December 18, 2014

Public Comments Processing,
Attn: FWS–R5–ES–2011–0024
Division of Policy and Directives Management
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive, MS 2042–PDM
Arlington, VA 22203

RE: Final Determination on the Proposed Endangered Status for the Northern Long-Eared Bat, 78 Fed. Reg. 61046 (October 2, 2013)

To whom it may concern:

The Allegheny, New York, and New England units of the Society of American Foresters (SAF) thank the US Fish and Wildlife Service (USFWS) for the additional opportunity to offer comments on the proposed listing of the northern long-eared bat (NLEB) as Endangered under the Endangered Species Act (ESA). Our organizations, as local units of SAF, represent over 2,300 professional foresters across the states of West Virginia, Maryland, Delaware, Pennsylvania, New Jersey, New York, Connecticut, Massachusetts, Vermont, New Hampshire, Rhode Island, and Maine. Our foresters work for a wide variety of employers, including industry; state forestry and wildlife agencies; federal, state, and county park systems; urban and community forestry; research and academia; nonprofit conservation organizations including land trusts and wildlife-focused organizations; and consulting foresters, who work with large forest landowners, farmers, corporations, hunting clubs, and nonindustrial private forest landowners. Our members choose SAF as their professional society because they care deeply about the perpetuation of a healthy forest ecosystem in the Northeast and Mid-Atlantic states.

This document supplements our organizations' previous comments dated August 29, 2014. Further, we concur with letters submitted by the Midwest Association of Fish and Wildlife Agencies, the South East Association of Fish and Wildlife Agencies, the Northeastern Area Association of State Foresters, and the Southern Group of State Foresters dated November 5, 2014, and the Northeast Association of Fish and Wildlife Agencies. If listing is warranted, USFWS should strongly consider a threatened designation accompanied by a 4(d) rule, which would provide ample protections while also allowing activities that minimally affect the NLEB—like sustainable forest management[1]—to continue.

Our organizations recommend that USFWS consider certain state forestland property tax abatement programs that require or promote sustainable forest management as conservation efforts to reduce habitat destruction, modification, or curtailment of the range of NLEB. Said programs can differ in their stated goals (sustainable forest management, open space, agriculture, and/or habitat), but appear to have the greatest potential of certain conservation tools to defer a private landowner's decision to develop a property (Butler et al 2012). While a complete analysis of such programs throughout the range of NLEB is beyond the scope of these comments, we provide the following examples[2] of how sustainable forest

management intersects with the various habitat requirements of NLEB. We further note the compatibility of many of these programs (1) with third-party verification systems such as American Tree Farm System, Forest Stewardship Council, and Sustainable Forestry Initiative, (2) with federal cost-share programs such as Forest Stewardship Program and other programs administered by the U.S. Department of Agriculture Natural Resources Conservation Service, and (3) with any other state program that involves approval of a property's forest management plan by the state forestry agency.

For each example, habitat suitability maps are provided showing conditions for NLEB before and projected conditions for NLEB after the 10-year term of the current forest management plan. Those habitat suitabilities were taken from the scientific sources within the proposed listing[3]. Care has been taken to examine several forested properties from various geological provinces in our region, and we believe that the intensity of management for these properties is not outside the bounds of typical sustainable forest management regimes for their locations. Please also note that these examples are being provided to demonstrate that sustainable forest management is compatible with NLEB at the scale of their home range, not to recommend that such an analysis be provided by all forest landowners within the range of NLEB.

Example #1 is a 261-acre camp property located in the Adirondack region of Franklin County, New York. It is entirely surrounded by State Forest Preserve that is managed under the "Forever Wild" provision of the New York Constitution. The camp is scheduled for a total of 25.8 acres of final regeneration cuts (with reserves), 49.8 acres of commercial thinning, 13.2 acres of pre-commercial thinning, 25.8 acres of harvest that are the first harvest of the shelterwood method, and 10 acres of group selection harvests. The results of management are a significant increase in the amount of male/non-reproductive female roosting habitat, while retaining significant amounts of maternal roosting and foraging habitat on the property and within the vicinity.

