

Natural Area Mapping and Inventory of Seton Falls Park September 2007 Survey



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Seton Falls Park Natural Area Mapping & Inventory

36.51 acres

Introduction

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

Until the 1980's, the Parks Department was primarily concerned with developed landscapes and recreation facilities rather than natural areas. In the absence of a comprehensive management policy, these areas succumbed to invasive species, pollution and erosion.

In 1984, Parks established the Natural Resources Group (NRG) with a mandate to acquire, restore and manage natural areas in New York City. The wetlands, forests, meadows, and shorelines under 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. This inventory of Seton Falls Park was conducted in 2007 as part of NRG's commitment to improving the natural areas of New York City parks.

Seton Falls Park is named for the waterfalls built in the park by the Seton family. In the 19th century, these landowners were instrumental in the political and social affairs of what was then the town of Eastchester. The surrounding area was formerly inhabited by Siwanoy Indians, who hunted and fished. In 1654 English colonist Thomas Pell purchased a large parcel of land from the Siwanoy. Pell invited farmers from Fairfield County, Connecticut to settle here, and they incorporated the area into the town of Eastchester in 1666. The Bronx and lower Westchester were the scene for much military action during the Revolutionary War. One battle occurred in what is now Seton Falls Park in 1781, as the British retreated under fire by the patriots. Ownership of the area changed after the war, because many who were loyal to Britain lost their property.

James Roosevelt, a relative of two U.S. Presidents, was the first owner after the Revolutionary War. Nathaniel Prime, a wealthy New York banker, later acquired the area and called his estate "The Cedars" for the many red cedars on his land. Upon his death, the property was transferred to Prime's daughter Emily, who married William Seton, the eldest son of Saint Elizabeth Seton. It was he who renamed the fifty-one-acre estate "Cragdon" and transformed it into a working farm with two ponds. Rattlesnake Creek was dammed inside the estate and formed a waterfall that gives its name to the present-day park. The creek was named after the abundant rattlesnakes that were once found in the area.

Twenty-nine acres of the Seton estate were assigned to Parks on June 11, 1930. Additional lands were assigned to Parks in 1983 and 1985. A baseball field, two outhouses, water fountain, and maintenance shack were added to the park by 1936. The western portion of the park was preserved as mature forest, mostly undisturbed since the time of the American Revolution. In 1973 the outlet of Rattlesnake Creek was culverted and filled in. Subsequently, the water grew choked with invasive weeds. In 1981 the city spent \$250,000 to build a pumping station to drain Rattlesnake Creek and solve flooding problems. In 1997 the Seton Falls Park Preservation Coalition received a \$5500 grant from the New York City Environmental Fund for the implementation of a school-based program for education about the restoration of the park's wetlands and woodlands.

The park contains approximately 40 wooded acres and is defined by Rattlesnake Creek. The fresh water wetlands are fed by a small, forested stream, which is extremely rare in New York City, and are critical areas for a variety of aquatic organisms. Floodplain forest is present along Rattlesnake Creek, as are cattail marsh and sedge meadow, at the bottom of a sheer, rocky ravine. Floodplain forests grow on mineral soils in the lowlands of river floodplains and deltas. These areas are characterized by their flood regime: low areas are annually flooded in spring and high areas are flooded irregularly. Above the ravine, oak-hickory and successional forests are dominant. Oak-hickory forests occur on well-drained sites, often on ridge tops, upper slopes, or south and west facing slopes. The forested areas and wetlands provide habitat to over 30 species of birds, salamanders, dragonflies, chipmunks, tree frogs, swifts, hawks, thrushes, wood peckers, and butterflies.

In 2001 a Clean Air/Clean Water Bond Act provided funding for a \$550,000 restoration of the wetlands and forest. The project was overseen by Parks' Natural Resources Group (NRG). The primary goals of the restoration were to enhance wildlife quality in the forest and wetland, reduce erosion, increase biodiversity, and educational opportunities.

During the winter of 2002, the reconstruction of the wetland at Seton Falls Park began with the removal of an acre of 10-foot high *Phragmites*, over 3,000 cubic yards of contaminated fill and the installation of a small weir to help control water levels, particularly for planting. Between June 2002 and August 2003, NRG joined with volunteers to plant over 13,000 wetland herbs and grasses, over 1,200 wetland shrubs and over 600 trees in the wetland floodplain. Some of the most successful native species planted are pickerelweed (*Pontedaria cordata*), three-square (*Scirpus americanus*), crinkled sedge (*Carex critina*), fox sedge (*Carex vulpinoidea*), and woolgrass (*Scirpus cyerinus*). The open wetland has attracted some long absent native birds as well, such as the glossy ibis and snowy egret. In addition to the wetland restoration, the forest slopes were rid of invasive trees and vines, secured with erosion control textiles, and replanted with native forest trees, shrubs, and herbaceous plants.

To facilitate the protection, management and restoration of Seton Falls Park, NRG completed an inventory of the area using entitiation, a process of identifying and describing ecologically distinct plant communities. Using aerial photographs and field reconnaissance, Parks staff delineated distinct ecological entities, known as 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 Seton Falls Park resulted in a map and database that can be used to locate valuable and threatened areas. They also serve as a baseline for measuring change over time.

Entitiation

Entitiation 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 urban parkland. NRG has used entitiation widely and successfully to facilitate acquisition and restoration decisions. Put simply, entitiation is a process of breaking up a park into manageable parts called "entities" or "entitiation units." Entitiation units are defined using a weighted list of criteria. The first level of distinction is based on cover type (e.g. closed forest, vineland, scrub), followed by canopy species composition, understory type (e.g. herbs, vines, shrubs), and understory species composition. Additional factors, such as topography and soil condition (e.g. wet, moist, dry) are also taken into account.

