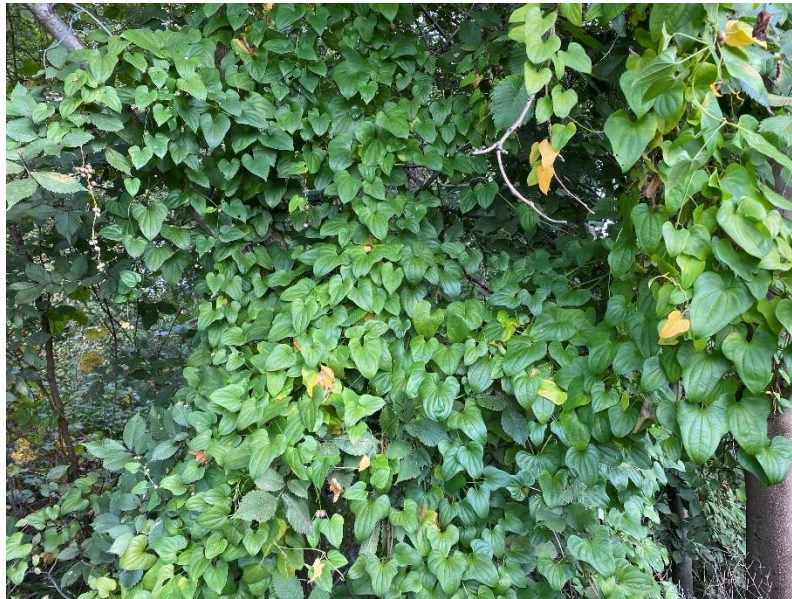


Bordentown City
Stewardship Outline Plans
November 2021

Prepared for
Bordentown City Environmental Commission

Prepared by
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FoHVOS New Jersey Invasive Species Strike Team



Invasive Chinese Yam – The first known documented infestations
in New Jersey were detected at three surveyed locations

Tables summarizing collected observations:

The following is a summary with notes on interpreting provided tables.

- Table 1 – Surveyed Properties
 - List provided by Bordentown City, Strike Team ID numbers cross-reference to multiple tables below
- Table 2 – Site Descriptions
 - Broad descriptions for each property. It should be noted that invasive species have significantly degraded all properties. The two properties with relatively high quality include Gilder Memorial Park and Ann/Spring Street Park, but all properties have particular redeeming qualities (e.g., native plant gardens, meadows, large native tree specimens, etc.)
- Table 3 – Species List
 - Includes all observed native and non-native species for each individual site. Non-native species are provided with Relative Threat Level (High, Moderate, Low), Stewardship Goal (1 = Eradicate all observed individuals, 2 = Control through long-term program, 3 = Do not treat unless resources allow)
- Table 4 – Selected Invasive Species Points
 - High priority species and populations were recorded via GPS. The table includes Point ID (associated with site maps), Site ID, species name, population size (# of individuals), latitude and longitude.
- Table 5 – Summary of Selected Invasive Species Points
 - Summarizes Table 4 by species and population sizes

Tables with site-level stewardship recommendations:

Each site is provided its own recommendations within a standardized table. Recommendation #1 for each site is establishment of an effective deer management plan to allow native species to better compete with invasive species. Recommendation #2 includes species eradication goals. Recommendation #3 includes species long-term control goals. Recommendation #4 includes vigilance for highly threatening species that were not detected at any site, but searching and rapid response to detections is critical.

- Site 1 – Lime Kiln Alley Park
- Site 2 – Blacks Creek Overlook
- Site 3 – Oliver Street Park
- Site 4 – Bordentown Beach
- Site 5 – Hilltop Park
- Site 6 – Gilder Memorial Park
- Site 7 – Undeveloped Parkland
- Site 8 – Ann/Spring Street Park

Bordentown City
Table 1. Surveyed Properties

NJISST Site #	Park / Open Space Name	Block	Lot	Location	Current Owner	Acres	Total Acres	Approx acres for evaluation	Notes
1	Lime Kiln Alley Park	203	12	213 FEDERAL STREET	CITY OF BORDENTOWN	0.9735			
1		203	13	215 FEDERAL ST	CITY OF BORDENTOWN	0.097			
1		801	1	212 FEDERAL ST	CITY OF BORDENTOWN	0.671			
1		801	2	205 WALNUT ST	CITY OF BORDENTOWN	0.505			
1		801	3	203 WALNUT ST	CITY OF BORDENTOWN	0.177			
1		801	4	2 WATER ST-FEDERAL ST	CITY OF BORDENTOWN	0.833			
1		801	5.00		CITY OF BORDENTOWN	0.263			
1		801	6	214 FEDERAL ST	CITY OF BORDENTOWN	0.155			
1		801	7	218 FEDERAL ST	CITY OF BORDENTOWN	0.208			
1		801	33.02		CITY OF BORDENTOWN	1.1			
1		801	34.01	transferred to City?	D&R Greenway Land Trust	0.791			
1	Total acres						5.7735	5.2	All except parking area and mowed area surrounding the gazebo
2	Blacks Creek Overlook	204	35.00	514 Oliver ST	City of Bordentown	1.73	1.73	1.73	
3	Oliver Street Park	204	41	540 OLIVER ST	CITY OF BORDENTOWN	0.296			
3		204	42	542 OLIVER ST	CITY OF BORDENTOWN	0.304			
3		204	43	544 OLIVER ST	CITY OF BORDENTOWN	2.11			
3		205	15	611 OLIVER ST	CITY OF BORDENTOWN	0.613			
3		205	17	607 OLIVER ST	CITY OF BORDENTOWN	0.333			
3	Total acres						3.656	2	All except mowed lawn area
4	Bordentown Beach	801	42	100 W PARK ST	CITY OF BORDENTOWN	6.44	6.44	4.83	All except parking and picnic areas
5	Hilltop Park	804	9	CITY PARK	CITY OF BORDENTOWN	1			Is this lot limited to the top of the bluff?
5		1701	12.00	Foot of Second Street	CITY OF BORDENTOWN	0.566			
5	Total acres						1.566	0.566	Dan- do you want to include state owned property (listed below)?
5	State owned property	1701	11	LOT	STATE OF NEW JERSEY DEPT OF ENV POT	0.24			
5	and Divine Word easement	1701	13	LOT	STATE OF NEW JERSEY DEPT OF ENV POT	0.229			
		1701	14.02	101 E PARK ST	STATE OF NJ DEP	60.696			
6	Gilder Memorial Park	1404	12	222 ELIZABETH ST	CITY OF BORDENTOWN	1.8			
6	Gilder Memorial Park and DPW	1404	23	213 CROSSWICKS ST	CITY OF BORDENTOWN	15.4			
6	Total acres						17.2	7.2	Area north of DPW yard
7	Undeveloped parkland	1601	20.01	E PARK ST	CITY OF BORDENTOWN	0.452			
7	Total acres						0.452	0.452	
8	Ann/Spring Street Park	1601	2.02		CITY OF BORDENTOWN				All except baseball field/mowed area
						need to ask tax assessor about acreage			
	Total Acres All Parks and Open Space						36.8175	21.978	

