	arrowwood	<i>Viburnum dentatum</i>
Allegheny blackberry	<i>Rubus allegheniensis</i>	ash	<i>Fraxinus</i> spp.
Allegheny monkeyflower	<i>Mimulus ringens</i>	Asian flatsedge	<i>Cyperus amuricus</i>
alternatelyleaf dogwood	<i>Cornus alternifolia</i>	Asiatic bittersweet	<i>Celastrus orbiculatus</i>
alumroot	<i>Heuchera</i> spp.	Asiatic dayflower	<i>Commelina communis</i>
American alumroot	<i>Heuchera americana</i>	asparagus	<i>Asparagus</i> spp.
American basswood	<i>Tilia americana</i>	aster	<i>Eurybia</i> spp.
American beachgrass	<i>Ammophila breviligulata</i>	aster	<i>Ionactis</i> spp.
American beech	<i>Fagus grandifolia</i>	aster	<i>Oclemena</i> spp.
American bittersweet	<i>Celastrus scandens</i>	aster	<i>Symphyotrichum</i> spp.
American bladdernut	<i>Staphylea trifolia</i>	Atlantic mannagrass	<i>Glyceria obtusa</i>
American bur-reed	<i>Sparganium americanum</i>	Atlantic white cedar	<i>Chamaecyparis thyoides</i>
American cancer-root	<i>Conopholis americana</i>	Austrian pine	<i>Pinus nigra</i>
American chestnut	<i>Castanea dentata</i>	autumn coralroot	<i>Corallorhiza odontorhiza</i>
American elm	<i>Ulmus americana</i>	autumn olive	<i>Elaeagnus umbellata</i>
American false pennyroyal	<i>Hedeoma pulegioides</i>	avens	<i>Geum</i> spp.
American featherfoil	<i>Hottonia inflata</i>	bald brome	<i>Bromus racemosus</i>
American hazelnut	<i>Corylus americana</i>	baldcypress	<i>Taxodium distichum</i>
American holly	<i>Ilex opaca</i>	balsam fir	<i>Abies balsamea</i>
American hornbeam	<i>Carpinus caroliniana</i>	balsam poplar	<i>Populus balsamifera</i>
American ipecac	<i>Euphorbia ipecacuanhae</i>	baneberry	<i>Actaea</i> spp.
American mannagrass	<i>Glyceria grandis</i>	barbed bristlegrass	<i>Setaria verticilliformis</i>
American mountain ash	<i>Sorbus americana</i>	barley	<i>Hordeum</i> spp.
American plum	<i>Prunus americana</i>	barnyardgrass	<i>Echinochloa crus-galli</i>
American pokeweed	<i>Phytolacca americana</i>	basil mountainmint	<i>Pycnanthemum clinopodioides</i>
American red raspberry	<i>Rubus idaeus</i>	bastard toadflax	<i>Comandra umbellata</i>
American senna	<i>Senna hebecarpa</i>	bay forget-me-not	<i>Myosotis laxa</i>
American speedwell	<i>Veronica americana</i>	bayberry	<i>Morella</i> spp.
American strawberry bush	<i>Euonymus americanus</i>	beach clotbur	<i>Xanthium strumarium</i>
American sycamore	<i>Platanus occidentalis</i>	beach false foxglove	<i>Agalinis fasciculata</i>
American water plantain	<i>Alisma subcordatum</i>	beach pea	<i>Lathyrus japonicus</i>
American white waterlily	<i>Nymphaea odorata</i>	beach plum	<i>Prunus maritima</i>
American wintergreen	<i>Pyrola americana</i>	beach sedge	<i>Carex silicea</i>
American witchhazel	<i>Hamamelis virginiana</i>	beaked spikerush	<i>Eleocharis rostellata</i>
American yew	<i>Taxus canadensis</i>	beaksedge	<i>Rhynchospora</i> spp.
Amur corktree	<i>Phellodendron amurense</i>	bear oak	<i>Quercus ilicifolia</i>
Amur honeysuckle	<i>Lonicera maackii</i>	Bebb willow	<i>Salix bebbiana</i>
Amur maackia	<i>Maackia amurensis</i>	bedstraw	<i>Galium</i> spp.
Amur maple	<i>Acer ginnala</i>	beech	<i>Fagus</i> spp.
anemone	<i>Anemone</i> spp.	beechdrops	<i>Epifagus virginiana</i>
anisescented goldenrod	<i>Solidago odora</i>	beechfern	<i>Phegopteris</i> spp.
annual bluegrass	<i>Poa annua</i>	beggarticks	<i>Bidens</i> spp.
annual canarygrass	<i>Phalaris canariensis</i>	bellwort	<i>Uvularia</i> spp.
annual wildrice	<i>Zizania aquatica</i>	bent sedge	<i>Carex styloflexa</i>
apple	<i>Malus</i> spp.	bentgrass	<i>Agrostis</i> spp.
arborvitae	<i>Thuja occidentalis</i>	Bermudagrass	<i>Cynodon dactylon</i>
arborvitae	<i>Thuja</i> spp.	big bluestem	<i>Andropogon gerardii</i>
arctic rush	<i>Juncus arcticus</i>	big cordgrass	<i>Spartina cynosuroides</i>

Common Name	Scientific Name	Common Name	Scientific Name
big devils beggartick	<i>Bidens vulgata</i>	bristlegrass	<i>Setaria spp.</i>
bigbract verbena	<i>Verbena bracteata</i>	bristly buttercup	<i>Ranunculus hispidus</i>
bigtooth aspen	<i>Populus grandidentata</i>	bristly dewberry	<i>Rubus hispidus</i>
billion-dollar grass	<i>Echinochloa frumentacea</i>	brittle bladderfern	<i>Cystopteris fragilis</i>
bindweed	<i>Convolvulus spp.</i>	broad beechfern	<i>Phegopteris hexagonoptera</i>
birch	<i>Betula spp.</i>	broadfruit bur-reed	<i>Sparganium eurycarpum</i>
birdeye speedwell	<i>Veronica persica</i>	broadleaf cattail	<i>Typha latifolia</i>
birdfoot violet	<i>Viola pedata</i>	broadleaf rosette grass	<i>Dichanthelium latifolium</i>
bitter panicgrass	<i>Panicum amarum</i>	brome	<i>Bromus spp.</i>
bittercress	<i>Cardamine spp.</i>	brookweed	<i>Samolus spp.</i>
bitternut hickory	<i>Carya cordiformis</i>	broomcorn millet	<i>Panicum miliaceum</i>
black alder	<i>Alnus glutinosa</i>	broomrape	<i>Orobanche spp.</i>
black baneberry	<i>Actaea racemosa</i>	broomsedge bluestem	<i>Andropogon virginicus</i>
black bindweed	<i>Polygonum convolvulus</i>	brown knapweed	<i>Centaurea jacea</i>
black birch/sweet birch	<i>Betula lenta</i>	brown widelip orchid	<i>Liparis liliifolia</i>
black cherry	<i>Prunus serotina</i>	brownish beaksedge	<i>Rhynchospora capitellata</i>
black huckleberry	<i>Gaylussacia baccata</i>	browntop	<i>Microstegium spp.</i>
black knapweed	<i>Centaurea nigra</i>	buckeye	<i>Aesculus spp.</i>
black locust	<i>Robinia pseudoacacia</i>	buckwheat	<i>Fagopyrum esculentum</i>
black maple	<i>Acer negundo</i>	bull thistle	<i>Cirsium vulgare</i>
black oak	<i>Quercus velutina</i>	bulrush	<i>Scirpus spp.</i>
black walnut	<i>Juglans nigra</i>	bur cucumber	<i>Sicyos spp.</i>
black willow	<i>Salix nigra</i>	bur oak	<i>Quercus macrocarpa</i>
blackberry	<i>Rubus spp.</i>	burdock	<i>Arctium spp.</i>
blackeyed Susan	<i>Rudbeckia hirta</i>	burnet	<i>Sanguisorba spp.</i>
blackgum	<i>Nyssa sylvatica</i>	burningbush	<i>Euonymus alatus</i>
blackhaw	<i>Viburnum prunifolium</i>	bur-reed	<i>Sparganium spp.</i>
blackjack oak	<i>Quercus marilandica</i>	bush honeysuckle	<i>Diervilla spp.</i>
blackseed plantain	<i>Plantago rugelii</i>	bushy bluestem	<i>Andropogon glomeratus</i>
blackseed speargrass	<i>Piptochaetium avenaceum</i>	bushy knotweed	<i>Polygonum ramosissimum</i>
bladderfern	<i>Cystopteris spp.</i>	butter and eggs	<i>Linaria vulgaris</i>
blazing star	<i>Liatriis spp.</i>	buttercup	<i>Ranunculus spp.</i>
bloodroot	<i>Sanguinaria canadensis</i>	butterfly milkweed	<i>Asclepias tuberosa</i>
blue atlas cedar	<i>Cedrus atlantica</i>	butternut	<i>Juglans cinerea</i>
blue huckleberry	<i>Gaylussacia frondosa</i>	button sedge	<i>Carex bullata</i>
blue sedge	<i>Carex glaucoidea</i>	buttonweed	<i>Diodia spp.</i>
blue skullcap	<i>Scutellaria lateriflora</i>	calico aster	<i>Symphotrichum lateriflorum</i>
blue waxweed	<i>Cuphea viscosissima</i>	callery pear	<i>Pyrus calleryana</i>
blue wild indigo	<i>Baptisia australis</i>	camphorweed	<i>Pluchea spp.</i>
blueberry	<i>Vaccinium spp.</i>	campion	<i>Lychnis spp.</i>
bluecurls	<i>Trichostema spp.</i>	Canada bluegrass	<i>Poa compressa</i>
blue-eyed grass	<i>Sisyrinchium spp.</i>	Canada goldenrod	<i>Solidago canadensis</i>
bluegrass	<i>Poa spp.</i>	Canada lettuce	<i>Lactuca canadensis</i>
bluejacket	<i>Tradescantia ohioensis</i>	Canada lily	<i>Lilium canadense</i>
bluejoint	<i>Calamagrostis canadensis</i>	Canada mayflower	<i>Maianthemum canadense</i>
bluestem	<i>Andropogon spp.</i>	Canada thistle	<i>Cirsium arvense</i>