To prepare for fieldwork, mapping technicians examine aerial photographs and delineate areas of similar cover. The mapping staff use the aerial information to create a strategy for covering land area. In the field, boundaries are identified as described above. For each unit, staff record the data listed above, as well as current uses, environmental disturbances, historical indicators, community stability, and comments.



1 INCH = 250 FEET

0 250 Feet

ENTITATION UNITS - SEPTEMBER 2007
SETON FALLS PARK
BRONX COUNTY, CITY OF NEW YORK

11/21/2007



City of New York
Parks & Recreation
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Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 1
Acreage: 0.07
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	Hosta	<5'	yes			
Deciduous	purple cone flower	<5'	yes			
Hemicryptophytes						
Level						
Dry/Moist						

Comments:

This is an ornamental planting at the corner of 233 Street and Baychester Avenue. Signs for Seton Falls Park and Forever Wild are posted in the unit. Other species present include: green ash, violet sp., and other ornamental plantings.

Unit: 2
Acreage: 1.55
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, red	all	no		Vagabond	Dumping
Deciduous	Norway maple	<5' & 5-30'	yes			Trash
Lianas	Cherry, black	<5' & 5-30'	no			
Slope	Oak, pin	all	no			
Dry/Moist	Elm, American	<5' & 5-30'	no			
	Catbrier	<5' & 5'-30'	no			

Comments:

This unit is a closed forest located on the corner of 233rd Street and Baychester Avenue. The understory is mostly vines, with a few spots of mugwort, white snakeroot, and wood aster. On the street side of the forest are large rocks. Other species present include: sassafras, pignut hickory, Ailanthus, black locust, green ash, black oak, linden, white oak, white mulberry, multiflora rose, wineberry, poison ivy, grape, Japanese honeysuckle, bittersweet nightshade, garlic mustard, false Solomon's seal, wood sorrel, and lamb's quarters.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 3
Acreage: 0.06
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						
Level						
Dry						

Comments:
 This unit is High Rock Playground, which is located at E. 233rd Street.

Unit: 4
Acreage: 0.23
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	>30' & 5-30'	no		Foot traffic	
Deciduous	Oak, red	>30'	no			
Hemicryptophytes	Cool season grass	<5'	yes			
Level						
Dry/Moist						

Comments:
 This is a closed forest with managed lawn. The interior has almost no vegetation and is littered with red oak acorns. Other species present include: burning bush and black haw.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 5
Acreage: 0.12
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	cedar, eastern red	<5' & 5-30'	no			
Mixed	Mock-orange	<5'	yes			
Phanerophytes						
Level						
Dry/Moist						

Comments:

This is a planted area with some Japanese knotweed in a few small patches. It is located on either side of a paved pathway at 233rd Street and Dereiner Avenue. MC: Control Japanese knotweed and other invasives. Planted species include: mock-orange, red cedar, red osier dogwood, redbud. etc. Other species present include: black locust, Virginia creeper, white snakeroot, mugwort, Virginia knotweed, and dandelion.

Unit: 6
Acreage: 1.67
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	Cherry, black	<5' & 5-30'	no		Vagabond	
Deciduous	Mugwort	<5'	yes			
Phanerophytes	Sassafras	<5' & 5-30'	no			
Level	Multiflora rose	<5'	yes			
Dry/Moist						

Comments:

This unit is a mix of herbaceous species and saplings (under 15') with a few large trees located at the edges of the unit. A few dead trees are also present. Rock outcrops are present. Other species present include: big tooth aspen, sweetgum, green ash, elm sp., white oak, hickory, black oak, black locust, raspberry, smooth sumac, winged sumac, dock, Queen Anne's lace, great ragweed, Virginia knotweed, pokeweed, smartweed, lamb's quarters, daisy fleabane, chive, blue stemmed goldenrod, dogbane, yarrow, true Solomon seal, Oriental bittersweet, greenbrier, catbriar, grape, poison ivy, porcelainberry, grass sp, and moss.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 7
Acreage: 0.76
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, red	all	no	Hedgerow	Foot traffic	
Deciduous	Sweetgum	all	no			
Lianas	Ivy, poison	<5'	no			
Slope	Multiflora rose	<5'	yes			
Dry/Moist						

Comments:

This is a closed forest on a slope. A waterfall, which was reconstructed in 2004, is located on the north side of the unit. The waterfall is the base of Rattlesnake Creek. A staircase and paved path that crosses the creek are within the unit. The unit is diverse in plant species. Other species present include: black birch, Ailanthus, American elm, black cherry, red maple, bitternut hickory, American beech, white oak, black locust, white mulberry, sassafras, American sycamore, linden, raspberry, wineberry, spicebush, witch hazel, burning bush, Japanese honeysuckle, porcelainberry, Oriental bittersweet, cat briar, white snakeroot, jewelweed, violet, false nettle, blue stemmed goldenrod, wood aster, smartweed, lamb's quarter, mugwort, common nightshade, pokeweed, true Solomon's seal, garlic mustard, and Virginia knotweed.

