

**Hopewell Valley Community Stewardship Plan
Friends of Hopewell Valley Open Space**

**Appendix 19.
Perkins Preserve**

Acreage: 5.09

Block and Lot: B39, L56 & 21

Ownership: FoHVOS (100%)

Year(s) Purchased: 2003

Location & Access: Preserve is located on the west side of Carter Road. 0.4 miles from Elm Ridge Road. Parking access along road shoulder. CAUTION: Steady traffic and steep embankment makes access very difficult. **Nearest street address:** 311 Carter Road, Princeton, NJ 08540.

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:

Perkins Preserve is an entirely forested parcel near the Township's eastern border. Planted white pine line the roadway, while a mix of hardwoods comprise the forest.

BROAD PROPERTY DESCRIPTION

The Perkins Preserve (see Map 1) is located in east central Hopewell Township. The preserve is bounded by forest, farmland, and residential development. The topography (see Map 3) is relatively flat, at about 200 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. Land Use/Land Cover is summarized in Appendix X and illustrated in Map 6.

The forest cover at the Preserve consists primarily of red maple with very sparse shrub cover. Herbaceous species cover is relatively high (primarily grasses including Japanese stiltgrass, wood reed and rushes & sedges). The Preserve should be considered a wetland.

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

The preserve has one soil type (see Map 5) -- Reaville silt loam, 2 to 6 percent slopes. The preserve's soils are described in Appendix Y.

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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 at 25-50%. See Appendix A for a description of ranking factors.

Forest and Woodland Communities: The preserve is located west of the Rocky Hill large forest patch. It is separated from the patch by roads and development.

The forest patch found on the Preserve is too small and fragmented to provide significant habitat. 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.

Old forest: None. See Map 2.

Early Successional Communities:

Shrublands: N/A

Meadows/Grasslands: N/A

Waterbodies: N/A

Rare Species:

Rare Plants: None documented on the Preserve. Natural Heritage grid data shows no species.

Rare Animals: The Landscape Project has identified the Preserve as ranked for species of State Endangered, Threatened, and Special Concern Species.

THREATS

Deer: The preserve serves as habitat for ‘pocket deer’.

Invasive species: In 2008 staff began walk-through surveys for emerging invasive species on all preserves. Mapping documented each species and its population size. No species were detected. See www.njisst.org 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 only species detected was Japanese stiltgrass.

Other: N/A

STRATEGIES and ACTIONS

Forest and Woodland Habitat Stewardship: Bi-annual surveys for and eradication of emerging invasive species is the highest priority at this Preserve.

No action is recommended for widespread invasive species. Reduced deer density will allow the native plant communities to recover and compete with the widespread invasive species on a long-term basis.

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Early Successional Habitat Stewardship: N/A

Deer Management: The preserve is not enrolled in the DMP. It falls completely within the 450' but only partially into 150' safety zones. In the future, we will seek written permission to allow bow hunting. See Map 8 for delineations of the 150' and 450' safety zones and hunting status. The presence of a deer stand along the Preserve boundary suggests hunting by neighboring land owners.

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 is too small to merit a trail. Currently, there are no opportunities to connect to a regional trail system—none yet exist.

