

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

**Appendix 26.  
Weidel Preserve**

**Acreage:** 1.6

**Block and Lot:** B65, L87, 96, & 97

**Ownership:** FoHVOS (100%)

**Year(s) Purchased:** 2001

**Location & Access:** Preserve is located on the west side of Route 31. Parking access along road shoulder. CAUTION: Steady highway traffic makes access very difficult. Nearest street address: 20 Route 31 North, Pennington, NJ 08534.

**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:**

**Weidel Preserve** protects a tract of forest and forested wetlands along a densely developed section of Route 31.

**BROAD PROPERTY DESCRIPTION**

The Weidel Preserve (see Map 1) is located in south central Hopewell Township, just west of Pennington Borough. The preserve is bounded by residential and commercial development, forest, and a major traffic corridor: Route 31. 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 three broad plant communities: Deciduous Forest (> 50% canopy) – Upland, Deciduous Woodland (10-50% canopy) – Upland, and Deciduous Forest (> 50% canopy) - Wetland. Land Use/Land Cover is summarized in Appendix X and illustrated in Map 6.

The Preserve contains young forests comprised of species such as ash, red maple, elm. A small emergent wetland occurs in the center of the Preserve. Roadside edges are heavily degraded by invasive species.

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

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The preserve has three soil types (see Map 5) with Penn channery silt loam, 6 to 12 percent slopes and Bucks silt loam, 2 to 6 percent slopes, eroded being the two most common types. 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 at 25%. See Appendix A for a description of ranking factors.

**Forest and Woodland Communities:** The forest serves to protect a portion of the wetlands that feed into Woolsey Brook. The forest patch found on the Preserve is too small to provide significant habitat.

**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:** None.

**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. Chinese bushclover was detected along the roadside. See [www.njisst.org](http://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 five species with the highest infestation scores include: Autumn Olive, Japanese Honeysuckle, Amur Honeysuckle, Multifloral Rose, and Morrow's Honeysuckle.

**Other:** N/A

**STRATEGIES and ACTIONS**

**Forest and Woodland Habitat Stewardship:** 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.

**Early Successional Habitat Stewardship:** N/A

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**Deer Management:** The preserve is not enrolled in the DMP due to proximity of human development. 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 is too small to merit a trail. In addition, Access is limited—parking is dangerous along heavily traffic Route 31. 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 <sup>1</sup>	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		1.64	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		1.64	0.0	0.0	0.00	0.0	0.00	0.0
<i>Ailanthus altissima</i>	Tree-of-Heaven	0.0	0.1	3.7	None		1.58	0.1	0.0	0.0	0.0	0.0	0.0
<i>Alliaria petiolata</i>	Garlic Mustard	0.0	1.5	91.5	None		0.14	1.5	0.0	0.0	0.0	0.0	0.0
<i>Artemisia vulgaris</i>	Common Mugwort	0.0	0.0	0.0	N/A		1.64	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		1.64	0.0	0.0	0.0	0.0	0.0	0.0
<i>Berberis thunbergii</i>	Japanese Barberry	0.0	1.5	91.5	None		0.14	1.5	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		1.64	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		1.64	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		1.64	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		1.64	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		1.64	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		1.64	0.0	0.00	0.0	0.0	0.0	0.0
<i>Eleagnus umbellata</i>	Autumn Olive	3.0	1.5	91.5	None		0.14	0.0	0.0	1.5	0.0	0.0	0.0
<i>Euonymus alata</i>	Winged Burning Bush	0.0	0.0	0.0	N/A		1.64	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		1.64	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		1.64	0.0	0.0	0.0	0.0	0.0	0.0
<i>Ligustrum obtusifolium</i>	Border Privet	0.0	0.0	0.0	N/A		1.64	0.0	0.00	0.0	0.0	0.0	0.0
<i>Lonicera japonica</i>	Japanese Honeysuckle	3.0	1.5	91.5	None		0.14	0.0	0.0	1.5	0.0	0.0	0.0
<i>Lonicera maackii</i>	Amur Honeysuckle	3.0	1.5	91.5	None		0.14	0.0	0.0	1.5	0.0	0.0	0.0
<i>Lonicera morrowii</i>	Morrow's Honeysuckle	1.5	1.5	91.5	None		0.14	0.0	1.5	0.0	0.00	0.0	0.0
<i>Lysimachia nummularia</i>	Moneywort	0.0	0.0	0.0	N/A		1.64	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		1.64	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		1.64	0.0	0.0	0.0	0.0	0.0	0.0
<i>Microstegium vimineum</i>	Japanese Stiltgrass	0.0	0.0	0.0	N/A		1.64	0.0	0.0	0.0	0.0	0.0	0.0
N/A	Non-native, cool season grass	0.0	0.0	0.0	N/A		1.64	0.0	0.0	0.0	0.0	0.0	0.0
<i>Phalaris arundinacea</i>	Reed Canary Grass	0.1	0.1	7.9	None		1.51	0.0	0.1	0.0	0.0	0.0	0.0
<i>Phragmites australis</i>	Common Reed	0.0	0.0	0.0	N/A		1.64	0.0	0.0	0.0	0.0	0.0	0.0
<i>Polygonum cuspidatum</i>	Japanese Knotweed	1.5	1.5	91.5	None		0.14	0.0	1.5	0.0	0.0	0.0	0.0
<i>Polygonum perforatum</i>	Mile-a-Minute	0.0	0.0	0.0	N/A		1.64	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		1.64	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		1.64	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		1.64	0.0	0.0	0.0	0.0	0.0	0.0
<i>Rosa multiflora</i>	Multiflora Rose	3.0	1.5	91.5	None		0.14	0.0	0.0	1.5	0.0	0.0	0.0
<i>Rubus phoenicolasius</i>	Wineberry	0.0	1.5	91.5	None		0.14	1.5	0.0	0.0	0.0	0.0	0.0
<i>Securigera varia</i>	Crown vetch	0.0	0.0	0.0	N/A		1.64	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		1.64	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		1.64	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		1.64	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total LOE</b>						<b>0</b>							