Unit: 8
Acreage: 0.51
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, red	all	no			Trash
Deciduous	Cherry, black	<5' & 5-30'	no			
Lianas	Hickory, bitternut	<5' & 5-30'	no			
Slope	Aster, white wood	<5'	no			
Dry/Moist	Ivy, poison	<5' & 5-30'	no			

Comments:

This unit is a closed forest with dominant species as listed above. It is bordered by Rattlesnake Creek, a Norway maple forest, and a sweetgum forest. Other species present include: white oak, Norway maple, green ash, Ailanthus, hackberry, pin oak, black locust, big tooth aspen, white pine, elm, sweetgum, arrowwood, burning bush, raspberry, wineberry, multiflora rose, Virginia creeper, periwinkle, cat briar, Oriental bittersweet, bittersweet nightshade, jewelweed, Virginia knotweed, mugwort, enchanter's nightshade, blue stemmed goldenrod, white snakeroot, false Solomon's seal, and sedge sp.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 9
Acreage: 0.39
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	all	no		Foot traffic	
Deciduous	Spicebush	<5' & 5-30'	no			
Chamaephytes	Arrowwood	<5' & 5-30'	no			
Level	Aster, white wood	<5'	no			
Dry/Moist						

Comments:

This unit is a sweetgum forest with a spicebush/ arrowwood understory. Most of the sweetgum are ~30'. White wood aster, Virginia knotweed, and an assortment of vines dominate the ground cover. The unit is located near a swamp area. A dirt trail runs through part of the unit. Other species present include: black cherry, bitternut hickory, pin oak, green ash, elm, tulip poplar, red oak, Norway maple, American sycamore, multiflora rose, blackberry, Japanese honeysuckle, Virginia creeper, porcelainberry, English ivy, wintercreeper, poison ivy, enchanter's nightshade, false nettle, grass sp., white avens, Virginia knotweed, false Solomon's seal, trout lily and sensitive fern.

Unit: 10
Acreage: 0.38
Mgmt. Concern: No

<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'	no			Trash
Deciduous						
Lianas						
Slope						
Dry/Moist						

Comments:

This is a grape vine patch in an opening of a Norway maple forest. Other species present include: Norway maple, black cherry, raspberry, garlic mustard, Virginia knotweed, mugwort, wood aster, pokeweed, trout lily, and poison ivy.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 11
Acreage: 0.64
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	Ailanthus	>30' & 5-30'	yes			
Deciduous	Oak, red	5'-30'	no			
Lianas	Cherry, black	5'-30'	no			
Slope	Catbrier	<5' & 5-30'	no			
Dry/Moist						

Comments:

This unit is an Ailanthus/ red oak/ black cherry woodland. The understory is completely covered with catbrier. The unit is in between two closed forests and a dirt path that starts at 233rd Street. Other species present include: bitternut hickory, hawthorn, pin oak, hackberry, Norway maple, multiflora rose, raspberry, poison ivy, Virginia creeper, common nightshade, smartweed, garlic mustard, mugwort, trout lily, and celandine. A cat and a brown snake were observed. MC: Ailanthus is an invasive

Unit: 12
Acreage: 2.97
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	Norway maple	<5' & 5-30'	yes	Foundation	Foot traffic	Dumping
Deciduous	Oak, red	<5' & 5-30'	no			Trash
Hemicryptophytes	Hickory, bitternut	<5' & 5-30'	no			
Slope	Snakeroot, white	<5'	no			
Dry/Moist	poison ivy	<5'	no			

Comments:

This unit is a closed forest that slopes from 233rd Street to forested units 8,9,11,and 16. It is also bordered by vineland unit 10.The herbaceous layer is bare in some spots and has patches of mugwort (near fence), white snakeroot, and poison ivy in other spots. A footpath runs through the unit. Other species present include: white mulberry, black locust, linden, American elm, sweet cherry, hackberry, black cherry, white oak, red maple, sweetgum, American sycamore, green ash, American beech, Ailanthus, mimosa, multiflora rose, wineberry, spicebush, Oriental bittersweet, bindweed, cucumber, porcelainberry, bedstraw, Virginia creeper, catbrier, grape, English ivy, wintercreeper, Virginia knotweed, garlic mustard, Asiatic dayflower, wood sorrel, smartweed, pokeweed, burdock, false Solomon's seal, lamb's quarters, bittersweet nightshade, periwinkle, and enchanter's nightshade.

Seton Falls Entitament Unit Descriptions, Surveyed September 2007

Unit: 13
Acreage: 0.23
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	Locust, black	5'-30'	yes			
Deciduous	Cool season grass	<5'	yes			
Hemicryptophytes	Oak, pin	<5'	no			
Level	Hickory, bitternut	>30'	no			
Dry/Moist	Norway maple	5'-30'	yes			

Comments:

This is a managed lawn associated with trees. This unit is located at 233rd Street and Seton Avenue. There are large rocks in the corner of this unit. On one of the rocks is a plaque honoring the citizens of the north east Bronx who served in the Armed Forces during WWII. Other species present include: smartweed and poison ivy.

Unit: 14
Acreage: 0.3
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	Locust, black	<5' & 5-30'	yes			Trash
Deciduous	Hickory, bitternut	5'-30'	no			
Hemicryptophytes	Norway maple	<5' & 5-30'	yes			
Level	Cool season grass	<5'	yes			
Dry						

Comments:

This unit is a picnic area. The lawn is a little overgrown. An old rusty pipe is sticking out of the ground. Other species present include: white mulberry, black cherry, green ash, red oak, crab apple, shagbark hickory, Ailanthus, multiflora rose, poison ivy, porcelainberry, Asiatic dayflower, garlic mustard, common nightshade, sunflower, smartweed, and wood sorrel.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 15
Acreage: 2.7
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	Locust, black	<5' & 5-30'	yes		Foot traffic	
Deciduous	Ailanthus	<5' & 5-30'	yes			
Lianas	Cherry, black	<5' & 5-30'	no			
Slope	Hickory, bitternut	<5' & 5-30'	no			
Dry/Moist	Catbrier	<5'	no			
	Rose	<5'	yes			

Comments:

This is a large woodland dominated by the species listed above. One end of it is at the 233rd Street and Seton Avenue entrance. It is partially bordered by a picnic area. Trails run through the unit. Other species present include: Norway maple, box elder, American elm, Eastern red cedar, redbud, blackhaw, mockernut, sweetgum, crab apple, red oak, sassafras, blackberry, poison ivy, cucumber, porcelainberry, catbrier, Oriental bittersweet, trumpet creeper, English ivy, lamb's quarters, Virginia knotweed, garlic mustard, aster, white snakeroot, mugwort, smartweed, foxtail, wood aster, pokeweed, great ragweed, goldenrod, velvetleaf, mullein, 3 seeded mercury, tomato, and jimsonweed.