Example #2 is a 950-acre camp property located in the Ridge and Valley province of Sullivan County and Orange County, in New York. It is surrounded by large, established clubs and long-term family landholdings. The camp is scheduled for 41.5 acres of final regeneration cuts (with reserves), 20 acres of commercial thinning, 147.2 acres of pre-commercial thinning, 41.5 acres of harvest that are the first harvest of the shelterwood method, and 25 acres of group selection harvests. The results of management are a significant increase in the amount of maternal roosting habitat, while retaining significant amounts of male/non-reproductive female roosting and foraging habitat on the property and within the vicinity.

Example #3 is a 1,172-acre portion of a conservation and wildlife management property in the Ridge and Valley province of Sussex County, New Jersey. It is located within proximity to state- and federally-owned lands, and other private forestland and agricultural lands. The property is scheduled for 60.8 acres of final regeneration cuts (with reserves), 2 acres of clearcuts, 223.6 acres of commercial and pre-commercial thinning, and approximately 10 acres of group selection harvests. The results of management are a significant increase in the amount of maternal roosting habitat, while retaining significant amounts of male/non-reproductive female roosting and foraging habitat on the property and within the vicinity.

Example #4 is an 883-acre farm and working forest in the Highlands physiographic province of Sussex County, New Jersey. It is located between developed residential areas and other forestland owned by stable, long-term private and public ownerships. The property is scheduled for 36 acres of final regeneration cuts (with reserves), and 50 acres of pre-commercial thinning. The results of management

are retention of significant amounts of maternal roosting, male/non-reproductive female roosting and foraging habitat on the property and within the vicinity.

It should be noted that the final regeneration harvests mentioned above are scheduled for that time when adequate advance regeneration is present to occupy the site, or for those areas where adequate advance regeneration is already present, meaning that the time during which the site may be unavailable for foraging by NLEB is minimized. It is also noted that three of the four properties are certified under the American Tree Farm System.

These example properties provided are being managed under forest management plans written between 2005 and 2014, and were not written specifically to address NLEB conservation. Rather, each plan recommends appropriate silvicultural techniques based on the objectives of the owner, and incorporates Best Management Practices, habitat management guidelines, and rules-of-thumb for various protected resources. By utilizing appropriate silvicultural prescriptions to maintain or enhance forest health while maintaining a balance of age classes within the landscape, foresters seek to perpetuate diverse forests for the long-term.

In addition, we are concerned about summer harvest restrictions and their potential impact to our members' ability to manage certain forest cover types reliant on disturbances during the growing season for their perpetuation. It is our understanding that USFWS and others are concerned about the felling of occupied roost trees and the potential for resulting incidental take of NLEB. We believe that the potential for incidental take during summer harvests would be reduced, if not eliminated, through the retention of a defined density of the highest-value potential roost trees. We note that roost availability for NLEB is not a limiting factor, even in intensively managed forests in our region (Owen et al 2002), although the part of the NLEB range that overlaps with the range of Indiana bat (*Myotis sodalis*) would be held to higher residual densities of Class I trees (Romme et al 1995).

Lastly, we reject the assertion made by some that the felling of any potential roost tree or any tree that might develop into a roost tree is degradation of NLEB habitat. As long as the felling is done as part of sustainable forest management, and an adequate density of potential roost trees remain after such an activity, NLEB habitat will be maintained if not improved by creating canopy gaps while retaining highly-stocked areas, as shown in the examples. In making this statement we note the transitory nature (Timpone et al 2010) of many of the high-value potential NLEB roost trees: hollow trees and dead trees with bark peeling from the stem. These trees have a limited time span during which they are useful to NLEB for roosting before they collapse or before the bark falls from the tree. We further note the frequent roost-switching habits of NLEB as a behavioral defense against loss of a potential roost tree (Kurta et al 2002 in Timpone et al 2010). We find that most of the forests in the range of NLEB are disturbance-dependent ecosystems, and that sustainable forest management activities seek to replicate or mimic natural disturbances necessary to perpetuate those forests.

Our members care about the future of the NLEB, and we offer our assistance in any technical review of the forest ecosystem science associated with the rule, interim guidance, or any habitat conservation planning. If listing is warranted, USFWS should strongly consider a threatened designation accompanied by a 4(d) rule, which would provide ample protections while also allowing activities that minimally affect the NLEB—like sustainable forest management—to continue.