<sup>1</sup> 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.

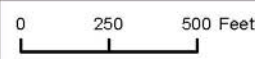
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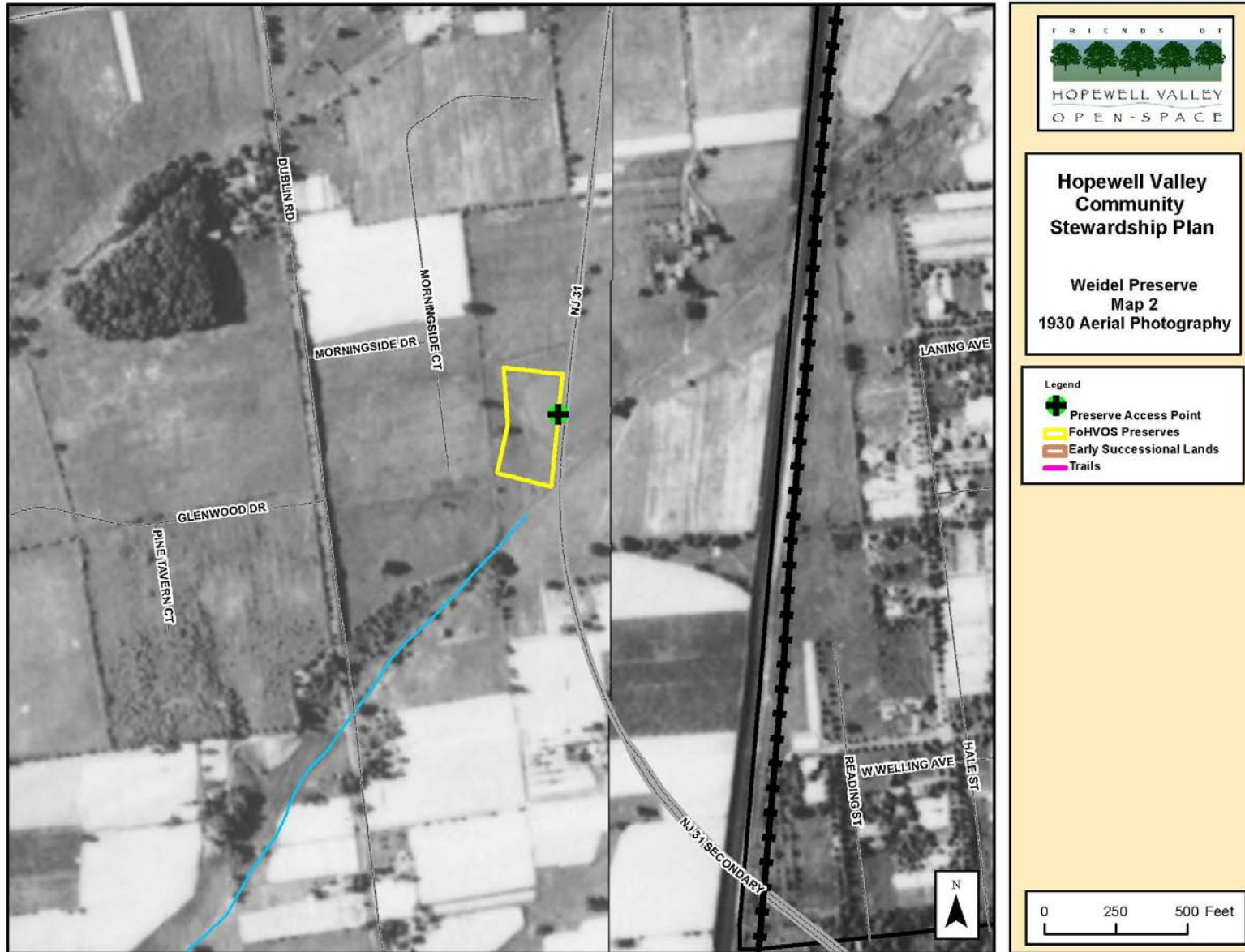
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Weidel Preserve  
Map 1  
2007 Aerial Photography

