
BIODIVERSITY ASSESSMENT REPORT

**Ridge 29
Town of Pound Ridge
Block 9320, Lot 28
Westchester County, New York**

Prepared For:

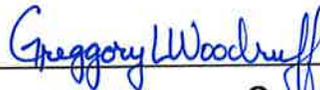
**Ridge 29, LLC
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Prepared By:

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**6 January 2015
100365301**

LANGAN

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1.0 INTRODUCTION

This report has been prepared to assess the biodiversity on the proposed Ridge 29 residential project (Project) site in the Town of Pound Ridge, Westchester County, New York. The Project consists of 43 single family attached dwellings in a neighborhood residential development. The site is currently identified as Block 9230, Lot 28 (086.15-1-24) and is 29.1-acres. The following report includes a description of existing site conditions based on available mapping, a wetland delineation prepared by Tim Miller Associates on 15 April 2014, and a field assessment completed by Langan Engineering, Environmental, Surveying, and Landscape Architecture, D.P.C. (Langan) on 30 October 2014.

2.0 SITE LOCATION AND DESCRIPTION

The site is 29.1-acres located in the Town of Pound Ridge, Westchester County, New York and is identified as Block 9230, Lot 28 (086.15-1-24) on the municipal tax map (Figures 1 and 2). The site is situated along Pine Drive and is generally bound to the north by Hemlock Hill Drive and residential properties, to the east by Lower Trinity Pass and an Unnamed Tributary to Laurel Reservoir, to the south by Rolling Meadows Lane and residential properties, and to the west by undeveloped, forested area (Figure 3).

The majority of the site is currently comprised of upland forest which generally slopes to the east toward an Unnamed Tributary to Laurel Reservoir. The site ranges in elevation from approximately 500 feet (Mean Sea Level) in the northwestern portion of the site to approximately 350 feet along the eastern site boundary.

Various wetlands and waters were delineated onsite by Tim Miller Associates, Inc. on April 15, 2014. The delineated features include a small stream in the northwestern portion of the site and forested/scrub-shrub wetlands within the linear portion of the site which extends to Trinity Pass Road.

Based on a review of the New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetlands Map and the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Map, wetlands are mapped in the eastern portion of the site and offsite to the east and west of the site (Figures 4 and 5). The NYSDEC maps an Unnamed Tributary to Laurel Pond through the eastern portion of the site and offsite along the eastern site boundary (Figure 6). The streams mapped on and within close proximity to the site are classified by NYSDEC as AA-S (AA-Special). Class AA-S waters are a source of water supply for drinking, culinary or food processing purpose;

primary and secondary contact recreation; and fishing. The onsite waters appear to drain south to Laurel Reservoir.

Based on a review of the NYSDEC Rare Plants and Rare Animals Map and the NYSDEC Significant Natural Communities Map there are no rare plants, rare animals, or significant natural communities known to occur onsite (Figures 7 and 8).

3.0 PROPOSED PROJECT

The proposed Project includes a 43-unit residential development with single family attached dwellings (Drawings CS-100 and CS-101). The Project also includes a common summer house, several common open space greens and associated site improvements including streets, landscaping, bioretention swales, and a septic filtration system.

The site is predominately within the One-acre Residential (R-1A) District with a small portion of the site near Pine Drive located in the Two-acre Residential (R-2A) District. The R-1A and R-2A Districts in the Town of Pound Ridge permit multi-family residential developments by special permit approval. The proposed residential development is consistent with the bulk requirements of the zoning ordinance for the Town of Pound Ridge.

4.0 HABITAT AND SPECIES ANALYSIS

4.1 Habitat Analysis

Langan field biologists completed a visual assessment of the habitat throughout the site. The site is currently undeveloped and comprised of various vegetative/land cover types including upland forest, forested/scrub-shrub wetland, and open water. Based on the results of a field assessment on 30 October 2014, each of the vegetative communities onsite has been classified according to the *Ecological Communities of New York State – Second Edition* prepared by the New York Natural Heritage Program (NHP) (March 2014). A description of each of the onsite communities is provided below and the mapping of these communities is shown on the Vegetative Land Cover Map (Figure 9). Characteristic photographs of each community are included in Appendix A.

Beech-Maple Mesic Forest / Oak-Tulip Tree Forest

Beech-maple mesic forest is identified by NHP as a northern hardwood forest with sugar maple (*Acer saccharum*) and American beech (*Fagus grandifolia*) as

co-dominant species. This community occurs on moist, well-drained, usually acid soils. Common associate species include are yellow birch (*Betula alleghaniensis*), white ash (*Fraxinus americana*), hop hornbeam (*Ostrya virginiana*), and red maple (*Acer rubrum*). Characteristic small trees or tall shrubs include hobblebush (*Viburnum lantanoides*), American hornbeam (*Carpinus caroliniana*), striped maple (*Acer pensylvanicum*), witch hazel (*Hamamelis virginiana*), and alternate leaved dogwood (*Cornus alternifolia*). Within extensive areas of beech-maple mesic forest, there are often small patches of hemlock northern hardwood forest in steep ravines and gullies where eastern hemlock (*Tsuga canadensis*) is locally dominant. Characteristic herbs include woodferns (*Dryopteris spp.*), Christmas fern (*Polystichum acrostichoides*), white wood aster (*Eurybia divericata*), and various others.

Oak-tulip tree forest is identified by NHP as a hardwood forest that occurs on moist, well-drained sites in southeastern New York. The dominant tree species include a mixture of five or more of the following: red oak (*Quercus rubra*), tulip tree (*Liriodendron tulipifera*), American beech (*Fagus grandifolia*), black birch (*Betula lenta*), red maple (*Acer rubrum*), scarlet oak (*Quercus coccinea*), black oak (*Quercus velutina*), and white oak (*Quercus alba*).

The majority of the site is dominated by a mixture of these communities. Vegetation in these areas is dominated by American beech (*Fagus grandifolia*), white oak (*Quercus alba*), sugar maple (*Acer saccharum*), red oak (*Quercus rubra*), white ash (*Fraxinus americana*), and red maple (*Acer rubrum*). Other species noted throughout include yellow birch (*Betula alleghaniensis*), tulip tree (*Liriodendron tulipifera*), American hornbeam (*Carpinus caroliniana*), and small stands of eastern hemlock (*Tsuga canadensis*). The understory remains generally open with few herbaceous species including woodfern (*Dryopteris spp.*) and Christmas fern (*Polystichum acrostichoides*).

Red Maple – Hardwood Swamp

This community is identified by NHP as a hardwood swamp that occurs in poorly drained depressions or basins, usually on inorganic soil, but occasionally on muck or shallow peat. Red maple (*Acer rubrum*) is either the only canopy dominant or it is co-dominant with one or more hardwoods including ashes (*Fraxinus pp.*), elms (*Ulmus pp.*), and yellow birch (*Betula alleghaniensis*). The shrub layer is usually well-developed and may be dense. Characteristic shrubs are winterberry (*Ilex verticillata*), spicebush (*Lindera benzoin*), alders (*Alnus spp.*), viburnums (*Viburnum spp.*), highbush blueberry (*Vaccinium corymbosum*),

elderberry (*Sambucus nigra*), and various dogwoods (*Cornus spp.*). The herbaceous layer may be quite diverse and is often dominated by ferns including sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*O. regalis*), and marsh fern (*Thelypteris palustris*). Characteristic herbs include skunk cabbage (*Symplocarpus foetidus*), sedges (*Carex spp.*), jewelweed (*Impatiens capensis*), and various others.

The wetlands located in the eastern portion of the site are characteristic of a red maple – hardwood swamp. Vegetation within the wetlands is dominated by red maple (*Acer rubrum*), arrowwood (*Viburnum dentatum*), sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*O. regalis*), alder (*Alnus spp.*), and various sedges (*Carex spp.*).

Intermittent Stream

An intermittent stream is present in the northwestern portion of the site. The stream is situated between two offsite ponds and likely conveys flow during the spring and/or after heavy rain. At the time of our inspection no water was present within the stream.

4.2 Species Analysis

Wildlife habitat onsite is typical of an undeveloped, forested area in southeastern New York. The site provides suitable habitat for small populations of wildlife typical of the northeastern U.S. which may include white-tailed deer, squirrels, chipmunks, wild turkey, and various songbirds. These species, or evidence of them, were all observed by Langan field biologist during the site visit. Wetlands and water features may be utilized by various species of herpetofauna. The Project Site does not provide any public lands used for hunting, trapping, fishing, or shellfishing.