bluet	<i>Houstonia spp.</i>	Canada toadflax	<i>Nuttallanthus canadensis</i>
blunt broom sedge	<i>Carex tribuloides</i>	Canadian blacksnakeroot	<i>Sanicula canadensis</i>
blunt spikerush	<i>Eleocharis obtusa</i>	Canadian clearweed	<i>Pilea pumila</i>
bluntleaf bedstraw	<i>Galium obtusum</i>	Canadian lousewort	<i>Pedicularis canadensis</i>
bluntlobe cliff fern	<i>Woodsia obtusa</i>	Canadian rush	<i>Juncus canadensis</i>
bog fern	<i>Thelypteris simulata</i>	Canadian serviceberry	<i>Amelanchier canadensis</i>
bog rush	<i>Juncus biflorus</i>	Canadian woodnettle	<i>Laportea canadensis</i>
bog yellowcress	<i>Rorippa palustris</i>	canarygrass	<i>Phalaris spp.</i>
Boston ivy	<i>Parthenocissus tricuspidata</i>	cankerweed	<i>Prenanthes serpentaria</i>
bouncing bet	<i>Saponaria officinalis</i>	cantaloupe	<i>Cucumis melo</i>
boxelder	<i>Acer negundo</i>	cardinalflower	<i>Lobelia cardinalis</i>
brackenfern	<i>Pteridium spp.</i>	Carolina geranium	<i>Geranium carolinianum</i>
bright green spikerush	<i>Eleocharis olivacea</i>	Carolina mosquitofern	<i>Azolla caroliniana</i>

Common Name	Scientific Name	Common Name	Scientific Name
Carolina rose	<i>Rosa carolina</i>	common grape hyacinth	<i>Muscari botryoides</i>
carpetweed	<i>Mollugo spp.</i>	common hackberry	<i>Celtis occidentalis</i>
catalpa	<i>Catalpa spp.</i>	common hop	<i>Humulus lupulus</i>
catberry	<i>Ilex mucronata</i>	common hoptree	<i>Ptelea trifoliata</i>
catbrier	<i>Smilax spp.</i>	common juniper	<i>Juniperus communis</i>
catchfly	<i>Silene spp.</i>	common ladyfern	<i>Athyrium filix-femina</i>
catnip	<i>Nepeta cataria</i>	common mallow	<i>Malva neglecta</i>
cat's ear	<i>Hypochaeris spp.</i>	common milkweed	<i>Asclepias syriaca</i>
cattail	<i>Typha spp.</i>	common moonseed	<i>Menispermum canadense</i>
cattail sedge	<i>Carex typhina</i>	common mullein	<i>Verbascum thapsus</i>
cedar	<i>Chamaecyparis spp.</i>	common oat	<i>Avena sativa</i>
celandine	<i>Chelidonium majus</i>	common pear	<i>Pyrus communis</i>
cereal rye	<i>Secale cereale</i>	common pepperweed	<i>Lepidium densiflorum</i>
chainfern	<i>Woodwardia spp.</i>	common periwinkle	<i>Vinca minor</i>
cheatgrass	<i>Bromus tectorum</i>	common persimmon	<i>Diospyros virginiana</i>
chestnut	<i>Castanea spp.</i>	common plantain	<i>Plantago major</i>
chestnut oak	<i>Quercus prinus</i>	common pricklyash	<i>Zanthoxylum americanum</i>
chicory	<i>Cichorium intybus</i>	common ragweed	<i>Ambrosia artemisiifolia</i>
Chinese chestnut	<i>Castanea mollissima</i>	common serviceberry	<i>Amelanchier arborea</i>
Chinese wisteria	<i>Wisteria sinensis</i>	common sheep sorrel	<i>Rumex acetosella</i>
chokeberry	<i>Photinia spp.</i>	common sowthistle	<i>Sonchus oleraceus</i>
chokecherry	<i>Prunus virginiana</i>	common spikerush	<i>Eleocharis palustris</i>
Christmas fern	<i>Polystichum acrostichoides</i>	common threesquare	<i>Schoenoplectus pungens</i>
churchmouse threeawn	<i>Aristida dichotoma</i>	common velvetgrass	<i>Holcus lanatus</i>
cinnamon fern	<i>Osmunda cinnamomea</i>	common winterberry	<i>Ilex verticillata</i>
cinquefoil	<i>Potentilla spp.</i>	common yarrow	<i>Achillea millefolium</i>
clammy hedgehyssop	<i>Gratiola neglecta</i>	compact dodder	<i>Cuscuta compacta</i>
clearweed	<i>Pilea spp.</i>	composite dropseed	<i>Sporobolus compositus</i>
cliff fern	<i>Woodsia spp.</i>	cone-cup spikerush	<i>Eleocharis tuberculosa</i>
climbing false buckwheat	<i>Polygonum scandens</i>	coneflower	<i>Rudbeckia spp.</i>
climbing hempvine	<i>Mikania scandens</i>	cool season grass	
climbing nightshade	<i>Solanum dulcamara</i>	coon's tail	<i>Ceratophyllum demersum</i>
Clinton's woodfern	<i>Dryopteris clintoniana</i>	coralroot	<i>Corallorhiza spp.</i>
clover	<i>Trifolium spp.</i>	cordgrass	<i>Spartina spp.</i>
clustered mille grains	<i>Oldenlandia uniflora</i>	corn chamomile	<i>Anthemis arvensis</i>
clustered mountainmint	<i>Pycnanthemum muticum</i>	corn gromwell	<i>Buglossoides arvensis</i>
clustered snakeroot	<i>Sanicula odorata</i>	corn speedwell	<i>Veronica arvensis</i>
coast cockspur grass	<i>Echinochloa walteri</i>	Cornelian cherry	<i>Cornus mas</i>
coastal jointweed	<i>Polygonella articulata</i>	cosmopolitan bulrush	<i>Schoenoplectus maritimus</i>
coastal plain blue-eyed grass	<i>Sisyrinchium fuscatum</i>	cottongrass	<i>Eriophorum spp.</i>
cockspur grass	<i>Echinochloa spp.</i>	cow vetch	<i>Vicia cracca</i>
codlins and cream	<i>Epilobium hirsutum</i>	cowbane	<i>Oxypolis spp.</i>
colicroot	<i>Aletris spp.</i>	cowparsnip	<i>Heracleum</i>
Collins' sedge	<i>Carex collinsii</i>	crabgrass	<i>Digitaria spp.</i>
Colorado blue spruce	<i>Picea pungens</i>	crack willow	<i>Salix fragilis</i>
columbine	<i>Aquilegia spp.</i>	cranberry	<i>Vaccinium macrocarpon</i>
common barberry	<i>Berberis vulgaris</i>	crapemyrtle	<i>Lagerstroemia indica</i>
common blue violet	<i>Viola sororia</i>	cream avens	<i>Geum virginianum</i>
common blue wood aster	<i>Symphotrichum cordifolium</i>	creeping bentgrass	<i>Agrostis stolonifera</i>
common boneset	<i>Eupatorium perfoliatum</i>	creeping buttercup	<i>Ranunculus repens</i>
common buckthorn	<i>Rhamnus cathartica</i>	creeping lespedeza	<i>Lespedeza repens</i>
common buttonbush	<i>Cephalanthus occidentalis</i>	creeping velvetgrass	<i>Holcus mollis</i>
common chickweed	<i>Stellaria media</i>	creeping woodsorrel	<i>Oxalis corniculata</i>
common cinquefoil	<i>Potentilla simplex</i>	crested saltbush	<i>Atriplex cristata</i>
common dandelion	<i>Taraxacum officinale</i>	crested woodfern	<i>Dryopteris cristata</i>
common dittany	<i>Cunila origanoides</i>	crippled crane fly	<i>Tipularia discolor</i>
common evening primrose	<i>Oenothera biennis</i>	crowbeard	<i>Verbesina spp.</i>
common fleabane	<i>Erigeron philadelphicus</i>	crowgrass	<i>Paspalum spp.</i>
common goldstar	<i>Hypoxis hirsuta</i>	cryptomeria	<i>Cryptomeria japonica</i>

Common Name	Scientific Name	Common Name	Scientific Name
cucumber-tree	<i>Magnolia acuminata</i>	early meadow-rue	<i>Thalictrum dioicum</i>
cudweed	<i>Gnaphalium spp.</i>	earth loosestrife	<i>Lysimachia terrestris</i>
Culver's root	<i>Veronicastrum virginicum</i>	eastern annual saltmarsh aster	<i>Symphotrichum subulatum</i>
cunila	<i>Cunila spp.</i>	eastern blue-eyed grass	<i>Sisyrinchium atlanticum</i>
curly dock	<i>Rumex crispus</i>	eastern cottonwood	<i>Populus deltoides</i>
curly pondweed	<i>Potamogeton crispus</i>	eastern gamagrass	<i>Tripsacum dactyloides</i>
curlyheads	<i>Clematis ochroleuca</i>	eastern grasswort	<i>Lilaeopsis chinensis</i>
currant	<i>Ribes spp.</i>	eastern hemlock	<i>Tsuga canadensis</i>
cursed buttercup	<i>Ranunculus sceleratus</i>	eastern Joe Pye weed	<i>Eupatoriadelphus dubius</i>
cutgrass	<i>Leersia spp.</i>	eastern leatherwood	<i>Dirca palustris</i>
cutleaf evening primrose	<i>Oenothera laciniata</i>	eastern marsh fern	<i>Thelypteris palustris</i>
cutleaf grapefern	<i>Botrychium dissectum</i>	eastern redbud	<i>Cercis canadensis</i>
cypress panicgrass	<i>Dichanthelium dichotomum</i>	eastern redcedar	<i>Juniperus virginiana</i>
cypress spurge	<i>Euphorbia cyparissias</i>	eastern silver aster	<i>Symphotrichum concolor</i>
daisy fleabane	<i>Erigeron annuus</i>	eastern star sedge	<i>Carex radiata</i>
Darnel ryegrass	<i>Lolium temulentum</i>	eastern straw sedge	<i>Carex straminea</i>
dawn redwood	<i>Metasequoia glyptostroboides</i>	eastern teaberry	<i>Gaultheria procumbens</i>
dayflower	<i>Commelina spp.</i>	eastern waterleaf	<i>Hydrophyllum virginianum</i>
