

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

**Appendix 8.
Gomez Preserve**

Acreage: 58.598

Block and Lot: B28, L3.01, 11

Ownership: FoHVOS (80%) and Hopewell Township (20%)

Year(s) Purchased: 2008

Location & Access: Preserve is located on the southwestern corner of Route 579 and Route 518. Preserve access on unimproved access road along Route 579 (across from Lynnbrook Drive). Four wheel drive is recommended. Parking also available along the shoulder of Lynnbrook Drive. Nearest street address: 1585 Harbourton-Rocktown Road, Lambertville.

Structures: Several stone structures of potential historical importance are located in the eastern portion of the Preserve.

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:

Gomez Preserve is a patchwork of meadows, open woodlands, red cedar thickets, and a spruce/fir plantation. The former owner maintained a narrow airstrip which is still visible along Route 518.

BROAD PROPERTY DESCRIPTION

The Gomez Preserve (see Map 1) is located at the north-central section of the township. The topography (see Map 3) is primarily flat at 110 feet above sea level. The Preserve is surrounded by residential development, agricultural lands and forest. Single home dwellings and commercial development are scattered along Routes 579 and 518.

Based upon analysis of NJDEP's 2007 Land Use/Land Cover dataset, the preserve contains broad plant communities: Deciduous Forest (> 50% canopy) - Upland, Coniferous Woodland (10-50% canopy) - Upland, Shrubland (< 10% canopy, > 25% shrub cover) - Upland, Agricultural Lands, and Urban Lands. Land Use/Land Cover is summarized in Appendix X.

The preserve was historically used for agriculture and the current native plant communities reflect this alteration in the soils. Ash, red cedar, and white snakeroot are among the most common native species. An abandoned Christmas tree plantation exists behind the Gomez easement.

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

The preserve has 6 soil types (see Map 5) with Chalfont silt loam, 2 to 6 percent slopes; Quakertown silt loam, 2 to 6 percent slopes; and Quakertown channery silt loam, 2 to 6 percent slopes being the three most common types. The preserve's soils are described in Appendix Y.

CONSERVATION VALUES

Based on Natural Heritage data, ENSP data, Landscape Project, 1930s forest presence/absence et al. the Preserve has the highest weighted Ecological Value at >75%. See Appendix A for a description of ranking factors.

Forest and Woodland Communities: 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. Native species cover consists of oaks, red maple, ash and red cedar. Invasive species infestations are intense throughout the forest.

Old forest: None. See Map 2.

Early Successional Communities:

Shrublands: This community type is primarily composed of non-native species such as multiflora rose and autumn olive. The upland soils disturbed by past agricultural use do not contain a diversity of native shrubs.

Meadows/Grasslands: In previous years, Fields 27-29 had been maintained as lawn by a neighbor. The neighbor has altered their mowing schedule and now mows during the winter, which has led to increases in native grasses and herbs.

While diversity of native species is low (Indian grass, grease grass, beardtongue, field aster, and goldenrods), percent cover is high for particular species such as Indian grass). Additionally, the cover of invasive woody species is predominantly very low in all fields at the Preserve.

Waterbodies: None.

Rare Species:

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

Rare Animals: The Preserve is identified as habitat for State Special Concern species. See Appendix L for a list of species.

THREATS

Deer: White-tailed deer have suppressed much of the native community, leaving only canopy trees and an extremely sparse native herb and shrub layer. Soils have been altered by past agricultural use. Forest health monitoring was performed in 2007/2008 (See main plan, Table 9).

Invasive species: In 2008 staff began walk-through surveys for emerging invasive species on all preserves. Mapping documented each species and its population size. Japanese wisteria (near buildings/foundations), Chinese bushclover, and Chinese silvergrass were detected. See www.njisst.org for the current status of emerging invasive species at the Preserve.

Hopewell Valley Community Stewardship Plan
Friends of Hopewell Valley Open Space

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: Japanese Stiltgrass, Multifloral Rose, Japanese Honeysuckle, Autumn Olive, and Non-native, cool season grass.

Other: N/A

STRATEGIES and ACTIONS:

Forest and Woodland Habitat Stewardship:

Surveys for and eradication of emerging invasive species are a high priority. Treatment of wisteria should begin with basal bark treatments of vines climbing trees and subsequent follow up with foliar spray.

No action is recommended for widespread invasive species, except for Asiatic bittersweet. All fruiting vines 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 the widespread invasive species.

Early Successional Habitat Stewardship:

A biannual winter mowing or burning regime is recommended in all meadows. Eradicate Chinese bushclover and Chinese silvergrass in Field 32. Additional species of concern include autumn olive, Siebold's crabapple, common mugwort, multifloral rose and Wineberry (See Table 1 below).