A NYSDEC Natural Heritage Program report on Rare Species and Ecological Communities was generated for the site on 26 August 2014 (Appendix B). The report concluded that there are no records of rare or state-listed animals or plants, or significant natural communities onsite or in its immediate vicinity.

According to a USFWS Information, Planning and Conservation (IPaC) system review dated 23 October 2014, there are no critical habitats associated with threatened or endangered species on the site. IPaC identified four threatened and endangered species that should be considered in a project effects analysis

for the site. These species are: Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), New England cottontail rabbit (*Sylvilagus transitionalis*), and bog turtle (*Clemmys muhlenbergii*) (Appendix C).

A description of each of the identified species and associated habitat preference is described below. A habitat suitability assessment has been completed for each.

I. Indiana bat (*Myotis sodalis*) – Federal/State Endangered

Throughout the summer months Indiana bat inhabits small to medium river and stream corridors with well-developed riparian woods (USFWS 2014). Habitat consists of wooded or semi-wooded areas, often but not always along streams. Solitary females or small maternity colonies bear their offspring in hollow trees or under loose bark of living or dead trees (Humphrey *et al.* 1977, Garner and Gardner 1992). Preferred roost tree species include elm, oak, beech, hickory, maple, ash, sassafras, birch, sycamore, locust, aspen, cottonwood, pine, and hemlock (Cope *et al.* 1974, Humphrey *et al.* 1977, Garner and Gardner 1992, Britzke *et al.* 2003, Britzke *et al.* 2006), especially trees with exfoliating bark.

Habitat Suitability – An unmapped, unnamed intermittent stream passes through the northwestern portion of the site and an Unnamed Tributary to Laurel Reservoir passes through the linear portion of the site near Lower Trinity Pass. The Unnamed Tributary to Laurel Reservoir continues offsite approximately 200 feet from the site boundary. Both streams have relatively short open channel segments (150 to 400 feet) within the limits of the site. Both streams pass through wooded areas; however, the overall forest community onsite is not likely to be used by Indiana bats due the absence of significant stands of trees suitable for roosting (i.e. snags, deeply furrowed bark, or exfoliating bark).

II. Northern long-eared bat (*Myotis septentrionalis*) – Proposed Federal Endangered

Throughout the summer season northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead

trees. Males and non-reproductive females typically roost in cooler places, like caves and mines. The northern long-eared bat may also appear roosting in barns and sheds (USFWS 2013).

Habitat Suitability – The overall forest community onsite does not contain preferred bat roost trees, but some individual dead trees were observed. The tree species onsite are dominated by American beech (*Fagus grandifolia*), white oak (*Quercus alba*), sugar maple (*Acer saccharum*), red oak (*Quercus rubra*), white ash (*Fraxinus americana*), and red maple (*Acer rubrum*). There are no known caves, mines, or man-made structures onsite.

III. Bog turtle (*Glyptemys muhlenbergii*) – Federal Threatened/State Endangered

According to USFWS (2014) bog turtles are found in small, discrete populations, occupying open-canopy, herbaceous sedge meadows and fens bordered by wooded areas. They are also found within un-polluted emergent and scrub/shrub wetlands that consist of micro-habitats, including dry pockets, saturated areas, and areas that are periodically flooded. These habitats are characterized by soft muddy bottoms, interspersed wet and dry pockets, vegetation dominated by low grasses and sedges, and a low volume of standing or slow-moving water which often forms a network of shallow pools and rivulets.

Habitat Suitability – One wetland community has been identified onsite; red maple - hardwood. At the time of our inspection, the onsite wetland did not contain the necessary characteristics, specifically soft muddy bottoms, which would classify the wetlands as potential habitat for bog turtle.

IV. New England Cottontail rabbit (*Sylvilagus transitionalis*) – Candidate Federal Endangered

According to the USFW Service, New England Cottontail rabbits prefer thicketed forests, with a dense shrub layer. The Cottontail is active throughout the year, and feeds on grasses, plant leaves and tree bark. The Cottontail habitat ranges from seven to twelve acres, and can include woodlands, shrublands or other areas of disturbance where shrub growth is supported (USFW and NRCS 2011).

Habitat Suitability – The majority of the site is dominated by an upland forest community with little to no understory or shrub layer. Due to the lack of thickets, shrubs, or other form of dense understory the onsite habitat does not contain the necessary characteristics for suitable habitat.

5.0 CONCLUSION

The site is generally comprised of upland forest with limited areas of forested/scrub-shrub wetlands on and adjacent to the site. The onsite habitat is typical of southeastern New York and is consistent with other undeveloped areas in the region. The site provides habitat for small populations of common wildlife including white-tailed deer, wild turkey, squirrels, chipmunks, and other small mammals. The site also provides habitat for various species of songbirds. The site has not been mapped as habitat for any threatened or endangered plant or animal species and based on a field assessment, does not provide suitable habitat for any threatened or endangered species that USFWS requests consideration for, including: Indiana bat, New England cottontail rabbit, northern long-eared bat, and bog turtle.

6.0 REFERENCES

Britzke, E. R., Harvey, M. J. and Loeb, S. C. 2003. Indiana bat, *Myotis sodalis*, maternity roosts in the southern United States. *Southeastern Naturalist* 2: 235-242.

Britzke, E. R., Hicks, A. C., von Oettingen, S. L. and Darling, S. R. 2006. Description of spring roost trees used by female Indiana bats (*Myotis sodalis*) in the Lake Champlain Valley of Vermont and New York. *American Midland Naturalist* 155: 181-187.

Cope, J. B., Richter, A. R. and Mills, R. A. 1974. A summer concentration of the Indiana bat, *Myotis sodalis*, in Wayne County. *Proceedings of the Indiana Academy of Sciences* 83: 482-484.

Garner, J. D. and Gardner, J. E. 1992. Determination of summer distribution and habitat utilization of the Indiana bat (*Myotis sodalis*) in Illinois. Final Report, Project E-3. Illinois Department of Conservation, Springfield, Illinois, USA.

Humphrey, S. R., Richter, A. R. and Cope, J. B. 1977. Summer habitat and ecology of the endangered Indiana bat, *Myotis sodalis*. *Journal of Mammalogy* 58: 334-346.

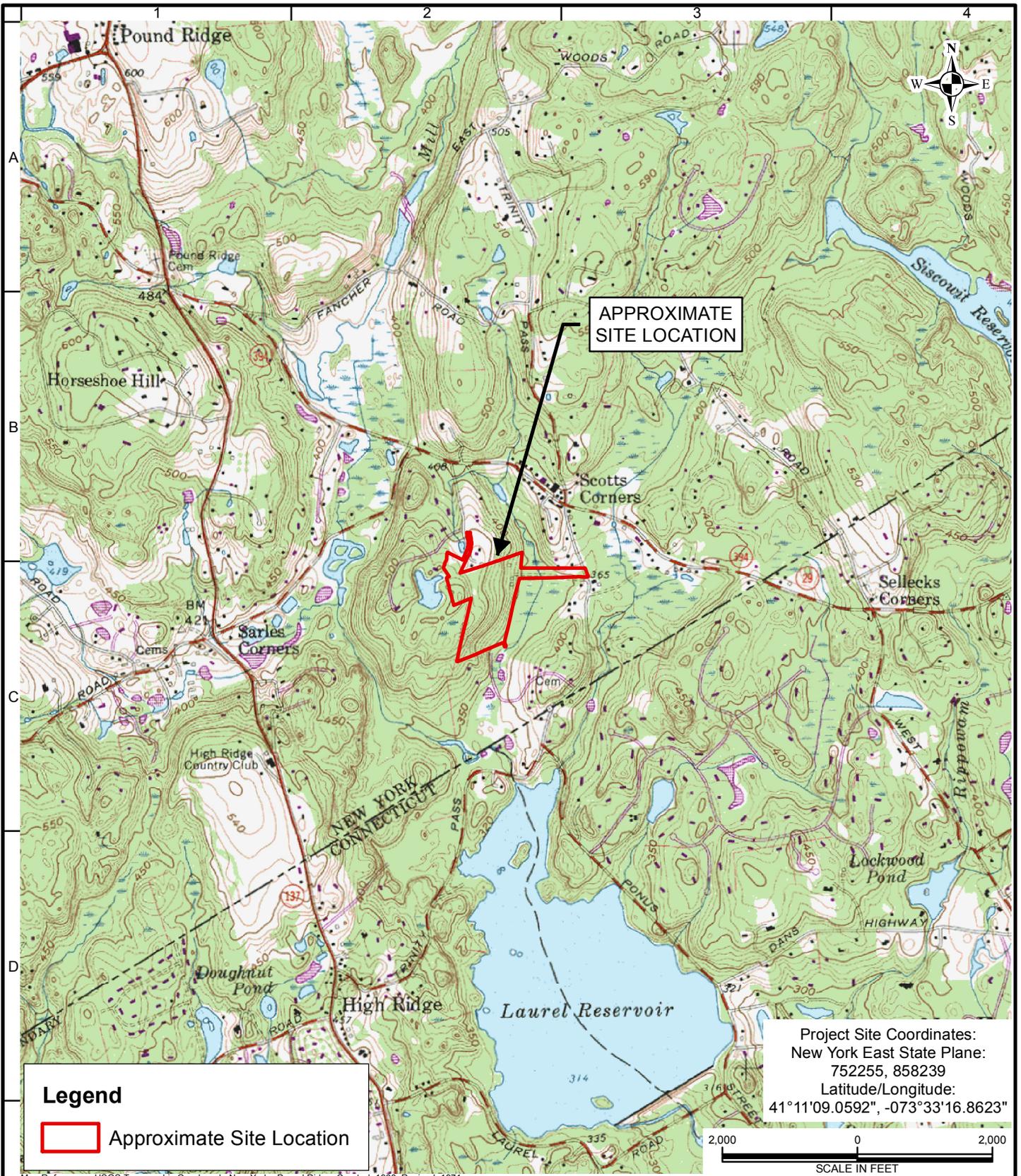
U.S. Fish and Wildlife Service. N.p., 2013. "Northern Long-Eared Bat (*Myotis Septentrionalis*)." Web. 21 May 2014. <<http://www.fws.gov/midwest/endangered/mammals/nlba/nlbaFactSheet.html>>.

