

Plutarch Woods and Wetlands Critical Environmental Area

Justification and Significance:

Biological Uniqueness

The Plutarch Woods and Wetlands Critical Environmental Area is located in the northeast corner of New Paltz and characterized by low-density residential development within a large forest dotted with wetlands. It is part of a much larger swath of unfragmented forest and wetland habitat extending into the neighboring towns of Lloyd and Esopus. The larger area is designated as the Esopus-Lloyd Wetlands and Ridges Significant Biodiversity Area (SBA) in the DEC's Hudson River Estuary Wildlife and Habitat Conservation Framework. The SBA "contains wetland and upland habitat that is of particular importance to amphibian species and breeding waterfowl. Upland communities include ridges, ledges, and a mature hemlock-northern hardwood forest... This area provides crucial habitat for the state-endangered northern cricket frog. The northern cricket frog prefers shallow vegetated shorelines and bays... Suburban expansion, along with runoff from nearby roads, agricultural lands, and developed areas, pose the most serious threats to the wetland ecosystem and associated cricket frog populations and other species and communities. Local planning and the reduction of polluted runoff in the vicinity of the wetlands will support the viability of these elements of biodiversity" (pgs. 69-70).

The area is also within the Shaupeneak matrix forest block, a 26,000-acre forest area spanning the towns of New Paltz, Lloyd, and Esopus. Matrix forests are large contiguous areas of forest whose size and natural conditions allow for the maintenance of ecological processes, viable ecological communities, and plants and animals that cannot necessarily persist in smaller or poorer-quality forests. They are considered important habitat for interior forest species and represent the best example of viable forest communities in the northeastern United States. Matrix Forest Blocks were delineated by The Nature Conservancy and the New York Natural Heritage Program, along with linkage zones or forest corridors providing regional habitat connectivity.

The DEC Habitat Summary report for New Paltz states that "Forest fragmentation is the process of breaking large blocks of forest into smaller areas, often by clearing it for new roads or development. Fragmentation decreases forest habitat quality and health, disrupts wildlife movement, and facilitates the spread of invasive species. These impacts are greatest at forest edges but can extend for hundreds of feet into forest blocks, often displacing sensitive species that depend on interior forest" (pg. 12). Conservation of "core forest" habitat at least 100-meters from the edge of a forest, as well as maintaining connected corridors between core forest areas, will support the continued ecological integrity of the larger forest block.

Wetlands are abundant throughout the area, including swamps, marshes, and many unmapped vernal pools. In addition to Northern Cricket Frog, NY-Special Concern Red-Headed Woodpecker uses wetland habitat in this area. The Northern Wallkill Biodiversity Plan identifies the northern Swarte Kill (northeast of Van Nostrand Rd) as a priority biodiversity area and notes the presence of habitat for NY-Special Concern Marbled Salamander and high bird biodiversity "perhaps due to a low incidence of subdivision-style sprawl development" (pg. 19). Residents have also observed NY-Special Concern Spotted Turtle and Wood Turtle in the area.

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North of Van Nostrand Rd, the area is classified by the Nature Conservancy as providing “above average” climate resiliency for biodiversity owing to intact, connected habitats topographic complexity, and geologic diversity. Resilient sites are likely to continue to support high biodiversity and allow for the adaptation of species and natural communities in a rapidly changing climate.

The Town Open Space Plan identifies this Critical Environmental Area within the “North Woods and Eastern Wetlands” priority area. The plan states, “Protecting the eastern wetlands and woodlands is a part of the Town’s investment in ‘green infrastructure.’ Wetlands serve multiple functions including aquifer recharge, pollutant filtering, flood protection, and wildlife habitat. Similarly, woodlands are important wildlife habitat and act as a natural stormwater drainage system. Where possible in this landscape, large unfragmented ‘patches’ of wildlife habitat (woodlands or wetlands) should be protected and linked together to create a ‘greenbelt’ along the eastern edge [of the Town]... New development in this area should be designed with sensitivity to the natural landscape and features. Conservation design should be employed in the development of new residential subdivisions... The most critical design feature in this area is the maintenance of unfragmented woodland and wetland habitat. Design should incorporate buffers for wetlands, woodlands, and streams and the configuration of the subdivision should minimize fragmentation of large patches. This can be accomplished by siting the homes closer to existing development and preserving the woodlands/wetlands as open space. Other tools, such as shared driveways and reduced pavement and other impervious surfaces can help to maintain natural drainage and water quality” (pp 21-22).