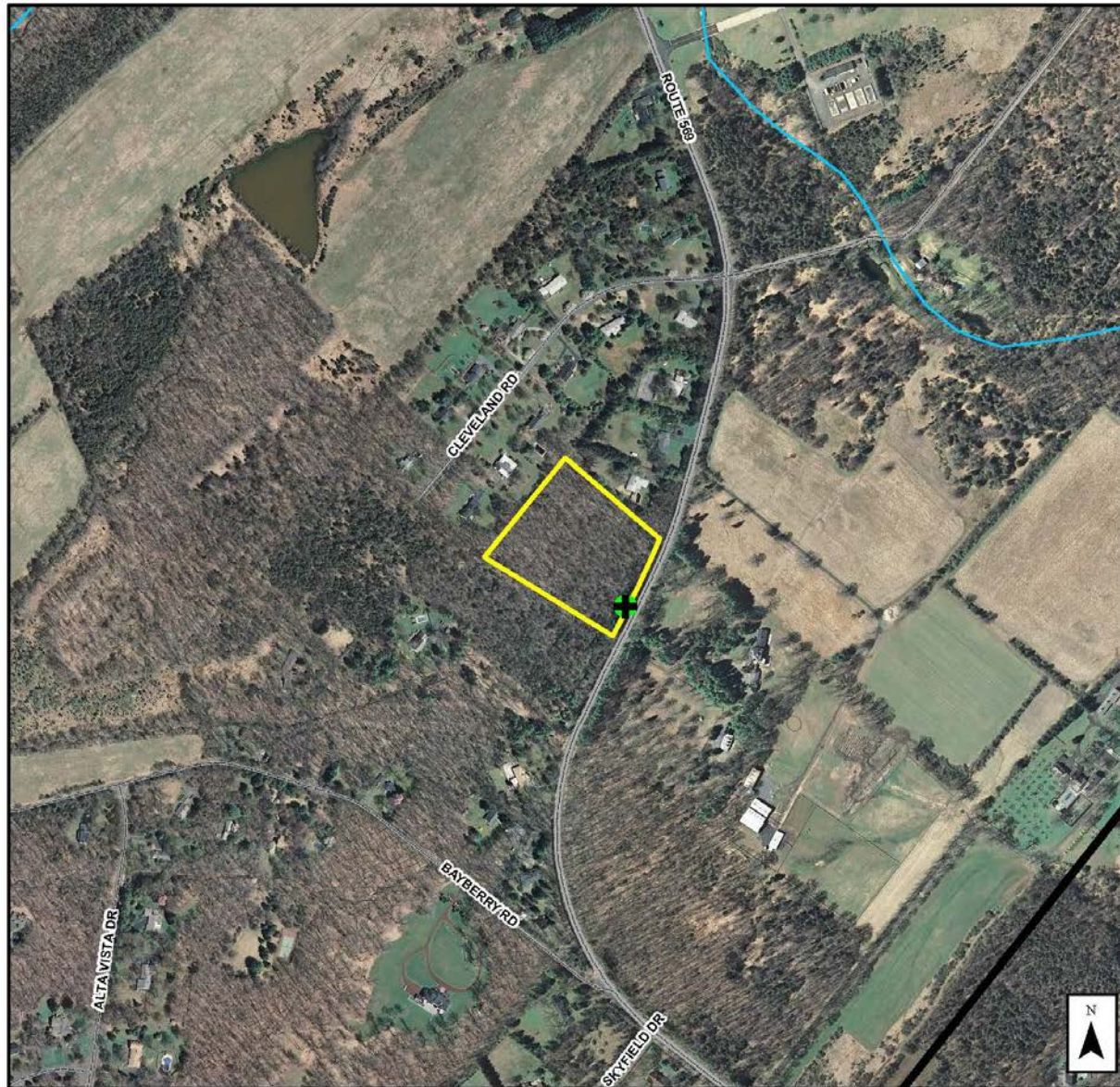
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Table 1. Invasive Plants – Species Abundance and Treatment Recommendations

Scientific Name	Common Name	Infestation Index Score ¹	Total Acres Present	Percent of Preserve Area Present	Treatment Recommendation	LOE Estimate (Hours)	Acreage by Percent Ground Cover Categories						
							Category 0: 0%	Category: Trace	Category 1: 1-10%	Category 2: 10-25%	Category 3: 25-50%	Category 4: 50-75%	Category 5: 75-100%
<i>Acer palmatum</i>	Japanese Maple	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Acer platanoides</i>	Norway Maple	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.00	0.0	0.00	0.0
<i>Ailanthus altissima</i>	Tree-of-Heaven	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Alliaria petiolata</i>	Garlic Mustard	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Artemisia vulgaris</i>	Common Mugwort	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Arthraxon hispidus</i>	Small Carpgrass	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Berberis thunbergii</i>	Japanese Barberry	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Cardamine impatiens</i>	Narrow-leaved Bittercress	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Catalpa bignonioides</i>	Northern Catalpa	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Celastrus orbiculatus</i>	Asiatic Bittersweet	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.00	0.0	0.0
<i>Centurea sp.</i>	Knapsweed sp.	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Cirsium arvense</i>	Canada Thistle	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Dipsacus sylvestris</i>	Teasel	0.0	0.0	0.0	N/A		4.99	0.0	0.00	0.0	0.0	0.0	0.0
<i>Eleagnus umbellata</i>	Autumn Olive	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Euonymus alata</i>	Winged Burning Bush	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.00
<i>Iris pseudoacris</i>	Yellow Iris	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Lespedeza cuneata</i>	Chinese Bushclover	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Ligustrum obtusifolium</i>	Border Privet	0.0	5.0	100.0	None		0.00	5.0	0.00	0.0	0.0	0.0	0.0
<i>Lonicera japonica</i>	Japanese Honeysuckle	0.0	5.0	100.0	None		0.00	5.0	0.0	0.0	0.0	0.0	0.0
<i>Lonicera maackii</i>	Amur Honeysuckle	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Lonicera morrowii</i>	Morrow's Honeysuckle	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.00	0.0	0.0
<i>Lysimachia nummularia</i>	Moneywort	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Lythrum salicaria</i>	Purple Loosestrife	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Malus toringo</i>	Toringo Crabapple	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Microstegium vimineum</i>	Japanese Stiltgrass	25.0	5.0	100.0	None		0.00	0.0	0.0	0.0	0.0	0.0	5.0
N/A	Non-native, cool season grass	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Phalaris arundinacea</i>	Reed Canary Grass	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Phragmites australis</i>	Common Reed	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Polygonum cuspidatum</i>	Japanese Knotweed	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Polygonum perforatum</i>	Mile-a-Minute	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Pyrus calleryana</i>	Callery Pear	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Ranunculus ficaria</i>	Lesser Celandine	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Robinia pseudoacacia</i>	Black Locust	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Rosa multiflora</i>	Multifloral Rose	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Rubus phoenicolasius</i>	Wineberry	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Securigera varia</i>	Crown vetch	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Viburnum dilatatum</i>	Linden Viburnum	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Viburnum sieboldii</i>	Siebold's Viburnum	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
<i>Wisteria floribunda</i>	Japanese Wisteria	0.0	0.0	0.0	N/A		4.99	0.0	0.0	0.0	0.0	0.0	0.0
Total LOE						0							

