

Table 4. Stewardship Summary

Goal	Relative Priority	Description
1	Very High	<u>Deer Management</u> : Consider establishing a deer management program to allow native species to fill forest understory and effectively compete against invasive species. Contact Strike Team for advice on establishing a program.
2	Very High	<u>Eradication of Newly Emerging Species</u> : There are 8 species listed as Stewardship Goal = 1 on the Non-Native Species List (Table 1) - includes species widespread in NJ, but emerging on the property. These include English Ivy, Japanese Aralia, Japanese Knotweed, Yellow Archangel, Chinese Wisteria, Japanese Maple, Deutzia, and Wintercreeper . GPS coordinates for all observed populations of these species are provided in Table 2. Additional searching should be conducted on a regular basis and any new populations should be eradicated.
3	High	<u>Protect Clean Areas</u> : Upland areas on the property have older forests with relatively few invasive species. Priority areas should be established and be subject to regular control efforts targeting all invasive species with Stewardship Goals = 2 (Table 1). Wetland areas have severe infestations and
4	High	<u>Restoration</u> : Existing native tree and shrub seedlings can be protected using cages to allow plants to exceed 5' tall (above deer browse line). Existing patch of forest wildflowers along trail at entrance could be protected using a small enclosure to demonstrate deer impacts and allow visitors to enjoy a healthy wildflower display. Additional small enclosures can be utilized to protect small areas of wildflower or native shrubs.
5	Moderate	<u>Long-term Control</u> : For infested wetlands, the highest priority Stewardship Goal = 2 species should be subject to control efforts at reducing / containing existing infestations. The highest priority species include Autumn Olive, Japanese Barberry, Mugwort, Multiflora Rose, Wineberry, and Winged Burning Bush.

Table 1. Non-native Species Observations, Threat Levels, and Stewardship Goals

Species	Growth Form	Relative Threat Level	Stewardship Goal	Descriptive Notes	Treatment Notes - See links at bottom of table
Amur Honeysuckle	Shrub	Moderate	2	Small patches and scattered individuals	Treat in summer utilizing FS-1 or summer/winter utilizing CS-1. Small to moderate-sized plants can be pulled from ground, most effective when ground is wet.
Asiatic Bittersweet	Vine	Very High	2	Smothering trees in areas	If treating in winter, consider CS-1. If treating in summer, consider CS-2 or CS-3. Cutting without herbicide may lead to extensive resprouting. Ground level plants can be treated with FS-1.
Autumn Olive	Shrub	High	2	Small patches and scattered individuals	Treat in summer utilizing BB-1. Be sure to spray all the way around the trunk from the ground to 2' above ground. Highly sprouting species when cut.
Chinese Wisteria	Vine	Very High	1	Several large patches along roadside	Treat in summer utilizing BB-1 and FS-1. For BB-1, be sure to spray all the way around the trunk from the ground to 2' above ground. Highly sprouting species when cut.
Deutzia	Shrub	Low	1	One small patch	Treat in summer utilizing FS-1 or summer/winter utilizing CS-1. Small to moderate-sized plants can be pulled from ground, most effective when ground is wet.
English Ivy	Vine	Very High	1	Several small patches - not smothering trees...yet	If treating in winter, consider FS-3 or CS-1. If treating in summer, consider FS-1 or CS-2.
Garlic Mustard	Herb	Moderate	2	Scattered individuals	Treat in March using FS-2 and/or hand pulling in April - May before seeding.
Japanese Aralia	Tree	Very High	1	Two locations but highly threatening	Treat in summer utilizing BB-1. Be sure to spray all the way around the trunk from the ground to 2' above ground. Highly sprouting species when cut.
Japanese Barberry	Shrub	High	2	Dense infestations, especially in wetter areas	Treat in summer utilizing FS-1 or winter using CS-1. Small to moderate-sized plants can be pulled from ground, most effective when ground is wet.
Japanese Knotweed	Herb	Very High	1	Small patches, but highly threatening along lakeshore	Allow stems to reach full height in early June, cut to ground, all resprouting to 2-3', then treat with FS-3. Very small populations can be treated with CS-1. Cutting alone should follow same concept, allowing growth of 2-3' between cuttings to weaken roots.
Japanese Maple	Tree	Moderate	1	One individual along trail	Treat in summer using BB-1.
Japanese Stiltgrass	Grass	High	3	Small patches and scattered individuals in upland, extensive infestations in wetlands	Direct treatment not recommended