decodon	<i>Decodon spp.</i>	eastern white pine	<i>Pinus strobus</i>
deerberry	<i>Vaccinium stamineum</i>	ebony spleenwort	<i>Asplenium platyneuron</i>
deertongue	<i>Dichanthelium clandestinum</i>	elderberry	<i>Sambucus canadensis</i>
densetuft hairsedge	<i>Bulbostylis capillaris</i>	Elliott's goldenrod	<i>Solidago latissimifolia</i>
Deodar cedar	<i>Cedrus deodara</i>	elm	<i>Ulmus spp.</i>
Deptford pink	<i>Dianthus armeria</i>	enchanter's nightshade	<i>Circaea spp.</i>
desert false indigo	<i>Amorpha fruticosa</i>	English ivy	<i>Hedera helix</i>
devil's beggartick	<i>Bidens frondosa</i>	English oak	<i>Quercus robur</i>
devil's darning needles	<i>Clematis virginiana</i>	English plantain	<i>Plantago lanceolata</i>
devil's walkingstick	<i>Aralia spinosa</i>	erect knotweed	<i>Polygonum erectum</i>
devil's-tongue	<i>Opuntia humifusa</i>	European beech	<i>Fagus sylvatica</i>
dock	<i>Rumex spp.</i>	European birch	<i>Betula pendula</i>
dodder	<i>Cuscuta spp.</i>	European cranberrybush	<i>Viburnum opulus</i>
dogbane	<i>Apocynum spp.</i>	European gooseberry	<i>Ribes uva-crispa</i>
dogtooth violet	<i>Erythronium americanum</i>	European heliotrope	<i>Heliotropium europaeum</i>
dogwood	<i>Cornus spp.</i>	European hornbeam	<i>Carpinus betulus</i>
dotted smartweed	<i>Polygonum punctatum</i>	European larch	<i>Larix decidua</i>
doubtful knight's-spur	<i>Consolida ajacis</i>	European lily of the valley	<i>Convallaria majalis</i>
Douglas-fir	<i>Pseudotsuga menziesii</i>	European mountain ash	<i>Sorbus aucuparia</i>
dovefoot geranium	<i>Geranium molle</i>	European privet	<i>Ligustrum vulgare</i>
downy carrionflower	<i>Smilax pulverulenta</i>	European spindle tree	<i>Euonymus europaeus</i>
downy goldenrod	<i>Solidago puberula</i>	European stickseed	<i>Lappula squarrosa</i>
downy milkpea	<i>Galactia volubilis</i>	evening primrose	<i>Oenothera spp.</i>
downy rattlesnake plantain	<i>Goodyera pubescens</i>	fall panicgrass	<i>Panicum dichotomiflorum</i>
downy wildrye	<i>Elymus villosus</i>	fall phlox	<i>Phlox paniculata</i>
downy yellow false foxglove	<i>Aureolaria virginica</i>	false baby's breath	<i>Galium mollugo</i>
downy yellow violet	<i>Viola pubescens</i>	false daisy	<i>Eclipta prostrata</i>
draba	<i>Draba spp.</i>	false hellebore	<i>Veratrum spp.</i>
dropseed	<i>Sporobolus spp.</i>	false indigo	<i>Amorpha spp.</i>
duckweed	<i>Lemna spp.</i>	false mannagrass	<i>Torreyochloa spp.</i>
dutchman's breeches	<i>Dicentra cucullaria</i>	false nettle	<i>Boehmeria cylindrica</i>
dutchman's pipe	<i>Aristolochia macrophylla</i>	false pennyroyal	<i>Hedeoma spp.</i>
dwarf cinquefoil	<i>Potentilla canadensis</i>	false pimpinell	<i>Lindernia spp.</i>
dwarf ginseng	<i>Panax trifolius</i>	false Solomon's seal	<i>Maianthemum racemosum</i>
dwarf huckleberry	<i>Gaylussacia dumosa</i>	false spleenwort	<i>Deparia spp.</i>
dwarf saltwort	<i>Salicornia bigelovii</i>	fern	
dwarf spikerush	<i>Eleocharis parvula</i>	fern flatsedge	<i>Cyperus filicinus</i>
dwarfdandelion	<i>Krigia spp.</i>	fernleaf yellow false foxglove	<i>Aureolaria pedicularia</i>
early azalea	<i>Rhododendron prinophyllum</i>	fescue	<i>Festuca spp.</i>
early bluegrass	<i>Poa cuspidata</i>	feverwort	<i>Triosteum perfoliatum</i>
early buttercup	<i>Ranunculus fascicularis</i>	field bindweed	<i>Convolvulus arvensis</i>

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field brome	<i>Bromus arvensis</i>	ginseng	<i>Panax spp.</i>
field chickweed	<i>Cerastium arvense</i>	globe flatsedge	<i>Cyperus echinatus</i>
field horsetail	<i>Equisetum arvense</i>	globefruit primrose-willow	<i>Ludwigia sphaerocarpa</i>
field mustard	<i>Brassica rapa</i>	glossy buckthorn	<i>Frangula alnus</i>
field pansy	<i>Viola arvensis</i>	goatgrass	<i>Aegilops spp.</i>
field paspalum	<i>Paspalum laeve</i>	goatsbeard	<i>Tragopogon spp.</i>
field pennycress	<i>Thlaspi arvense</i>	golden clover	<i>Trifolium aureum</i>
field pepperweed	<i>Lepidium campestre</i>	golden hedgehyssop	<i>Gratiola aurea</i>
field sagewort	<i>Artemisia campestris</i>	golden ragwort	<i>Packera aurea</i>
field sowthistle	<i>Sonchus arvensis</i>	goldenaster	<i>Chrysopsis spp.</i>
field thistle	<i>Cirsium discolor</i>	goldenraintrees	<i>Koeleruteria paniculata</i>
fig buttercup	<i>Ranunculus ficaria</i>	goldenrod	<i>Solidago spp.</i>
figwort	<i>Scrophularia spp.</i>	goldenseal	<i>Hydrastis canadensis</i>
fimbry	<i>Fimbristylis spp.</i>	Goldie's woodfern	<i>Dryopteris goldiana</i>
fineleaf sheep fescue	<i>Festuca filiformis</i>	goldthread	<i>Coptis spp.</i>
fir	<i>Abies spp.</i>	goosefoot	<i>Chenopodium spp.</i>
fireweed	<i>Chamerion angustifolium</i>	goosegrass	<i>Eleusine spp.</i>
fiveleaf orchid	<i>Isotria spp.</i>	grape	<i>Vitis spp.</i>
flatsedge	<i>Cyperus spp.</i>	grape hyacinth	<i>Muscari spp.</i>
flax	<i>Linum spp.</i>	grapefern	<i>Botrychium spp.</i>
flaxleaf whitetop aster	<i>Ionactis linariifolius</i>	grassleaf rush	<i>Juncus marginatus</i>
fleabane	<i>Erigeron spp.</i>	grass-like starwort	<i>Stellaria graminea</i>
floating mannagrass	<i>Glyceria septentrionalis</i>	grasswort	<i>Lilaeopsis spp.</i>
flowering dogwood	<i>Cornus florida</i>	gray birch	<i>Betula populifolia</i>
forget-me-not	<i>Myosotis spp.</i>	gray dogwood	<i>Cornus racemosa</i>
forked bluecurls	<i>Trichostema dichotomum</i>	gray poplar	<i>Populus xcanescens</i>
forked rush	<i>Juncus dichotomus</i>	great blue lobelia	<i>Lobelia siphilitica</i>
forsythia	<i>Forsythia spp.</i>	great ragweed	<i>Ambrosia trifida</i>
fountaingrass	<i>Pennisetum spp.</i>	green adder's-mouth orchid	<i>Malaxis unifolia</i>
four o'clock	<i>Mirabilis spp.</i>	green arrow arum	<i>Peltandra virginica</i>
fowl mannagrass	<i>Glyceria striata</i>	green ash	<i>Fraxinus pennsylvanica</i>
fox grape	<i>Vitis labrusca</i>	green bristlegrass	<i>Setaria viridis</i>
fox sedge	<i>Carex vulpinoidea</i>	green bulrush	<i>Scirpus atrovirens</i>
foxtail	<i>Alopecurus spp.</i>	green carpetweed	<i>Mollugo verticillata</i>
foxtail barley	<i>Hordeum jubatum</i>	green comet milkweed	<i>Asclepias viridiflora</i>
foxtail bristlegrass	<i>Setaria italica</i>	green fringed orchid	<i>Platanthera lacera</i>
foxtail sedge	<i>Carex alopecoidea</i>	Greene's rush	<i>Juncus greenei</i>
fragrant sumac	<i>Rhus aromatica</i>	ground ivy	<i>Glechoma bederacea</i>
fringed loosestrife	<i>Lysimachia ciliata</i>	groundcherry	<i>Physalis spp.</i>
fringed orchid	<i>Platanthera spp.</i>	groundnut	<i>Apios spp.</i>
fringed sedge	<i>Carex crinita</i>	groundsel tree	<i>Baccharis halimifolia</i>
fuzzy wuzzy sedge	<i>Carex hirsutella</i>	hackberry	<i>Celtis spp.</i>
fuzzybean	<i>Strophostyles spp.</i>	hairgrass	<i>Deschampsia spp.</i>
galearis	<i>Galearis spp.</i>	hairsedge	<i>Bulbostylis spp.</i>
gall of the earth	<i>Prenanthes trifoliolata</i>	hairy cat's ear	<i>Hypochaeris radicata</i>
gamagrass	<i>Tripsacum spp.</i>	hairy crabgrass	<i>Digitaria sanguinalis</i>
garden asparagus	<i>Asparagus officinalis</i>	hairy lespedeza	<i>Lespedeza hirta</i>
garden sorrel	<i>Rumex acetosa</i>	hairy lettuce	<i>Lactuca hirsuta</i>
garden vetch	<i>Vicia sativa</i>	hairy skullcap	<i>Scutellaria elliptica</i>
garlic mustard	<i>Alliaria petiolata</i>	hairy small-leaf ticktrefoil	<i>Desmodium ciliare</i>
gentian	<i>Gentiana spp.</i>	hairy Solomon's seal	<i>Polygonatum pubescens</i>
geranium	<i>Geranium spp.</i>	hairy sunflower	<i>Helianthus hirsutus</i>