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.

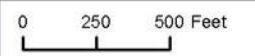
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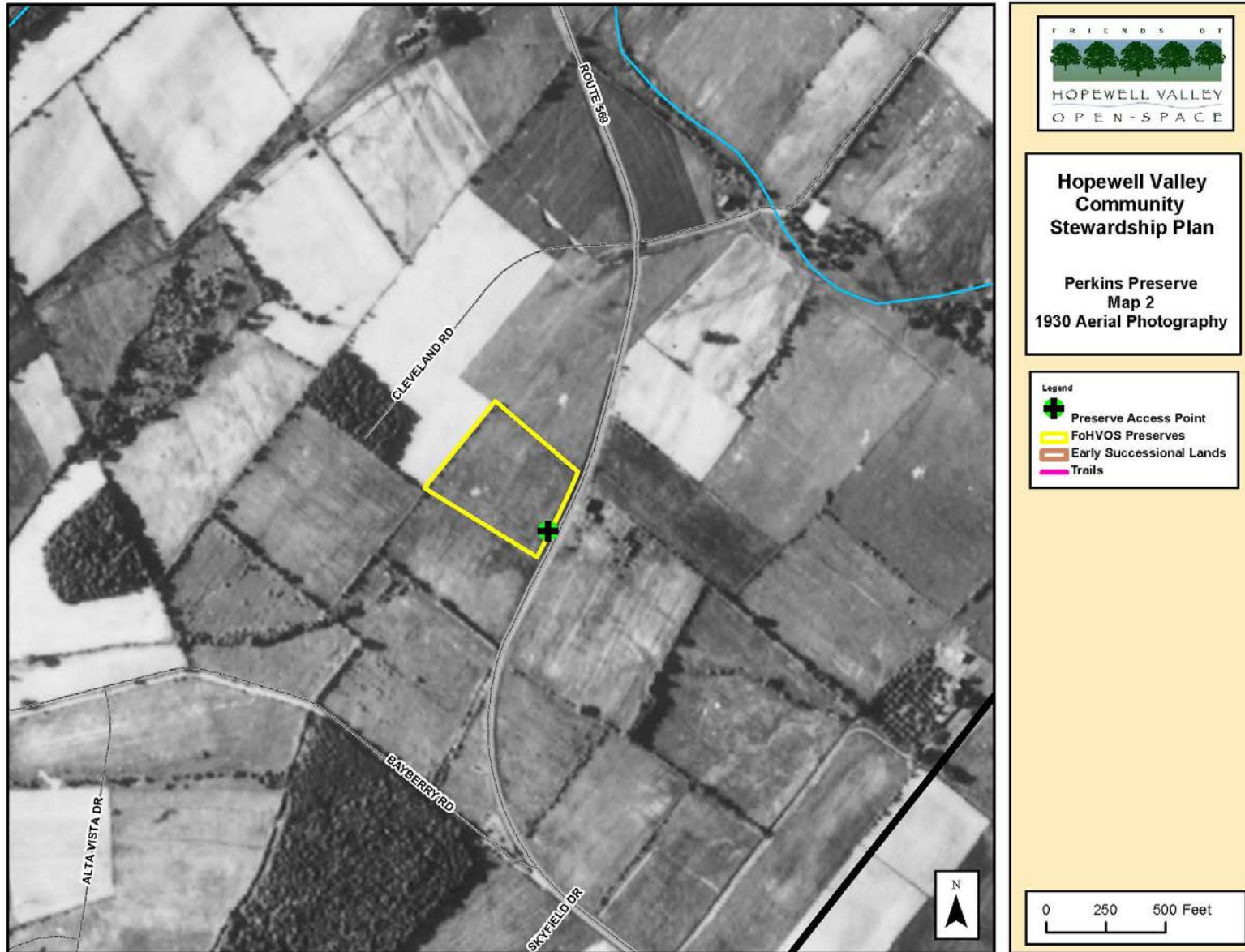
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Perkins Preserve
Map 1
2007 Aerial Photography