For habitat goals and maintenance schedule see Appendix T & U.

Deer Management: The preserve is not currently enrolled in the DMP. Hopewell Township is planning to incorporate the Preserve in their DMP beginning in fall 2012. See Map 8 for delineations of the 150' and 450' safety zones and hunting status.

Rare Species Management: Maintain matrix of forest and fields as habitat.

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: This property was considered for a loop trail, but vehicular access is difficult and historic buildings and their remnants must be addressed. Currently, there are no opportunities to connect to a regional trail system—none yet exist.

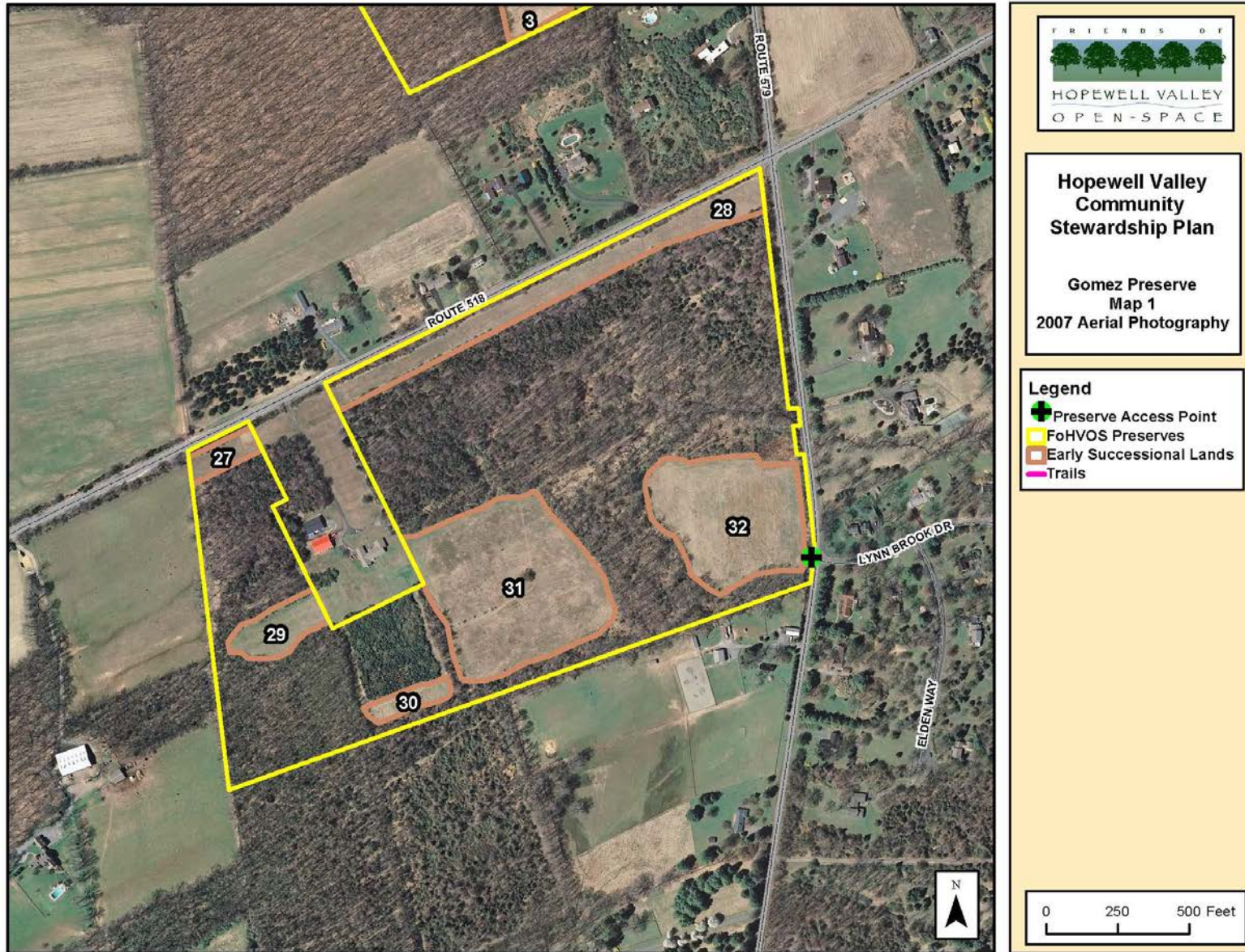
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Friends of Hopewell Valley Open Space**