Unit: 16
Acreage: 2.9
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, black	all	no		Foot traffic drugs	Trash
Deciduous	Oak, red	all	no			
Phanerophytes	Sassafras	<5' & 5-30'	no			
Undulating	Sweetgum	all	no			
Dry/Moist	Cherry, black	all	no			
	Hickory, bitternut	<5' & 5-30'	no			

Comments:

This unit is a mixed closed forest with dominance as listed above. It is very diverse, unlike its neighboring sassafras forest. The terrain is sloped in places, level in others, and rocky in spots. Other species present include: grey birch, black birch, pignut hickory, tulip poplar, Norway maple, crab apple, pin oak, white oak, black locust, willow oak, American beech, green ash, staghorn sumac, arrowwood viburnum, blackberry, raspberry, Amur honeysuckle, poison ivy, Virginia creeper, porcelainberry, catbrier, goldenrod, wood aster, smartweed, daisy fleabane, Virginia knotweed, true and false Solomon's seal, grass, trout lily and path rush. There is a lot of bird and squirrel activity here.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 17
Acreage: 0.72
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)	Tearthumb, Halberd-leaved	<5'	no			
Deciduous	Phragmites	<5' & 5-30'	yes			
Geophytes	Water hemlock	<5' & 5-30'	no			
Level						
Wet						

Comments:

This is an open marsh at the north end of the park. Other species present include: black willow, cattails, and avens. MC: Phragmites is an invasive species.

Unit: 18
Acreage: 0.26
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	<5' & 5-30'	no			
Deciduous	Spicebush	<5' & 5-30'	no			
Phanerophytes	hog peanut	<5'	no			
Slope	grape	<5' & 5-30'	no			
Dry/Moist	Ivy, poison	<5'	no			

Comments:

This unit slopes from a paved trail towards a swampy area. It is dominated by ~15' trees and shrubs. On either side of the unit are trees that include red oak, swamp white oak, black cherry, and sweetgum. Vines crawl down the slopes and up the trees Other species present include: bitternut hickory, green ash, dogwood, raspberry, porcelainberry, snakeroot, Virginia knotweed, garlic mustard, jewelweed, three seeded mercury, wood aster, and white avens.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 19
Acreage: 0.28
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, red	all	no			
Deciduous	Oak, pin	all	no			
Phanerophytes	Beech, American	<5' & 5-30'	no			
Slope	Oak, white	all	no			
Dry/Moist						

Comments:

This unit is an oak/beech forest on a rock outcrop. Other species present include: bitternut hickory, black cherry, red maple, sweetgum, green ash, Ailanthus, hackberry, sassafras saplings, spicebush, maple leaf viburnum, Virginia creeper, poison ivy, Oriental bittersweet, cat briar, pokeweed, Japanese knotweed, white wood aster, mugwort, goldenrod, snakeroot, grass sp, and moss.

Unit: 20
Acreage: 0.19
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'	no		Campfire/ party	
Deciduous	Hickory, pignut	<5' & 5-30'	no		Vagabond	
Phanerophytes	Oak, white	<5' & 5-30'	no			
Slope	Sassafras	<5' & 5-30'	no			
Dry/Moist						

Comments:

This is a closed forest on a slight slope in between a herbaceous community and a rocky slope. Other species present include: willow oak, pin oak, sweetgum, black oak, maple leaf viburnum, blackberry, raspberry, cat briar, Oriental bittersweet, poison ivy, grass sp, goldenrods, and wood aster. MC: vagabond and burnt wood.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 21
Acreage: 2.68
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	all	no		Foot traffic	Vandalism
Deciduous	Oak, red	all	no			Trash
Phanerophytes	Hickory, bitternut	all	no			
Undulating	Sassafras	<5' & 5-30'	no			
Dry/Moist	Locust, black	all	yes			
	Tulip tree	all	no			

Comments:

This is a large closed forest with black cherry, red oak and bitternut hickory spread throughout the forest and black locust clustered on one side. Poison ivy is the dominant ground vegetation. There is a planted area next to the paths with arrowwood and blackhaw. Other species present include: sweetgum, hawthorn, white mulberry, Ailanthus, pin oak, redbud, crab apple, American elm, red maple, black birch, white oak, willow oak, box elder, black oak, American beech, linden, green ash, Washington hawthorn, wineberry, arrowwood, blackberry, spicebush, dogwood, Amur honeysuckle, multiflora rose, porcelainberry, Virginia creeper, Japanese honeysuckle, catbriar, grape, mugwort, snakeroot, garlic mustard, jewelweed, Asiatic dayflower, Virginia knotweed, false Solomon's seal, wood aster, pokeweed, lamb's quarter, enchanter's nightshade, horse nettle, great ragweed, smartweed, and celandine. A red tail hawk was observed. MC: Spray paint on trees.

Unit: 22
Acreage: 0.05
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			
Deciduous	Knotweed, Japanese	<5'	yes			
Lianas						
Slope						
Dry/Moist						

Comments:

This unit is a vineland of porcelainberry, which is covering a patch of Japanese knotweed and spreading onto neighboring trees. Other species present include: white mulberry saplings, multiflora rose, wineberry, and mugwort. MC: porcelainberry and Japanese knotweed are invasive species.