giant fescue	<i>Schedonorus giganteus</i>	hairy woodland brome	<i>Bromus pubescens</i>
giant goldenrod	<i>Solidago gigantea</i>	halberd-leaved rose mallow	<i>Hibiscus laevis</i>
giant hyssop	<i>Agastache spp.</i>	handsome Harry	<i>Rhexia virginica</i>
giant knotweed	<i>Polygonum sachalinense</i>	hard fescue	<i>Festuca brevipila</i>
giantchickweed	<i>Myosoton aquaticum</i>	hardy rubber tree	<i>Eucommia ulmoides</i>
ginkgo	<i>Ginkgo biloba</i>	harvestbells	<i>Gentiana saponaria</i>
ginkgo	<i>Ginkgo spp.</i>	hawkweed	<i>Hieracium spp.</i>

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hawthorn	<i>Crataegus spp.</i>	intermediate woodfern	<i>Dryopteris intermedia</i>
hayscented fern	<i>Dennstaedtia spp.</i>	interrupted fern	<i>Osmunda claytoniana</i>
hazel alder	<i>Alnus serrulata</i>	inundated clubmoss	<i>Lycopodiella inundata</i>
hazel dodder	<i>Cuscuta coryli</i>	iris	<i>Iris spp.</i>
hazelnut	<i>Corylus spp.</i>	ironweed	<i>Vernonia spp.</i>
heartleaf four o'clock	<i>Mirabilis nyctaginea</i>	ivy	<i>Hedera spp.</i>
heartleaf plantain	<i>Plantago cordata</i>	Jack in the pulpit	<i>Arisaema triphyllum</i>
hedge false bindweed	<i>Calystegia sepium</i>	Jacob's-ladder	<i>Polemonium spp.</i>
hedge maple	<i>Acer campestre</i>	Japanese angelica-tree	<i>Aralia elata</i>
hedgehysso	<i>Gratiola spp.</i>	Japanese barberry	<i>Berberis thunbergii</i>
hedgenettle	<i>Stachys spp.</i>	Japanese black pine	<i>Pinus thunbergii</i>
Heller's rosette grass	<i>Dichantherium oligosanthes</i>	Japanese bristlegrass	<i>Setaria faberi</i>
helmet flower	<i>Scutellaria integrifolia</i>	Japanese honeysuckle	<i>Lonicera japonica</i>
hemlock rosette grass	<i>Dichantherium sabulorum</i>	Japanese hop	<i>Humulus japonicus</i>
hempvine	<i>Mikania spp.</i>	Japanese knotweed	<i>Polygonum cuspidatum</i>
Henbit	<i>Lamium spp.</i>	Japanese maple	<i>Acer palmatum</i>
hepatica	<i>Hepatica nobilis</i>	Japanese pachysandra	<i>Pachysandra terminalis</i>
herbwilliam	<i>Ptilimnium capillaceum</i>	Japanese snowball	<i>Viburnum plicatum</i>
hickory	<i>Carya spp.</i>	Japanese snowbell	<i>Styrax japonicus</i>
highbush blueberry	<i>Vaccinium corymbosum</i>	Japanese sophora	<i>Styphnolobium japonicum</i>
hoarypea	<i>Tephrosia spp.</i>	Japanese tree lilac	<i>Syringa reticulata</i>
hobblebush	<i>Viburnum lantanooides</i>	Japanese yew	<i>Taxus cuspidata</i>
holly	<i>Ilex spp.</i>	Japanese zelkova	<i>Zelkova serrata</i>
hollyfern	<i>Polystichum spp.</i>	Jerusalem artichoke	<i>Helianthus tuberosus</i>
hollyhock	<i>Alcea spp.</i>	Jesuit's bark	<i>Iva frutescens</i>
honewort	<i>Cryptotaenia spp.</i>	jetbead	<i>Rhodotypos scandens</i>
honeylocust	<i>Gleditsia triacanthos</i>	jewelweed	<i>Impatiens capensis</i>
honeysuckle	<i>Lonicera spp.</i>	jimsonweed	<i>Datura stramonium</i>
hooded arrowhead	<i>Sagittaria calycina</i>	Joe Pye weed	<i>Eupatoriadelphus spp.</i>
hooked bristlegrass	<i>Setaria verticillata</i>	Johnsongrass	<i>Sorghum halepense</i>
hop	<i>Humulus spp.</i>	jointed goatgrass	<i>Aegilops cylindrica</i>
hophornbeam	<i>Ostrya virginiana</i>	jointweed	<i>Polygonella spp.</i>
hoptree	<i>Ptelea spp.</i>	juniper	<i>Juniperus spp.</i>
horehound	<i>Marrubium vulgare</i>	justicweed	<i>Eupatorium leucolepis</i>
hornwort	<i>Anthoxanthum spp.</i>	katsura tree	<i>Cercidiphyllum japonicum</i>
hornwort	<i>Ceratophyllum spp.</i>	Kentucky bluegrass	<i>Poa pratensis</i>
Horsebalm	<i>Collinsonia spp.</i>	Kentucky coffeetree	<i>Gymnocladus dioicus</i>
horsechestnut	<i>Aesculus hippocastanum</i>	kingdevil	<i>Hieracium praealtum</i>
horseflyweed	<i>Baptisia tinctoria</i>	kinnikinnick	<i>Arctostaphylos uva-ursi</i>
horsetail	<i>Equisetum spp.</i>	kiss me over the garden gate	<i>Polygonum orientale</i>
horseweed	<i>Conyza spp.</i>	knight's-spur	<i>Consolida spp.</i>
hound's tongue	<i>Cynoglossum spp.</i>	kousa dogwood	<i>Cornus kousa</i>
Howell's pussytoes	<i>Antennaria howellii</i>	kudzu	<i>Pueraria montana</i>
huckleberry	<i>Gaylussacia spp.</i>	kwanzan cherry	<i>Prunus 'Kwanzan'</i>
husk tomato	<i>Physalis pubescens</i>	Labrador tea	<i>Ledum spp.</i>
hydrangea	<i>Hydrangea spp.</i>	lace grass	<i>Eragrostis capillaris</i>
hyssop	<i>Hyssopus officinalis</i>	lady's slipper	<i>Cypripedium spp.</i>
hyssop loosestrife	<i>Lythrum hyssopifolium</i>	lady's thumb	<i>Polygonum cespitosum</i>
hyssopleaf hedgenettle	<i>Stachys hyssopifolia</i>	lady's tresses	<i>Spiranthes spp.</i>
hyssopleaf thoroughwort	<i>Eupatorium hyssopifolium</i>	lambquarters	<i>Chenopodium album</i>
Illinois pinweed	<i>Lechea racemulosa</i>	lancheaf figwort	<i>Scrophularia lanceolata</i>
Indian cucumber	<i>Medeola virginiana</i>	larch	<i>Larix spp.</i>
Indian goosegrass	<i>Eleusine indica</i>	large St. Johnswort	<i>Hypericum majus</i>
Indian paintbrush	<i>Castilleja spp.</i>	large whorled pogonia	<i>Isotria verticillata</i>
Indian strawberry	<i>Duchesnea indica</i>	large yellow loosestrife	<i>Lysimachia punctata</i>
Indiangrass	<i>Sorghastrum nutans</i>	largebracted plantain	<i>Plantago aristata</i>
Indianpipe	<i>Monotropa uniflora</i>	large-flower primrose-willow	<i>Ludwigia grandiflora</i>
Indian-tobacco	<i>Lobelia inflata</i>	late purple aster	<i>Symphotrichum patens</i>
inkberry	<i>Ilex glabra</i>	lateflowering thoroughwort	<i>Eupatorium serotinum</i>

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laurel	<i>Kalmia spp.</i>	marsh rose gentian	<i>Sabatia dodecandra</i>
lavender thrift	<i>Limonium carolinianum</i>	marsh seedbox	<i>Ludwigia palustris</i>
leafy pondweed	<i>Potamogeton foliosus</i>	marsh St. Johnswort	<i>Triadenum virginicum</i>
leather flower	<i>Clematis spp.</i>	marsh straw sedge	<i>Carex hormathodes</i>
leatherleaf	<i>Chamaedaphne calyculata</i>	marshpepper knotweed	<i>Polygonum hydropiper</i>
leathery grapefern	<i>Botrychium multifidum</i>	Maryland goldenaster	<i>Chrysopsis mariana</i>
Leggett's pinweed	<i>Lechea pulchella</i>	Maryland sanicle	<i>Sanicula marilandica</i>
lespedeza	<i>Lespedeza spp.</i>	mat sandbur	<i>Cenchrus longispinus</i>
lesser burdock	<i>Arctium minus</i>	mayapple	<i>Podophyllum peltatum</i>
lesser Canadian St. Johnswort	<i>Hypericum canadense</i>	mayflower	<i>Maianthemum spp.</i>
lesser snakeroot	<i>Ageratina aromatica</i>	meadow anemone	<i>Anemone canadensis</i>
lettuce	<i>Lactuca spp.</i>	meadow fescue	<i>Schedonorus pratensis</i>
Leyland cypress	<i>x Cupressocyparis leylandii</i>	meadow foxtail	<i>Alopecurus pratensis</i>
lilac	<i>Syringa spp.</i>	meadow garlic	<i>Allium canadense</i>
lily	<i>Lilium spp.</i>	meadow spikemoss	<i>Selaginella apoda</i>
linearleaf snapdragon	<i>Misopates orontium</i>	meadowbeauty	<i>Rhexia spp.</i>
lined sedge	<i>Carex striatula</i>	meadowparsnip	<i>Thaspium spp.</i>
little bluestem	<i>Schizachyrium scoparium</i>	meadow-rue	<i>Thalictrum spp.</i>
little evening primrose	<i>Oenothera perennis</i>	melon	<i>Cucumis spp.</i>
little lovegrass	<i>Eragrostis minor</i>	mermaidweed	<i>Proserpinaca spp.</i>
littleleaf buttercup	<i>Ranunculus abortivus</i>	Mexican muhly	<i>Muhlenbergia mexicana</i>
littleleaf linden	<i>Tilia cordata</i>	Mexican tea	<i>Chenopodium ambrosioides</i>
lizard's tail	<i>Saururus cernuus</i>	mild water pepper	<i>Polygonum hydropiperoides</i>
lobelia	<i>Lobelia spp.</i>	milk puslane	<i>Chamaesyce maculata</i>
log fern	<i>Dryopteris celsa</i>	milkpea	<i>Galactia spp.</i>
Lombardy poplar	<i>Populus nigra</i>	milkweed	<i>Asclepias spp.</i>