We appreciate your time and consideration and look forward to your response.

Yours in Conservation,

Michael Kusko, Chair	Mariann Johnston, Chair	James Harding, Chair
Allegheny SAF	New York SAF	New England SAF

Mission Statement

The Society of American Foresters (SAF) is the national scientific and educational organization representing the forestry profession in the United States. Founded in 1900 by Gifford Pinchot, it is the largest professional society for foresters in the world. The mission of the Society of American Foresters is to advance sustainable management of forest resources through science, education, technology; to enhance the competency of its members; to establish professional excellence; and to use our knowledge, skills, and conservation ethic to ensure the continued health, integrity, and use of forests to benefit society in perpetuity. SAF is a nonprofit organization meeting the requirements of 501(c)3. SAF members include natural resource professionals in public and private settings, researchers, CEOs, administrators, educators, and students.

FOOTNOTES

[1] The NEAFWA letter recommends a carefully crafted 4(d) rule that would exempt "active forest management" and the MAFWA/SEAFWA/NAASF/SGSF letter recommends a carefully crafted 4(d) rule exempting take resulting from "normal forest management" activities for which best management practices have been developed. While this may be considered semantics, we prefer the term "sustainable forest management," which we define as the application of appropriate silivcultural techniques and best management practices (BMP). Regardless of what is considered "normal" or "active" by those agencies, the intent must be clearly shown that indiscriminate tree cutting would not qualify for exemption should a 4(d) rule be considered.

[2] Not every property shown in the examples is enrolled in forestland tax abatement programs. However, each of the properties would qualify for preferential tax treatment based on the merits of sustainable forest management activities accomplished (or proposed to be accomplished) thereupon.

[3] Our examples look at maternal roosting habitat (maternal), male/non-maternal roosting habitat (non-maternal), and foraging habitat. An additional argument could be made for protections within a limited distance to hibernacula to accommodate mid-winter activity.

Maternal habitat is defined as forest >10 years old, with canopy closure less than 75%, lacking a strong midstory (trees growing beneath the overstory and greater than 10 feet in height), and possessing at least 2 snags per acre (Menzel et al 2002, Lacki and Schwierjohann 2001, Owen et al 2002). Non-maternal habitat is defined as forest > 10 years old, with canopy closure greater than 75% (Perry and Thill 2007). Foraging habitat is defined as forest > 10 years old, with a significant amount of leaf area at heights in the midstory and understory (Caceres and Barclay 2000).

REFERENCES CITED

Butler, B.J., P.F. Catanzaro, J.L. Greene, J.H. Hewes, M.A. Kilgore, D.B. Kittredge, Z. Ma, and M.L. Tyrrell. 2012. Taxing Family Forest Owners: Implications of Federal and State Policies in the United States. Journal of Forestry. 110(7):371-380.

Caceres, M.C. and R.M.R. Barclay. 2000. *Myotis septentrionalis*. Mammalian Species No. 634:1-4.

Kurta, A., S.W. Murray, and D.H. Miller. 2002. Roost selection and movements… p 118-129 In: A. Kurta and J. Kennedy (eds.). The Indiana bat: Biology and management of an endangered species. Bat Conservation International. Austin, Texas.

Lacki, M.J. and J.H. Schwierjohann. 2001. Day-roost characteristics of Northern bats in mixed mesophytic forest. Journal of Wildlife Management 65(3):482-488.

Menzel, M.A., S.F. Owen, W.M. Ford, J.W. Edwards, P.B. Wood, B.R. Chapman, and K.V. Miller. 2002. Roost tree selection by northern long-eared bat (Myotis septentrionalis) maternity colonies in an industrial forest of the central Appalachian mountains. Forest Ecology and Management 155:107-114.

Owen, S.F., M.A. Menzel, W.M. Ford, J.W. Edwards, B.R. Chapman, K.V. Miller, and P.B. Wood. 2002. Roost tree selection by maternity colonies of northern long-eared myotis in an intensively managed forest. Gen. Tech. Rep. NE-292. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station. 6p.

Perry, R.W. and R.E. Thill. 2007. Roost selection by male and female northern long-eared bats in a pine-dominated landscape. Forest Ecology and Management 247:220-226.