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Unit: 23
Acreage: 1.28
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	all	no			
Deciduous	Oak, red	all	no			
Phanerophytes	Sassafras	all	no			
Slope	Cherry, black	all	no			
Dry/Moist	Hickory, bitternut	<5' & 5-30'	no			

Comments:

This is a closed forest with a great diversity in trees and herbaceous vegetation. Most of the black cherry and sassafras in the unit are under 15'. This unit slopes from a trail to Rattlesnake Creek. Other species present include: black birch, tulip poplar, Ailanthus, white mulberry, hackberry, pin oak, slippery elm, white oak, shagbark hickory, green ash, Norway maple, linden, American beech, black locust, chestnut oak, American sycamore, dogwood, spicebush, arrowwood viburnum, rose, raspberry, wineberry, multiflora rose, raspberry, wineberry, poison ivy, porcelainberry, Oriental bittersweet, grape, trumpet creeper, wood aster, goldenrod, white avens, garlic mustard, enchanter's nightshade, burdock, Asiatic dayflower, lamb's quarter, false nettle, jewelweed, white snakeroot, smartweed, New York fern, and true and false Solomon's seal.

Unit: 24
Acreage: 0.69
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'	no			Trash
Deciduous	Dogwood, silky	<5' & 5-30'	no			
Phanerophytes	Beech, American	<5' & 5-30'	no			
Level	Nettle, false	<5'	no			
Dry/Moist	Arrowwood	<5'	no			
	Spicebush	<5'	no			

Comments:

This unit is the closed forest that is on either side of Rattlesnake Creek. Other species present include: red oak, witch hazel, bitternut hickory, linden, willow oak, blackberry, multiflora rose, poison ivy, arrow arum, sensitive fern, jewelweed, sedge sp., white wood aster, beggar's tick, Virginia knotweed, and lamb's quarters.

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Unit: 25
Acreage: 0.7
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, red	<5' & >30'	no	Fire	Foot traffic	Trash
Deciduous	Birch, black	<5' & 5-30'	no		Campfire/ party	Vandalism
Phanerophytes	Cherry, black	<5' & 5-30'	no			
Level	Beech, American	<5' & 5-30'	no			
Dry/Moist	Oak, white	<5' & 5-30'	no			

Comments:

This unit is a closed forest with very little vegetation underneath. Parts of this area is rocky. This unit is just east of Rattlesnake Creek. Other species present include: Pin oak, black oak, willow oak, black locust, sweet cherry, green ash, sweetgum, maple leaf viburnum, porcelainberry, Oriental bittersweet, poison ivy, Virginia knotweed, wood aster, and moss. MC: broken glass, drug baggies, and spray paint on trees.

Unit: 26
Acreage: 1.39
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, red	all	no		Foot traffic	
Deciduous	Locust, black	all	yes			
Lianas	Cherry, black	all	no			
Level	Ivy, poison	<5' & 5-30'	no			
Dry/Moist	Rose	<5' & 5-30'	yes			

Comments:

This is a red oak/ black locust/ black cherry forest. One end of this unit is next to a stone bridge. Trails run through the unit. Other species present include: pin oak, silver maple, pignut hickory, bitternut hickory, sassafras, white mulberry, shagbark hickory, black oak, white oak, green ash, black tupelo, dogwood, raspberry, Amur honeysuckle, blackberry, wineberry, porcelainberry, bittersweet nightshade, greenbrier, Virginia creeper, catbriar, Japanese honeysuckle, Oriental bittersweet, false Solomon's seal, Virginia knotweed, wood aster, smartweed, garlic mustard, Asiatic dayflower, grass sp, mugwort, snakeroot, and pokeweed,

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 27
Acreage: 0.63
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'-30'	no		Foot traffic	Construction
Deciduous	Cherry, sweet	5'-30'	yes			
Lianas	Porcelain berry	<5' & 5-30'	yes			
Slope	bittersweet, oriental	<5' & 5-30'	yes			
Dry/Moist	Grape, wild	<5' & 5-30'	no			
	Honeysuckle, Japanese	<5' & 5'- 30	yes			

Comments:

This is a woodland with a vineland underneath and climbing trees. It has a path that runs through the unit which has a recently paved circle at one end. Other species present include: sweetgum, white mulberry, dogwood, Ailanthus, black locust, white oak, pin oak, sassafras, multiflora rose, raspberry, wineberry, bittersweet nightshade, Virginia creeper, poison ivy, catbriar, mugwort, garlic mustard, Japanese knotweed, Virginia knotweed, white wood aster, three seeded mercury, goldenrod, white snakeroot, daisy fleabane, common plantain, and grass sp. MC: Invasive vines.

Unit: 28
Acreage: 0.2
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	Smartweed	<5'	no			
Deciduous	Lamb's quarters	<5' & 5-30'	yes			
Hemicryptophytes						
Level						
Dry/Moist						

Comments:

This unit is a small island in the middle of a concrete circle. It is very unkempt looking. Was this supposed to be a planting? Other species present include: black locust sapling, beggars tick, mugwort, and grass sp.

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Unit: 29
Acreage: 1.53
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, red	all	no	Fire	Foot traffic	
Deciduous	Sassafras	<5' & 5-30'	no			
Phanerophytes	Cherry, black	all	no			
Slope	Oak, white	all	no			
Dry/Moist	Ivy, poison	<5'	no			
	Snakeroot, white	<5'				

Comments:

This unit is a red oak/ sassafras/ black cherry closed forest. Red oaks dominate the canopy with most of them being ~30'. Sassafras dominates the understory with most being 5'-15'. Black cherries are approximately 5-15' as well. Some trails and foot paths run through the unit. There are large white oaks with some smaller oaks spread throughout the unit. Poison ivy, white snakeroot, and Rubus are the dominant herbaceous species. Other species present include: sweetgum, bitternut hickory, pin oak, black locust, silver maple, black oak, pignut hickory, swamp white oak, black birch, green ash, devil's walking stick, arrowwood, raspberry, multiflora rose, blackberry, porcelainberry, catbriar, Japanese honeysuckle, poison ivy, Oriental bittersweet, Virginia creeper, wood aster, grass sp., white snakeroot, goldenrod, mugwort, true Solomon's seal, garlic mustard, Virginia knotweed, and pokeweed.