Bordentown City

Table 2. Site Descriptions

Site ID	Site Name	Broad Description
1	Lime Kiln Alley Park	Heavily degraded woodland; Multiple emerging invasive species; Heavy infestations of English Ivy, Porcelain-berry, Black Locust, Tree-of-Heaven, Japanese Clematis, Mugwort, Garlic Mustard and Chinese Bushclover. Wetland and transitional meadow habitat with several threatening invasives that have not yet become overly abundant.
2	Blacks Creek Overlook	Manicured area / forest area to east has non-native tree canopy of Catalpa and Norway Maple; Area to the west is relatively intact freshwater marsh with few invasives
3	Oliver Street Park	Open, heavily invaded forest with many invasive species; Very abundant species include Chinese Wisteria, Japanese Clematis, and English Ivy; Two exceptionally large Tulip Poplar trees are being strangled by wisteria.
4	Bordentown Beach	Very heavily degraded forest with dense, nearly impenetrable Border Privet infestation; Japanese Clematis infests all canopy gaps
5	Hilltop Park	Heavily infested forests; Western portion dominated by non-native Black Locust and eastern portion dominated by Norway Maple (but moderate amounts of native Spicebush occur in the understory of this steep forest). The native plant garden contains small amounts of Porcelain-berry, Mugwort, Japanese Clematis, Tree-of-Heaven, and Chinese Yam.
6	Gilder Memorial Park	Mature forest featuring several large Tulip Poplar; eastern portion features patches of Spicebush and some tree regeneration (seedlings > 3' tall, White Ash, Boxelder). It is possible the highway, steep slopes and stream reduce deer traffic, allowing some native plant growth in the understory. There is an informal trail system in the east near the highway. Relatively high quality site.
7	Undeveloped parkland	Dense ground layer and climbing English Ivy throughout this small area. Several very large specimens of Sycamore and Tulip Poplar.
8	Ann/Spring Street Park	Mature forest featuring several large Tulip Poplar and White Oak, and a small Spicebush thicket on a floodplain. Heavy infestation of Multiflora Rose and other species. Relatively high quality site.

Bordentown City

Table 3. Species List

P=Present

Species sorted by: 1) Nativity, 2) Growth Form, 3) Common Name

Common Name	Nativity	Growth Form	Relative Threat Level	Stewardship Goal	Stewardship Note	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Sensitive Fern	Native	Fern	N/A	N/A	N/A	P							P
Wood Fern species	Native	Fern	N/A	N/A	N/A					P			
Broad-leaved Cattail	Native	Grass	N/A	N/A	N/A		P						
Deertongue Grass	Native	Grass	N/A	N/A	N/A			P					
Indian Grass	Native	Grass	N/A	N/A	N/A	P							
Rush species	Native	Grass	N/A	N/A	N/A		P						
Sedge species	Native	Grass	N/A	N/A	N/A		P						
Wild Rice	Native	Grass	N/A	N/A	N/A	P			P				
Amaranth species	Native	Herb	N/A	N/A	N/A		P						
Arrowhead	Native	Herb	N/A	N/A	N/A		P						
Arrow-leaved Tearthumb	Native	Herb	N/A	N/A	N/A		P						
Beech Drops	Native	Herb	N/A	N/A	N/A						P		
Bidens species	Native	Herb	N/A	N/A	N/A		P	P	P				
Bindweed species	Native	Herb	N/A	N/A	N/A					P			
Bur Cucumber	Native	Herb	N/A	N/A	N/A	P		P					
Bushy Aster	Native	Herb	N/A	N/A	N/A	P	P						P
Canada Goldenrod	Native	Herb	N/A	N/A	N/A			P	P		P	P	
Clearweed	Native	Herb	N/A	N/A	N/A	P	P	P			P		P
Climbing Hemp Weed	Native	Herb	N/A	N/A	N/A		P						
Common Milkweed	Native	Herb	N/A	N/A	N/A			P					
Dogbane	Native	Herb	N/A	N/A	N/A			P		P			
Evening Primrose	Native	Herb	N/A	N/A	N/A	P							
False Nettle	Native	Herb	N/A	N/A	N/A	P							
Field Aster	Native	Herb	N/A	N/A	N/A	P	P	P					P
Giant Solomon's Seal	Native	Herb	N/A	N/A	N/A	P							
Greater Celandine	Native	Herb	N/A	N/A	N/A	P				P			
Halberd-leaved Tearthumb	Native	Herb	N/A	N/A	N/A		P						
Hog Peanut	Native	Herb	N/A	N/A	N/A			P					
Indian Tobacco	Native	Herb	N/A	N/A	N/A						P		