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Species	Growth Form	Relative Threat Level	Stewardship Goal	Descriptive Notes	Treatment Notes - See links at bottom of table
Morrow's Honeysuckle	Shrub	Moderate	2	Small patches and scattered individuals	Treat in summer utilizing FS-1 or summer/winter utilizing CS-1. Small to moderate-sized plants can be pulled from ground, most effective when ground is wet.
Mugwort	Herb	High	2	Primarily near dam	Treat in October using foliar spray FS-7. Repeated cutting as described for Japanese Knotweed above can weaken plants over time.
Multiflora Rose	Shrub	High	2	Small patches and scattered individuals in upland, extensive infestations in wetlands	Treat in summer utilizing FS-1 or winter using CS-1. Small to moderate-sized plants can be pulled from ground, most effective when ground is wet.
Norway Maple	Tree	Moderate	2	Scattered individuals	Treat in summer utilizing BB-1. Prioritize seedlings and saplings.
Tree-of-Heaven	Tree	Moderate	2	Scattered individuals	Treat in summer utilizing BB-1.
White Mulberry	Tree	Low	3	Scattered individuals	Treat in summer utilizing BB-1.
Wineberry	Shrub	High	2	Scattered individuals	Treat in summer utilizing FS-1 or winter using CS-1. Small to moderate-sized plants can be pulled from ground, most effective when ground is wet.
Winged Burning Bush	Shrub	High	2	Small patches and scattered individuals	Treat in summer utilizing FS-1 or summer/winter utilizing CS-1. Small to moderate-sized plants can be pulled from ground, most effective when ground is wet.
Wintercreeper	Vine	Very High	1	Several small patches - not smothering trees...yet	If treating in winter, consider FS-3 or CS-1. If treating in summer, consider FS-1 or CS-2.
Yellow Archangel	Herb	Low	1	Single patch, potential to spread	Treat in summer utilizing FS-1.

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 Recommendations" and "Herbicide Use Suggestions and Mixing Table"](#)

Table 2. Invasive Species Points

Point ID	Common Name	Number of Individuals	Latitude	Longitude
1	Japanese Aralia	2-10	-74.4625741	40.91189852
2	Japanese Maple	1	-74.46400038	40.91133507
3	Chinese Wisteria	101-1000	-74.46624509	40.91214133
4	Chinese Wisteria	>1000	-74.46606277	40.91270518
5	Yellow Archangel	2-10	-74.46566821	40.91296975
6	English Ivy	2-10	-74.46556201	40.91298123
7	Deutzia	2-10	-74.46449955	40.91401665
8	English Ivy	2-10	-74.46407453	40.91447685
9	Wintercreeper	2-10	-74.46387698	40.91508673
10	Japanese Knotweed	11-100	-74.4637268	40.91575632
11	Chinese Wisteria	101-1000	-74.46351344	40.91579222
12	Chinese Wisteria	>1000	-74.46142656	40.91733796
13	Wintercreeper	2-10	-74.46114224	40.91710411
14	Japanese Aralia	11-100	-74.46138014	40.91564767
15	English Ivy	2-10	-74.46135656	40.91543188