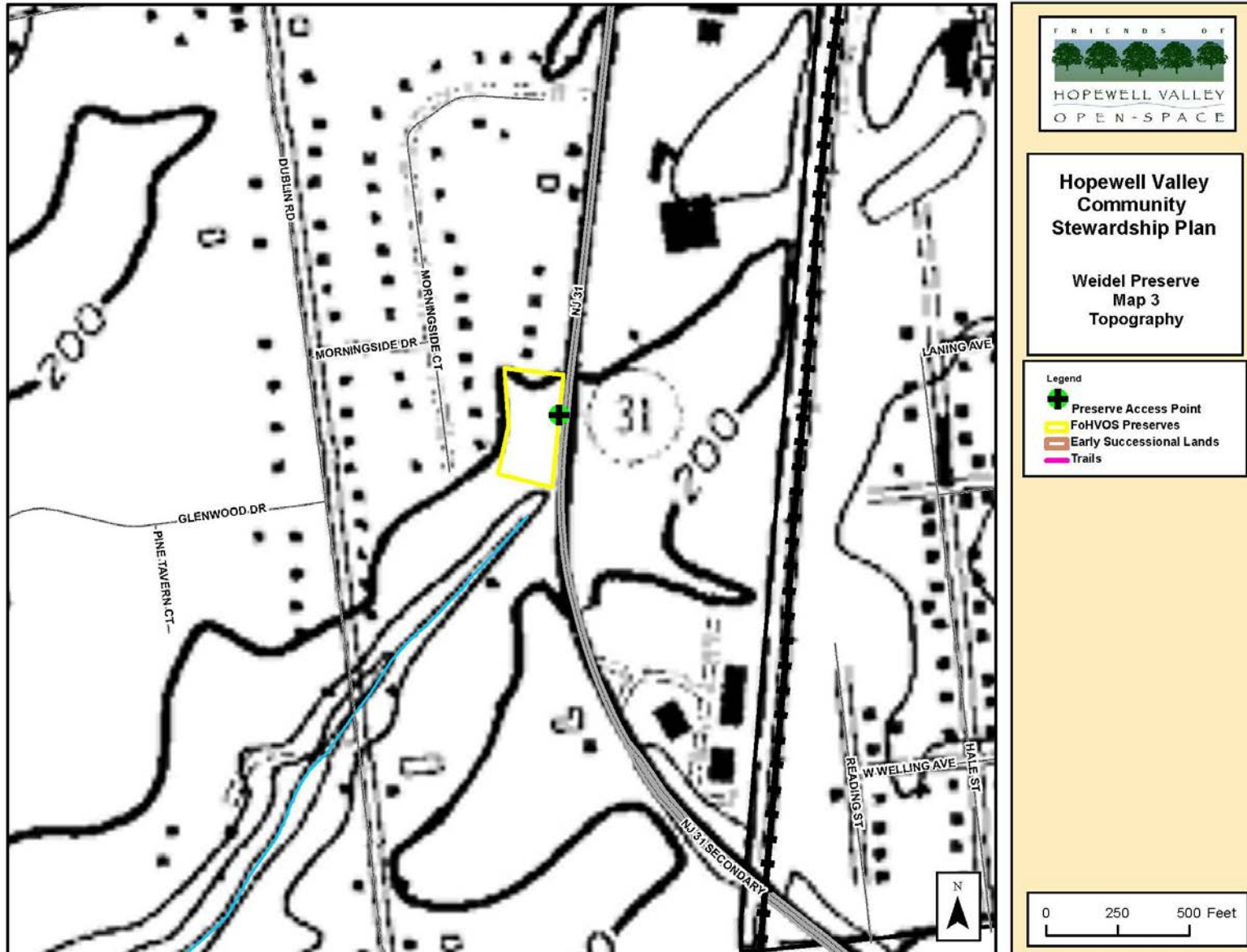
- Legend
- Preserve Access Point
  - FoHVOS Preserves
  - Early Successional Lands
  - Trails