Bordentown City

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Jerusalem Artichoke	Native	Herb	N/A	N/A	N/A		P						
Jewelweed	Native	Herb	N/A	N/A	N/A	P	P	P	P		P		P
Jumpseed	Native	Herb	N/A	N/A	N/A			P			P		
Late Boneset	Native	Herb	N/A	N/A	N/A	P		P	P				P
Narrow-leaved Goldenrod	Native	Herb	N/A	N/A	N/A			P					
New England Aster	Native	Herb	N/A	N/A	N/A	P							
New York Ironweed	Native	Herb	N/A	N/A	N/A	P	P		P				
Pokeweed	Native	Herb	N/A	N/A	N/A	P	P	P	P	P	P		P
Purplestem Aster	Native	Herb	N/A	N/A	N/A	P	P						
Seaside Goldenrod	Native	Herb	N/A	N/A	N/A	P							
Skunk Cabbage	Native	Herb	N/A	N/A	N/A						P		
Solomon's Seal	Native	Herb	N/A	N/A	N/A					P	P		
Spanish Needles	Native	Herb	N/A	N/A	N/A								P
Tall Meadow Rue	Native	Herb	N/A	N/A	N/A						P		
Violet species	Native	Herb	N/A	N/A	N/A		P	P					P
Virginia Stickseed	Native	Herb	N/A	N/A	N/A	P							
White Avens	Native	Herb	N/A	N/A	N/A	P		P			P		
White Snakeroot	Native	Herb	N/A	N/A	N/A	P	P	P	P	P	P	P	P
White Sweet Clover	Native	Herb	N/A	N/A	N/A	P							
White Wood Aster	Native	Herb	N/A	N/A	N/A					P			
Wood Nettle	Native	Herb	N/A	N/A	N/A	P					P		
Woodland Sunflower	Native	Herb	N/A	N/A	N/A				P				
Yucca	Native	Herb	N/A	N/A	N/A			P					
Allegheny Blackberry	Native	Shrub	N/A	N/A	N/A	P		P	P	P	P	P	P
Arrowwood Viburnum	Native	Shrub	N/A	N/A	N/A			P		P	P	P	P
Blackcap Raspberry	Native	Shrub	N/A	N/A	N/A			P					
Blackhaw Viburnum	Native	Shrub	N/A	N/A	N/A						P	P	
Desert False Indigo	Native	Shrub	N/A	N/A	N/A	P							
Maple-leaved Viburnum	Native	Shrub	N/A	N/A	N/A						P		

Bordentown City

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Common Name	Nativity	Growth Form	Relative Threat Level	Stewardship Goal	Stewardship Note	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Silky Dogwood	Native	Shrub	N/A	N/A	N/A	P	P						
Silky Willow	Native	Shrub	N/A	N/A	N/A	P							
Spicebush	Native	Shrub	N/A	N/A	N/A	P				P	P		P
Sweet Pepperbush	Native	Shrub	N/A	N/A	N/A					P			
Winerberry Holly	Native	Shrub	N/A	N/A	N/A		P	P	P		P	P	P
Witch-hazel	Native	Shrub	N/A	N/A	N/A								P
American Basswood	Native	Tree	N/A	N/A	N/A				P	P			
American Beech	Native	Tree	N/A	N/A	N/A					P	P		P
American Elm	Native	Tree	N/A	N/A	N/A	P			P	P			P
Black Walnut	Native	Tree	N/A	N/A	N/A	P	P	P	P	P	P	P	P
Boxelder	Native	Tree	N/A	N/A	N/A	P	P	P	P	P	P		P
Eastern Red Cedar	Native	Tree	N/A	N/A	N/A			P					
Hackberry	Native	Tree	N/A	N/A	N/A								P
Honey Locust	Native	Tree	N/A	N/A	N/A		P				P		P
Ironwood	Native	Tree	N/A	N/A	N/A						P		
Mockernut Hickory	Native	Tree	N/A	N/A	N/A						P		
Northern Red Oak	Native	Tree	N/A	N/A	N/A					P	P		
Pin Oak	Native	Tree	N/A	N/A	N/A	P			P			P	P
Red Maple	Native	Tree	N/A	N/A	N/A		P	P	P	P		P	P
Sassafras	Native	Tree	N/A	N/A	N/A					P	P	P	
Shagbark Hickory	Native	Tree	N/A	N/A	N/A						P		
Silver Maple	Native	Tree	N/A	N/A	N/A	P	P				P		P
Staghorn Sumac	Native	Tree	N/A	N/A	N/A	P			P	P	P		
Sweet Birch	Native	Tree	N/A	N/A	N/A						P		
Sweetgum	Native	Tree	N/A	N/A	N/A			P					P
Sycamore	Native	Tree	N/A	N/A	N/A	P		P	P		P	P	P
Tulip Poplar	Native	Tree	N/A	N/A	N/A			P			P	P	
White Ash	Native	Tree	N/A	N/A	N/A	P	P	P	P		P	P	P
White Oak	Native	Tree	N/A	N/A	N/A						P		P

Bordentown City

Table 3. Species List

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Species sorted by: 1) Nativity, 2) Growth Form, 3) Common Name

Common Name	Nativity	Growth Form	Relative Threat Level	Stewardship Goal	Stewardship Note	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
White Pine	Native	Tree	N/A	N/A	N/A	P							
Wild Black Cherry	Native	Tree	N/A	N/A	N/A			P		P		P	P
Grape species	Native	Vine	N/A	N/A	N/A		P				P	P	P
Moonseed	Native	Vine	N/A	N/A	N/A								P
Poison-ivy	Native	Vine	N/A	N/A	N/A	P	P	P	P	P	P	P	P
Round-leaved Catbriar	Native	Vine	N/A	N/A	N/A			P		P	P		P
Trumpet Creeper	Native	Vine	N/A	N/A	N/A								P
Virginia Creeper	Native	Vine	N/A	N/A	N/A	P		P	P		P	P	P
Bamboo	Non-native	Grass	High	3	Located on adjacent private land, watch for future spread and treat as necessary					P			
Common Reed	Non-native	Grass	High	1	Requires treatment by professional wetland applicator business. Small, manageable populations located at two sites should be treated to avoid future wetland degradation.	P							P
Japanese Stiltgrass	Non-native	Grass	High	3	Highly threatening, but chemical control not recommended. Ultimate reduction depends upon effective deer management allowing native species to compete, thereby reducing stiltgrass cover.	P	P	P					P
Asiatic Dayflower	Non-native	Herb	Low	3	Relatively weedy, but not typically invasive in natural areas.	P		P		P			
Cana Lily	Non-native	Herb	Low	3	Escaped plantings that are unlikely to spread further.			P		P			
Canada Thistle	Non-native	Herb	Low	3	Very invasive in meadows, but otherwise not problematic.			P					