Unit: 30
Acreage: 1.02
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	Sumac, staghorn	<5' & 5-30'	no			
Deciduous	Sumac, smooth	<5' & 5-30'	no			
Hemicryptophytes	Sumac, winged	<5' & 5-30'	no			
Slope	Mugwort	<5'	yes			
Dry/Moist	Catbrier	<5'	no			
	Porcelain berry	<5' & 5'-30'	yes			

Comments:

This unit is a mix of sumacs, mugwort, and vines. Clusters of dogwood are also present. This may turn into a vineland if left unattended (MC). Other species present include: black locust, black cherry, red oak, sassafras, Ailanthus, bitternut hickory hickory saplings, multiflora rose, raspberry, poison ivy, Japanese honeysuckle, Oriental bittersweet, goldenrod, mugwort, daisy fleabane, and New York aster.

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Unit: 31
Acreage: 0.42
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'	no			
Deciduous	Catbrier	<5'	no			
Lianas	honeysuckle, Japanese	<5'	yes			
Level	Ivy, English	<5'	yes			
Dry/Moist	Oak, white	>30'	no			
	Oak, black	<5' & >30'	no			

Comments:

This is a closed forest of black cherry/oak with a vineland underneath and herbaceous vegetation at the edges. Other species present include: American beech, Norway maple, bitternut hickory, black locust, hackberry, Ailanthus, sweet cherry, wineberry, raspberry, poison ivy, porcelainberry, true Solomon's seal, wood aster, Asiatic dayflower, garlic mustard, Virginia knotweed, lamb's quarters, pokeweed, three seeded mercury, common nightshade, mugwort, great ragweed, and smartweed. A large dead oak and a dirt pit are within the unit.

Unit: 32
Acreage: 1.45
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, red	all	no		Foot traffic	Trash
Deciduous	Cherry, black	5'-30'	no			
Lianas	Hickory, bitternut	<5' & 5-30'	no			
Slope	Catbrier	<5' & 5-30'	no			
Dry/Moist	Locust, black	all	yes			
	Sassafras	<5' & 5-30'	no			

Comments:

This is a woodland with catbrier and rose dominating the herbaceous layer. The catbrier is very thick and impenetrable in some areas. A footpath, with a lot of garbage on it, runs through part of the unit (MC). Other species present include: Norway maple, crab apple, Ailanthus, pin oak, white oak, dogwood, raspberry, staghorn sumac, Japanese honeysuckle, porcelainberry, Oriental bittersweet, poison ivy, garlic mustard, smartweed, and Virginia knotweed.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 33
Acreage: 0.35
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	Norway maple	<5' & 5-30'	yes			
Deciduous	Oak, red	>30'	no			
Hemicryptophytes	Locust, black	all	yes			
Slope	Rose	<5'	yes			
Dry/Moist	Ivy, poison	<5'	no			

Comments:

This unit is located behind houses on Pratt Street. Plants have been weed wacked and trees have been chopped down. Other species present include: hackberry, black cherry, American elm, bitternut hickory, multiflora rose, raspberry, blackberry, Japanese honeysuckle, Virginia creeper, porcelainberry, cat brier, mugwort, garlic mustard, and Asiatic dayflower.

Unit: 34
Acreage: 0.19
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	Ragweed, common	<5' & 5-30'	no			
Deciduous	Hosta	<5'	yes			
Hemicryptophytes	Mugwort	<5'	yes			
Slope						
Dry/Moist						

Comments:

This is a unit where landscape/encroachments meets a mugwort, goldenrod, pokeweed, and ragweed field. There is a mix of ornamentals and field species at the edge of the unit. Closer to the hoses are more ornamentals and a red oak tree. Other species present include: ornamentals, black locust sapling, mulberry saplings, and porcelainberry.

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Unit: 35
Acreage: 0.18
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	>30' & 5-30'	no		encroachment	Dumping
Deciduous	Norway maple	5'-30'	yes			Trash
Lianas	Locust, black	all	yes			
Slope	Ivy, poison	<5'	no			
Dry/Moist						

Comments:

This unit is an extension of someone's backyard. Other species present include: bitternut hickory, false Solomon's seal, cool season grass, and Virginia creeper. MC: possible encroachment.

Unit: 36
Acreage: 1.4
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, red	all	no		Foot traffic	Trash
Deciduous	Cherry, black	all	no			
Lianas	Locust, black	all	yes			
Undulating	Hickory, bitternut	all	no			
Dry/Moist	Catbrier	<5'	no			
	Rose	<5'	yes			

Comments:

This is a closed forest with dominance as listed above. The understory consists of poison ivy and porcelainberry vines. This unit is located at the Pratt Street entrance and continues NW. A pile of branches is located near the Pratt Street entrance. A fence borders the unit on one side. A "PARK RULES" sign is present. Several footpaths cut through the unit. The unit is rocky at some points. Other species present include: box elder, green ash, crab apple, hawthorn, black tupelo, sweetgum, sassafras, dogwood, white mulberry, Norway maple, silver maple, linden, willow oak, American elm, pin oak, Ailanthus, white oak, blackberry, wineberry, bittersweet nightshade, white snakeroot, garlic mustard, Virginia knotweed, wood aster, pokeweed, mugwort, smartweed, milkweed, false Solomon's seal, chicory, and goldenrod.