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		58.47	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		58.47	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		58.47	0.0	0.0	0.0	0.0	0.0	0.0
<i>Alliaria petiolata</i>	Garlic Mustard	7.7	7.7	13.1	None		50.81	0.0	7.7	0.0	0.0	0.0	0.0
<i>Artemisia vulgaris</i>	Common Mugwort	4.9	4.9	8.3	Control - Field Maintenance	Strategy 3B	53.61	0.0	4.9	0.0	0.0	0.0	0.0
<i>Arthraxon hispidus</i>	Small Carpgrass	8.0	8.0	13.6	None		50.50	0.0	8.0	0.0	0.0	0.0	0.0
<i>Berberis thunbergii</i>	Japanese Barberry	0.0	6.5	11.0	None		52.02	6.5	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		58.47	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		58.47	0.0	0.0	0.0	0.0	0.0	0.0
<i>Celastrus orbiculatus</i>	Asiatic Bittersweet	15.2	13.5	23.1	Control - Treat Fruiting Plants	20	44.96	0.5	10.9	2.1	0.00	0.0	0.0
<i>Centurea sp.</i>	Knapweed sp.	0.0	0.0	0.0	N/A		58.47	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		58.47	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		58.47	0.0	0.00	0.0	0.0	0.0	0.0
<i>Eleagnus umbellata</i>	Autumn Olive	76.0	35.0	59.8	Control - Field Maintenance	Strategy 3B	23.50	6.2	13.4	1.9	1.5	5.5	6.5
<i>Euonymus alata</i>	Winged Burning Bush	0.0	0.0	0.0	N/A		58.47	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		58.47	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		58.47	0.0	0.0	0.0	0.0	0.0	0.0
<i>Ligustrum obtusifolium</i>	Border Privet	2.1	9.6	16.5	None		48.83	7.5	2.10	0.0	0.0	0.0	0.0
<i>Lonicera japonica</i>	Japanese Honeysuckle	78.1	39.2	67.0	None		19.30	6.2	7.0	10.4	11.8	3.7	0.0
<i>Lonicera maackii</i>	Amur Honeysuckle	0.0	0.0	0.0	N/A		58.47	0.0	0.0	0.0	0.0	0.0	0.0
<i>Lonicera morrowii</i>	Morrow's Honeysuckle	29.3	18.4	31.4	None		40.10	6.2	1.4	5.7	3.83	1.3	0.0
<i>Lysimachia nummularia</i>	Moneywort	0.0	0.0	0.0	N/A		58.47	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		58.47	0.0	0.0	0.0	0.0	0.0	0.0
<i>Malus toringo</i>	Toringo Crabapple	0.0	1.6	2.7	Control - Field Maintenance	Strategy 3B	56.90	1.6	0.0	0.0	0.0	0.0	0.0
<i>Microstegium vimineum</i>	Japanese Stiltgrass	144.8	47.7	81.5	None		10.82	0.0	15.3	5.9	3.7	7.3	15.5
N/A	Non-native, cool season grass	49.1	17.1	29.2	None		41.40	0.0	0.5	7.0	3.7	5.9	0.0
<i>Phalaris arundinacea</i>	Reed Canary Grass	0.0	0.0	0.0	N/A		58.47	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		58.47	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		58.47	0.0	0.0	0.0	0.0	0.0	0.0
<i>Polygonum perfoliatum</i>	Mile-a-Minute	0.0	0.0	0.0	N/A		58.47	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		58.47	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		58.47	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		58.47	0.0	0.0	0.0	0.0	0.0	0.0
<i>Rosa multiflora</i>	Multiflora Rose	80.8	42.6	72.8	Control - Field Maintenance	Strategy 3B	15.91	8.9	7.0	10.3	13.9	1.0	1.5
<i>Rubus pheonculus</i>	Wineberry	15.0	12.7	21.8	Control - Field Maintenance	Strategy 3B	45.75	5.1	3.9	0.0	3.7	0.0	0.0
<i>Securigera varia</i>	Crowfoot	0.0	0.0	0.0	N/A		58.47	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		58.47	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		58.47	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		58.47	0.0	0.0	0.0	0.0	0.0	0.0
Total LOE						20							

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.