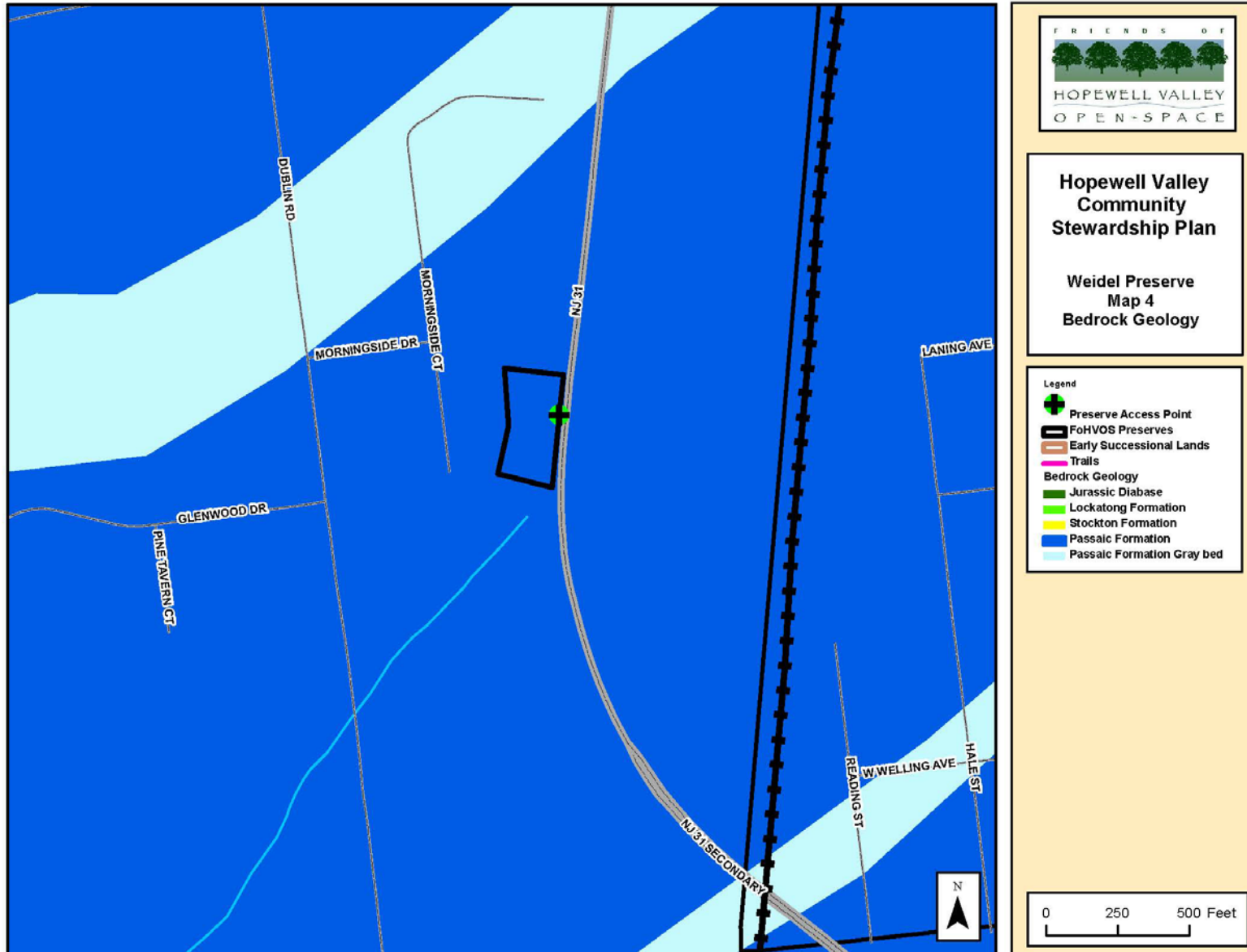
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