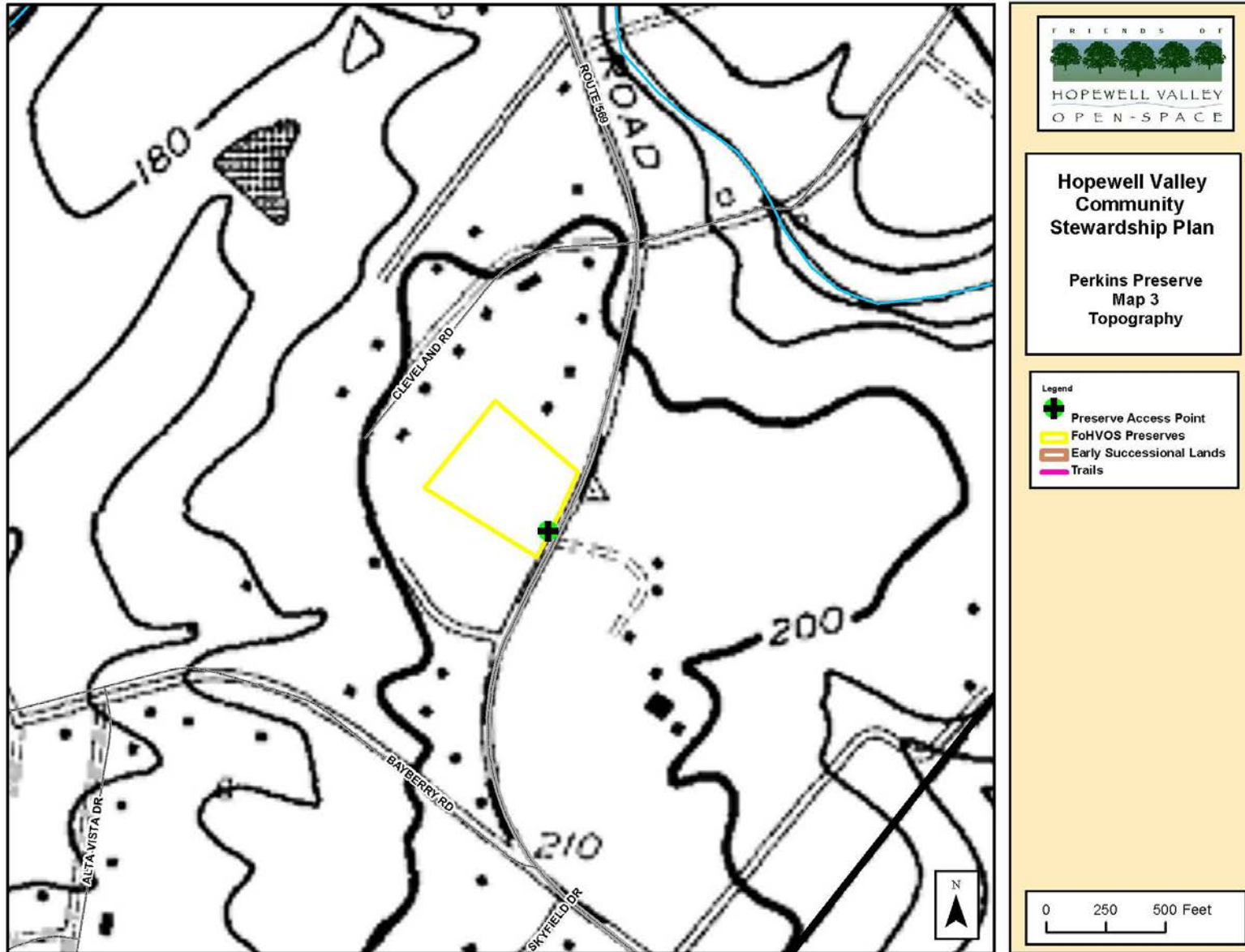
- Legend
- Preserve Access Point
 - FoHVOS Preserves
 - Early Successional Lands
 - Trails