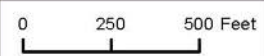
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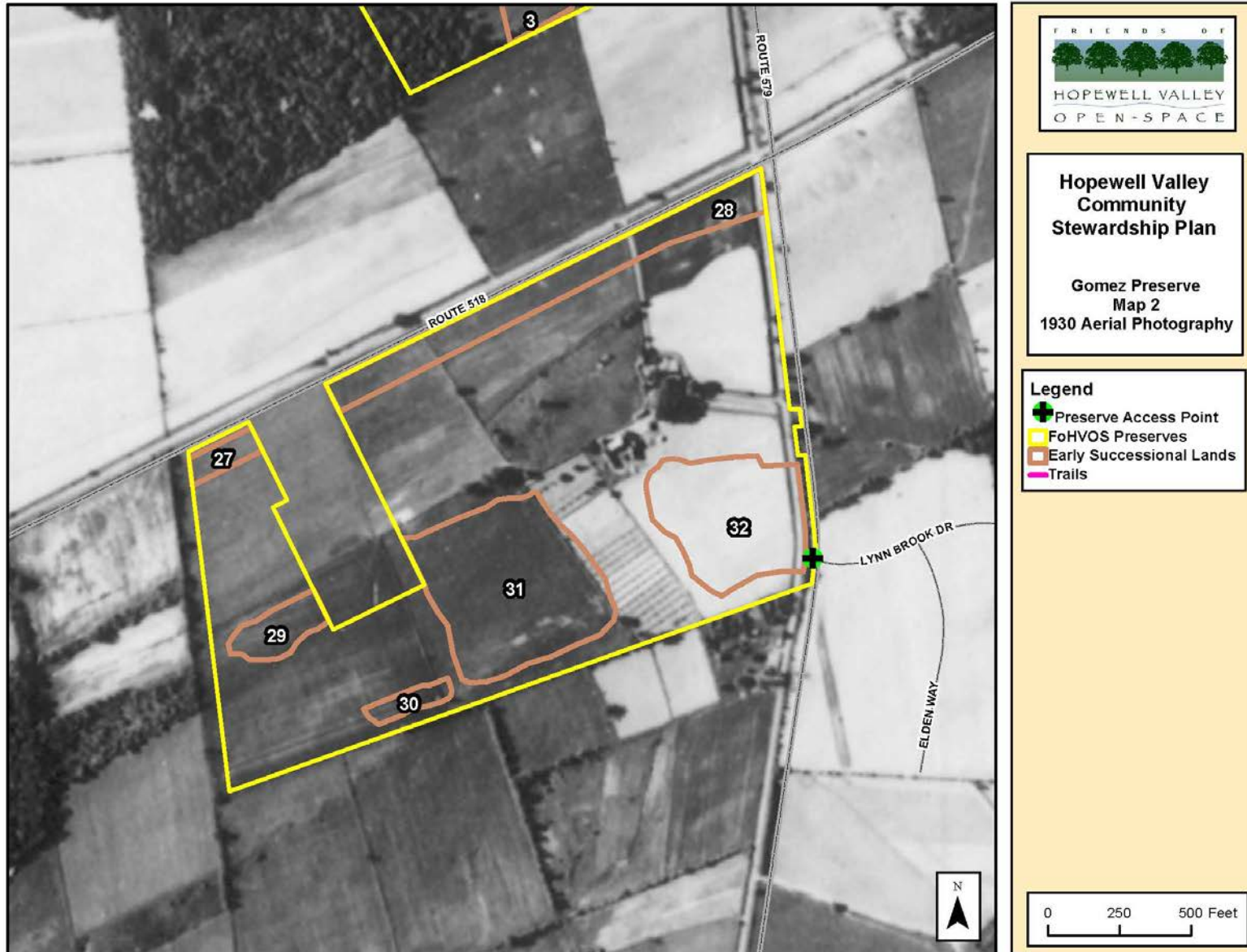
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Stewardship Plan**