Bordentown City

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Common Name	Nativity	Growth Form	Relative Threat Level	Stewardship Goal	Stewardship Note	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Chinese Bushclover	Non-native	Herb	High	1	Very invasive in meadows, can form dense stands through clonal growth that pushes out other species.	P							
Chinese Yam	Non-native	Herb	High	1	This species has not been observed at other locations in New Jersey and is a highly threatening smothering vine. Eradication should be extremely high priority!	P				P	P		
Common Burdock	Non-native	Herb	Low	3	Minor weed species	P	P						P
Crown Vetch	Non-native	Herb	Low	3	Minor weed species					P			
Fig Buttercup	Non-native	Herb	Moderate	3	Control exceptionally challenging and threat lower than other species			P					
Garlic Mustard	Non-native	Herb	High	3	Highly threatening, but chemical control not recommended. Ultimate reduction depends upon effective deer management allowing native species to compete, thereby reducing stiltgrass cover.	P		P	P		P		P
Japanese Hops	Non-native	Herb	High	2	Selective control, starting with Site 6 (higher quality site)	P	P				P		
Japanese Knotweed	Non-native	Herb	High	2	Selective control, starting with Site 6 and Site 8 (higher quality sites)		P	P			P		P
Japanese Pachysandra	Non-native	Herb	Low	3	Typically not very invasive, does not spread by seed					P			

Bordentown City

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Common Name	Nativity	Growth Form	Relative Threat Level	Stewardship Goal	Stewardship Note	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Mugwort	Non-native	Herb	High	2	Very invasive in meadows, can form dense stands through clonal growth that pushes out other species.	P		P	P	P	P		
Purple Loosestrife	Non-native	Herb	Low	3	Existing biological control beetle keeps species in check.	P							
Amur Honeysuckle	Non-native	Shrub	Moderate	2	Most problematic on forest edges and open woodlands. Selective control, starting with Site 6 (higher quality site)	P	P	P			P		
Autum Olive	Non-native	Shrub	High	1	Only detected at Site 1 (meadow nearby gazebo); Highly threatening to meadow habitats.	P							
Border Privet	Non-native	Shrub	High	2	Extremely dense infestations in some locations. Selective control, starting with Site 6 and Site 8 (higher quality sites)	P	P	P	P		P	P	P
Japanese Barberry	Non-native	Shrub	High	2	Only detected at Site 8; Selective control to minimize spread at this higher quality site.								P
Japanese Holly	Non-native	Shrub	Moderate	1	Only detected at Site 6; Selective control to minimize spread at this higher quality site.						P		
Multiflora Rose	Non-native	Shrub	High	2	Extremely dense infestations in some locations. Selective control, starting with Site 6 and Site 8 (higher quality sites)	P	P	P		P	P	P	P
Wineberry	Non-native	Shrub	High	2	Selective control, starting with Site 6 and Site 8 (higher quality sites)	P	P	P	P	P	P	P	P

Bordentown City

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Common Name	Nativity	Growth Form	Relative Threat Level	Stewardship Goal	Stewardship Note	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Winged Burning Bush	Non-native	Shrub	High	2	Selective control, starting with Site 6 and Site 8 (higher quality sites)	P		P		P	P		P
Black Locust	Non-native	Tree	Moderate	2	Selective control, starting with Site 6 and Site 8 (higher quality sites)	P		P	P	P	P		P
Callery Pear	Non-native	Tree	High	2	Selective control, starting with Site 6 and Site 8 (higher quality sites)	P	P		P		P		P
Catalpa	Non-native	Tree	Low	3	Typically not very invasive except for very heavily disturbed areas (e.g., railroads)		P						
Horse Chestnut	Non-native	Tree	Low	3	Typically not very invasive	P				P			
Japanese Maple	Non-native	Tree	High	1	Emerging invasive species, eradicate before continued spread					P			
Japanese Zelkova	Non-native	Tree	High	1	Emerging invasive species, eradicate before continued spread		P						
Mimosa	Non-native	Tree	High	1	Emerging invasive species, eradicate before continued spread		P	P	P		P		
Norway Maple	Non-native	Tree	Moderate	2	Ubiquitous in tree canopy; Selective control, starting with Site 6 and Site 8 (higher quality sites) focusing on new seedlings/saplings	P	P	P	P	P	P	P	P
Norway Spruce	Non-native	Tree	Low	3	Typically not very invasive	P							
Paper Mulberry	Non-native	Tree	High	1	This species has not been observed at other locations in New Jersey outside of Cape May and is highly threatening. Eradication should be extremely high priority!	P							
Princess-tree	Non-native	Tree	Moderate	2	Only detected at Sites 3 and 8; Selective control to minimize spread at Site 8 (higher quality site)			P			P		

Bordentown City

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Common Name	Nativity	Growth Form	Relative Threat Level	Stewardship Goal	Stewardship Note	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Siebold's Crabapple	Non-native	Tree	High	2	Selective control, starting with Site 6 and Site 8 (higher quality sites)						P		P
Sweet Cherry	Non-native	Tree	Low	3	Typically not very invasive						P		P
Tree-of-Heaven	Non-native	Tree	High	2	Required host of Spotted Lantern Fly; Reducing trees may reduce SLF; Selective control to minimize spread at Site 8 (higher quality site)	P	P		P	P			P
Weeping Willow	Non-native	Tree	Low	3	Typically not very invasive		P						
White Mulberry	Non-native	Tree	Low	3	Typically not very invasive		P	P	P		P		P
Asiatic Bittersweet	Non-native	Vine	High	2	Selective control, starting with Site 8 (higher quality sites)					P		P	P
Chinese Wisteria	Non-native	Vine	High	1	Highly threatening emerging invasive species; eradicate all known occurrences	P		P					
English Ivy	Non-native	Vine	High	2	Ubiquitous and highly threatening, can smother forest understory and topple mature canopy trees; Selective control, starting with Site 6 and Site 8 (higher quality sites)	P	P	P	P	P	P	P	P
Japanese Clematis	Non-native	Vine	High	2	Ubiquitous and highly threatening, especially on forest edges; Selective control, starting with Site 6 and Site 8 (higher quality sites)	P		P	P	P	P		P
Japanese Honeysuckle	Non-native	Vine	High	2	Ubiquitous and highly threatening, especially on forest edges; Selective control, starting with Site 6 and Site 8 (higher quality sites)	P	P	P	P	P	P		P
Lesser Periwinkle	Non-native	Vine	Low	3	Typically not very invasive, does not spread by seed						P		

Bordentown City

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Common Name	Nativity	Growth Form	Relative Threat Level	Stewardship Goal	Stewardship Note	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8
Porcelain-berry	Non-native	Vine	High	2	Ubiquitous and highly threatening, especially on forest edges; Selective control, starting with Site 6 (higher quality site)	P		P	P	P	P		
Wintercreeper	Non-native	Vine	High	2	Becoming ubiquitous and highly threatening, can smother forest understory and topple mature canopy trees; Selective control, starting with Site 6 and Site 8 (higher quality sites)			P			P		P
Yellow Archangel	Non-native	Vine	Moderate	1	Currently unknown invasive potential, but occurs in a single location at a high quality site (#6)						P		