U.S. Fish & Wildlife Service. New York Field Office, n.d. Web. 21 May 2014. "Bog Turtle (*Glyptemys Muhlenbergii*)." <<http://www.fws.gov/northeast/nyfo/es/bogturtle.htm>>

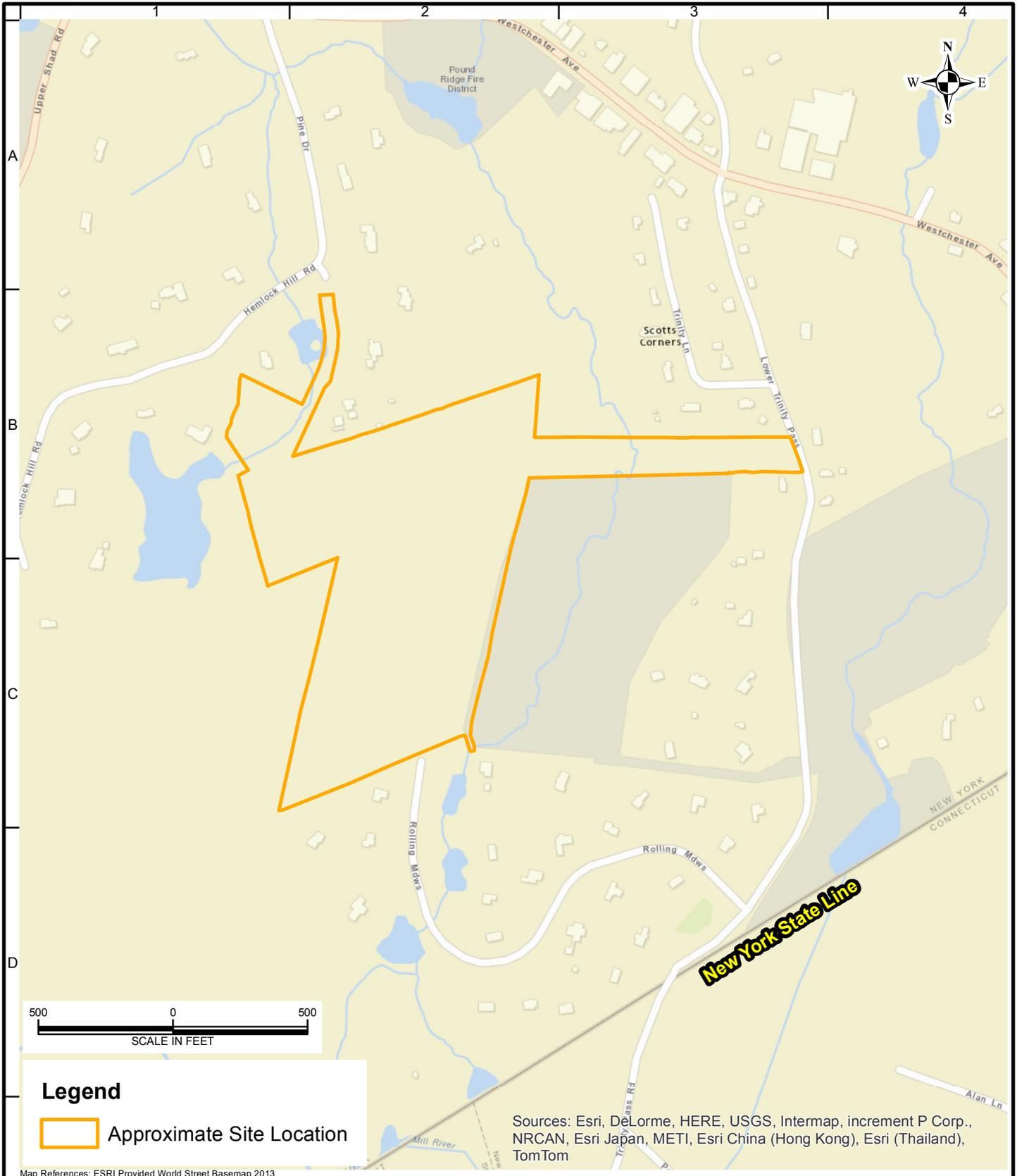
U.S. Fish and Wildlife Services. N.p., 2014. Web. 21 May 2014. "Indiana Bat (*Myotis sodalis*)". <<http://www.fws.gov/midwest/endangered/mammals/inba/>>

U.S. Fish and Wildlife Service and Natural Resources Conservation Service., June 2011. "New England Cottontail *Sylvilagus transitionalis*". <<http://www.fws.gov/northeast/indepth/rabbit/pdf/NECottontailfactsheet062011.pdf>>

FIGURES



 River Drive Center 1, 619 River Drive Elmwood Park, NJ 07407-1338 T: 201.794.6900 F: 201.794.0366 www.langan.com Langan Engineering & Environmental Services, Inc. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan International LLC Collectively known as Langan NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400	Project RIDGE 29 TOWN OF POUND RIDGE	Drawing Title USGS SITE LOCATION MAP	Project No. 100365301 Date 1/6/2015 Scale 1" = 2,000' Drawn By ARL	Figure 1
	WESTCHESTER COUNTY NEW YORK			



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 Landscape Architecture, D.P.C.
 Langan International LLC
 Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