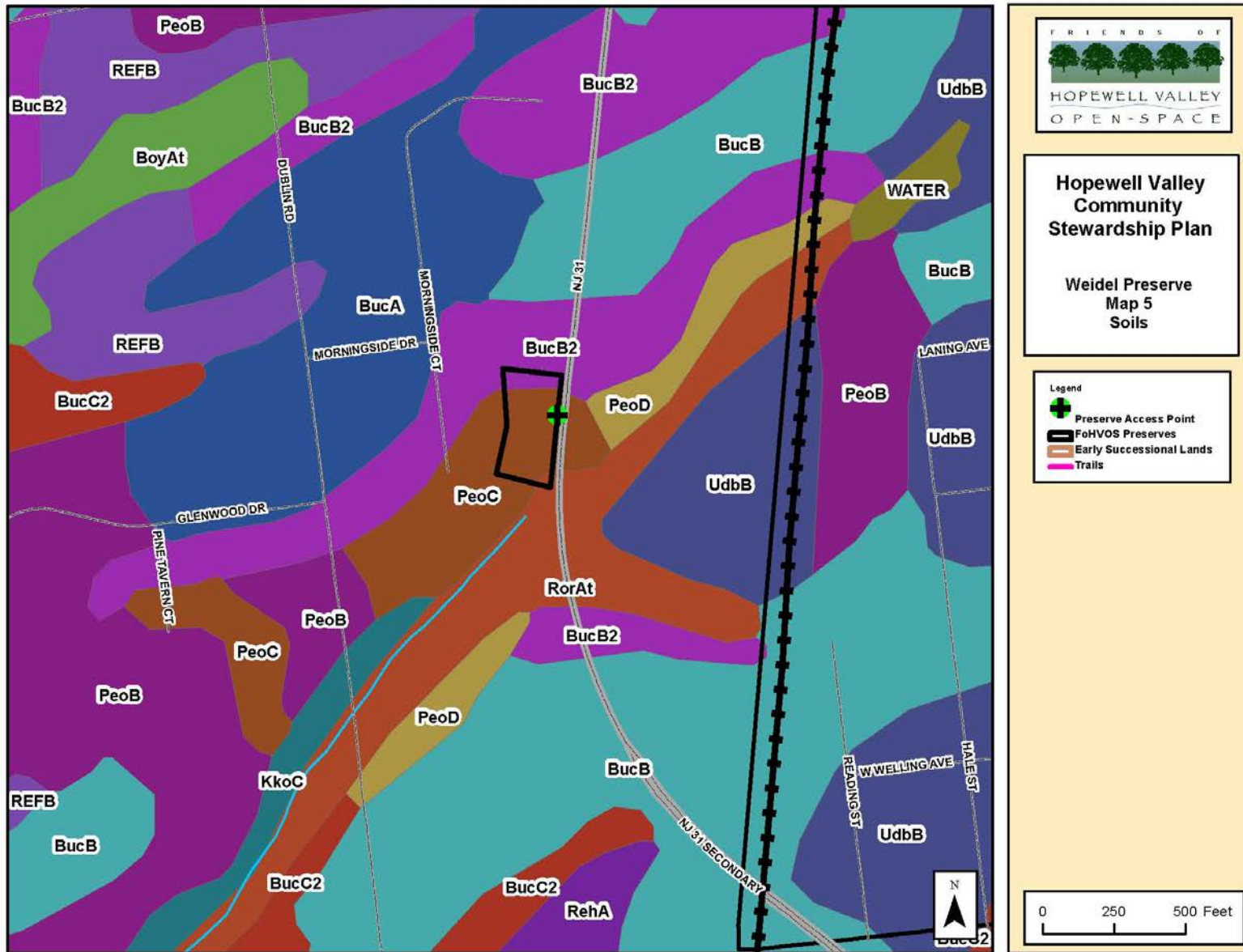