Stewardship Goal Notes:

1 = Eradicate all observed individuals

2 = Control through a long-term program

3 = Do not treat unless resources allow (only Very High, High or Moderate Threat species)

[See Strike Team website for "Species List and Control"](#)

Bordentown City

Table 4. Selected Invasive Species Points
Point ID matches maps provided

Point ID	Species Code	Common Name	Site ID	Population Size	Latitude	Longitude
1	AMBR	Porcelain-berry	1	> 1000	40.14657542	-74.71574442
2	AIAL	Tree-of-Heaven	1	11-100	40.14665907	-74.7154974
3	PYCA	Callery Pear	1	2-10	40.14645011	-74.71538676
4	BRPA	Paper Mulberry	1	11-100	40.14635623	-74.7154762
5	PHAU	Common Reed	1	11-100	40.14605993	-74.71509541
6	DIPO	Chinese Yam	1	> 1000	40.14606815	-74.7149069
7	HUJA	Japanese Hops	1	2-10	40.14600384	-74.71482128
8	WISE	Tea Viburnum	1	2-10	40.14571669	-74.71462317
9	LECU	Chinese Bushclover	1	> 1000	40.14569004	-74.71456148
10	PYCA	Callery Pear	1	11-100	40.1455732	-74.71462435
11	WISI	ChineseWisteria	1	> 1000	40.14483014	-74.71413929
12	WISI	ChineseWisteria	1	2-10	40.14470626	-74.71454053
13	AIAL	Tree-of-Heaven	1	11-100	40.14470039	-74.71404264
14	ZESE	Japanese Zelkova	2	2-10	40.1415577	-74.71186198
15	HUJA	Japanese Hops	2	> 1000	40.14154741	-74.71186171
16	HUJA	Japanese Hops	2	11-100	40.14140085	-74.71167291
17	PYCA	Callery Pear	2	2-10	40.14131041	-74.71182194
18	CLTE	Japanese Clematis	3	11-100	40.14046123	-74.71071522
19	POCU	Japanese Knotweed	3	11-100	40.14043442	-74.71072316
20	MIJU	Mimosa	3	2-10	40.14019922	-74.7109519
21	WISI	ChineseWisteria	3	> 1000	40.14016	-74.71091603
22	AMBR	Porcelain-berry	3	11-100	40.13998532	-74.71064931
23	WISI	ChineseWisteria	3	11-100	40.13987107	-74.7105722
24	POCU	Japanese Knotweed	3	101-1000	40.13950655	-74.71038471
25	POCU	Japanese Knotweed	3	101-1000	40.13994768	-74.71008462
26	CLTE	Japanese Clematis	3	11-100	40.14003713	-74.70981026
27	AMBR	Porcelain-berry	3	11-100	40.14003869	-74.70973947
28	WISI	ChineseWisteria	3	11-100	40.13998129	-74.70980383
29	AIAL	Tree-of-Heaven	3	11-100	40.13998292	-74.70974116
30	AMBR	Porcelain-berry	4	> 1000	40.147481	-74.71630525
31	MIJU	Mimosa	4	2-10	40.14722064	-74.7167593
32	CLTE	Japanese Clematis	4	> 1000	40.14693253	-74.71714224
33	CLTE	Japanese Clematis	4	> 1000	40.14683242	-74.71688914
34	ACPA	Japanese Maple	5	2-10	40.15251014	-74.71328978
35	AMBR	Porcelain-berry	5	> 1000	40.15055557	-74.715197
36	DIPO	Chinese Yam	5	2-10	40.15041753	-74.71499207
37	AIAL	Tree-of-Heaven	6	2-10	40.149682	-74.70388864
38	CLTE	Japanese Clematis	5	101-1000	40.1503466	-74.71513522

Bordentown City

**Table 4. Selected Invasive Species Points
Point ID matches maps provided**

Point ID	Species Code	Common Name	Site ID	Population Size	Latitude	Longitude
39	EUFO	Wintercreeper	6	101-1000	40.14933399	-74.70339972
40	AMBR	Porcelain-berry	5	11-100	40.15011392	-74.71496817
41	MATO	Siebold's Crabapple	6	2-10	40.14914674	-74.70260034
42	ILCR	Japanese Holly	6	2-10	40.14914078	-74.70242943
43	AIAL	Tree-of-Heaven	6	2-10	40.1491899	-74.70154791
44	MATO	Siebold's Crabapple	6	2-10	40.14881523	-74.701678
45	AIAL	Tree-of-Heaven	6	11-100	40.14869897	-74.7016236
46	MIJU	Mimosa	6	2-10	40.1486403	-74.70222601
47	LAGA	Yellow Archangel	6	11-100	40.14840047	-74.70241541
48	AMBR	Porcelain-berry	6	11-100	40.14839483	-74.70223683
49	PYCA	Callery Pear	6	2-10	40.14828725	-74.7024306
50	HUJA	Japanese Hops	6	11-100	40.14826253	-74.70227387
51	ARVU	Mugwort	6	11-100	40.14820369	-74.70251575
52	CLTE	Japanese Clematis	6	2-10	40.14817419	-74.70235263
53	DIPO	Chinese Yam	6	101-1000	40.14823043	-74.70207387
54	POCU	Japanese Knotweed	6	11-100	40.14811506	-74.70209626
55	MIJU	Mimosa	6	2-10	40.14800378	-74.70172058
56	EUFO	Wintercreeper	8	11-100	40.15104691	-74.70728239
57	AMBR	Porcelain-berry	8	> 1000	40.15090207	-74.70757676
58	PHAU	Common Reed	8	11-100	40.1508175	-74.70779058
59	AIAL	Tree-of-Heaven	8	2-10	40.1504585	-74.70810633
60	AMBR	Porcelain-berry	8	11-100	40.15044626	-74.70784063
61	CLTE	Japanese Clematis	8	11-100	40.15036002	-74.70793978
62	POCU	Japanese Knotweed	8	11-100	40.14997579	-74.70722749
63	EUFO	Wintercreeper	8	> 1000	40.15075391	-74.70650812
64	EUFO	Wintercreeper	8	2-10	40.15027519	-74.70552119
65	AIAL	Tree-of-Heaven	8	11-100	40.15007601	-74.70533956
66	PYCA	Callery Pear	8	2-10	40.14989851	-74.70501258
67	EUFO	Wintercreeper	8	101-1000	40.1496929	-74.70478332
68	EUFO	Wintercreeper	8	101-1000	40.14981318	-74.70384187