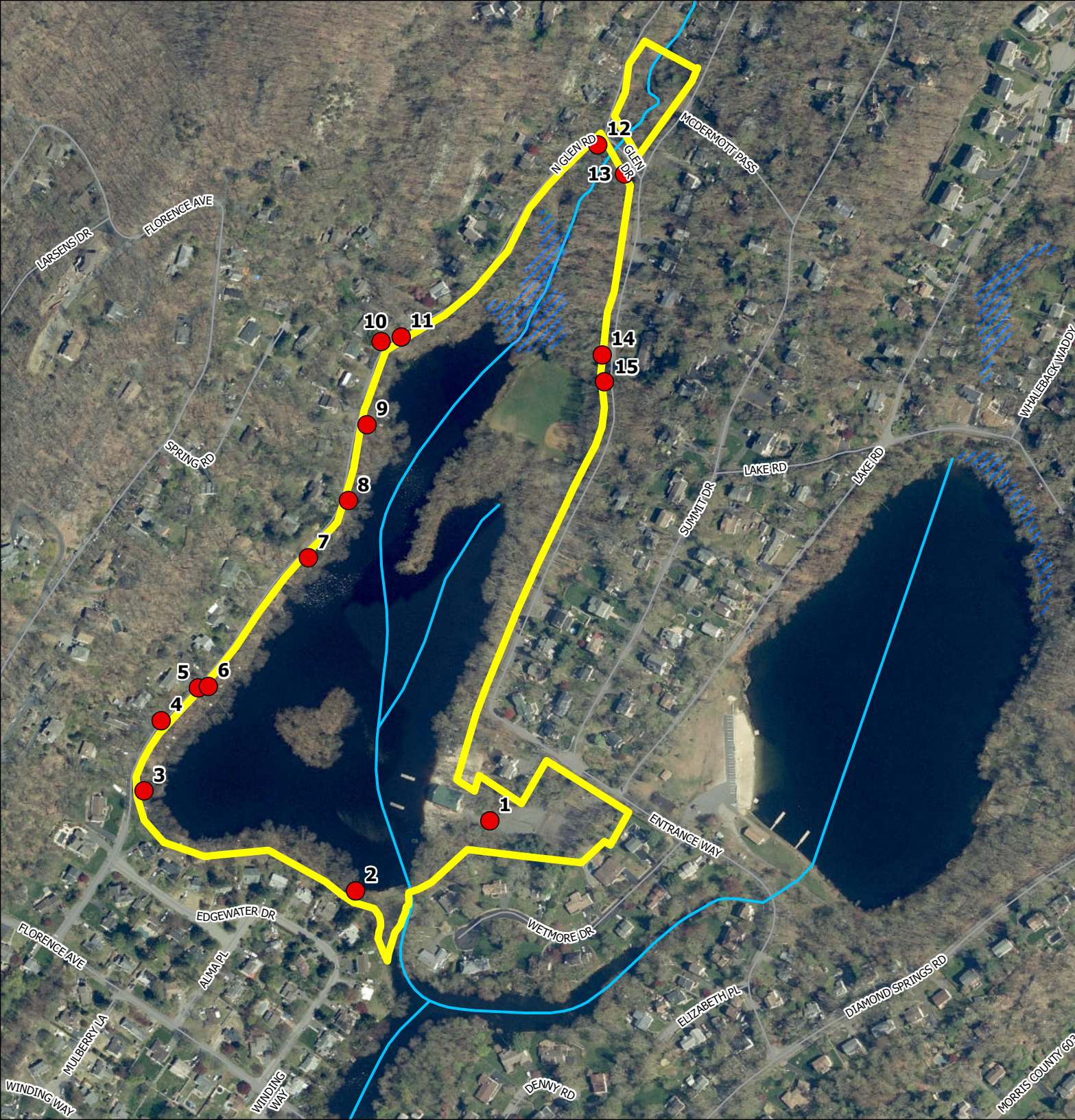
Table 3. Native Species List (Partial)
Sorted by Growth Form, then Common Name

Common Name	Growth Form
Cinnamon Fern	Fern
Royal Fern	Fern
Deer Tongue Grass	Grass
Blue Wood Aster	Herb
Canada Goldenrod	Herb
Common Milkweed	Herb
Field Aster	Herb
Grass-leaved Goldenrod	Herb
Pokeberry	Herb
Pussy Toes	Herb
Shinleaf	Herb
Silverrod	Herb
Striped Wintergreen	Herb
White Snakeroot	Herb
White Vervain	Herb
White Wood Aster	Herb
Wreath Goldenrod	Herb
Blackhaw Viburnum	Shrub
Elderberry	Shrub
Highbush Blueberry	Shrub
Lowbush Blueberry	Shrub
Maleberry	Shrub
Mountain Laurel	Shrub
Shadbush	Shrub
Smooth Alder	Shrub
Spicebush	Shrub
Winterberry Holly	Shrub
Witch-hazel	Shrub
American Elm	Tree
American Holly	Tree
Black Oak	Tree
Black Tupelo	Tree
Black Walnut	Tree
Eastern Red Cedar	Tree
Flowering Dogwood	Tree
Gray Birch	Tree
Ironwood	Tree
Pignut Hickory	Tree
Pin Oak	Tree
Red Maple	Tree
Red Oak	Tree
Sassafras	Tree
Shagbark Hickory	Tree
Sweet Birch	Tree
White Oak	Tree
White Pine	Tree
Fox Grape	Vine
Poison-ivy	Vine

Rock Ridge Lake Stewardship Map

Legend

- Invasive Points
- Property Boundary
- /// Wetlands (2012)
- Stream



0 150 300 450 Feet