Romme, R. C., K. Tyrell, and V. Brack, Jr. 1995. Literature Summary and Habitat Suitability Index Model: Components of Summer Habitat for the Indiana Bat, *Myotis sodalis*. Report submitted to the IN Dept of Nat Resour, Div of Wild, Bloomington.

Timpone, J.C., Boyles, J.G., Murray, K.L., Aubrey, D.P., and Robbins, L.W. 2010. Overlap in roosting habits of Indiana bats (Myotis sodalis) and northern bats (Myotis septentrionalis). American Midland Naturalist 163:115-123.

MAP OF NLEB HABITAT AT BEGINNING OF TEN-YEAR PERIOD

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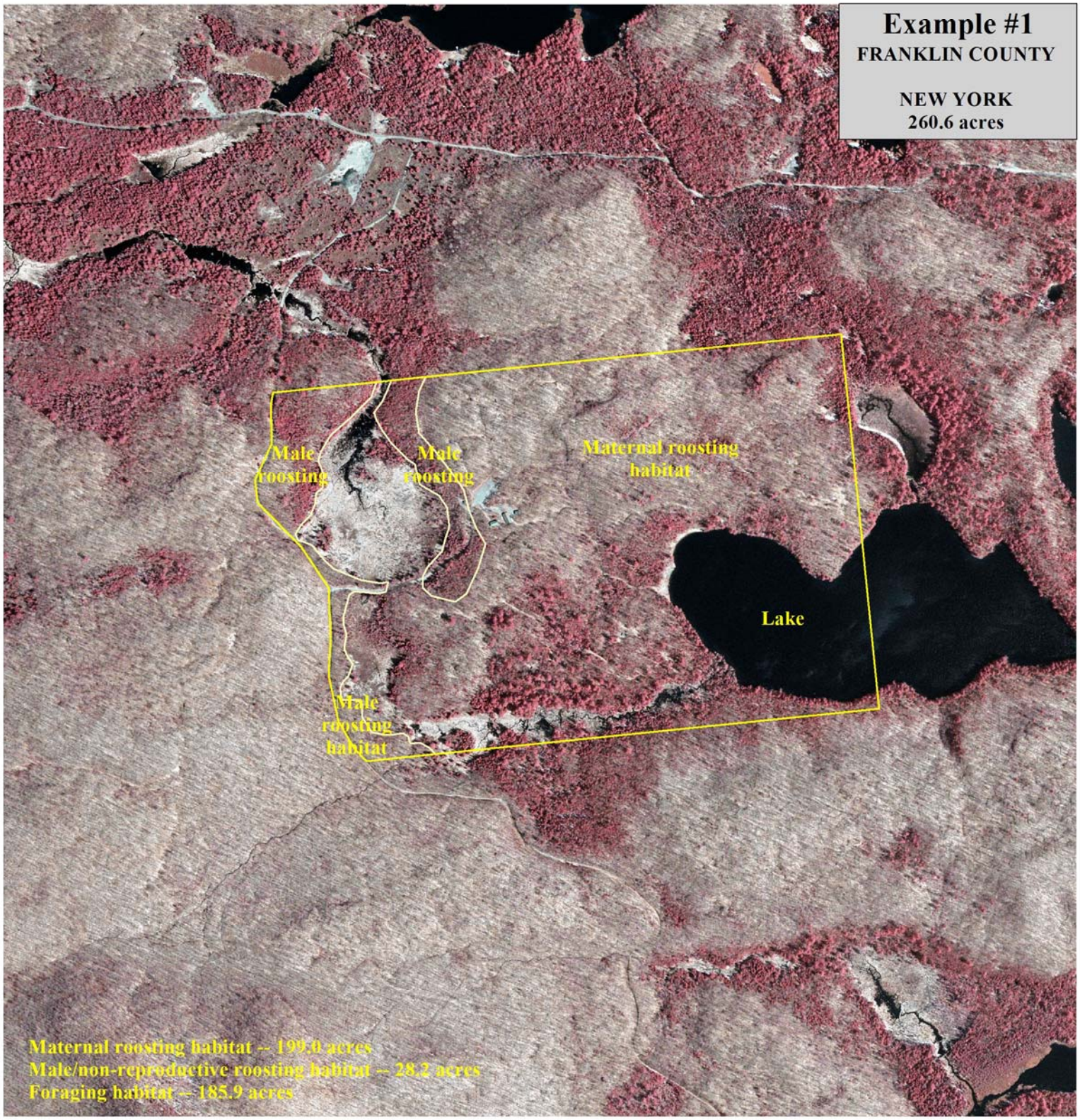
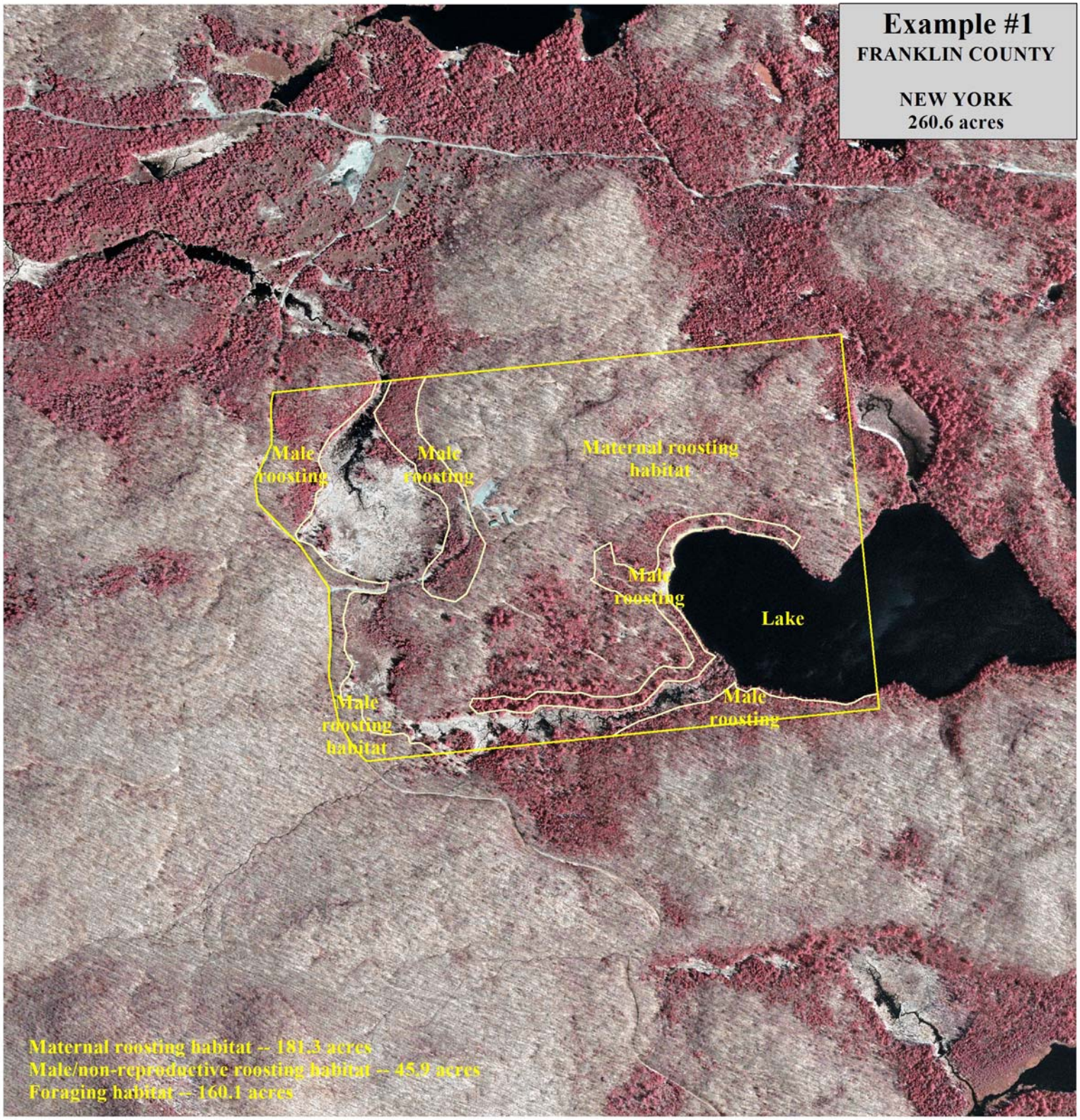