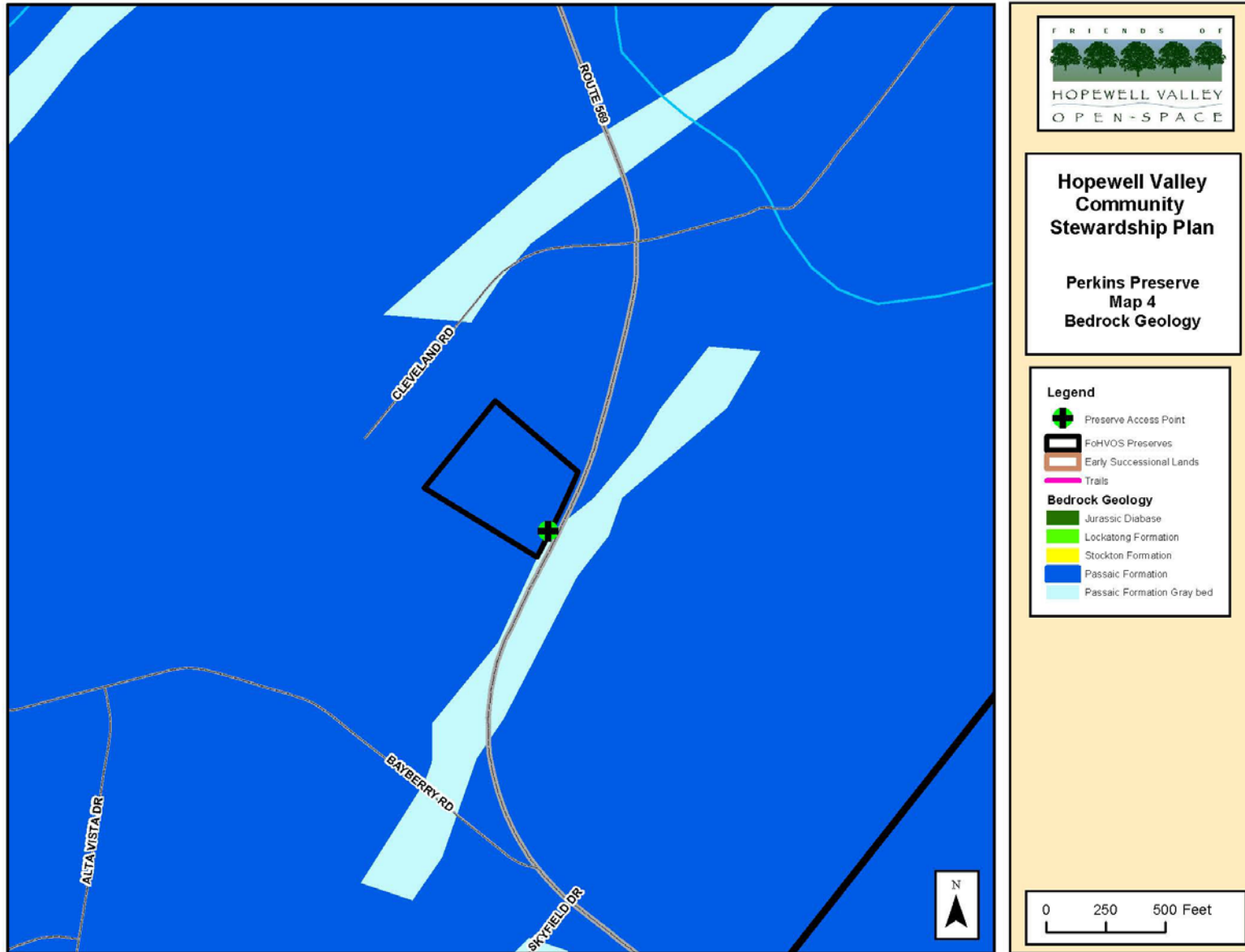
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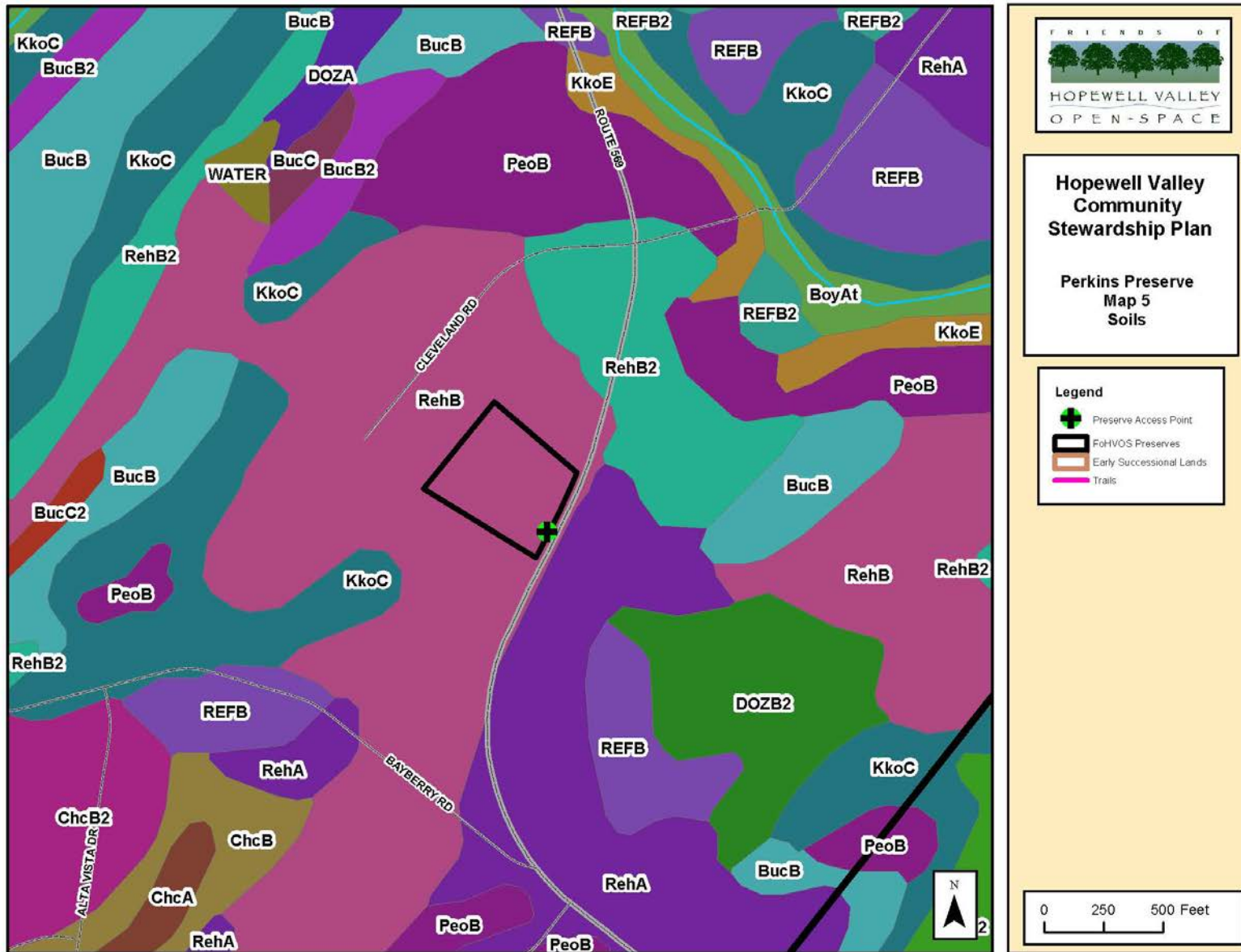