London planetree	<i>Platanus hybrida</i>	mimosa	<i>Albizia julibrissin</i>
longleaf summer bluet	<i>Houstonia longifolia</i>	mint	<i>Mentha spp.</i>
Long's sedge	<i>Carex longii</i>	minute duckweed	<i>Lemna perpusilla</i>
longstalk starwort	<i>Stellaria longipes</i>	misopates	<i>Misopates spp.</i>
longstyle sweetroot	<i>Osmorhiza longistylis</i>	moccasin flower	<i>Cypripedium acaule</i>
loosestrife	<i>Lythrum spp.</i>	mockernut hickory	<i>Carya alba</i>
lopsided rush	<i>Juncus secundus</i>	monkeyflower	<i>Mimulus spp.</i>
lousewort	<i>Pedicularis spp.</i>	moonseed	<i>Menispermum</i>
lovegrass	<i>Eragrostis spp.</i>	morning-glory	<i>Ipomoea spp.</i>
low rough aster	<i>Eurybia radula</i>	Morrow's honeysuckle	<i>Lonicera morrowii</i>
low spearwort	<i>Ranunculus pusillus</i>	mosquitofern	<i>Azolla spp.</i>
lowbush blueberry	<i>Vaccinium angustifolium</i>	moss	
lowland bladderfern	<i>Cystopteris protrusa</i>	moss phlox	<i>Phlox subulata</i>
lowland yellow loosestrife	<i>Lysimachia hybrida</i>	moth mullein	<i>Verbascum blattaria</i>
magnolia	<i>Magnolia spp.</i>	mountain laurel	<i>Kalmia latifolia</i>
Mahaleb cherry	<i>Prunus mahaleb</i>	mountain silverbell	<i>Halesia tetraptera</i>
maiden fern	<i>Thelypteris spp.</i>	mountainmint	<i>Pycnanthemum spp.</i>
maidenhair fern	<i>Adiantum spp.</i>	mouse-ear chickweed	<i>Cerastium fontanum</i>
maleberry	<i>Lyonia ligustrina</i>	mugwort	<i>Artemisia vulgaris</i>
mallow	<i>Malva spp.</i>	Muhlenberg's sedge	<i>Carex muehlenbergii</i>
man of the earth	<i>Ipomoea pandurata</i>	muhly	<i>Muhlenbergia spp.</i>
mannagrass	<i>Glyceria spp.</i>	mulberry	<i>Morus spp.</i>
manyspike flatsedge	<i>Cyperus polystachyos</i>	multiflora rose	<i>Rosa multiflora</i>
manzanita	<i>Arctostaphylos</i>	nailwort	<i>Paronychia spp.</i>
maple	<i>Acer spp.</i>	nannyberry	<i>Viburnum lentago</i>
mapleleaf goosefoot	<i>Chenopodium simplex</i>	Nantucket serviceberry	<i>Amelanchier nantucketensis</i>
mapleleaf viburnum	<i>Viburnum acerifolium</i>	narrowleaf bluecurls	<i>Trichostema setaceum</i>
marginal woodfern	<i>Dryopteris marginalis</i>	narrowleaf blue-eyed grass	<i>Sisyrinchium angustifolium</i>
marijuana	<i>Cannabis sativa</i>	narrowleaf cattail	<i>Typha angustifolia</i>
marsh bristlegrass	<i>Setaria parviflora</i>	narrowleaf evening primrose	<i>Oenothera fruticosa</i>
marsh cudweed	<i>Gnaphalium uliginosum</i>	narrowleaf vervain	<i>Verbena simplex</i>
marsh fimbry	<i>Fimbristylis castanea</i>	narrowleaf whitetop aster	<i>Sericocarpus linifolius</i>
marsh marigold	<i>Caltha spp.</i>	necklace sedge	<i>Carex projecta</i>

Common Name	Scientific Name	Common Name	Scientific Name
needle spikerush	<i>Eleocharis acicularis</i>	Parlin's pussytoes	<i>Antennaria parlinii</i>
needlepod rush	<i>Juncus scirpoides</i>	parsnip	<i>Pastinaca</i> spp.
netted chainfern	<i>Woodwardia areolata</i>	partridge pea	<i>Chamaecrista fasciculata</i>
New England aster	<i>Symphotrichum navae-angliae</i>	path rush	<i>Juncus tenuis</i>
New Jersey tea	<i>Ceanothus americanus</i>	pawpaw	<i>Asimina triloba</i>
New York aster	<i>Symphotrichum novi-belgii</i>	pea	<i>Lathyrus</i> spp.
New York fern	<i>Thelypteris noveboracensis</i>	peach	<i>Prunus persica</i>
New York ironweed	<i>Vernonia noveboracensis</i>	pearl millet	<i>Pennisetum glaucum</i>
nightshade	<i>Solanum</i> spp.	pearlwort	<i>Sagina</i> spp.
nimblewill	<i>Muhlenbergia schreberi</i>	pencilflower	<i>Stylosanthes</i> spp.
nodding fescue	<i>Festuca subverticillata</i>	Pennsylvania bittercress	<i>Cardamine pensylvanica</i>
nodding thistle	<i>Carduus nutans</i>	Pennsylvania blackberry	<i>Rubus pensilvanicus</i>
noddingcaps	<i>Triphora</i> spp.	Pennsylvania buttercup	<i>Ranunculus pensylvanicus</i>
northern bayberry	<i>Morella pensylvanica</i>	Pennsylvania sedge	<i>Carex pensylvanica</i>
northern bog aster	<i>Symphotrichum boreale</i>	Pennsylvania smartweed	<i>Polygonum pensylvanicum</i>
northern bugleweed	<i>Lycopus uniflorus</i>	pennycress	<i>Thlaspi</i> spp.
northern coastal violet	<i>Viola brittoniana</i>	pepperweed	<i>Lepidium</i> spp.
northern long sedge	<i>Carex folliculata</i>	perennial ryegrass	<i>Lolium perenne</i>
northern maidenhair	<i>Adiantum pedatum</i>	perennial saltmarsh aster	<i>Symphotrichum tenuifolium</i>
northern red oak	<i>Quercus rubra</i>	perennial wallrocket	<i>Diplotaxis tenuifolia</i>
northern spicebush	<i>Lindera benzoin</i>	perfoliate bellwort	<i>Uvularia perfoliata</i>
northern wildrice	<i>Zizania palustris</i>	periwinkle	<i>Vinca</i> spp.
Norway maple	<i>Acer platanoides</i>	Peruvian dodder	<i>Cuscuta obtusiflora</i>
Norway maple 'crimson king'	<i>Acer platanoides</i> 'Crimson king'	Philadelphia panicgrass	<i>Panicum philadelphicum</i>
Norway spruce	<i>Picea abies</i>	phlox	<i>Phlox</i> spp.
Norwegian cinquefoil	<i>Potentilla norvegica</i>	phragmites	<i>Phragmites australis</i>
nutgrass	<i>Cyperus rotundus</i>	pickerelweed	<i>Pontederia cordata</i>
nutrush	<i>Scleria</i> spp.	pickleweed	<i>Salicornia</i> spp.
Nuttall's milkwort	<i>Polygala nuttallii</i>	piedmont staggerbush	<i>Lyonia mariana</i>
Nuttall's ticktrefoil	<i>Desmodium nuttallii</i>	pignut hickory	<i>Carya glabra</i>
oak	<i>Quercus</i> spp.	pigweed	<i>Amaranthus</i> spp.
Oakes' evening primrose	<i>Oenothera oakesiana</i>	pilewort	<i>Erechtites hieraciifolia</i>
oat	<i>Avena</i> spp.	pimpernel	<i>Anagallis</i> spp.
oatgrass	<i>Arrhenatherum</i> spp.	pin cherry	<i>Prunus pensylvanica</i>
oatgrass	<i>Danthonia</i> spp.	pin oak	<i>Quercus palustris</i>
obedient plant	<i>Physostegia virginiana</i>	pine	<i>Pinus</i> spp.
oldenlandia	<i>Oldenlandia</i> spp.	pine barren flatsedge	<i>Cyperus retrorsus</i>
olney threesquare	<i>Schoenoplectus americanus</i>	pine barren stitchwort	<i>Minuartia caroliniana</i>
oneflowered broomrape	<i>Orobanche uniflora</i>	pinemap	<i>Monotropa hypopithys</i>
onion	<i>Allium</i> spp.	pink azalea	<i>Rhododendron periclymenoides</i>
opium poppy	<i>Papaver somniferum</i>	pink fuzzybean	<i>Strophostyles umbellata</i>
orange daylily	<i>Hemerocallis fulva</i>	pinweed	<i>Lechea</i> spp.
orange milkwort	<i>Polygala lutea</i>	pipsissewa	<i>Chimaphila umbellata</i>
orchardgrass	<i>Dactylis glomerata</i>	pitch pine	<i>Pinus rigida</i>
osage orange	<i>Maclura pomifera</i>	pitseed goosefoot	<i>Chenopodium berlandieri</i>
osmunda	<i>Osmunda</i> spp.	plantain	<i>Plantago</i> spp.
oval-leaf knotweed	<i>Polygonum arenastrum</i>	plantain lily	<i>Hosta</i>
ovate spikerush	<i>Eleocharis ovata</i>	pleatleaf knotweed	<i>Polygonum tenue</i>
overcup oak	<i>Quercus lyrata</i>	Plukenet's flatsedge	<i>Cyperus plukenetii</i>
oxeye daisy	<i>Leucanthemum vulgare</i>	plum	<i>Prunus</i> spp.
pale false mannagrass	<i>Torreyochloa pallida</i>	pointedleaf ticktrefoil	<i>Desmodium glutinosum</i>
pale smartweed	<i>Polygonum lapathifolium</i>	Poison ivy	<i>Toxicodendron radicans</i>
pale touch-me-not	<i>Impatiens pallida</i>	poison sumac	<i>Toxicodendron vernix</i>
palegreen orchid	<i>Platanthera flava</i>	polygala	<i>Polygala</i> spp.
panicgrass	<i>Panicum</i> spp.	polypody	<i>Polypodium</i> spp.
panickedleaf ticktrefoil	<i>Desmodium paniculatum</i>	pond water-starwort	<i>Callitriche stagnalis</i>
paper birch	<i>Betula papyrifera</i>	pond-lily	<i>Nuphar</i> spp.
paper mulberry	<i>Broussonetia papyrifera</i>	pondweed	<i>Potamogeton</i> spp.
paradise apple	<i>Malus pumila</i>	pondweed	<i>Stuckenia</i> spp.