SCALE: 1"-1,000'

MAP OF NLEB HABITAT AT END OF TEN-YEAR PERIOD



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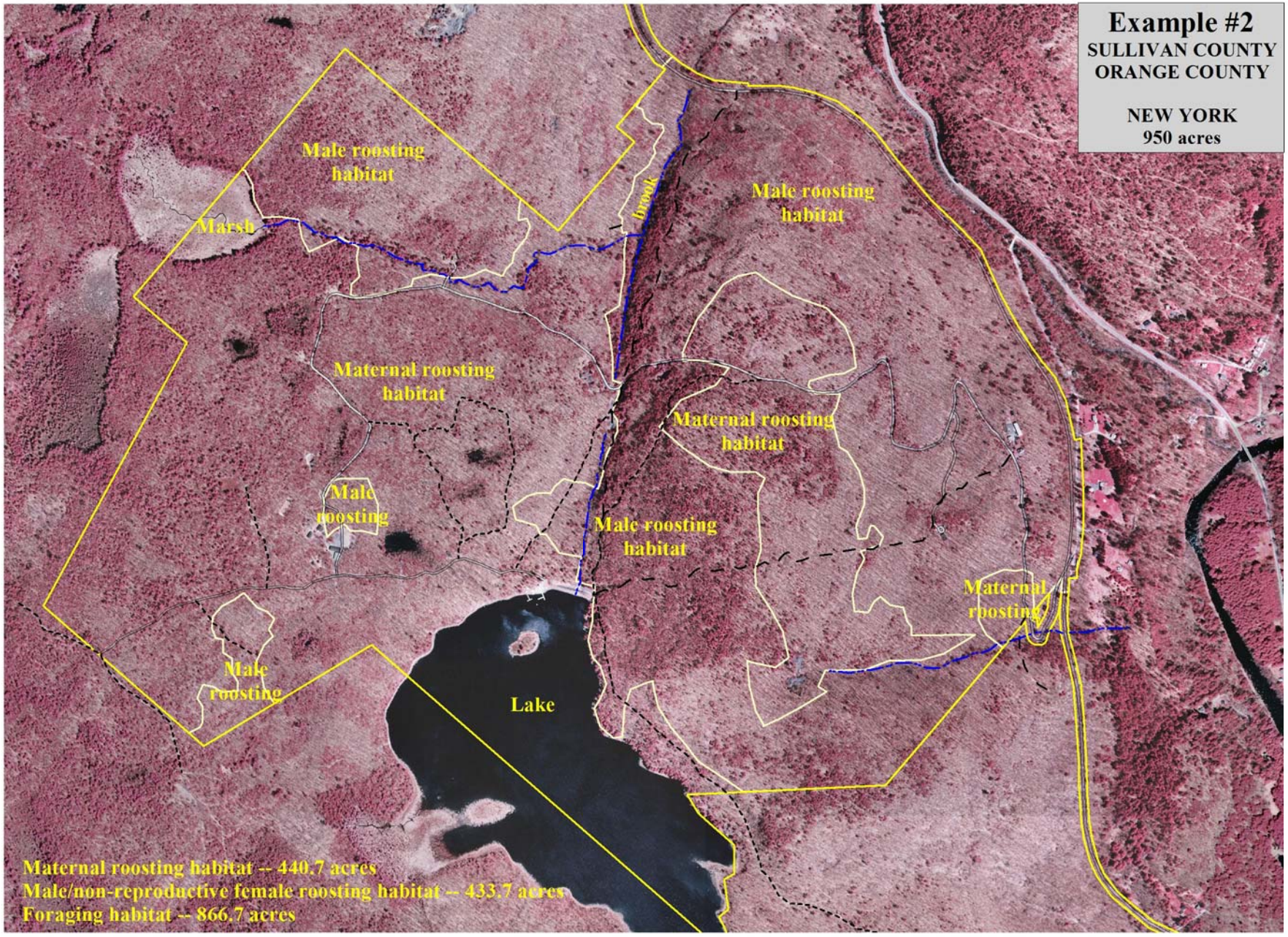