Gomez Preserve
Map 1
2007 Aerial Photography

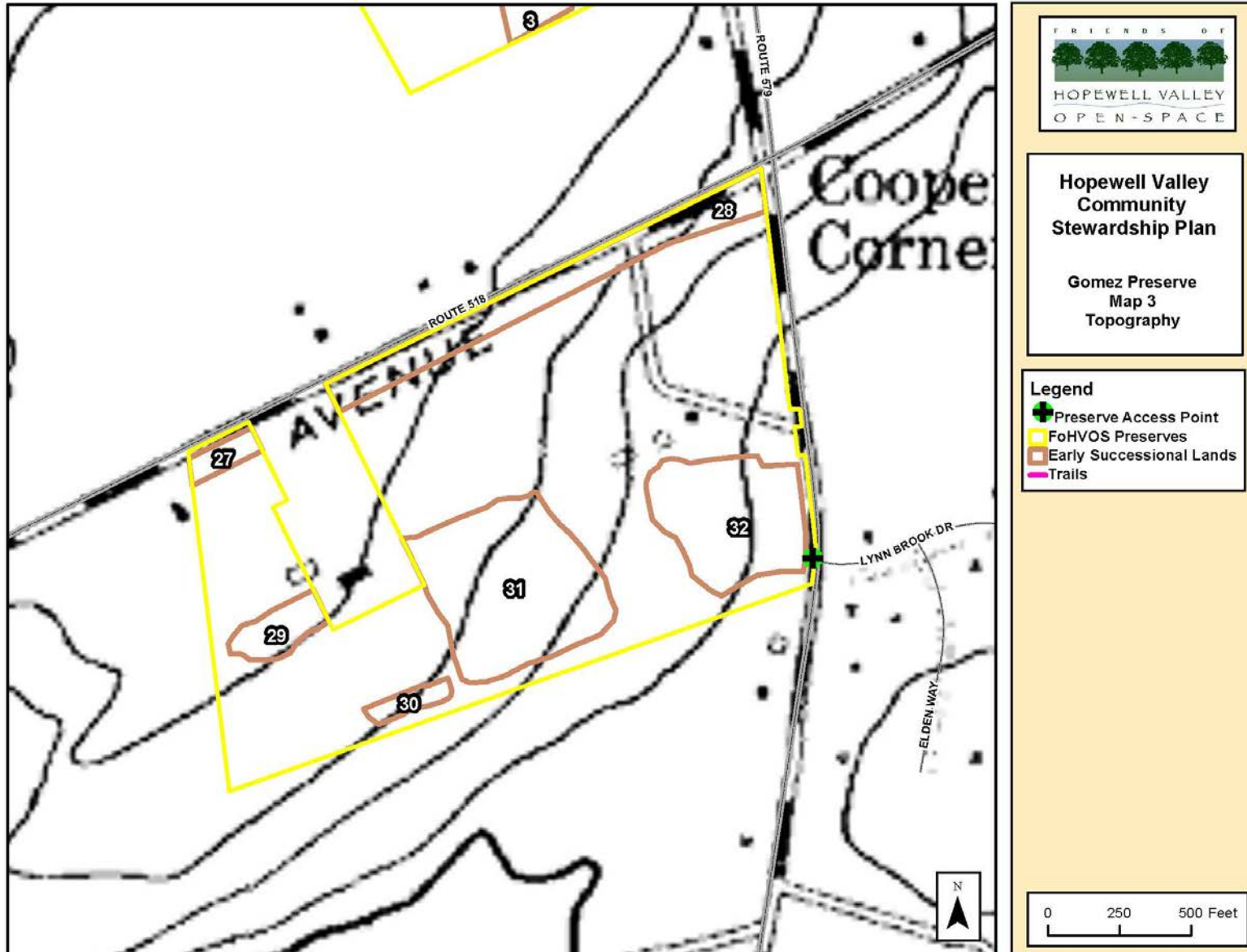
- Legend**
- Preserve Access Point
 - FoHVOS Preserves
 - Early Successional Lands
 - Trails