Common Name	Scientific Name	Common Name	Scientific Name
poorjoe	<i>Diodia teres</i>	red fescue	<i>Festuca rubra</i>
poorland flatsedge	<i>Cyperus compressus</i>	red goosefoot	<i>Chenopodium rubrum</i>
poor-man's-pepper	<i>Lepidium virginicum</i>	red hickory	<i>Carya ovalis</i>
poppy	<i>Papaver spp.</i>	red maple	<i>Acer rubrum</i>
porcelain-berry	<i>Ampelopsis brevipedunculata</i>	red milkweed	<i>Asclepias rubra</i>
possumhaw	<i>Viburnum nudum</i>	red mulberry	<i>Morus rubra</i>
post oak	<i>Quercus stellata</i>	red pine	<i>Pinus resinosa</i>
poverty brome	<i>Bromus sterilis</i>	red spruce	<i>Picea rubens</i>
poverty dropseed	<i>Sporobolus vaginiflorus</i>	redosier dogwood	<i>Cornus sericea</i>
poverty oatgrass	<i>Danthonia spicata</i>	redring milkweed	<i>Asclepias variegata</i>
prairie cordgrass	<i>Spartina pectinata</i>	redstem stork's bill	<i>Erodium cicutarium</i>
prairie sunflower	<i>Helianthus petiolaris</i>	redtop	<i>Agrostis gigantea</i>
prairie threeawn	<i>Aristida oligantha</i>	redtop panicgrass	<i>Panicum rigidulum</i>
prickly lettuce	<i>Lactuca serriola</i>	reed	<i>Phragmites spp.</i>
pricklyash	<i>Zanthoxylum spp.</i>	reedgrass	<i>Calamagrostis spp.</i>
pricklypear	<i>Opuntia spp.</i>	reflexed sedge	<i>Carex retroflexa</i>
primrose-willow	<i>Ludwigia spp.</i>	rhododendron	<i>Rhododendron spp.</i>
prince's pine	<i>Chimaphila spp.</i>	rice cutgrass	<i>Leersia oryzoides</i>
princess-tree	<i>Paulownia tomentosa</i>	ridged yellow flax	<i>Linum striatum</i>
privet	<i>Ligustrum spp.</i>	river birch	<i>Betula nigra</i>
prostrate knotweed	<i>Polygonum aviculare</i>	riverbank wildrye	<i>Elymus riparius</i>
prostrate pigweed	<i>Amaranthus albus</i>	roadside pepperweed	<i>Lepidium ruderales</i>
prostrate ticktrefoil	<i>Desmodium rotundifolium</i>	rock polypody	<i>Polypodium virginianum</i>
purple bergamot	<i>Monarda media</i>	rose	<i>Rosa spp.</i>
purple chokeberry	<i>Photinia floribunda</i>	rose gentian	<i>Sabatia spp.</i>
purple gerardia	<i>Agalinis purpurea</i>	rose mallow	<i>Hibiscus moscheutos</i>
purple loosestrife	<i>Lythrum salicaria</i>	rose moss	<i>Portulaca grandiflora</i>
purple lovegrass	<i>Eragrostis spectabilis</i>	rose of Plymouth	<i>Sabatia stellaris</i>
purple meadowparsnip	<i>Thaspium trifoliatum</i>	rose of Sharon	<i>Hibiscus syriacus</i>
purple milkweed	<i>Asclepias purpurascens</i>	rosepink	<i>Sabatia angularis</i>
purple sandgrass	<i>Triplasis purpurea</i>	rosette grass	<i>Dichanthelium spp.</i>
purpleleaf plum	<i>Prunus cerasifera</i>	rotala	<i>Rotala spp.</i>
purple-head sneezeweed	<i>Helenium flexuosum</i>	rough avens	<i>Geum laciniatum</i>
purplestem aster	<i>Symphotrichum puniceum</i>	rough barnyardgrass	<i>Echinochloa muricata</i>
purplestem beggarticks	<i>Bidens connata</i>	rough bentgrass	<i>Agrostis scabra</i>
purpletop tridens	<i>Tridens flavus</i>	rough bluegrass	<i>Poa trivialis</i>
purslane	<i>Portulaca spp.</i>	rough boneset	<i>Eupatorium pilosum</i>
pussy willow	<i>Salix discolor</i>	roughfruit amaranth	<i>Amaranthus tuberculatus</i>
pussytoes	<i>Antennaria spp.</i>	rough-fruited cinquefoil	<i>Potentilla recta</i>
quackgrass	<i>Elymus repens</i>	roundhead lespedeza	<i>Lespedeza capitata</i>
quaking aspen	<i>Populus tremuloides</i>	roundleaf greenbrier	<i>Smilax rotundifolia</i>
Queen Anne's lace	<i>Daucus carota</i>	roundleaf thoroughwort	<i>Eupatorium rotundifolium</i>
queendevil	<i>Hieracium gronovii</i>	roundleaf yellow violet	<i>Viola rotundifolia</i>
quill sedge	<i>Carex tenera</i>	roundseed panicgrass	<i>Dichanthelium sphaerocarpon</i>
rabbitfoot clover	<i>Trifolium arvense</i>	royal fern	<i>Osmunda regalis</i>
radish	<i>Raphanus spp.</i>	rue anemone	<i>Thalictrum thalictroides</i>
ragged robin	<i>Lychnis flos-cuculi</i>	rush	<i>Juncus spp.</i>
ragweed	<i>Ambrosia spp.</i>	Russian olive	<i>Elaeagnus angustifolia</i>
ragwort	<i>Packera spp.</i>	Russian thistle	<i>Salsola kali</i>
rare clubmoss	<i>Lycopodium obscurum</i>	rye	<i>Secale spp.</i>
rattlebox	<i>Crotalaria spp.</i>	rye brome	<i>Bromus secalinus</i>
rattlesnake fern	<i>Botrychium virginianum</i>	ryegrass	<i>Lolium spp.</i>
rattlesnake mannagrass	<i>Glyceria canadensis</i>	sagebrush	<i>Artemisia spp.</i>
rattlesnakemaster	<i>Eryngium aquaticum</i>	saline saltbush	<i>Atriplex subspicata</i>
rattlesnakeroot	<i>Prenanthes spp.</i>	saltbush	<i>Atriplex spp.</i>
rattlesnakeweed	<i>Hieracium venosum</i>	saltgrass	<i>Distichlis spicata</i>
red chokeberry	<i>Photinia pyrifolia</i>	saltmarsh alkaligrass	<i>Puccinellia fasciculata</i>
red clover	<i>Trifolium pratense</i>	salt-marsh bulrush	<i>Schoenoplectus robustus</i>
red columbine	<i>Aquilegia canadensis</i>	saltmarsh false foxglove	<i>Agalinis maritima</i>

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saltmeadow cordgrass	<i>Spartina patens</i>	skunk cabbage	<i>Symplocarpus foetidus</i>
saltmeadow rush	<i>Juncus gerardii</i>	sleepydicke	<i>Ornithogalum umbellatum</i>
sand bittercress	<i>Cardamine parviflora</i>	slender blue iris	<i>Iris prismatica</i>
sandbar willow	<i>Salix interior</i>	slender bunchflower	<i>Veratrum latifolium</i>
sandbur	<i>Cenchrus spp.</i>	slender crabgrass	<i>Digitaria filiformis</i>
sanddune sandbur	<i>Cenchrus tribuloides</i>	slender fimbry	<i>Fimbristylis autumnalis</i>
sandgrass	<i>Triplasis spp.</i>	slender flatsedge	<i>Cyperus bipartitus</i>
sandhill thistle	<i>Cirsium repandum</i>	slender nutrush	<i>Scleria minor</i>
sandmat	<i>Chamaesyce spp.</i>	slender rose gentian	<i>Sabatia campanulata</i>
sandspurry	<i>Spergularia spp.</i>	slender sowthistle	<i>Sonchus tenerrimus</i>
sanicle	<i>Sanicula spp.</i>	slender woodoats	<i>Chasmanthium laxum</i>
sarsaparilla	<i>Smilax aristolochiifolia</i>	slender yellow woodsorrel	<i>Oxalis dillenii</i>
sassafras	<i>Sassafras albidum</i>	slimleaf panicgrass	<i>Dichantheium linearifolium</i>
saucer magnolia	<i>Magnolia x soulangiana</i>	slimspike threeawn	<i>Aristida longespica</i>
sawbrier	<i>Smilax glauca</i>	slippery elm	<i>Ulmus rubra</i>
sawgrass	<i>Cladium spp.</i>	small pondweed	<i>Potamogeton pusillus</i>
sawtooth oak	<i>Quercus acutissima</i>	smallflower sweetbrier	<i>Rosa micrantha</i>
scarlet Indian paintbrush	<i>Castilleja coccinea</i>	smartweed	<i>Polygonum spp.</i>
scarlet oak	<i>Quercus coccinea</i>	smartweed dodder	<i>Cuscuta polygonorum</i>
scarlet pimpernel	<i>Anagallis arvensis</i>	smooth beggartick	<i>Bidens laevis</i>
Scots pine	<i>Pinus sylvestris</i>	smooth blue aster	<i>Symphyotrichum laeve</i>
sea lavender	<i>Limonium spp.</i>	smooth brome	<i>Bromus inermis</i>
searocket	<i>Cakile spp.</i>	smooth carrionflower	<i>Smilax herbacea</i>
seaside brookweed	<i>Samolus valerandi</i>	smooth cordgrass	<i>Spartina alterniflora</i>
seaside goldenrod	<i>Solidago sempervirens</i>	smooth crabgrass	<i>Digitaria ischaemum</i>
seaside spurge	<i>Chamaesyce polygonifolia</i>	smooth forked nailwort	<i>Paronychia canadensis</i>