RIDGE 29

TOWN OF POUND RIDGE

WESTCHESTER COUNTY NEW YORK

Drawing Title

**VICINITY
MAP**

Project No.
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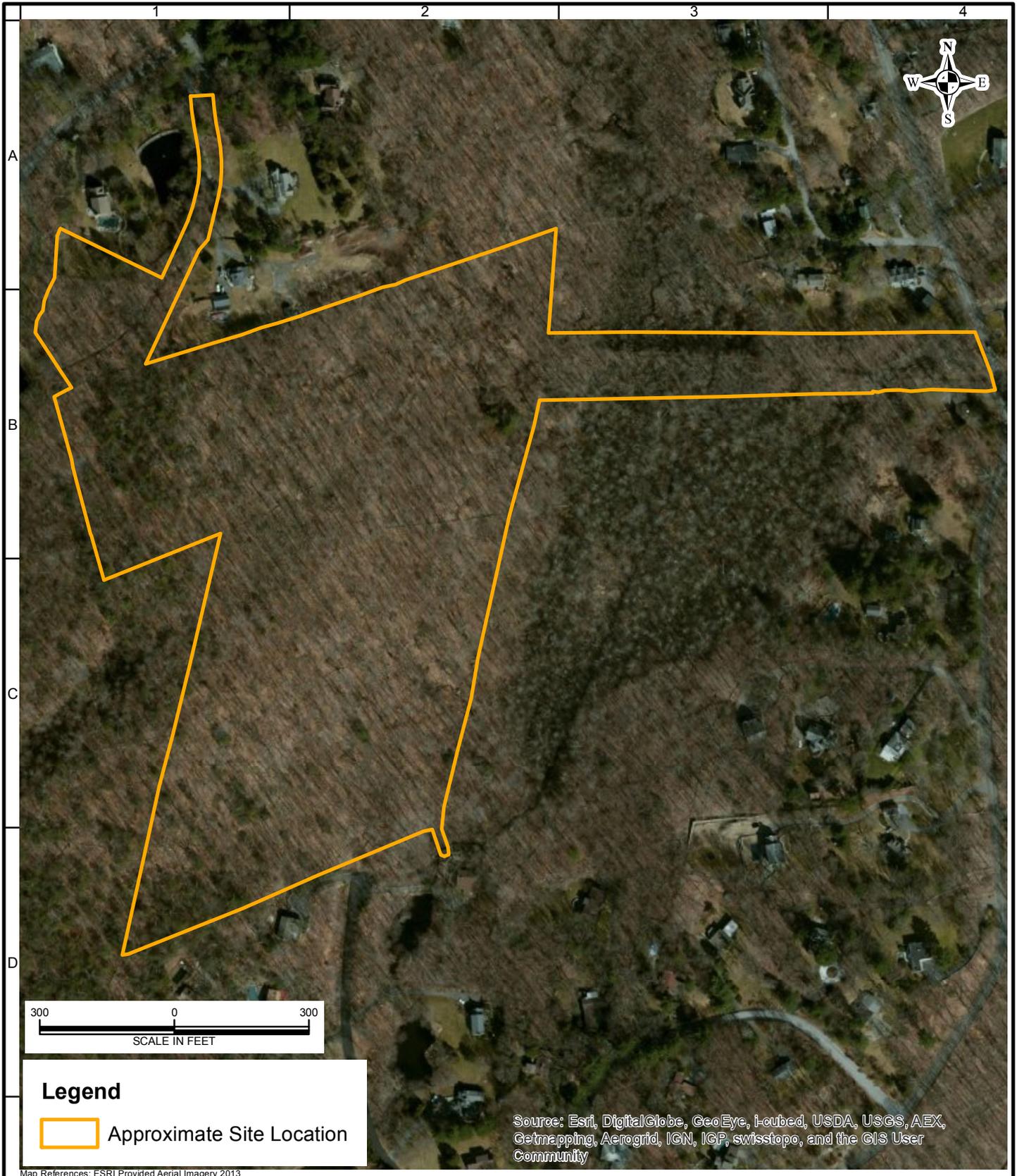
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Figure

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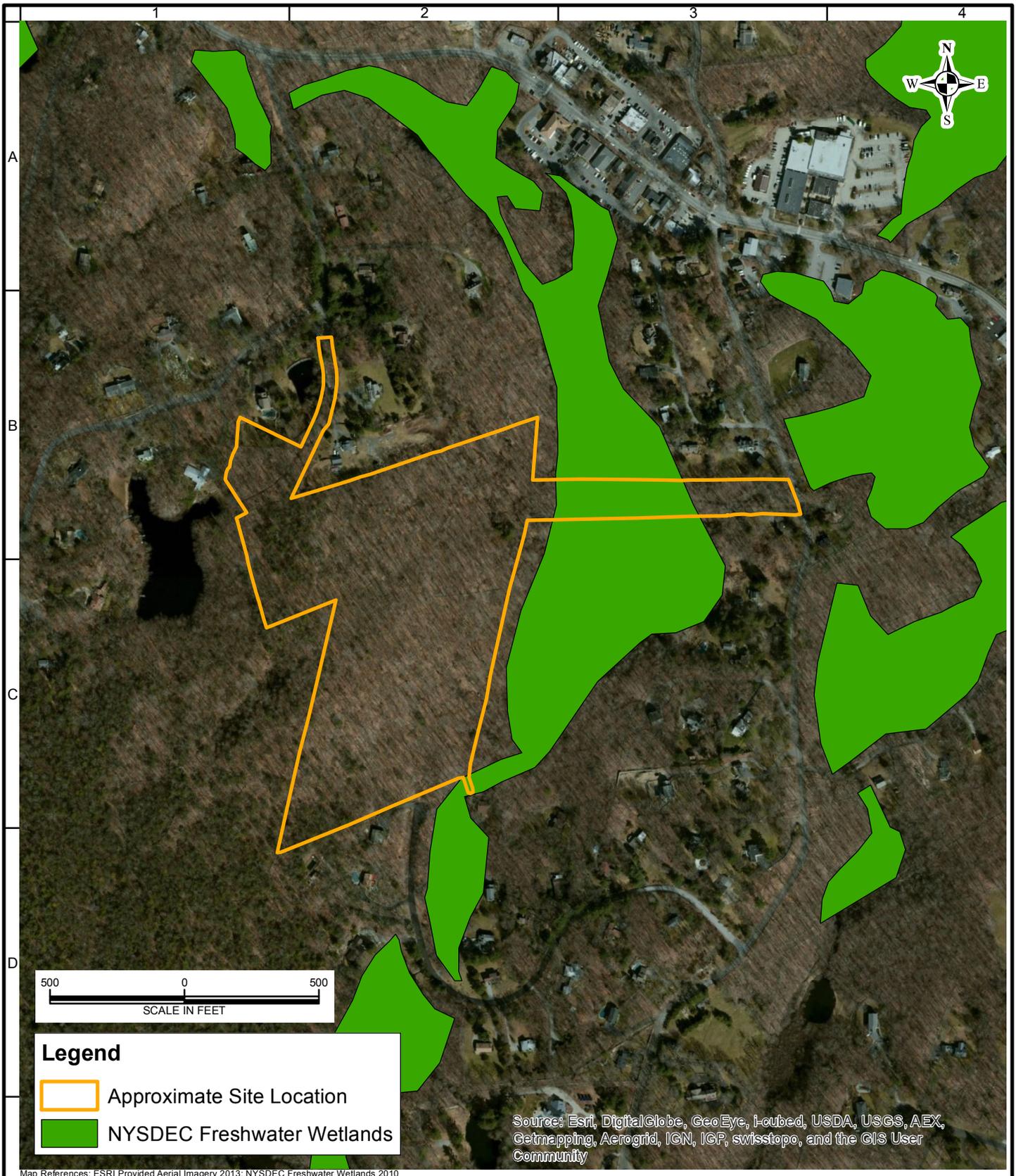
Approximate Site Location

Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map References: ESRI Provided Aerial Imagery 2013