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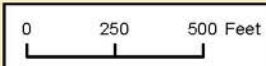
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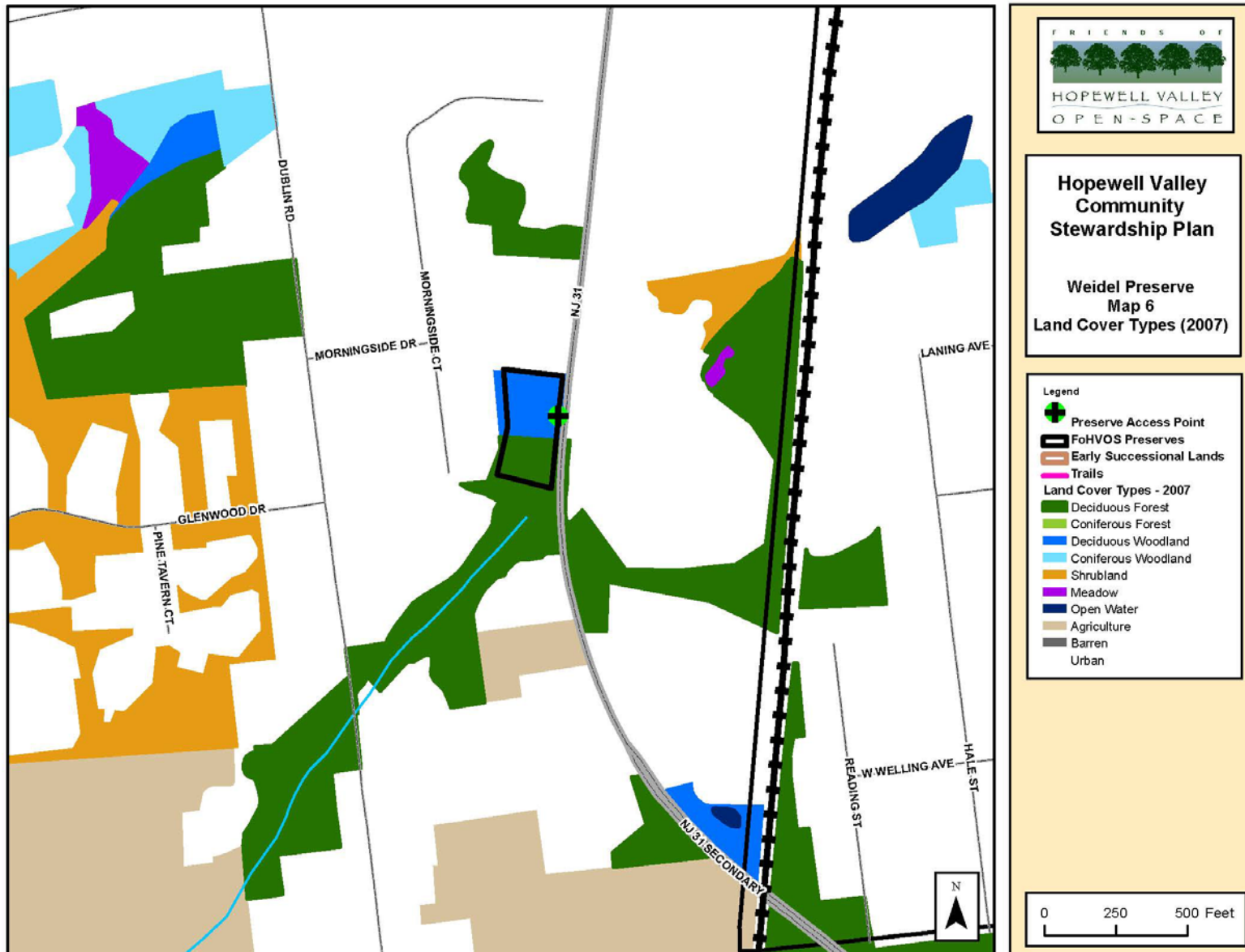
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**Weidel Preserve  
 Map 5  
 Soils**