Bordentown City

Table 5. Summary of Selected Invasive Species Points

Common Name	Population Size					Totals
	1	2-10	11-100	101-1000	> 1000	
Callery Pear		4	1			5
Chinese Bushclover					1	1
Chinese Yam		1		1	1	3
Chinese Wisteria		1	2		2	5
Common Reed			2			2
Japanese Clematis		1	3	1	2	7
Japanese Holly		1				1
Japanese Hops		1	2		1	4
Japanese Knotweed			3	2		5
Japanese Maple		1				1
Japanese Zelkova		1				1
Mimosa		4				4
Mugwort			1			1
Paper Mulberry			1			1
Porcelain-berry			5		4	9
Siebold's Crabapple		2				2
Tea Viburnum		1				1
Tree-of-Heaven		3	5			8
Wintercreeper		1	1	3	1	6
Yellow Archangel			1			1
Totals	1	22	27	7	12	68

Site 1. Lime Kiln Alley Park - Stewardship Summary

Goal	Relative Priority	Description	Volunteers	Public Works	Contractors
1	Very High	Implement an effective Deer Management Plan to allow native species to better compete with invasive species	X - Municipal officials and Environmental Commission		
2	Very High	Eradicate Chinese Yam, Paper Mulberry -- then Chinese Bushclover, Common Reed (Phragmites), Autumn Olive			X - Herbicide treatments
3	High	Control of Porcelain-berry, Chinese Wisteria, Tree-of-Heaven, Japanese Hops, Mugwort, Japanese Clematis, English Ivy -- then Japanese Honeysuckle, Border Privet, Multiflora Rose, Wineberry, Norway Maple	X - Cut vines out of trees and forest edges		X - Herbicide treatments
4	Moderate	Watch for new establishment and treat as necessary for highly threatening species including Linden Viburnum, Siebold's Viburnum, Oriental Photinia, European Buckthorn, and Japanese Aralia	X - Searching		X - Herbicide treatments as detected

Site 2. Blacks Creek Overlook - Stewardship Summary

Goal	Relative Priority	Description	Volunteers	Public Works	Contractors
1	Very High	Implement an effective Deer Management Plan to allow native species to better compete with invasive species	X - Municipal officials and Environmental Commission		
2	Very High	Eradicate Japanese Hops, Callery Pear, Japanese Zelkova -- then Japanese Knotweed			X - Herbicide treatments
3	High	Control of Amur Honeysuckle, Border Privet -- then Multiflora Rose, Wineberry	X - Cut vines out of trees and forest edges		X - Herbicide treatments
4	Moderate	Watch for new establishment and treat as necessary for highly threatening species including Linden Viburnum, Siebold's Viburnum, Oriental Photinia, European Buckthorn, and Japanese Aralia	X - Searching		X - Herbicide treatments as detected

Site 3. Oliver Street Park - Stewardship Summary

Goal	Relative Priority	Description	Volunteers	Public Works	Contractors
1	Very High	Implement an effective Deer Management Plan to allow native species to better compete with invasive species	X - Municipal officials and Environmental Commission		
2	Very High	Eradicate Mimosa, Chinese Wisteria, Wintercreeper -- then Japanese Clematis	X - Cut vines out of trees and forest edges		X - Herbicide treatments
3	High	Control of Porcelain-berry, English Ivy, Winged Burning Bush, -- then Amur Honeysuckle, Princess-tree, Multiflora Rose, Wineberry, Black Locust, Norway Maple, Japanese Honeysuckle	X - Cut vines out of trees and forest edges		X - Herbicide treatments
4	Moderate	Watch for new establishment and treat as necessary for highly threatening species including Linden Viburnum, Siebold's Viburnum, Oriental Photinia, European Buckthorn, and Japanese Aralia	X - Searching		X - Herbicide treatments as detected
5	Moderate	If meadow is created, then eliminate highly threatening plants from forest edges including Japanese Knotweed, Common Mugwort and Canada Thistle. Pre-treatment and ongoing treatments within the field post-restoration will be required until meadow is fully established with native species.	X - Depending upon timing, cut plants to improve herbicide effectiveness. Ongoing cutting can reduce spread.	X - Maintenance mowing of the meadow required (several times in Year 1, annually thereafter)	X - Meadow restoration preparation, installation and follow-up maintenance

Site 4. Bordentown Beach - Stewardship Summary

Goal	Relative Priority	Description	Volunteers	Public Works	Contractors
1	Very High	Implement an effective Deer Management Plan to allow native species to better compete with invasive species	X - Municipal officials and Environmental Commission		
2	Very High	Eradicate Mimosa -- then Callery Pear			X - Herbicide treatments
3	High	Control of Tree-of-Heaven, English Ivy, Porcelain-berry, Japanese Clematis -- then Border Privet, Japanese Honeysuckle, Mugwort, Wineberry, Black Locust, Norway Maple	X - Cut vines out of trees and forest edges		X - Herbicide treatments
4	Moderate	Watch for new establishment and treat as necessary for highly threatening species including Linden Viburnum, Siebold's Viburnum, Oriental Photinia, European Buckthorn, and Japanese Aralia	X - Searching		X - Herbicide treatments as detected

Site 5. Hilltop Park - Stewardship Summary

Goal	Relative Priority	Description	Volunteers	Public Works	Contractors
1	Very High	Implement an effective Deer Management Plan to allow native species to better compete with invasive species	X - Municipal officials and Environmental Commission		
2	Very High	Eradicate Chinese Yam -- then Japanese Maple. Within the native plant garden, eradicate Chinese Yam, Porcelain-berry, Mugwort, Japanese Clematis, Tree-of-Heaven	X - Cut vines out of trees and forest edges		X - Herbicide treatments
3	High	Control of Porcelain-berry, English Ivy, Japanese Clematis, Winged Burning Bush, Tree-of-Heaven, Asiatic Bittersweet, Mugwort -- then Black Locust, Norway Maple, Japanese Honeysuckle, Multiflora Rose, Wineberry	X - Cut vines out of trees and forest edges		X - Herbicide treatments
4	Moderate	Watch for new establishment and treat as necessary for highly threatening species including Linden Viburnum, Siebold's Viburnum, Oriental Photinia, European Buckthorn, and Japanese Aralia	X - Searching		X - Herbicide treatments as detected