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Unit: 37
Acreage: 0.28
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	all	no			
Deciduous	Sassafras	5'-30'	no			
Phanerophytes	Oak, red	all	no			
Level	Silver maple	all	no			
Dry/Moist	Cherry, black	<5' & 5-30'	no			

Comments:

This unit borders a field and another closed forest which does not have the same abundance of sweetgum and sassafras and is lacking in silver maple. Other species present include: bitternut hickory, red maple, Ailanthus, poison ivy, white snakeroot, mugwort, Virginia knotweed, and goldenrod.

Unit: 38
Acreage: 0.64
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' & 5-30'	yes			
Deciduous	Cattails, common	<5' & 5-30'	no			
Geophytes	Duckweed	<5'	no			
Level	Rush spp.	<5'	no			
Surface water						

Comments:

This unit is the inner portions of the swamp area in the south side of the park. This area has been restored. Other species present include: black willow, cottonwood, smooth alder, arrowwood, arrow arum, lurid sedge, tussock sedge, fox sedge, New England aster, buttonbush, turtlehead, sweet pepperbush, common persimmon, spikerush, purple joe-pye weed inkberry holly, blue flag iris, soft rush, cardinal flower, blue lobelia, sensitive fern, royal fern, pickerelweed, swamp azalea, duck potatoe, elderberry, lizard's tail, woolgrass, soft-stem bulrush, eastern bur-reed, steeplebush, shield fern, New York ironweed and goldenrod. MC: Phragmites is an invasive species.

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Unit: 39
Acreage: 0.53
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	<5' & 5-30'	no	Planting		
Deciduous	Porcelain berry	<5'	yes			
Hemicryptophytes	clearweed	<5'	no			
Slope	Jewelweed	<5'	no			
Dry/Moist	Willow, black	5'-30'	no			

Comments:

This is a closed forest that slopes and levels out by a concrete bridge. The unit ends at Rattlesnake Creek. On the slope there is more porcelain berry, and where the unit levels off there is more jewelweed and clearweed. There is a planted area of river birch and black willow next to the creek. Other species present include: black birch, American sycamore, gray dogwood, red osier dogwood, European black alder, white mulberry, elderberry, arrowwood, pin oak, spice bush, multiflora rose, black cherry, American elm, sweetgum, wineberry,raspberry, grape, poison ivy, Virginia creeper, yam-leaved clematis, false nettle, mugwort, three seeded mercury, aster, white snakeroot, beggar's tick, pokeweed, celandine, garlic mustard, violet, and avens, etc. MC: porcelainberry is an invasive species.

Unit: 40
Acreage: 0.19
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	Planting	Foot traffic	
Deciduous	Mulberry, white	5'-30'	yes			
Lianas	Ailanthus	<5' & 5-30'	yes			
Slope	Porcelain berry	<5' & 5-30'	yes			
Dry/Moist	Pokeweed	<5'	no			

Comments:

This unit is a woodland with a vine understory. It is located next to the Crawford Avenue entrance of the park. A staircase runs through the unit. Other species present include: crab apple, American elm, red maple saplings, silver maple saplings, white oak white oak saplings, red oak saplings, dogwood saplings, sweetgum saplings, American sycamore saplings, green ash saplings, multiflora rose, wineberry, arrowwood, spicebush, bittersweet nightshade, Japanese honeysuckle, poison ivy, Virginia creeper, cat briar, wood sorrel, smartweed, burdock, mugwort, Virginia knotweed, aster, bedstraw, white snakeroot, lamb's quarter, beggar's tick, celandine, Asiatic day flower, and blue stemmed goldenrod. MC: porcelainberry is an invasive species.

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Unit: 41
Acreage: 0.51
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	Locust, black	all	yes			
Deciduous	Cherry, black	all	no			
Phanerophytes	Sweetgum	all	no			
Slope	Ivy, poison	<5'	no			
Dry/Moist	Catbrier	<5'	no			
	Knotweed, Virginia	<5'	no			

Comments:

This unit slopes from a trail towards Rattlesnake Creek. It is dominated by black locust, black cherry, and sweetgum. Other species present include: red oak, Ailanthus, black willow, bitternut hickory, American elm, American beech, white mulberry, mimosa, tulip poplar, blackberry, raspberry, burning bush, Virginia creeper, grape, bittersweet nightshade, pokeweed, mugwort, snakeroot, Asiatic dayflower, smartweed, false Solomon's seal, celandine, jewelweed, garlic mustard, wood aster, and goldenrod.

Unit: 42
Acreage: 0.12
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	Kwanzan cherry	5'-30'	yes			
Deciduous	Sweetgum	5'-30'	no			
Lianas	Oak, pin	5'-30'	no			
Slope	Redbud	5'-30'	yes			
Dry/Moist	Linden	<5' & 5-30'	no			
	Porcelain berry	<5	yes			

Comments:

This is a small planted unit, which is bordered by a fence and closed forest unit 21, and located across from a playground near Crawford Ave. Trees are ~15' tall. Other species present include: sassafras, tulip poplar, bitternut hickory sapling, poison ivy, garlic mustard, common nightshade, and smartweed. MC: porcelainberry is an invasive species.

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Unit: 43
Acreage: 0.29
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'	yes			
Deciduous	Jewelweed	<5'	no			
Lianas						
Level						
Dry/Moist						

Comments:

This unit is a planted unit that has been overtaken by porcelainberry. A few established trees are not covered in vines. Other species present include: Ailanthus, black cherry, weeping willow, American hornbeam, witch hazel, black locust, red bud, oak saplings, bindweed, bittersweet nightshade, Virginia creeper, wineberry, smartweed, mugwort, garlic mustard, pokeweed, and ragweed. MC: porcelainberry is an invasive species.