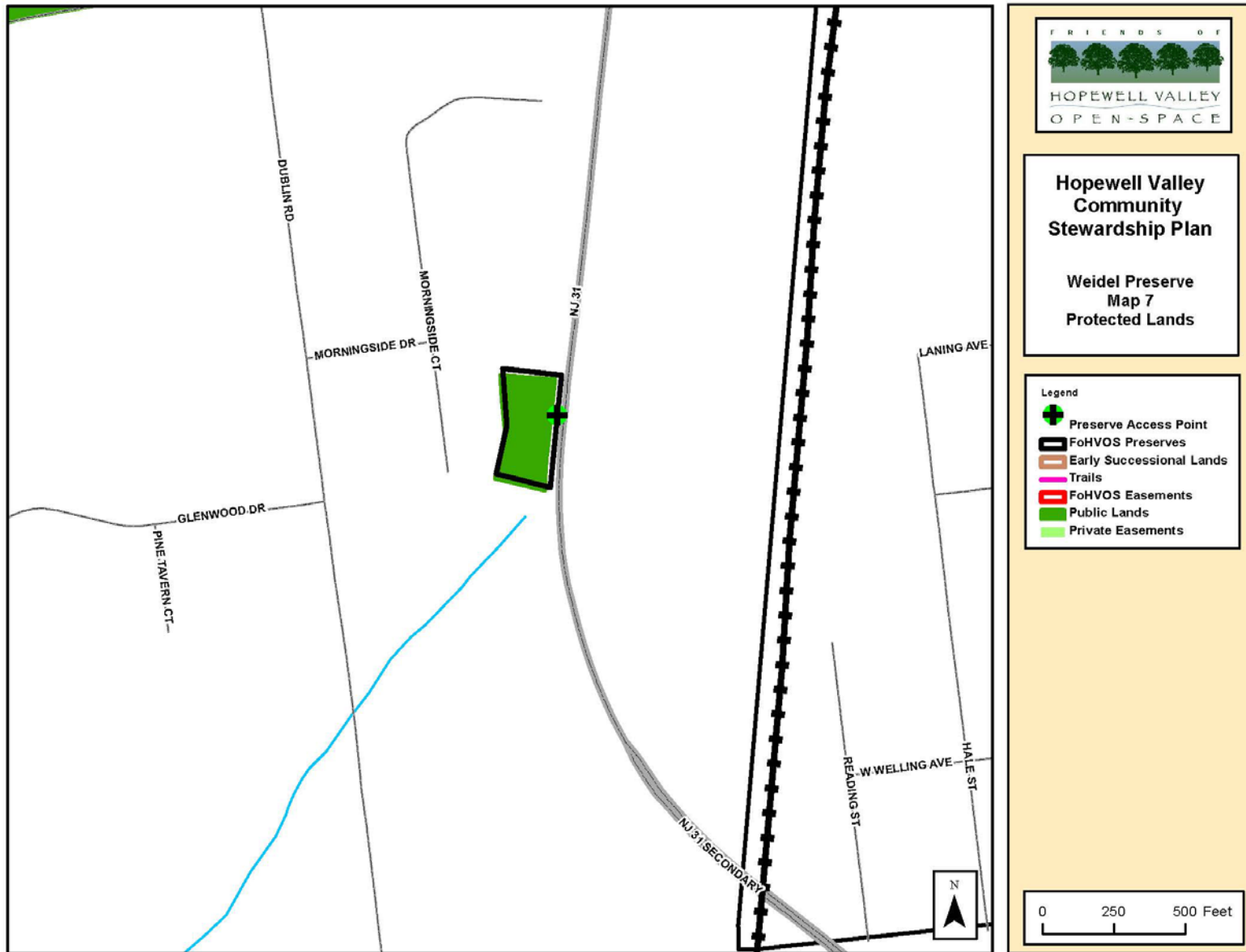
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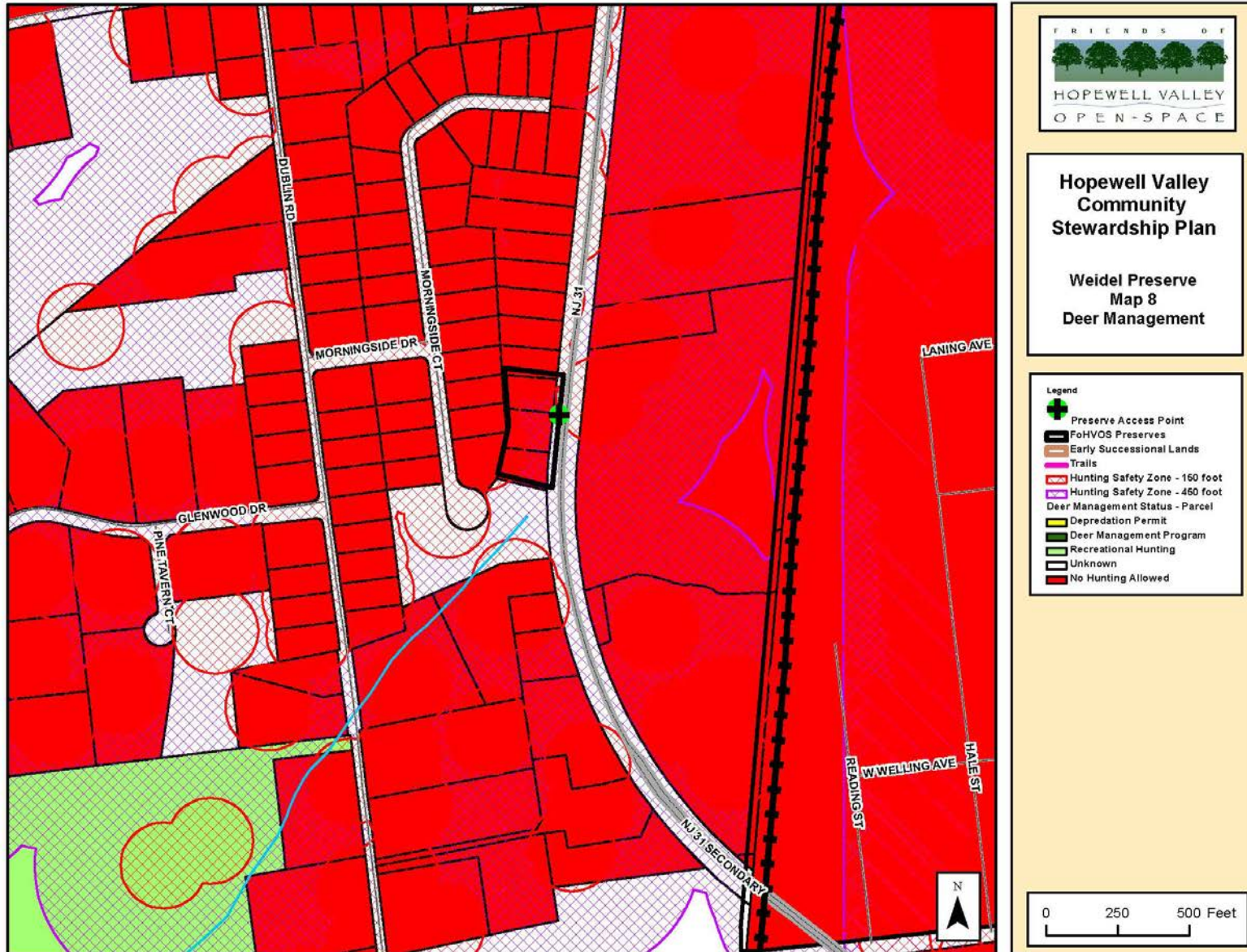
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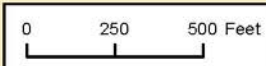
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**Weidel Preserve  
 Map 8  
 Deer Management**

- Legend**
- Preserve Access Point
  - FoHVOS Preserves
  - Early Successional Lands
  - Trails
  - Hunting Safety Zone - 160 foot
  - Hunting Safety Zone - 460 foot
  - Deer Management Status - Parcel
  - Depredation Permit
  - Deer Management Program
  - Recreational Hunting
  - Unknown
  - No Hunting Allowed



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