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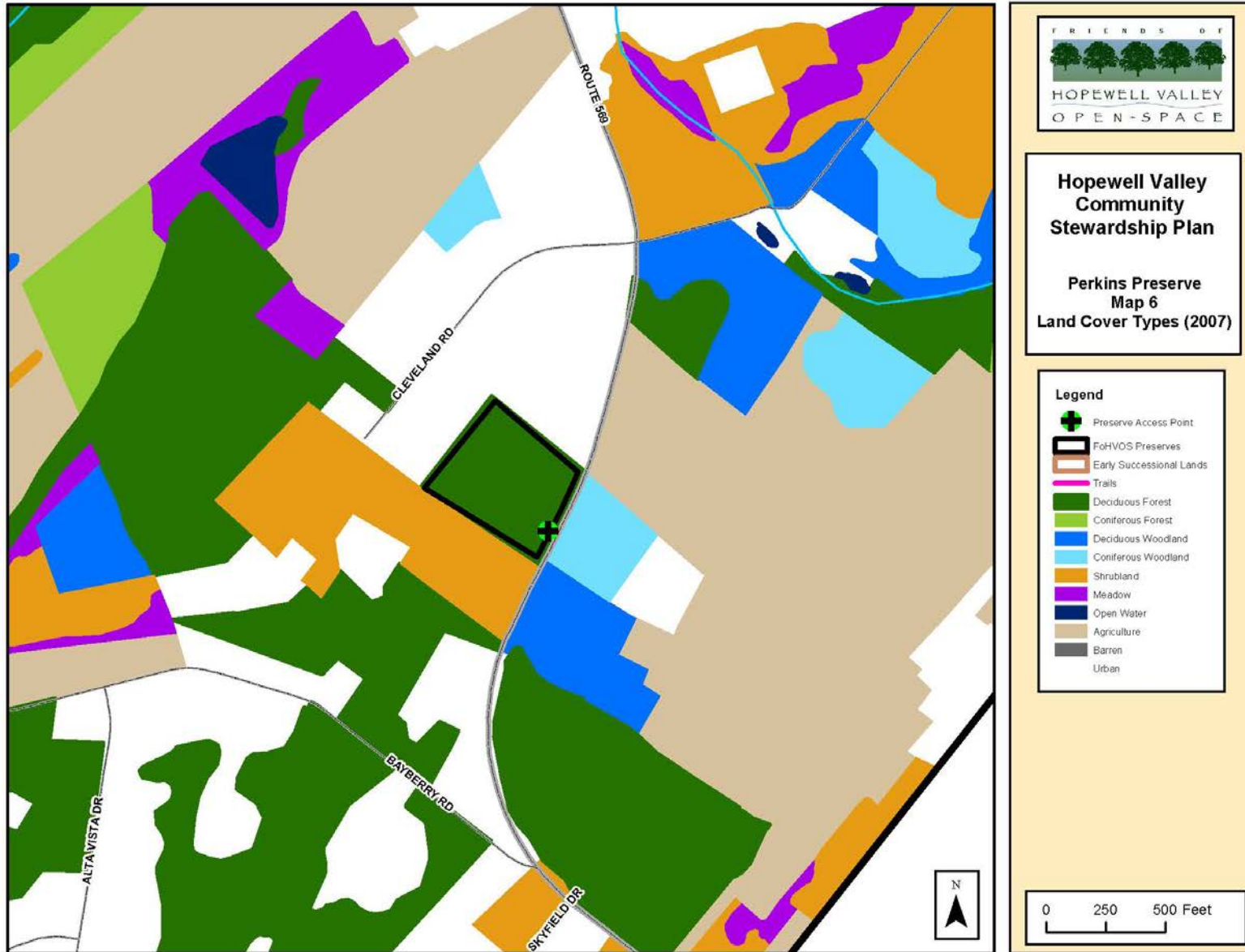