Unit: 44
Acreage: 0.15
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	Silver maple	>30' & 5-30'	no			Dumping
Deciduous	Planetree, London	5'-30'	yes			Trash
Lianas	Hornbeam	<5' & 5-30'	no			
Slope	Ivy, poison	<5'	no			
Dry/Moist	Elm, American	<5' & 5-30'	no			
	Locust, black	all	yes			

Comments:

This unit is a closed forest with silver maple, London planetree, and American elm in the canopy. There are many American hornbeams in the understory. Black locust are located at the top of the slope. This unit is bordered by Marolla Place next to the Boller Avenue entrance. Other species present include: dogwood sp., yellowwood, red oak, hackberry, Ailanthus, bitternut hickory, arrowwood, porcelainberry, Japanese knotweed, celandine, white snakeroot, and jewelweed.

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Unit: 45
Acreage: 0.73
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	Planetree, London	>30'	yes			Dumping
Deciduous	Locust, black	all	yes			Trash
Lianas	Elm, American	all	no			
Slope	Ivy, poison	<5' & 5-30'	no			
Dry/Moist	Snakeroot, white	<5'	no			

Comments:

This is a closed forest bordered by Pratt Avenue and Marolla Avenue. It is located on a slope above the lower wetland. Other species present include: white pine, bitternut hickory, white mulberry, black cherry, green ash, sassafras, multiflora rose, porcelainberry, Virginia creeper, English ivy, white avens, ragweed, Asiatic dayflower, false Solomon's seal, garlic mustard, wood sorrel, pokeweed, Japanese knotweed, enchanter's nightshade, horse nettle, violet sp., lamb's quarters, and celandine. A feral cat was observed.

Unit: 46
Acreage: 0.25
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	Willow, black	5'-30'	no	Planting		
Deciduous	Cottonwood, Eastern	5'-30'	no			
Phanerophytes	Dogwood, silky	5'-30'	no			
Level	Birch, river	5'-30'	no			
Surface water						

Comments:

This is the outer edge of the swamp area where tree cover is full and there is standing water. Other species present include: silver maple, black locust, green ash, hackberry, sweetgum, white mulberry, arrowwood, elderberry, raspberry, clearweed, aster, and sedge sp.

Seton Falls Entitaton Unit Descriptions, Surveyed September 2007

Unit: 47
Acreage: 0.35
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	Willow, black	5'-30'	no			
Deciduous	Cottonwood, Eastern	5'-30'	no			
Hemicryptophytes	Aster	<5'	no			
Level	Duckweed	<5'	no			
Surface water						

Comments:

This unit is the outlet of the wetland. Duckweed grows on top of the water. Willows and cottonwoods are growing inside and outside the pond. Other species present include: bitternut hickory, sweetgum, red maple, American sycamore, elderberry, dogwood, green ash, river birch, swamp white oak sapling, Virginia creeper, white snakeroot, enchanter's nightshade, false nettle, and Phragmites. A nuthatch, downy woodpecker, cardinal, and crows were observed.

Unit: 48
Acreage: 0.24
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	Elm, American	all	no			
Deciduous	Silver maple	all	no			
Hemicryptophytes	Ash, green	<5' & 5-30'	no			
Depression	Red maple	<5' & 5-30'	no			
Dry/Moist	Oak, red	all	no			
	Elm, slippery	<5' & 5-30'	no			

Comments:

This unit is a closed forest on the Pratt Avenue side of the park. It surrounds a small pond and forms a depression. Species dominance is as listed above. A cluster of planted American sycamore and silver maple with elderberry is in on corner of the unit. Other species present include: white mulberry, bitternut hickory, swamp white oak, red bud, black cherry, dogwood sp., sweet gum, multiflora rose, poison ivy, Virginia creeper, Oriental bittersweet, jewelweed, mugwort, clearweed, common plantain, beggar's tick, dogbane, bindweed, white snakeroot, jewelweed, and enchanter's nightshade.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 49
Acreage: 0.75
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		Foot traffic	
Mixed	Pine, white	5'-30'	no			
Hemicryptophytes	Cherry, black	5'-30'	no			
Level	Plantain, common	<5'	yes			
Dry/Moist						

Comments:

This unit is a managed lawn with associated trees. It is located next to Pratt Avenue. Other species present include: Eastern hemlock, tulip poplar, crab apple, white mulberry, blackhaw, red oak, sugar maple, red bud, pear, siebold viburnum, poison ivy, porcelainberry, Virginia creeper, garlic mustard, and pokeweed.

Unit: 50
Acreage: 0.37
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Desert						
Level						
Dry/Moist						

Comments:

This is a pathway that runs north and south on the west side of the park. It is bordered by the Boller Avenue entrance at one end and at E. 233 Street at the other end. Portions of the path are paved and portions are dirt with gravel on top. This unit is also a Department of Environmental Protection storm drain.

Seton Falls Entitation Unit Descriptions, Surveyed September 2007

Unit: 51
Acreage: 0.01
Mgmt. Concern: No

<u>Site:</u>	<u>Species</u>	<u>Height</u>	<u>Exotic</u>	<u>Historical</u>	<u>Uses</u>	<u>Disturbances</u>
Desert						
Level						
Dry						

Comments:

This unit is the Department of Environmental Protection pump house. The base is concrete. It is surrounded by a padlocked fence. A little bit of mugwort is growing up through the crack of the pavement.

APPENDIX: 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 100in 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, grasslike plants, and herbaceous plants are predominant. Woody plants may be sparingly present, but cover less than 30% of area.

Intertidal Communities: 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. Its 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.