References:

Anderson, M.G., A. Barnett, M. Clark., J. Prince, A. Olivero Sheldon. and B. Vickery. 2016. Resilient and Connected Landscapes for Terrestrial Conservation. The Nature Conservancy, Eastern Conservation Science, Eastern Regional Office. Boston, MA.
<https://conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/reportsdata/terrestrial/resilience/Pages/default.aspx>

LaBruna, D. T. and M. W. Klemens. 2007. Northern Wallkill Biodiversity Plan: Balancing Development and Environmental Stewardship in the Hudson River Estuary Watershed. MCA Technical Paper No. 13, Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York. Retrieved from
https://www.townofnewpaltz.org/sites/g/files/vyhlf3541/f/file/file/northern_wallkill_biodiversity_plan.pdf

Nardi-Cyrus, N. 2019. Natural Areas and Wildlife in Your Community: A Habitat Summary for New Paltz. New York State Department of Environmental Conservation Hudson River Estuary Program. Retrieved from <https://www.townofnewpaltz.org/environmental-conservation-board/pages/new-paltz-habitat-summary-report-and-rare-species-list>

The Nature Conservancy and the New York Natural Heritage Program. Matrix Forest Blocks and

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Linkages. 2006. Retrieved from <https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1261>

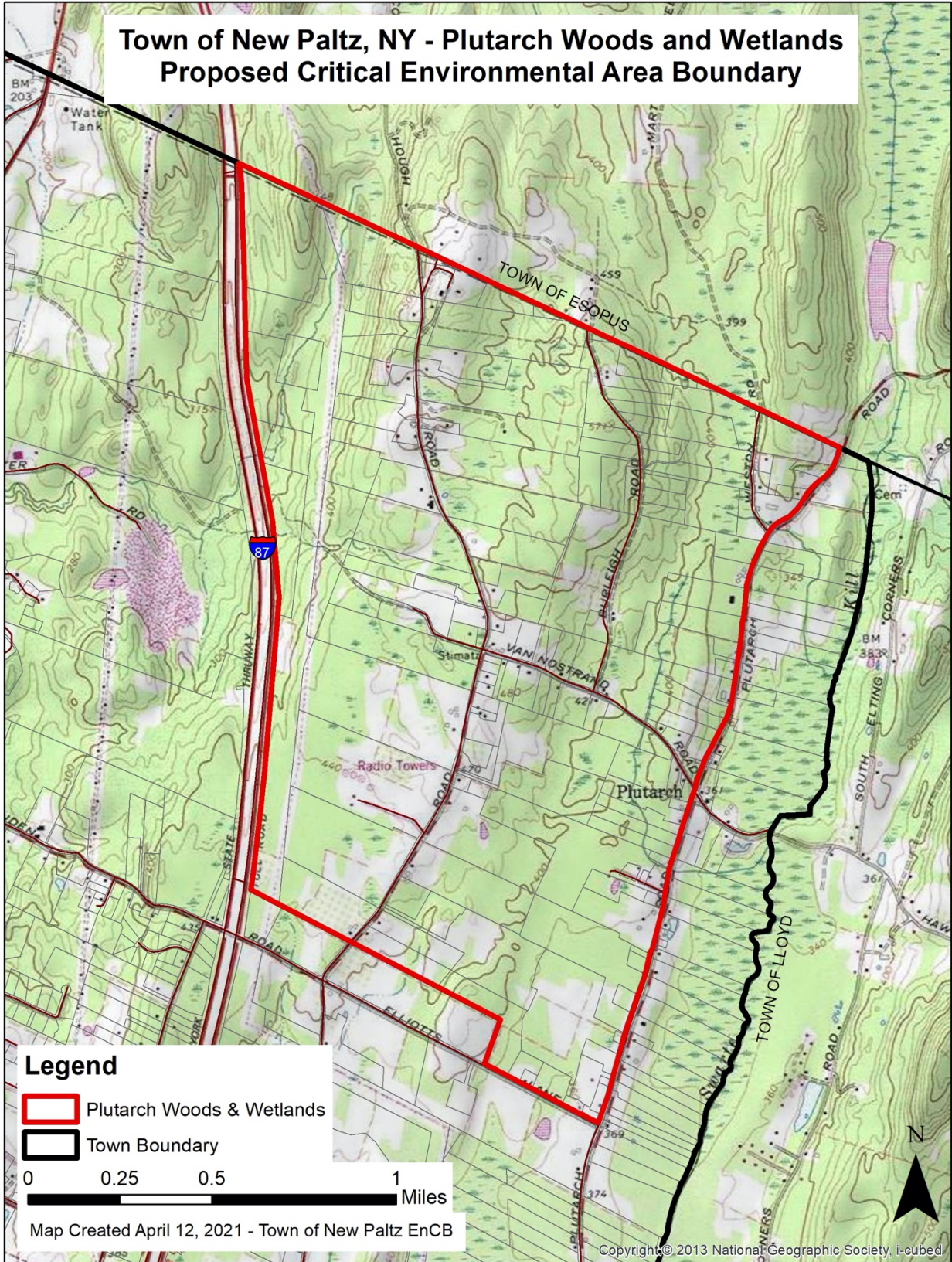
New York Natural Heritage Program Data Inquiry. 2021. (see attached)