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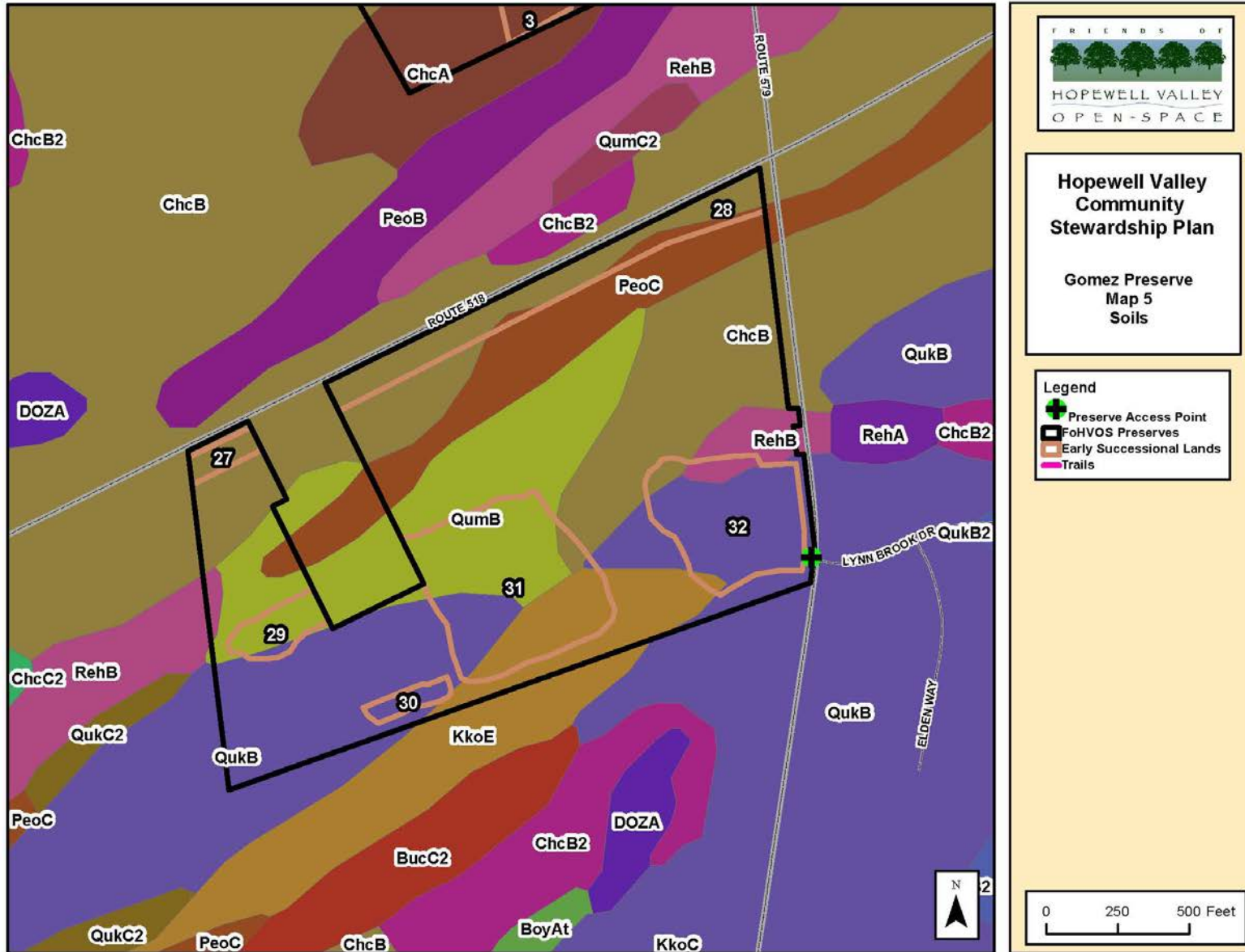
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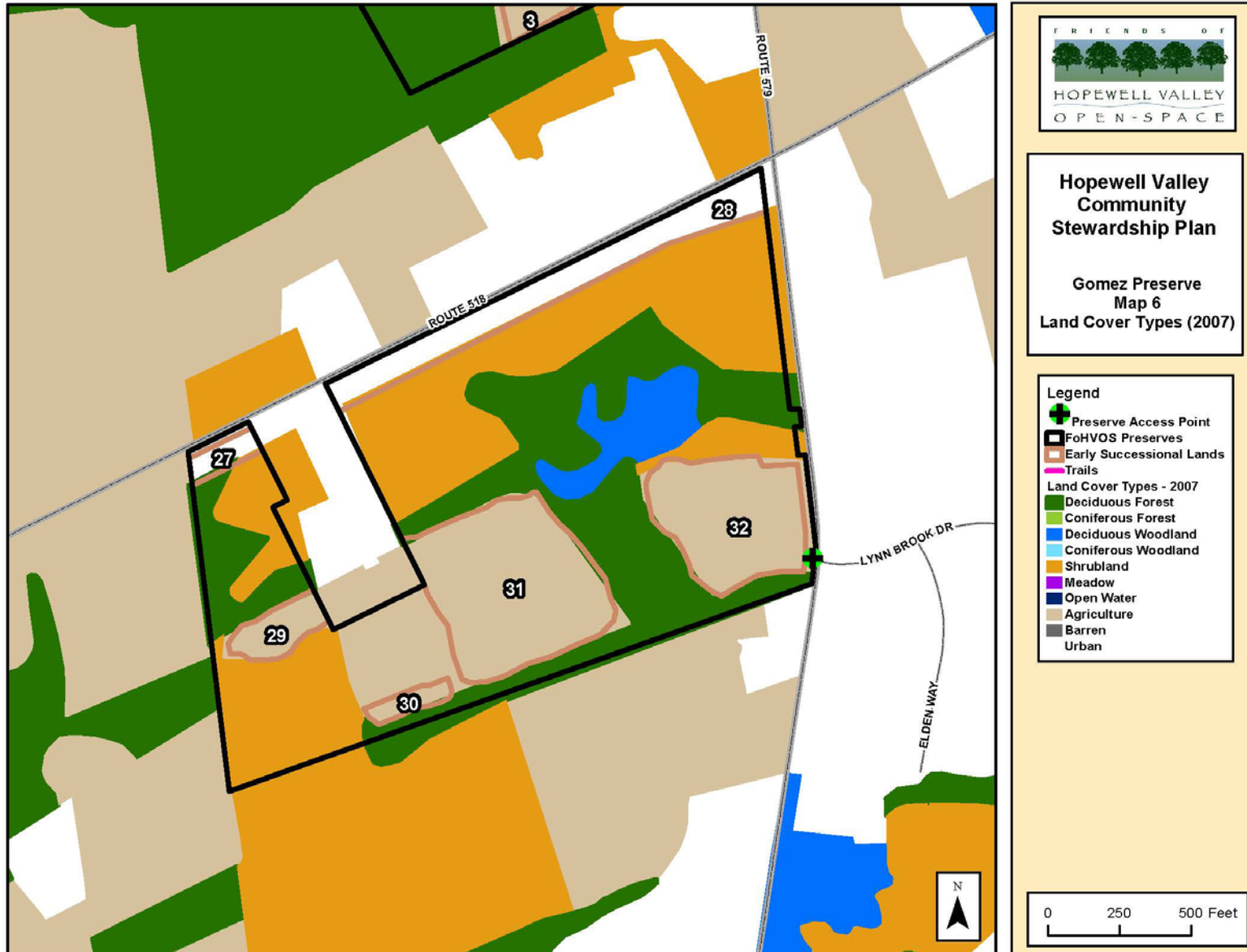
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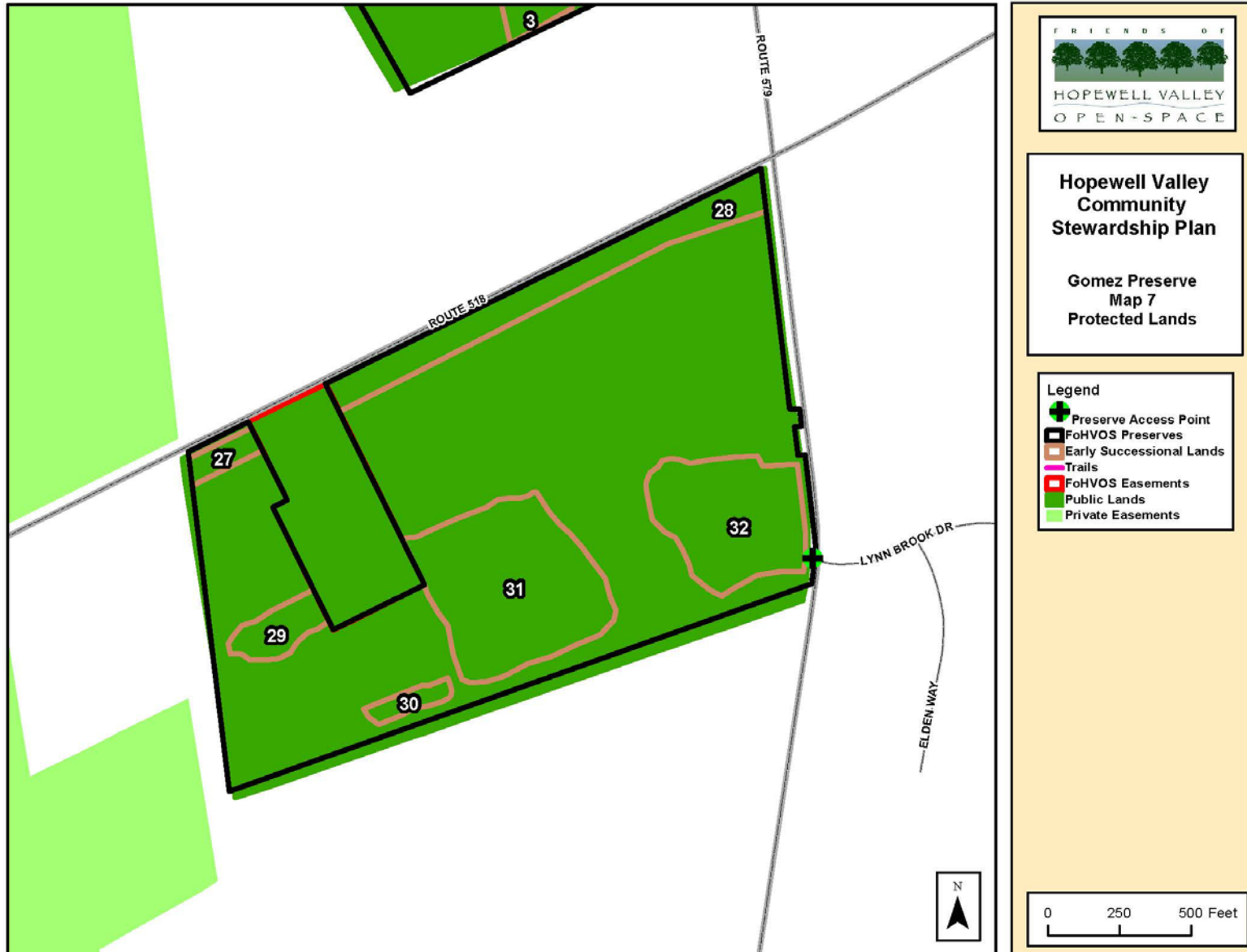