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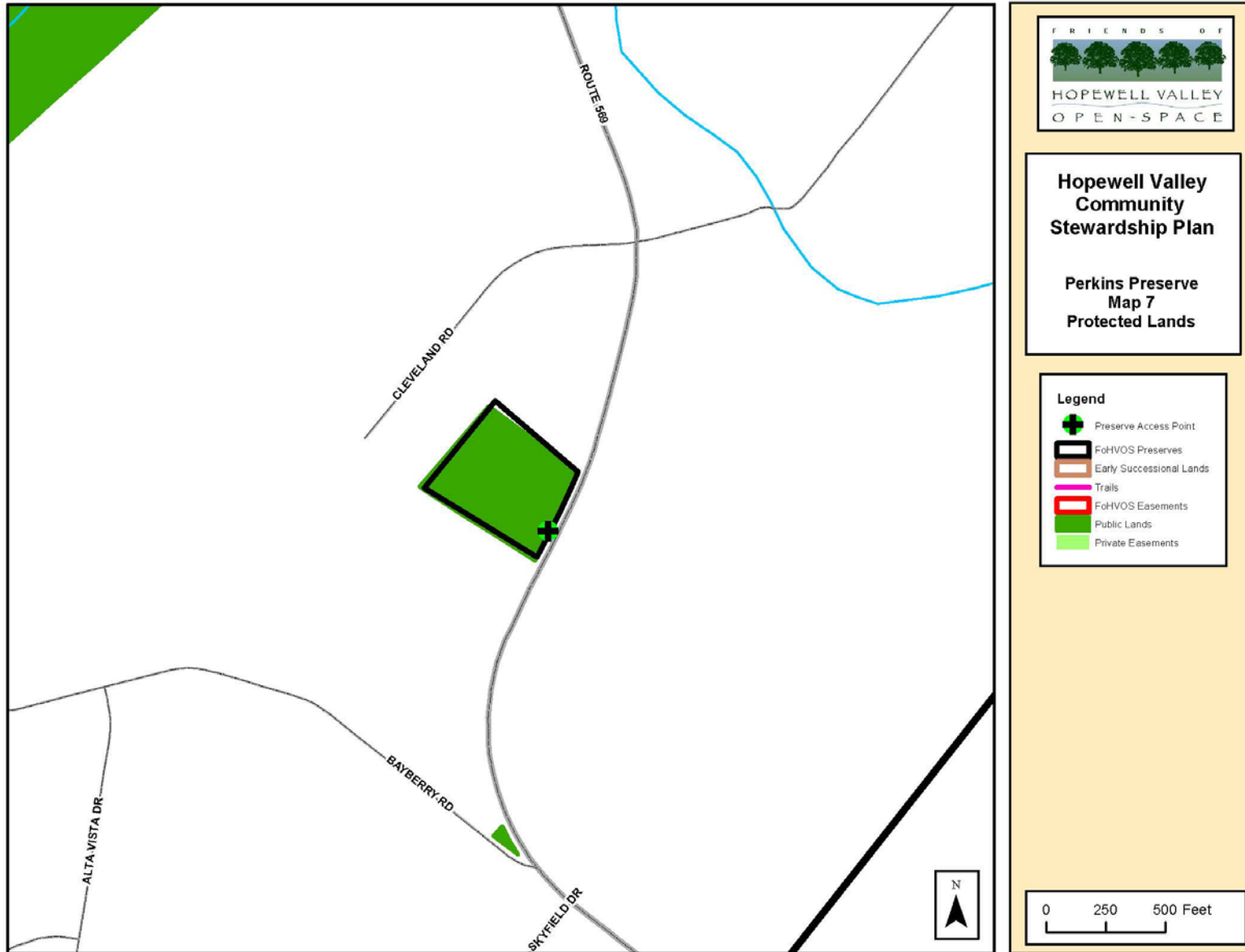
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