Penhollow, M. E., P. G. Jensen, and L.A. Zucker. 2006. Wildlife and habitat conservation framework: An approach for conserving biodiversity in the Hudson River estuary corridor. New York Cooperative Fish and Wildlife Research Unit, Cornell University and New York State Department of Environmental Conservation, Hudson River Estuary Program, Ithaca, NY. Retrieved from https://www.dec.ny.gov/docs/remediation_hudson_pdf/hrebcf.pdf

Town of New Paltz. 2006. New Paltz Open Space Plan: A Framework for Conservation for the Town and Village of New Paltz, New York. Behand Planning Associates, LLC. Retrieved from <https://www.townofnewpaltz.org/building/pages/open-space-plan-2006>

Location:

Bordered on the east by Plutarch Rd, on the north by the boundary with the Town of Esopus, on the east by the New York State Thruway, and on the south by Elliotts Lane (north of the Elliott Farm). The area is about 1,588 acres in size and is shown on the following map.



May 2021

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Report on Rare Animals, Rare Plants,
and Significant Natural Communities

The following rare plants and rare animals
have been documented in the Natural Heritage database
within the proposed

Plutarch Woods and Wetlands Critical Environmental Area Town of New Paltz

March 2021

	COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	NY STATE RANK*
Birds	Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Special Concern	S2?B
Amphibians	Northern Cricket Frog	<i>Acris crepitans</i>	Endangered	S1

* Conservation status in NYS as ranked by NY Natural Heritage Program on a 1 to 5 scale:

S1 = Critically imperiled

S2 = Imperiled

S3 = Rare or uncommon

S4 = Abundant and apparently secure

S5 = Demonstrably abundant and secure

SNA = Status not assessed or assigned.

B after a rank indicates the status for breeding populations of that species.

N after a rank indicates the status for wintering (nonbreeding) populations of that species.

Information about many of the rare animals, rare plants, and natural communities in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org.

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. This information should not be substituted for on-site surveys.

New York Natural Heritage Program

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