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	<p>RIDGE 29</p> <p>TOWN OF POUND RIDGE</p> <p>WESTCHESTER COUNTY NEW YORK</p>	<p>AERIAL PHOTOGRAPH</p>	Date 1/6/2015	<p>3</p>
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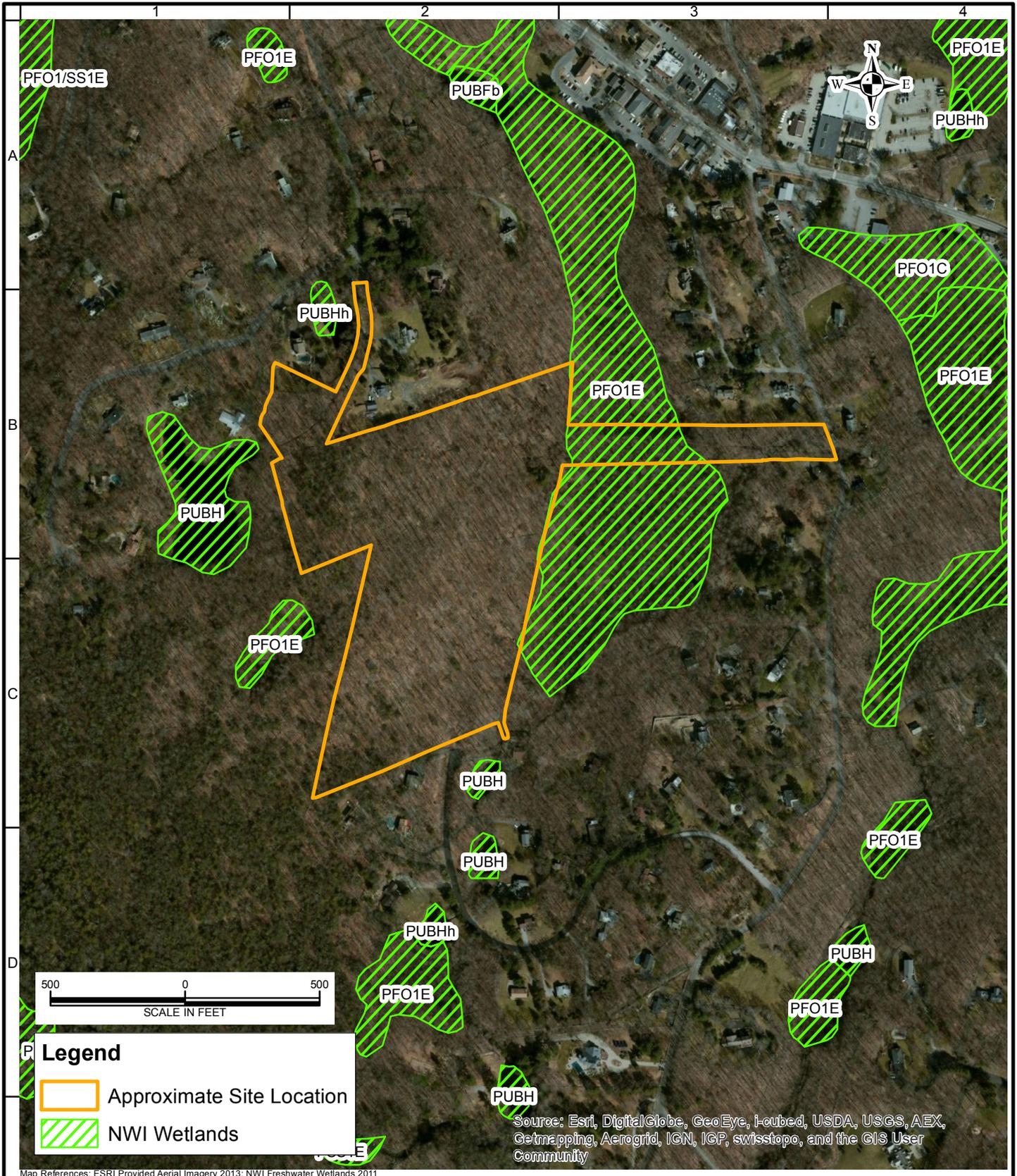
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Map References: ESRI Provided Aerial Imagery 2013; NYSDEC Freshwater Wetlands 2010

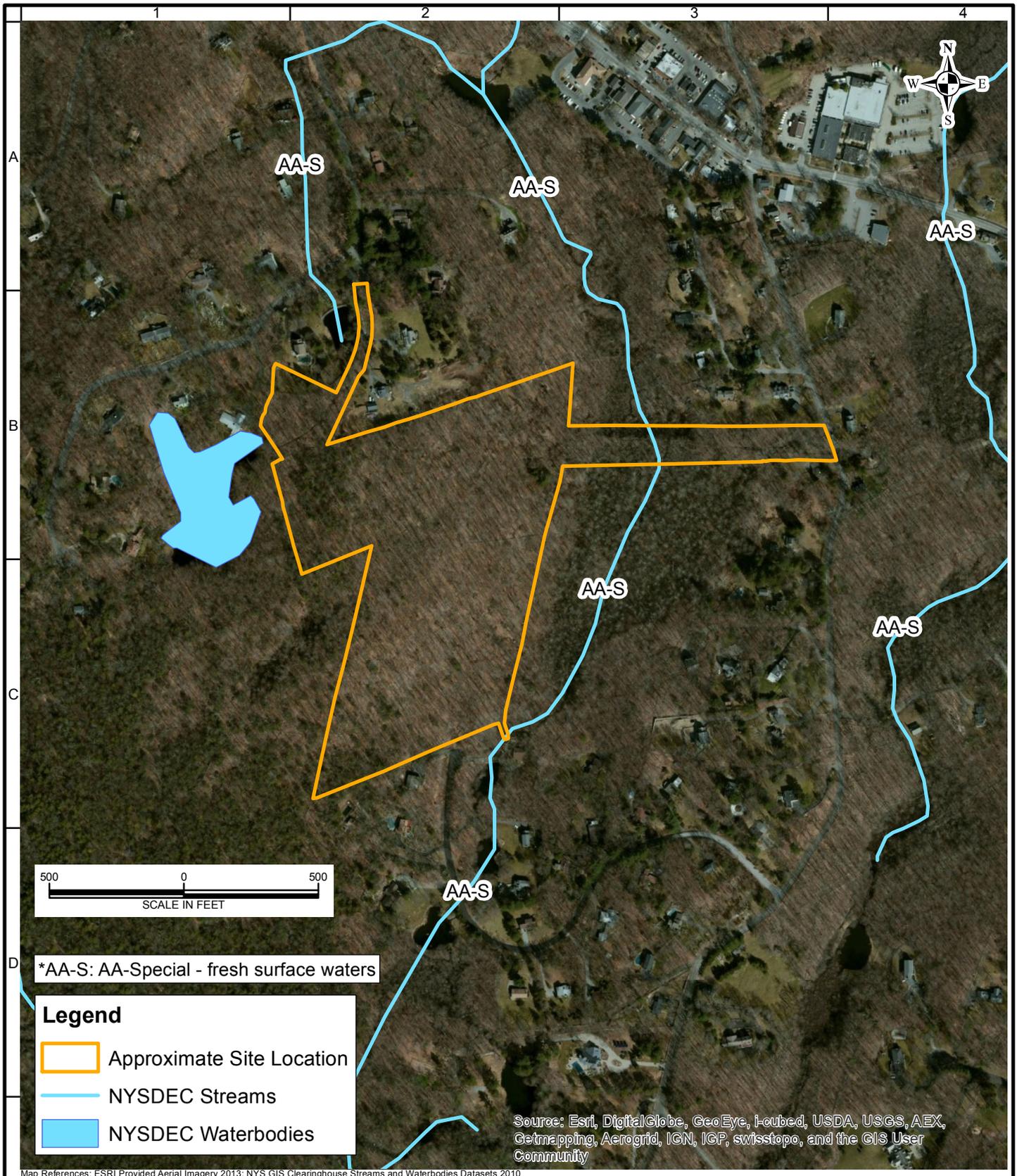
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Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map References: ESRI Provided Aerial Imagery 2013; NWI Freshwater Wetlands 2011

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*AA-S: AA-Special - fresh surface waters