Site 6. Gilder Memorial Park - Stewardship Summary

Goal	Relative Priority	Description	Volunteers	Public Works	Contractors
1	Very High	Implement an effective Deer Management Plan to allow native species to better compete with invasive species	X - Municipal officials and Environmental Commission		
2	Very High	Eradicate Chinese Yam, Mimosa, Japanese Hops, Callery Pear, Siebold's Crabapple, -- then Japanese Holly, Japanese Knotweed,			X - Herbicide treatments
3	High	Control of Porcelain-berry, Wintercreeper, English Ivy, Japanese Clematis, -- then Border Privet, Mugwort, Multiflora Rose, Wineberry, Amur Honeysuckle, Black Locust, Norway Maple, Japanese Honeysuckle	X - Cut vines out of trees and forest edges		X - Herbicide treatments
4	Moderate	Watch for new establishment and treat as necessary for highly threatening species including Linden Viburnum, Siebold's Viburnum, Oriental Photinia, European Buckthorn, and Japanese Aralia	X - Searching		X - Herbicide treatments as detected

Site 7. Undeveloped Parkland - Stewardship Summary

Goal	Relative Priority	Description	Volunteers	Public Works	Contractors
1	Very High	Implement an effective Deer Management Plan to allow native species to better compete with invasive species	X - Municipal officials and Environmental Commission		
2	Very High	Eradicate Border Privet -- then Multiflora Rose, Wineberry			X - Herbicide treatments
3	High	Control of English Ivy, Asiatic Bittersweet -- then Norway Maple	X - Cut vines out of trees and forest edges		X - Herbicide treatments
4	Moderate	Watch for new establishment and treat as necessary for highly threatening species including Linden Viburnum, Siebold's Viburnum, Oriental Photinia, European Buckthorn, and Japanese Aralia	X - Searching		X - Herbicide treatments as detected

Site 8. Ann/Spring Street Park - Stewardship Summary

Goal	Relative Priority	Description	Volunteers	Public Works	Contractors
1	Very High	Implement an effective Deer Management Plan to allow native species to better compete with invasive species	X - Municipal officials and Environmental Commission		
2	Very High	Eradicate Callery Pear, Siebold's Crabapple -- then Common Reed (Phragmites), Japanese Knotweed			X - Herbicide treatments
3	High	Control of English Ivy, Wintercreeper, Japanese Clematis, Winged Burning Bush, Tree-of-Heaven, Asiatic Bittersweet, Border Privet -- then Japanese Barberry, Multiflora Rose, Wineberry, Black Locust, Norway Maple	X - Cut vines out of trees and forest edges		X - Herbicide treatments
4	Moderate	Watch for new establishment and treat as necessary for highly threatening species including Linden Viburnum, Siebold's Viburnum, Oriental Photinia, European Buckthorn, and Japanese Aralia	X - Searching		X - Herbicide treatments as detected





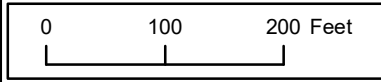
**Bordentown City
Invasive Species
Evaluation**

2021

**See Table "Selected
Invasive Species Points"
for point ID key**

Legend

-  Selected Invasive Points
-  Bordentown Properties





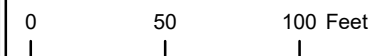
**Bordentown City
Invasive Species
Evaluation**

2021

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Legend

-  Selected Invasive Points
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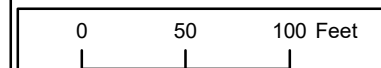
**Bordentown City
Invasive Species
Evaluation**

2021

**See Table "Selected
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Legend

-  Selected Invasive Points
-  Bordentown Properties





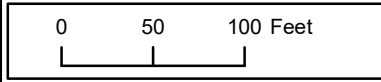
**Bordentown City
Invasive Species
Evaluation**

2021

**See Table "Selected
Invasive Species Points"
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Legend

-  Selected Invasive Points
-  Bordentown Properties







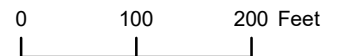
**Bordentown City
Invasive Species
Evaluation**