seaside threeawn	<i>Aristida tuberculosa</i>	smooth sawgrass	<i>Cladium mariscoides</i>
sedge	<i>Carex spp.</i>	smooth Solomon's seal	<i>Polygonatum biflorum</i>
seedbox	<i>Ludwigia alternifolia</i>	smooth sumac	<i>Rhus glabra</i>
seepweed	<i>Suaeda spp.</i>	smooth ticktrefoil	<i>Desmodium laevigatum</i>
senna	<i>Senna spp.</i>	smooth winterberry	<i>Ilex laevigata</i>
sensitive fern	<i>Onoclea sensibilis</i>	snailseed pondweed	<i>Potamogeton bicupulatus</i>
serviceberry	<i>Amelanchier spp.</i>	snakeroot	<i>Ageratina spp.</i>
sesame	<i>Sesamum orientale</i>	snowberry	<i>Gaultheria spp.</i>
sessileleaf bellwort	<i>Uvularia sessilifolia</i>	snowberry	<i>Symphoricarpos spp.</i>
shagbark hickory	<i>Carya ovata</i>	soft rush	<i>Juncus effusus</i>
shallow sedge	<i>Carex lurida</i>	Solomon's seal	<i>Polygonatum spp.</i>
sharpwing monkeyflower	<i>Mimulus alatus</i>	sorghum	<i>Sorghum bicolor</i>
sheep laurel	<i>Kalmia angustifolia</i>	southern bog clubmoss	<i>Lycopodiella appressa</i>
shepherd's purse	<i>Capsella bursa-pastoris</i>	southern magnolia	<i>Magnolia grandiflora</i>
shingle oak	<i>Quercus imbricaria</i>	southern red oak	<i>Quercus falcata</i>
shining clubmoss	<i>Huperzia lucidula</i>	southern woodland violet	<i>Viola hirsutula</i>
shore little bluestem	<i>Schizachyrium littorale</i>	sowthistle	<i>Sonchus spp.</i>
shortawn foxtail	<i>Alopecurus aequalis</i>	speargrass	<i>Piptochaetium spp.</i>
shortleaf pine	<i>Pinus echinata</i>	speckled alder	<i>Alnus incana</i>
showy orchid	<i>Galearis spectabilis</i>	speedwell	<i>Veronica spp.</i>
showy skullcap	<i>Scutellaria serrata</i>	spiderwort	<i>Tradescantia spp.</i>
shrubby cinquefoil	<i>Dasiphora fruticosa</i>	spikemoss	<i>Selaginella spp.</i>
Siberian elm	<i>Ulmus pumila</i>	spikerush	<i>Eleocharis spp.</i>
sidebeak pencilflower	<i>Vibrosanthus biflora</i>	spindletree	<i>Euonymus spp.</i>
Siebold's viburnum	<i>Viburnum sieboldii</i>	spineless hornwort	<i>Ceratophyllum echinatum</i>
silky dogwood	<i>Cornus amomum</i>	spiney glasswort	<i>Salicornia depressa</i>
silver maple	<i>Acer saccharinum</i>	spinulose woodfern	<i>Dryopteris carthusiana</i>
silverleaf linden	<i>Tilia tomentosa</i>	spirea	<i>Spiraea spp.</i>
silverrod	<i>Solidago bicolor</i>	spleenwort	<i>Asplenium spp.</i>
silvery sedge	<i>Carex canescens</i>	spoonleaf purple everlasting	<i>Gamochaeta purpurea</i>
sixweeks fescue	<i>Vulpia octoflora</i>	spotted Joe Pye weed	<i>Eupatoriadelphus maculatus</i>
skullcap	<i>Scutellaria spp.</i>	spotted knapweed	<i>Centaurea</i>
skullcap speedwell	<i>Veronica scutellata</i>	spotted pondweed	<i>Potamogeton pulcher</i>

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spotted wintergreen	<i>Chimaphila maculata</i>	sweetscented Joe Pye weed	<i>Eupatorium purpureum</i>
spreading dogbane	<i>Apocynum androsaemifolium</i>	switchgrass	<i>Panicum virgatum</i>
spring avens	<i>Geum vernum</i>	sycamore maple	<i>Acer pseudoplatanus</i>
spring forget-me-not	<i>Myosotis verna</i>	tall blue lettuce	<i>Lactuca biennis</i>
springbeauty	<i>Claytonia spp.</i>	tall buttercup	<i>Ranunculus acris</i>
spruce	<i>Picea spp.</i>	tall fescue	<i>Schedonorus phoenix</i>
spurge	<i>Euphorbia spp.</i>	tall lespedeza	<i>Lespedeza stuevei</i>
squarestem spikerush	<i>Eleocharis quadrangulata</i>	tall meadow-rue	<i>Thalictrum pubescens</i>
squarrose sedge	<i>Carex squarrosa</i>	tall morning-glory	<i>Ipomoea purpurea</i>
squash	<i>Cucurbita spp.</i>	tall oatgrass	<i>Arrhenatherum elatius</i>
St. Andrew's cross	<i>Hypericum hypericoides</i>	tall rattlesnakeroot	<i>Prenanthes altissima</i>
St. Anthony's turnip	<i>Ranunculus bulbosus</i>	tall thimbleweed	<i>Anemone virginiana</i>
St. Johnswort	<i>Hypericum spp.</i>	tall thistle	<i>Cirsium altissimum</i>
staggerbush	<i>Lyonia spp.</i>	tamarack	<i>Larix laricina</i>
staghorn sumac	<i>Rhus typhina</i>	tapered rosette grass	<i>Dichanthelium acuminatum</i>
star magnolia	<i>Magnolia stellata</i>	taperleaf water horehound	<i>Lycopus rubellus</i>
star of Bethlehem	<i>Ornithogalum spp.</i>	tapertip rush	<i>Juncus acuminatus</i>
stargrass	<i>Cynodon plectostachyus</i>	Tatarian honeysuckle	<i>Lonicera tatarica</i>
star-grass	<i>Hypoxis spp.</i>	tawny cottongrass	<i>Eriophorum virginicum</i>
starry false lily of the valley	<i>Maianthemum stellatum</i>	terrestrial water-starwort	<i>Callitriche terrestris</i>
starved panicgrass	<i>Dichanthelium depauperatum</i>	thicket sedge	<i>Carex abscondita</i>
starwort	<i>Stellaria spp.</i>	Thickseed sunflower	<i>Bidens coronata</i>
steeplesh	<i>Spiraea tomentosa</i>	thimbleberry	<i>Rubus parviflorus</i>
sticky catchfly	<i>Silene caroliniana</i>	thin paspalum	<i>Paspalum setaceum</i>
stiff cowbane	<i>Oxypolis rigidior</i>	thistle	<i>Cirsium spp.</i>
stiff ticktrefoil	<i>Desmodium obtusum</i>	thoroughwort	<i>Eupatorium spp.</i>
stiff yellow flax	<i>Linum medium</i>	threadleaf crowfoot	<i>Ranunculus trichophyllus</i>
stinging nettle	<i>Urtica dioica</i>	threadleaf false foxglove	<i>Agalinis setacea</i>
stitchwort	<i>Minuartia spp.</i>	threeawn	<i>Aristida spp.</i>
stork's bill	<i>Erodium spp.</i>	threebirds	<i>Triphora trianthophora</i>
strawberry	<i>Fragaria spp.</i>	threeleaf goldthread	<i>Coptis trifolia</i>
strawcolored flatsedge	<i>Cyperus strigosus</i>	threeLOBE beggarticks	<i>Bidens tripartita</i>
striped maple	<i>Acer pensylvanicum</i>	threepetal bedstraw	<i>Galium trifidum</i>
sugar maple	<i>Acer saccharum</i>	threeseed mercury	<i>Acalypha spp.</i>
sumac	<i>Rhus spp.</i>	threeway sedge	<i>Dulichium arundinaceum</i>
summer grape	<i>Vitis aestivalis</i>	thymeleaf pinweed	<i>Lechea minor</i>
sunflower	<i>Helianthus spp.</i>	thymeleaf speedwell	<i>Veronica serpyllifolia</i>
swamp azalea	<i>Rhododendron viscosum</i>	ticktrefoil	<i>Desmodium spp.</i>
swamp cottonwood	<i>Populus heterophylla</i>	tidalmarsh amaranth	<i>Amaranthus cannabinus</i>
swamp doghobble	<i>Eubotrys racemosa</i>	timothy	<i>Phleum pratense</i>
swamp loosestrife	<i>Decodon verticillatus</i>	tiny vetch	<i>Vicia hirsuta</i>
swamp lousewort	<i>Pedicularis lanceolata</i>	tipularia	<i>Tipularia spp.</i>
swamp milkweed	<i>Asclepias incarnata</i>	toad rush	<i>Juncus bufonius</i>
swamp sunflower	<i>Helianthus angustifolius</i>	toadflax	<i>Nuttallanthus spp.</i>
swamp verbena	<i>Verbena hastata</i>	toothed whitetop aster	<i>Sericocarpus asteroides</i>
swamp white oak	<i>Quercus bicolor</i>	Torrey's mountainmint	<i>Pycnanthemum torrei</i>
swamppink	<i>Helonias bullata</i>	touch-me-not	<i>Impatiens spp.</i>
Swan's sedge	<i>Carex swanii</i>	trailing arbutus	<i>Epigaea repens</i>
sweet cherry	<i>Prunus avium</i>	tree of heaven	<i>Ailanthus altissima</i>
sweet fern	<i>Comptonia peregrina</i>	tridens	<i>Tridens spp.</i>
sweet mock orange	<i>Philadelphus coronarius</i>	trident maple	<i>Acer buergerianum</i>
sweet pepperbush	<i>Clethra alnifolia</i>	trillium	<i>Trillium spp.</i>