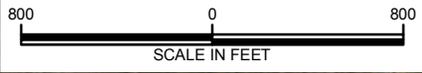
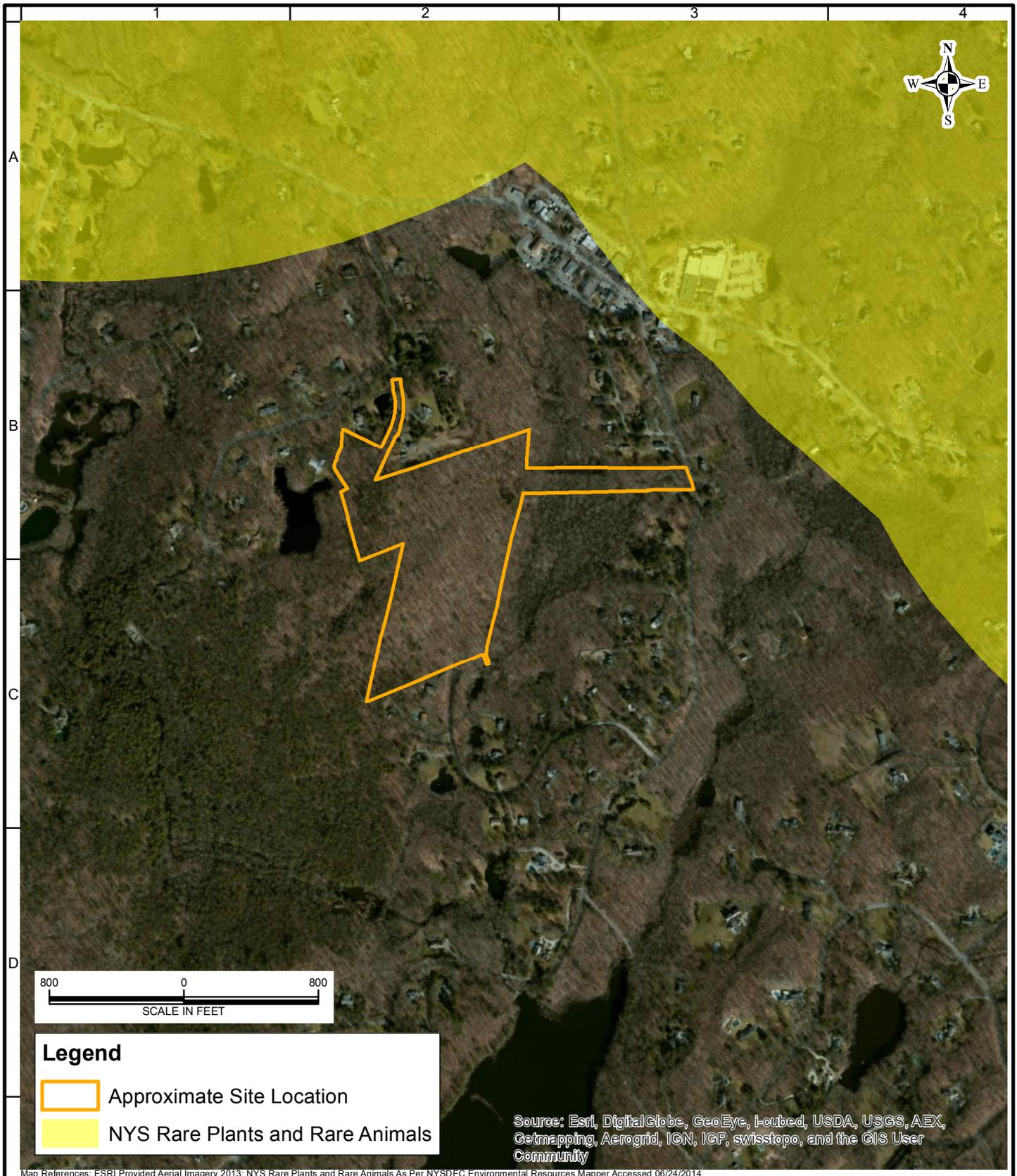
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- Approximate Site Location
- NYSDEC Streams
- NYSDEC Waterbodies

Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map References: ESRI Provided Aerial Imagery 2013; NYS GIS Clearinghouse Streams and Waterbodies Datasets 2010

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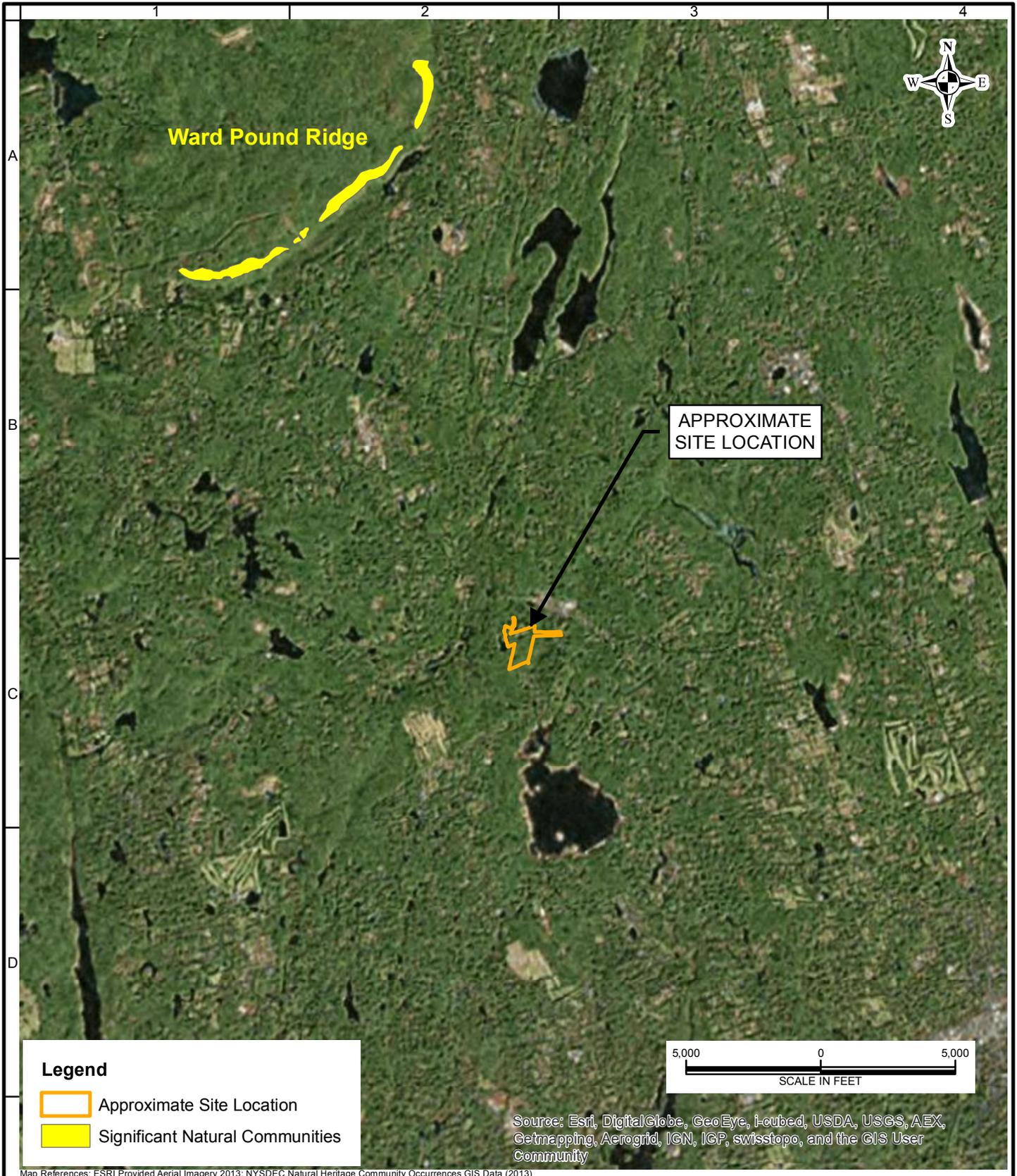
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- Approximate Site Location
- NYS Rare Plants and Rare Animals

Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map References: ESRI Provided Aerial Imagery 2013; NYS Rare Plants and Rare Animals As Per NYSDEC Environmental Resources Mapper Accessed 06/24/2014

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	RIDGE 29	NYSDEC RARE PLANT AND RARE ANIMALS MAP	Date 1/6/2015	7
	TOWN OF POUND RIDGE		Scale 1"= 800'	
	WESTCHESTER COUNTY NEW YORK		Drawn By ARL	