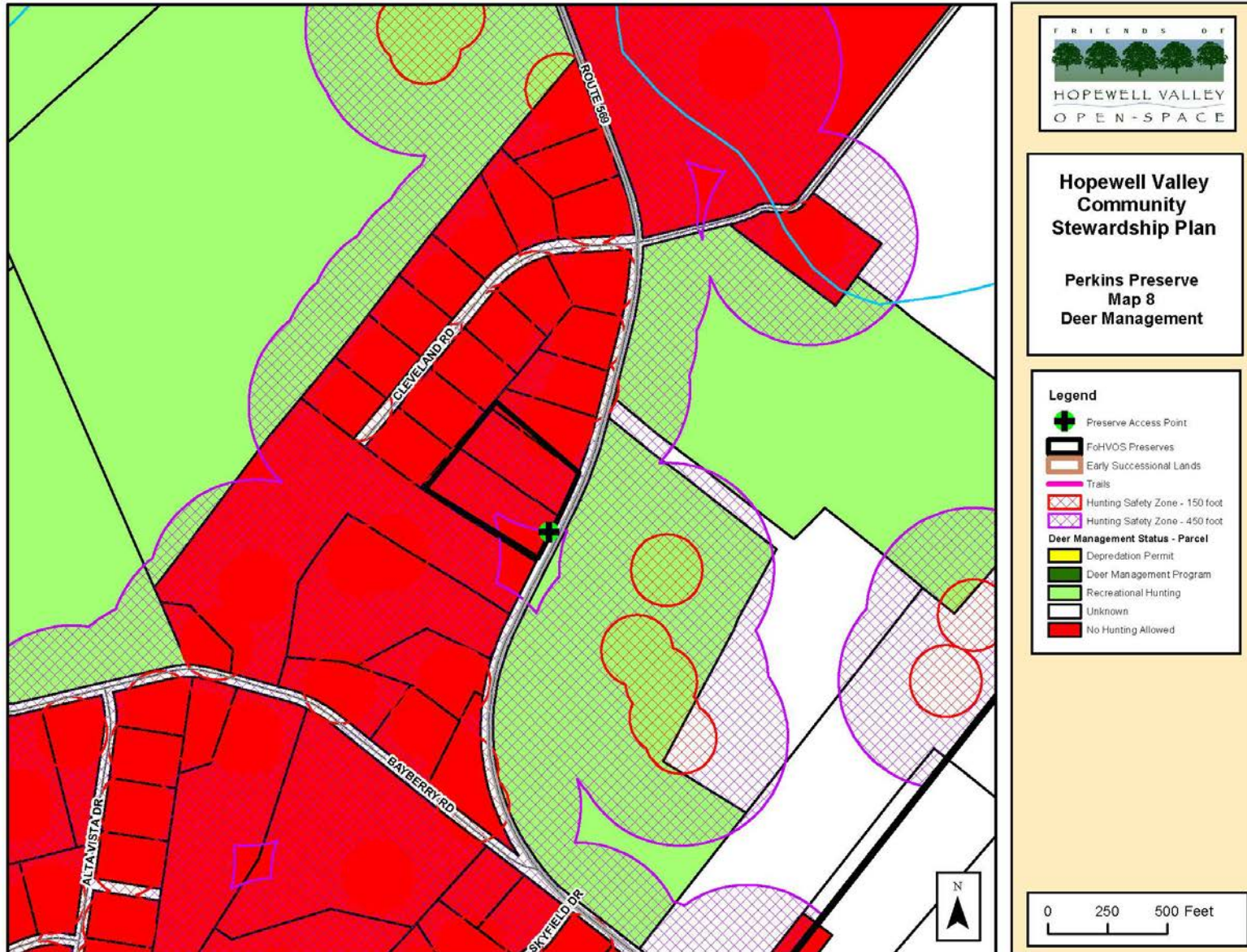
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