Appendix 15. Lipp/Lewellen Preserve

Acreage: 3.856

Block and Lot: B18, L20

Ownership: FoHVOS (100%)

Year(s) Purchased: 1998

Location & Access: The preserve is located on the north side of Crusher Road, approximately 2.0 miles east of the Route 654. <u>Nearest street address</u>: 106 Crusher Road, Hopewell, NJ 08525. Parking is available along the road, but shoulder is narrow. NOTE: Preserve is land-locked and does not have any road frontage on Crusher Road.

Structures: None

Additional property information is summarized in Appendix W. The following Preserve maps are provided at the end of this document:

- Map 1 2007 Aerial Photography
- Map 2 1930 Aerial Photography
- Map 3 Topography
- Map 4 Bedrock Geology
- Map 5 Soils
- Map 6 Land Cover Types (2007)
- Map 7 Protected Lands
- Map 8 Deer Management
- Map 9 Invasive Plant Cover (Relative Infestation Severity for all species)

Website Description:

Lipp Lewellen Preserve protects a portion of the Mount Rose region's upland forest. Spicebush, maple leaf viburnum grow under a canopy of American beech, American linden and tulip tree.

BROAD PROPERTY DESCRIPTION

The Lipp Lewellen Preserve (see Map 1) is located in eastern Hopewell Township. The topography (see Map 3) is flat at about 280 feet above sea level.

Based upon analysis of NJDEP's 2007 Land Use/Land Cover dataset, the preserve contains one broad plant community: Deciduous Forest (> 50% canopy) – Upland. The preserve is surrounded by forest, farmland, and residential parcels. Land Use/Land Cover is summarized in Appendix X and illustrated in Map 6.

The forest's native species composition is comprised of tulip tree, ash, Virginia creeper, maple leaf viburnum, spicebush, black cohosh, and sedges. Herbaceous plants are found only in small populations.

The preserve has one type of bedrock geology--the Jurassaic formation. See Map 4.

The preserve has one soil type (see Map 5) -- Neshaminy silt loam, 6 to 12 percent slopes, very stony. The preserve's soils are described in Appendix Y.

CONSERVATION VALUES

Based on an analysis involving the ranking of ecological values and threats (See Community Stewardship Plan text), the Preserve has a weighted Ecological Value of 25-50%. See Appendix A for a description of ranking factors.

Forest and Woodland Communities: The preserve is part of the Mount Rose large forest patch.

The forest patch found on the Preserve and surrounding area is an important stop-over habitat (spring and fall resting and feeding) for migratory species. The relatively thick shrub layer (primarily spicebush with small patches of maple leaved viburnum) increases the chance of nesting and successful breeding. However, the shrub layer is being rapidly reduced by deer browse (based upon visual observations over the last five years).

Old forest: The entirety of the preserve was forested in the 1930s. See Map 2.

Early Successional Communities: Shrublands: N/A

Meadows/Grasslands: N/A

Waterbodies: N/A

Rare Species: Rare Plants: None.

Rare Animals: The Landscape Project has identified the Preserve as ranked for species of State Endangered, Threatened, and Special Concern Species. The Preserve has suitable wood turtle habitat in the eastern areas.

See Appendix L for a list of species.

THREATS

Deer: The understory and herb layers are robust (but declining) - suckering stems are heavily browsed. Regeneration of maple leaf viburnum is minimal.

Invasive species: In 2008 staff began walk-through surveys for emerging invasive species on all preserves. Mapping documented each species and its population size. There were no emerging species detected at the Preserve. See <u>www.njisst.org</u> for the current status of emerging invasive species at the Preserve.

In 2011 staff completed surveys for invasive plant species on all preserves (see Map 9). Mapping documented each species found and its population size (See Table 1 below). The three species with the highest infestation scores include: Japanese Barberry, Japanese Stiltgrass, and Wineberry. Asiatic bittersweet and Winged burning bush were detected in trace amounts.

Other: N/A

STRATEGIES and ACTIONS

Forest and Woodland Habitat Stewardship: Annual surveys for and eradication of emerging invasive species is a high priority at this Preserve.

No action is recommended for widespread invasive species, except for winged burning bush and Asiatic bittersweet. All fruiting and flowering individuals should be treated with basal bark or cut stump (in the case of vines on trees) methods. Reduced deer density will allow the native plant communities to recover and compete with all other widespread invasive species on a long-term basis.

Early Successional Habitat Stewardship: N/A

Deer Management: The preserve is not enrolled in the DMP. There is no access to the preserve, except across private land. If feasible, improve access through adjacent lands. See Map 8 for delineations of the 150' and 450' safety zones and hunting status.