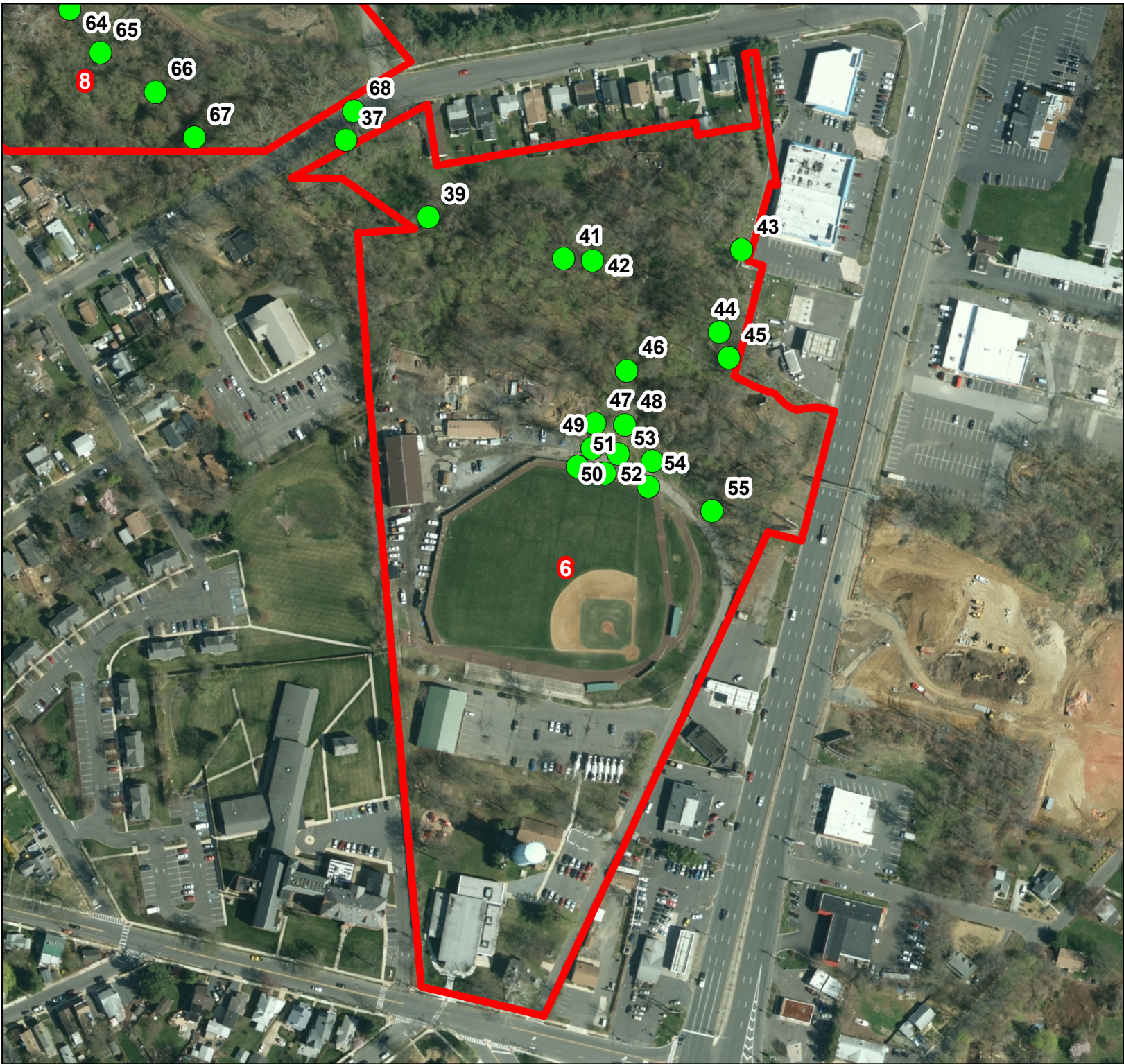
2021

**See Table "Selected
Invasive Species Points"
for point ID key**

Legend

-  Selected Invasive Points
-  Bordentown Properties







**Bordentown City
Invasive Species
Evaluation**

2021


See Table "Selected
Invasive Species Points"
for point ID key

Legend

-  Selected Invasive Points
-  Bordentown Properties



0 100 200 Feet







**Bordentown City
Invasive Species
Evaluation**

2021

**See Table "Selected
Invasive Species Points"
for point ID key**

Legend

-  Selected Invasive Points
-  Bordentown Properties





0 50 Feet

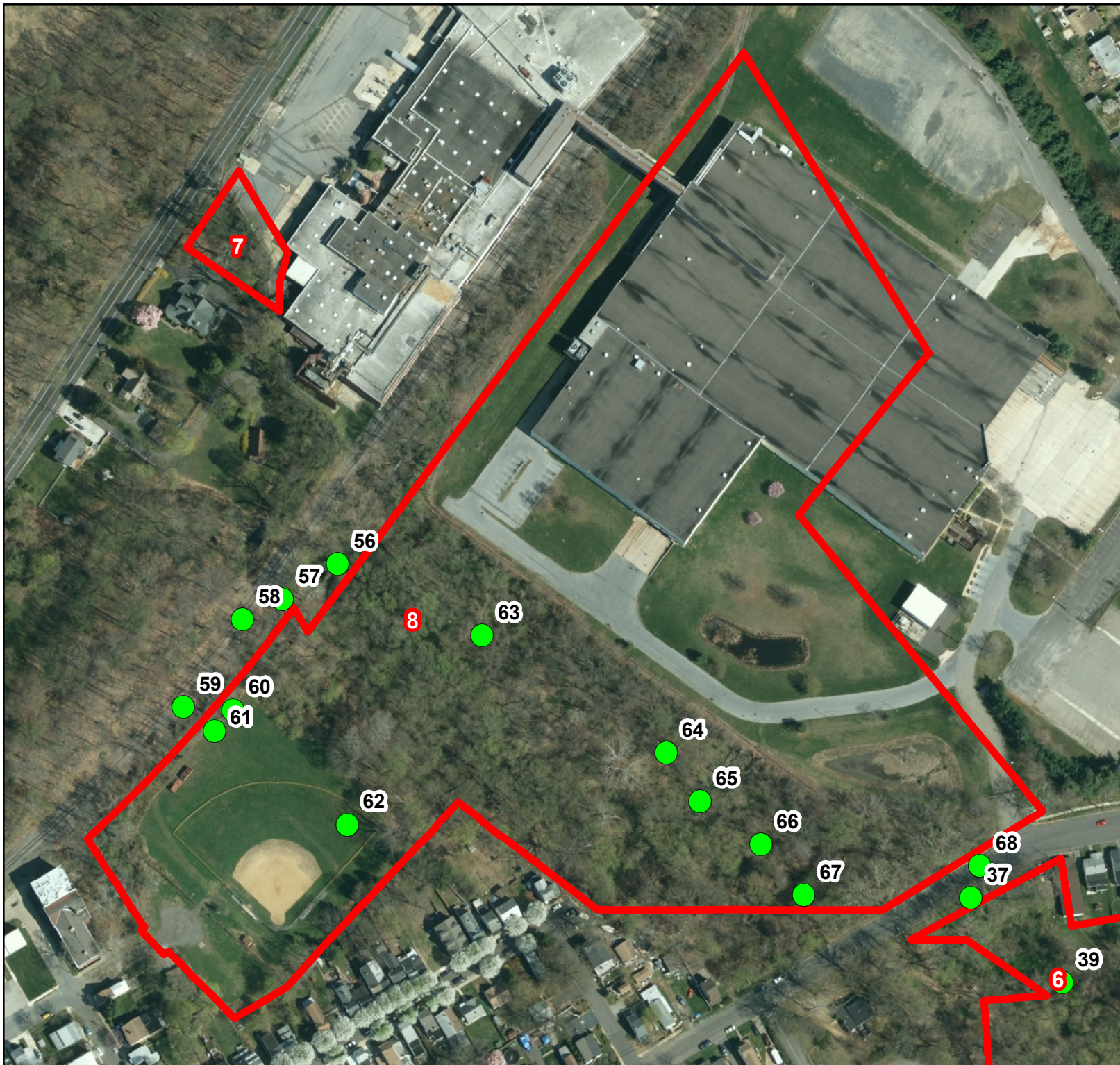
**Bordentown City
Invasive Species
Evaluation**

2021

**See Table "Selected
Invasive Species Points"
for point ID key**

Legend

-  Selected Invasive Points
-  Bordentown Properties



0 100 200 Feet