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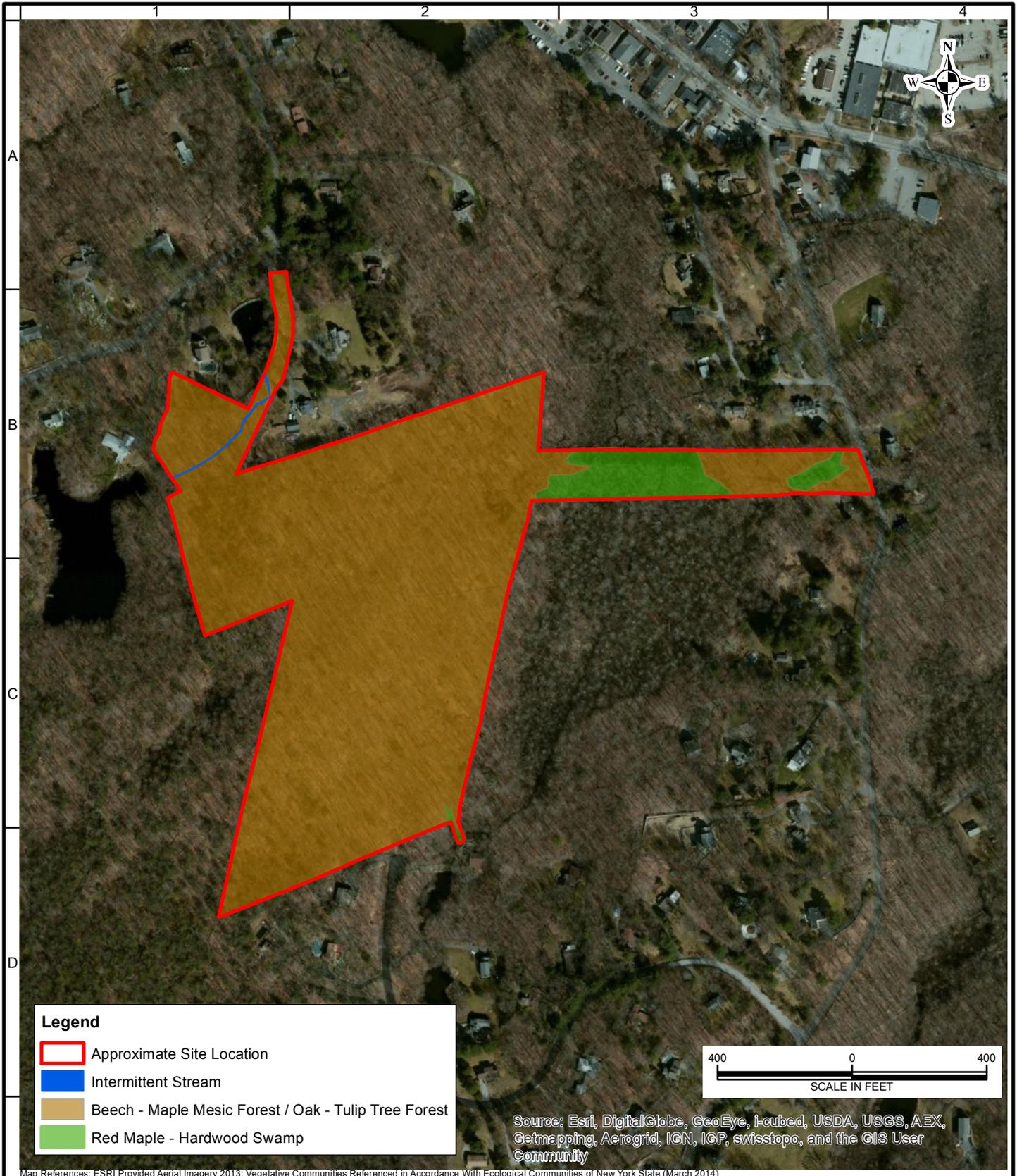
- Approximate Site Location
- Significant Natural Communities



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

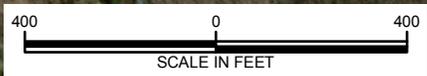
Map References: ESRI Provided Aerial Imagery 2013; NYSDEC Natural Heritage Community Occurrences GIS Data (2013)

<p>LANGAN River Drive Center 1, 619 River Drive Elmwood Park, NJ 07407-1338 T: 201.794.6900 F: 201.794.0366 www.langan.com</p> <p>Langan Engineering & Environmental Services, Inc. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan International LLC Collectively known as Langan</p> <p>NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400</p>	<p>Project</p> <p>RIDGE 29</p> <p>TOWN OF POUND RIDGE</p> <p>WESTCHESTER COUNTY NEW YORK</p>	<p>Drawing Title</p> <p>NYSDEC SIGNIFICANT NATURAL COMMUNITIES MAP</p>	<p>Project No. 100365301</p> <p>Date 1/6/2015</p> <p>Scale 1" = 5,000'</p> <p>Drawn By ARL</p> <p>Figure 8</p>
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Legend

- Approximate Site Location
- Intermittent Stream
- Beech - Maple Mesic Forest / Oak - Tulip Tree Forest
- Red Maple - Hardwood Swamp



Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Map References: ESRI Provided Aerial Imagery 2013; Vegetative Communities Referenced in Accordance With Ecological Communities of New York State (March 2014)

<p>LANGAN River Drive Center 1, 619 River Drive Elmwood Park, NJ 07407-1338 T: 201.794.6900 F: 201.794.0366 www.langan.com</p> <p>Langan Engineering & Environmental Services, Inc. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan International LLC Collectively known as Langan</p> <p>NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400</p>	<p>Project</p> <p>RIDGE 29</p> <p>TOWN OF POUND RIDGE</p> <p>WESTCHESTER COUNTY NEW YORK</p>	<p>Drawing Title</p> <p>VEGETATIVE LAND COVER MAP</p>	<p>Project No. 100365301</p> <p>Date 1/6/2015</p> <p>Scale 1"= 400'</p> <p>Drawn By ARL</p> <p>Figure 9</p>
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APPENDIX A
PHOTOGRAPHS



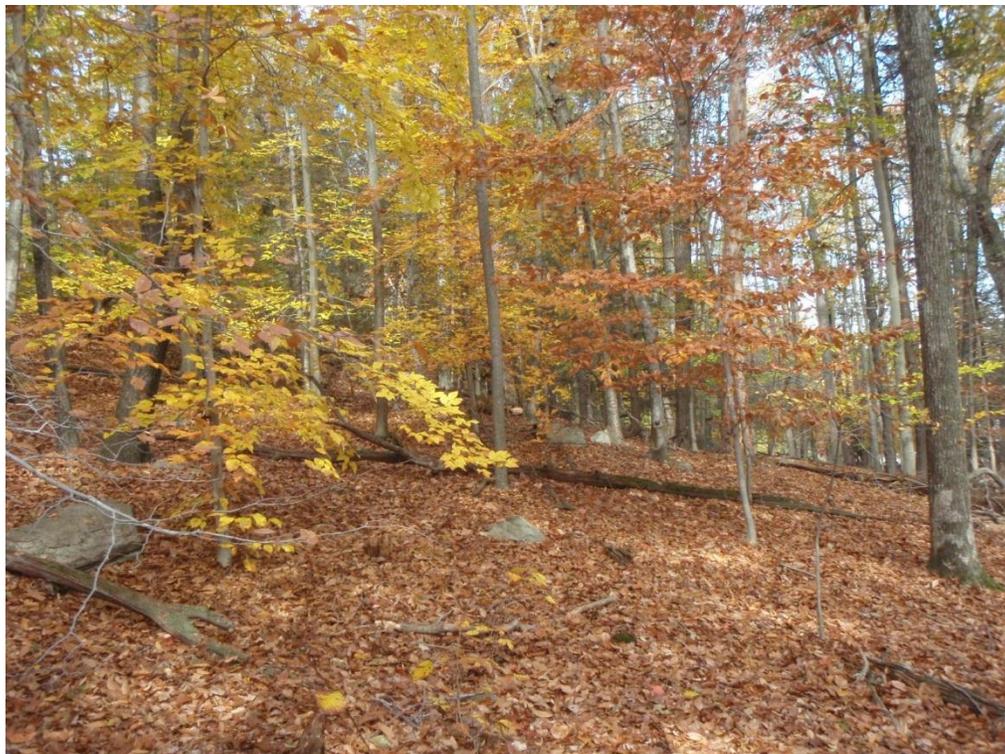
Photograph No. 1. Characteristic view of the upland forest onsite.



Photograph No. 2. Characteristic view of the upland forest onsite.



Photograph No. 3. Characteristic view of the upland forest onsite.



Photograph No. 4. Characteristic view of the upland forest onsite.



Photograph No. 5. View of the forested/scrub-shrub wetland in the eastern portion of the site.



Photograph No. 6. View of the intermittent stream channel in the northwestern portion of the site.

APPENDIX B

NYSDEC NATURAL HERITAGE PROGRAM REPORT

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



Joe Martens
Commissioner

August 26, 2014

Anna Loss
Langan
River Drive Center 1, 619 River Drive
Elmwood Park, NJ 07407

Re: Proposed Pound Ridge Cottages development
Town/City: Pound Ridge. County: Westchester.

Dear Anna Loss :

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities, at your site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities and other significant habitats maintained in the Natural Heritage Data bases. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

A handwritten signature in cursive script that reads "Andrea Chaloux".