Rare Species Management: N/A

Neighboring Lands: See Map 7 for adjacent protected lands.

Waterbodies Management: N/A

Undesirable Activities Management: N/A

Scientific Research Assessment: The Preserve is available for scientific research.

Recreational Opportunities Assessment: The preserve does not have road frontage and is too small to support a trail.

				Percent	T		Acreage by Percent Ground Cover Categories						
				of		1.05							
		Infoctation	Total	Preserve Area	Treatment	LOE	Coto googy Or	Catagony	Cotomony 1	Coto nonv 2	Coto nomi 2.	Coto no mu Au	
Scientific Name	Common Name	Infestation Index Score ¹	Acres Present	Present	Treatment Recommendation	Estimate (Hours)	Category 0: 0%	Category: Trace	1-10%	Category 2: 10-25%	25-50%	Category 4: 50-75%	Category 5: 75-100%
Acer palmatum	Japanese Maple	0.0	0.0	0.0	N/A	(nours)	4.48	0.0	0.0	0.0	0.0	0.0	0.0
Acer platanoides	Norw ay Maple	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.00	0.0	0.00	0.0
Ailanthus altissima	Tree-of-Heaven	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.00	0.0	0.00	0.0
Alliaria petiolata	Garlic Mustard	0.0	4.5	100.0	None		0.00	4.5	0.0	0.0	0.0	0.0	0.0
Artemisia vulgaris	Common Mugw ort	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Arthraxon hispidus	Small Carpgrass	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Berberis thunbergii	Japanese Barberry	4.5	4.5	100.0	None		0.00	0.0	4.5	0.0	0.0	0.0	0.0
Cardamine impatiens	Narrow -leaved Bittercress	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Catalpa bignonioides	Northern Catalpa	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
pa signomorado		0.0	0.0	0.0	Control - Treat								
Celastrus orbiculatus	Asiatic Bittersweet	0.0	4.5	100.0	Fruiting Plants	1	0.00	4.5	0.0	0.0	0.00	0.0	0.0
Centurea sp.	Knapw eed sp.	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Cirsium arvense	Canada Thistle	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Dipsacus sylvestris	Teasel	0.0	0.0	0.0	N/A		4.48	0.0	0.00	0.0	0.0	0.0	0.0
Eleaegnus umbellata	Autumn Olive	0.0	4.5	100.0	None		0.00	4.5	0.0	0.0	0.0	0.0	0.0
					Control - Treat		0.00	4.5	0.0	0.0	0.0	0.0	0.00
Euonymus alata	Winged Burning Bush	0.0	4.5	100.0	Fruiting Plants	4	0.00	4.5	0.0	0.0	0.0	0.0	0.00
lris pseudoacris	Yellow Iris	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Lespedeza cuneata	Chinese Bushclover	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Ligustrum obtusifolium	Border Privet	0.0	0.0	0.0	N/A		4.48	0.0	0.00	0.0	0.0	0.0	0.0
Lonicera japonica	Japanese Honeysuckle	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Lonicera maackii	Amur Honeysuckle	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Lonicera morrowii	Morrow's Honeysuckle	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.00	0.0	0.0
Lysimachia nummularia	Moneywort	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Lythrum salicaria	Purple Loosestrife	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Malus toringo	Toringo Crabapple	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Microstegium vimineum	Japanese Stiltgrass	4.5	4.5	100.0	None		0.00	0.0	4.5	0.0	0.0	0.0	0.0
N/A	Non-native, cool season grass	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Phalaris arundinacea	Reed Canary Grass	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Phragmites australis	Common Reed	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Polygonum cuspidatum	Japanese Knotw eed	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Polygonum perfoliatum	Mile-a-Minute	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Pyrus calleryana	Callery Pear	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Ranunculus ficaria	Lesser Celandine	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Robinia pseudoacacia	Black Locust	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Rosa multiflora	Multifloral Rose	0.0	4.5	100.0	None		0.00	4.5	0.0	0.0	0.0	0.0	0.0
Rubus pheoniculasius	Wineberry	4.5	4.5	100.0	None		0.00	0.0	4.5	0.0	0.0	0.0	0.0
Securigera varia	Crow n vetch	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Viburnum dilatatum	Linden Viburnum	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Viburnum sieboldii	Siebold's Viburnum	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0
Wisteria floribunda	Japanese Wisteria	0.0	0.0	0.0	N/A		4.48	0.0	0.0	0.0	0.0	0.0	0.0

Table 1. Invasive Plants – Species Abundance and Treatment Recommendations

¹ The Infestation Index Score combines the extent of acreage infested and the intensity of the infestation. It was derived by multiplying the cover class number by the number of acres within each cover class.

