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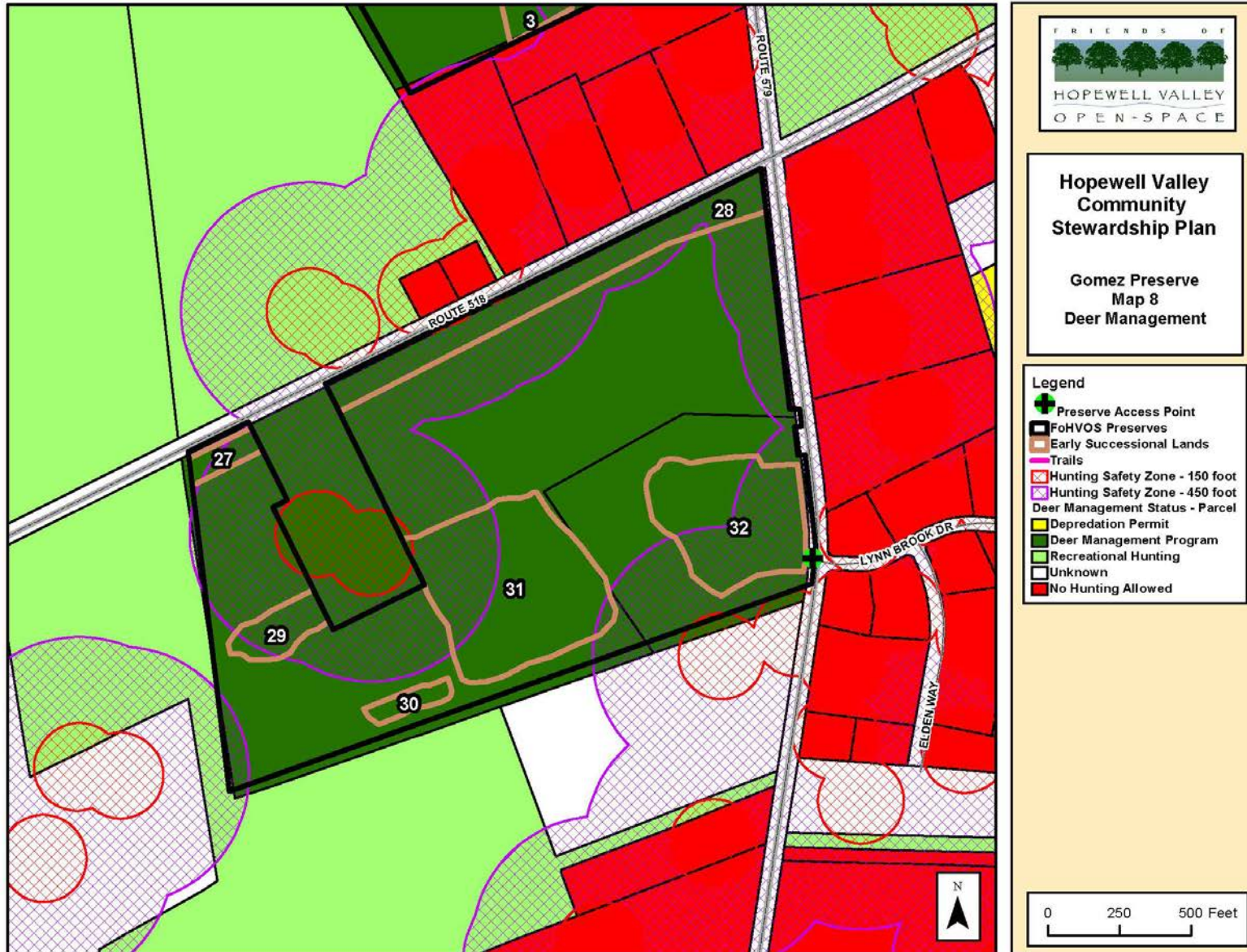
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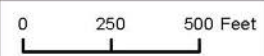
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**Gomez Preserve
 Map 8
 Deer Management**

- Legend**
- Preserve Access Point
 - FoHVOS Preserves
 - Early Successional Lands
 - Trails
 - Hunting Safety Zone - 150 foot
 - Hunting Safety Zone - 450 foot
 - Deer Management Status - Parcel
 - Depredation Permit
 - Deer Management Program
 - Recreational Hunting
 - Unknown
 - No Hunting Allowed



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