Andrea Chaloux
Environmental Review Specialist
New York Natural Heritage Program

APPENDIX C
USFWS IPAC RESULTS



U.S. Fish and Wildlife Service

Trust Resources List

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

New York Ecological Services Field Office
3817 LUKER ROAD
CORTLAND, NY 13045
(607) 753-9334
<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Project Name:

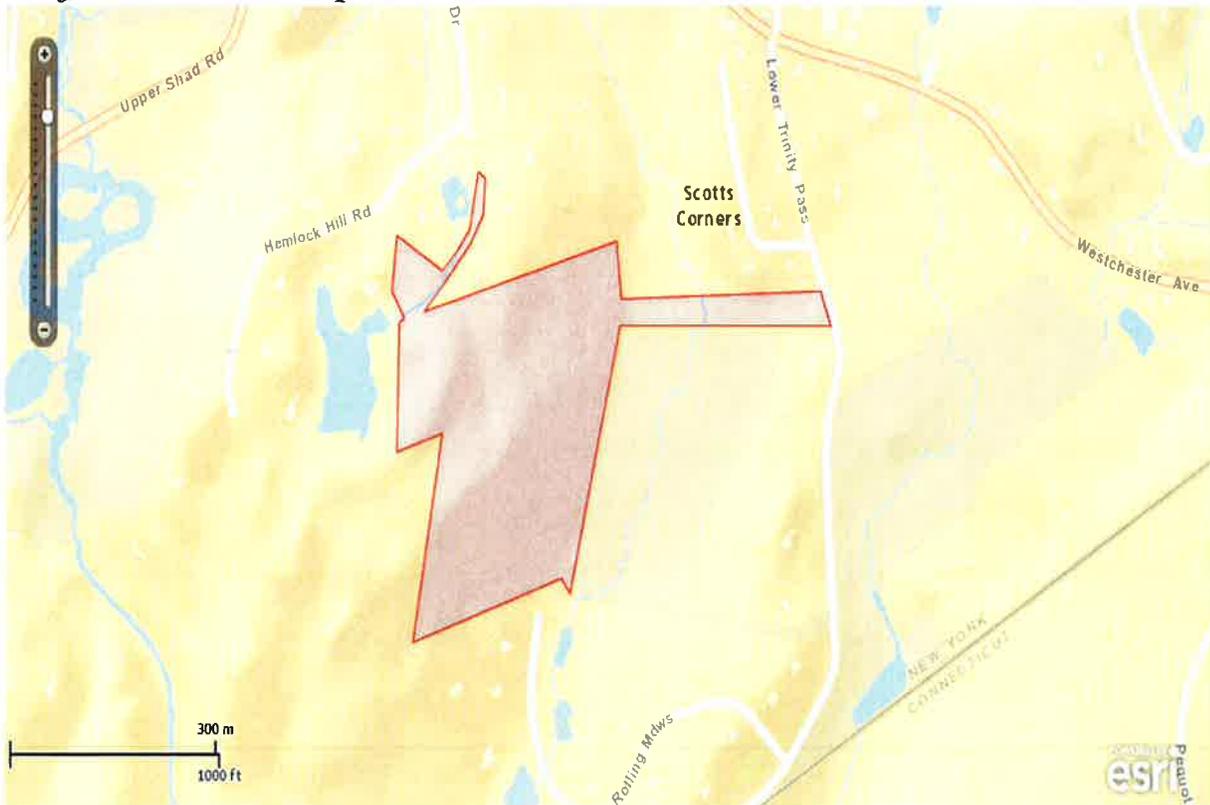
Pound Ridge



U.S. Fish and Wildlife Service

Trust Resources List

Project Location Map:



Project Counties:

Westchester, NY

Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-73.5568451 41.1833963, -73.5563357 41.1855589, -73.5571296 41.1853651, -73.5570867 41.1867054, -73.5570009 41.1867539, -73.5572154 41.1870284, -73.5571285 41.1876097, -73.5563346 41.1872423, -73.5560728 41.1874482, -73.5558582 41.1876743, -73.5557078 41.1882724, -73.5555791 41.1881917, -73.555622 41.1878211, -73.5558366 41.1875304, -73.556652 41.1868199, -73.5532831 41.1875465, -73.5531973 41.1869475, -73.5496997 41.1870282, -73.549528 41.1866745, -73.5532187 41.1866745, -73.5540985 41.183897, -73.5542487 41.1840585, -73.5568451 41.1833963)))



U.S. Fish and Wildlife Service

Trust Resources List

Project Type:

**** Other ****

Endangered Species Act Species List (USFWS Endangered Species Program).

There are a total of 3 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

Species that should be considered in an effects analysis for your project:

Mammals	Status		Has Critical Habitat	Contact
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered	species info		New York Ecological Services Field Office
New England Cottontail rabbit (<i>Sylvilagus transitionalis</i>)	Candidate	species info		New York Ecological Services Field Office
northern long-eared Bat (<i>Myotis septentrionalis</i>) Population:	Proposed Endangered	species info		New York Ecological Services Field Office, Long Island Ecological Services Field Office

Critical habitats within your project area:

There are no critical habitats within your project area.

FWS National Wildlife Refuges (USFWS National Wildlife Refuges Program).

There are no refuges found within the vicinity of your project.



U.S. Fish and Wildlife Service

Trust Resources List

FWS Migratory Birds ([USFWS Migratory Bird Program](#))

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. For more information regarding these Acts see: <http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html>.

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tool links in the Bird Conservation Tools section at: <http://www.fws.gov/migratorybirds/CCMB2.htm>.

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/migratorybirds/CCMB2.htm>.

Migratory birds of concern that may be affected by your project:

There are 23 birds on your Migratory birds of concern list. The underlying data layers used to generate the migratory bird list of concern will continue to be updated regularly as new and better information is obtained. User feedback is one method of identifying any needed improvements. Therefore, users are encouraged to submit comments about any questions regarding species ranges (e.g., a bird on the USFWS BCC list you know does not occur in the specified location appears on the list, or a BCC species that you know does occur there is not appearing on the list). Comments should be sent to [the ECOS Help Desk](#).

Species Name	Bird of Conservation Concern (BCC)	Species Profile	Seasonal Occurrence in Project Area
American Oystercatcher (<i>Haematopus palliatus</i>)	Yes	species info	Year-round



Trust Resources List

American bittern (<i>Botaurus lentiginosus</i>)	Yes	species info	Breeding
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Yes	species info	Year-round
Black-billed Cuckoo (<i>Coccyzus erythrophthalmus</i>)	Yes	species info	Breeding
Blue-winged Warbler (<i>Vermivora pinus</i>)	Yes	species info	Breeding
Canada Warbler (<i>Wilsonia canadensis</i>)	Yes	species info	Breeding
cerulean warbler (<i>Dendroica cerulea</i>)	Yes	species info	Breeding
Fox Sparrow (<i>Passerella iliaca</i>)	Yes	species info	Wintering
Hudsonian Godwit (<i>Limosa haemastica</i>)	Yes	species info	Migrating
Kentucky Warbler (<i>Oporornis formosus</i>)	Yes	species info	Breeding
Least Bittern (<i>Ixobrychus exilis</i>)	Yes	species info	Breeding
Peregrine Falcon (<i>Falco peregrinus</i>)	Yes	species info	Breeding
Pied-billed Grebe (<i>Podilymbus podiceps</i>)	Yes	species info	Year-round
Prairie Warbler (<i>Dendroica discolor</i>)	Yes	species info	Breeding
Purple Sandpiper (<i>Calidris maritima</i>)	Yes	species info	Wintering
Rusty Blackbird (<i>Euphagus carolinus</i>)	Yes	species info	Wintering
Saltmarsh Sparrow (<i>Ammodramus caudacutus</i>)	Yes	species info	Breeding
Seaside Sparrow (<i>Ammodramus maritimus</i>)	Yes	species info	Year-round
Short-eared Owl (<i>Asio flammeus</i>)	Yes	species info	Wintering



U.S. Fish and Wildlife Service

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Snowy Egret (<i>Egretta thula</i>)	Yes	species info	Breeding
Upland Sandpiper (<i>Bartramia longicauda</i>)	Yes	species info	Breeding
Wood Thrush (<i>Hylocichla mustelina</i>)	Yes	species info	Breeding
Worm eating Warbler (<i>Helmitheros vermivorum</i>)	Yes	species info	Breeding

NWI Wetlands (USFWS National Wetlands Inventory).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

Data Limitations, Exclusions and Precautions

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.



U.S. Fish and Wildlife Service

Trust Resources List

Exclusions - Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Precautions - Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

The following wetland types intersect your project area in one or more locations:

Wetland Types	NWI Classification Code	Total Acres
Freshwater Forested/Shrub Wetland	PFO1E	21.3328

DRAWINGS
(Bound Separately)