sweet vernalgrass	<i>Anthoxanthum odoratum</i>	true forget-me-not	<i>Myosotis scorpioides</i>
sweet woodreed	<i>Cinna arundinacea</i>	trumpet creeper	<i>Campsis radicans</i>
sweetbay	<i>Magnolia virginiana</i>	trumpet honeysuckle	<i>Lonicera sempervirens</i>
sweetflag	<i>Acorus americanus</i>	trumpetweed	<i>Eupatoriadelphus fistulosus</i>
sweetgrass	<i>Hierochloe odorata</i>	tuberous grasspink	<i>Calopogon tuberosus</i>
sweetgum	<i>Liquidambar styraciflua</i>	tufted hairgrass	<i>Deschampsia cespitosa</i>
sweetroot	<i>Osmorhiza spp.</i>	tufted loosestrife	<i>Lysimachia thyrsiflora</i>

Common Name	Scientific Name	Common Name	Scientific Name
tufted lovegrass	<i>Eragrostis pectinacea</i>	waxyleaf meadow-rue	<i>Thalictrum revolutum</i>
tuliptree	<i>Liriodendron tulipifera</i>	wayfaringtree	<i>Viburnum lantana</i>
Turkish hazelnut	<i>Corylus colurna</i>	weak stellate sedge	<i>Carex seorsa</i>
turk's-cap lily	<i>Lilium superbum</i>	weeping alkaligrass	<i>Puccinellia distans</i>
turtlehead	<i>Chelone spp.</i>	weeping Higan cherry	<i>Prunus subhirtella</i>
tussock sedge	<i>Carex stricta</i>	weeping willow	<i>Salix × sepulcralis</i>
twoflower dwarfdandelion	<i>Krigia biflora</i>	western brackenfern	<i>Pteridium aquilinum</i>
umbrella flatsedge	<i>Cyperus diandrus</i>	western vervain	<i>Verbena lasiostachys</i>
umbrella-sedge	<i>Fuirena spp.</i>	western waterweed	<i>Elodea nuttallii</i>
upland bentgrass	<i>Agrostis perennans</i>	wheat	<i>Triticum spp.</i>
valdivia duckweed	<i>Lemna valdiviana</i>	wheatgrass	<i>Thinopyrum spp.</i>
variable panicgrass	<i>Dichanthelium commutatum</i>	whip nutrush	<i>Scleria triglomerata</i>
velvet panicum	<i>Dichanthelium scoparium</i>	white ash	<i>Fraxinus americana</i>
velvet sedge	<i>Carex vestita</i>	white avens	<i>Geum canadense</i>
velvetgrass	<i>Holcus spp.</i>	white baneberry	<i>Actaea pachypoda</i>
vernal water-starwort	<i>Callitriche palustris</i>	white clover	<i>Trifolium repens</i>
veronicastrum	<i>Veronicastrum spp.</i>	white colicroot	<i>Aletris farinosa</i>
vervain	<i>Verbena spp.</i>	white fire	<i>Abies concolor</i>
vetch	<i>Vicia spp.</i>	white fringed orchid	<i>Platanthera blephariglottis</i>
viburnum	<i>Viburnum spp.</i>	white heath aster	<i>Symphotrichum ericoides</i>
violet	<i>Viola spp.</i>	white meadowsweet	<i>Spiraea alba</i>
violet lespedeza	<i>Lespedeza violacea</i>	white mulberry	<i>Morus alba</i>
violet woodsorrel	<i>Oxalis violacea</i>	white oak	<i>Quercus alba</i>
viper's bugloss	<i>Echium spp.</i>	white panicle aster	<i>Symphotrichum lanceolatum</i>
Virginia bunchflower	<i>Veratrum virginicum</i>	white poplar	<i>Populus alba</i>
Virginia chainfern	<i>Woodwardia virginica</i>	white snakeroot	<i>Ageratina altissima</i>
Virginia creeper	<i>Parthenocissus quinquefolia</i>	white turtlehead	<i>Chelone glabra</i>
Virginia dwarfdandelion	<i>Krigia virginica</i>	white vervain	<i>Verbena urticifolia</i>
Virginia groundcherry	<i>Physalis virginiana</i>	white wallrocket	<i>Diplotaxis erucoides</i>
Virginia iris	<i>Iris virginica</i>	white willow	<i>Salix alba</i>
Virginia knotweed	<i>Polygonum virginianum</i>	white wood aster	<i>Eurybia divaricata</i>
Virginia pine	<i>Pinus virginiana</i>	whitegrass	<i>Leersia virginica</i>
Virginia rose	<i>Rosa virginiana</i>	whitemouth dayflower	<i>Commelina erecta</i>
Virginia snakeroot	<i>Aristolochia serpentaria</i>	whiteninge sedge	<i>Carex albicans</i>
Virginia spiderwort	<i>Tradescantia virginiana</i>	whitetop	<i>Cardaria draba</i>
Virginia springbeauty	<i>Claytonia virginica</i>	whitetop	<i>Doellingeria spp.</i>
Virginia tephrosia	<i>Tephrosia virginiana</i>	whitetop aster	<i>Sericocarpus spp.</i>
Virginia water horehound	<i>Lycopus virginicus</i>	whorled milkweed	<i>Asclepias verticillata</i>
Virginia wildrye	<i>Elymus virginicus</i>	whorled mountainmint	<i>Pycnanthemum verticillatum</i>
wallrocket	<i>Diplotaxis spp.</i>	whorled wood aster	<i>Oclemena acuminata</i>
walnut	<i>Juglans spp.</i>	widelip orchid	<i>Liparis spp.</i>
warm season grass		wild bergamot	<i>Monarda fistulosa</i>
warty panicgrass	<i>Panicum verrucosum</i>	wild carrot	<i>Daucus spp.</i>
water hyacinth	<i>Eichhornia crassipes</i>	wild chervil	<i>Anthriscus sylvestris</i>
water knotweed	<i>Polygonum amphibium</i>	wild comfrey	<i>Cynoglossum virginianum</i>
water mannagrass	<i>Glyceria fluitans</i>	wild cucumber	<i>Echinocystis lobata</i>
water sedge	<i>Carex aquatilis</i>	wild garlic	<i>Allium vineale</i>
water speedwell	<i>Veronica anagallis-aquatica</i>	wild geranium	<i>Geranium maculatum</i>
watercress	<i>Nasturtium officinale</i>	wild indigo	<i>Baptisia spp.</i>
waterhorehound	<i>Lycopus spp.</i>	wild parsnip	<i>Pastinaca sativa</i>
waterlily	<i>Nymphaea spp.</i>	wild radish	<i>Raphanus raphanistrum</i>
watermelon	<i>Citrullus lanatus</i>	wild strawberry	<i>Fragaria virginiana</i>
watermoss	<i>Salvinia spp.</i>	wild yam	<i>Dioscorea villosa</i>
waterplantain spearwort	<i>Ranunculus ambigens</i>	wildrice	<i>Zizania spp.</i>
water-starwort	<i>Callitriche spp.</i>	wildrye	<i>Elymus spp.</i>
waterthread pondweed	<i>Potamogeton diversifolius</i>	willow	<i>Salix spp.</i>
wavy hairgrass	<i>Deschampsia flexuosa</i>	willow dock	<i>Rumex salicifolius</i>
waxflower shinleaf	<i>Pyrola elliptica</i>	willow oak	<i>Quercus phellos</i>
waxweed	<i>Cuphea spp.</i>	willowherb	<i>Epilobium spp.</i>

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wineberry	<i>Rubus phoenicolasius</i>	woolgrass	<i>Scirpus cyperinus</i>
winged sumac	<i>Rhus copallinum</i>	woolly beachheather	<i>Hudsonia tomentosa</i>
wingstem	<i>Verbesina alternifolia</i>	yam	<i>Dioscorea spp.</i>
winter bentgrass	<i>Agrostis hyemalis</i>	yarrow	<i>Achillea spp.</i>
winter creeper	<i>Euonymus fortunei</i>	yellow birch	<i>Betula alleghaniensis</i>
wintergreen	<i>Pyrola spp.</i>	yellow flatsedge	<i>Cyperus flavescens</i>
wisteria	<i>Wisteria spp.</i>	yellow fringed orchid	<i>Platanthera ciliaris</i>
witchgrass	<i>Panicum capillare</i>	yellow giant hyssop	<i>Agastache nepetoides</i>
witchhazel	<i>Hamamelis spp.</i>	yellow loosestrife	<i>Lysimachia spp.</i>
woman's tobacco	<i>Antennaria plantaginifolia</i>	yellow marsh marigold	<i>Caltha palustris</i>
wood anemone	<i>Anemone quinquefolia</i>	yellow nutsedge	<i>Cyperus esculentus</i>
wood lily	<i>Lilium philadelphicum</i>	yellow pond-lily	<i>Nuphar lutea</i>
woodfern	<i>Dryopteris spp.</i>	yellow thistle	<i>Cirsium horridulum</i>
woodland bulrush	<i>Scirpus expansus</i>	yellow water buttercup	<i>Ranunculus flabellaris</i>
woodland muhly	<i>Muhlenbergia sylvatica</i>	yellowseed false pimpernel	<i>Lindernia dubia</i>
woodland strawberry	<i>Fragaria vesca</i>	yellowwood	<i>Cladrastis kentukea</i>
woodland sunflower	<i>Helianthus divaricatus</i>	yew	<i>Taxus spp.</i>
woodoats	<i>Chasmanthium spp.</i>	yoshino cherry	<i>Prunus × yedoensis</i>
woodreed	<i>Cinna spp.</i>	yucca	<i>Yucca spp.</i>
woodsorrel	<i>Oxalis spp.</i>		