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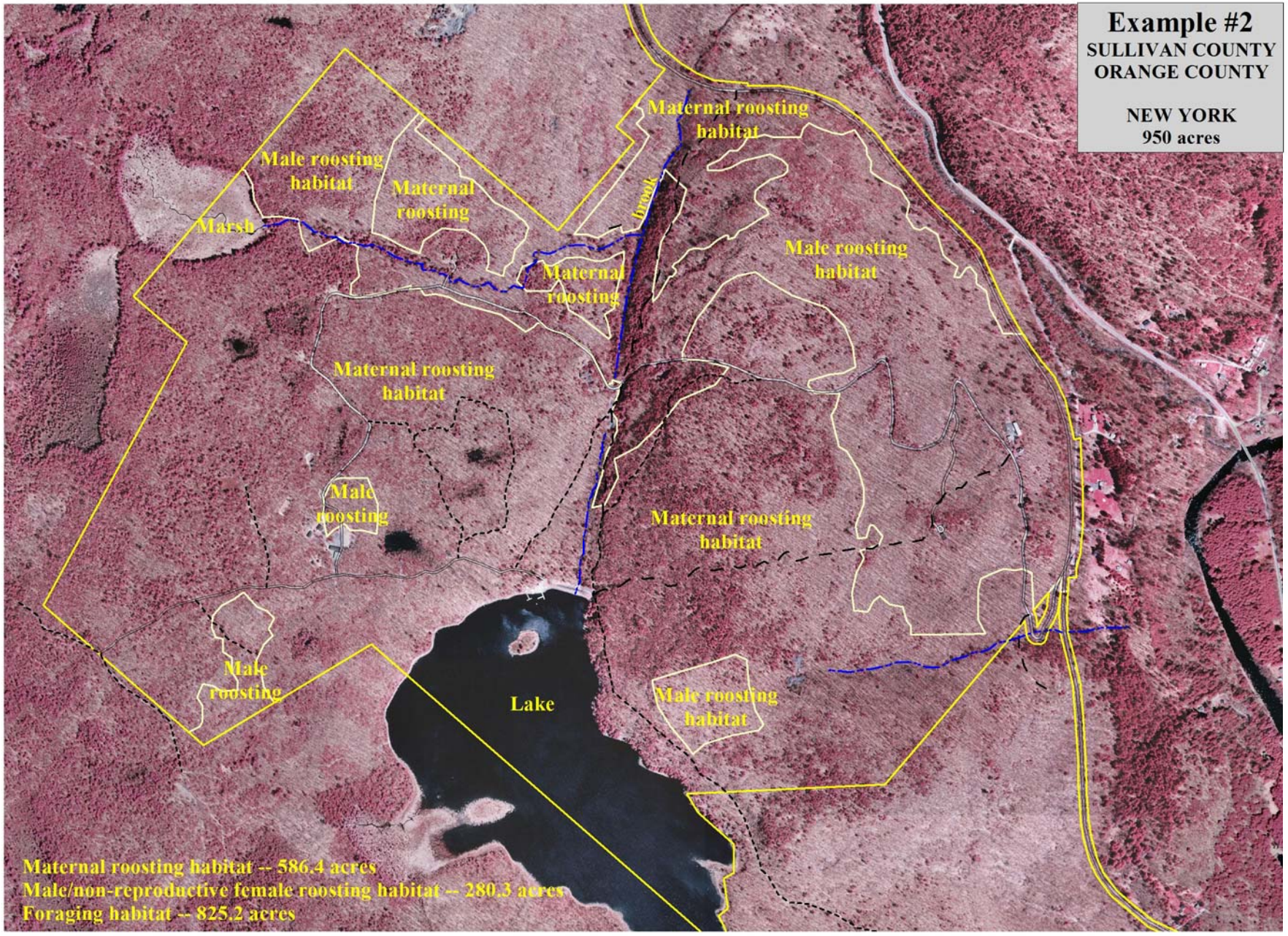
MAP OF NLEB HABITAT AT END OF TEN-YEAR PERIOD



SCALE: 1"-1,200'

MAP OF NLEB HABITAT AT BEGINNING OF TEN-YEAR PERIOD

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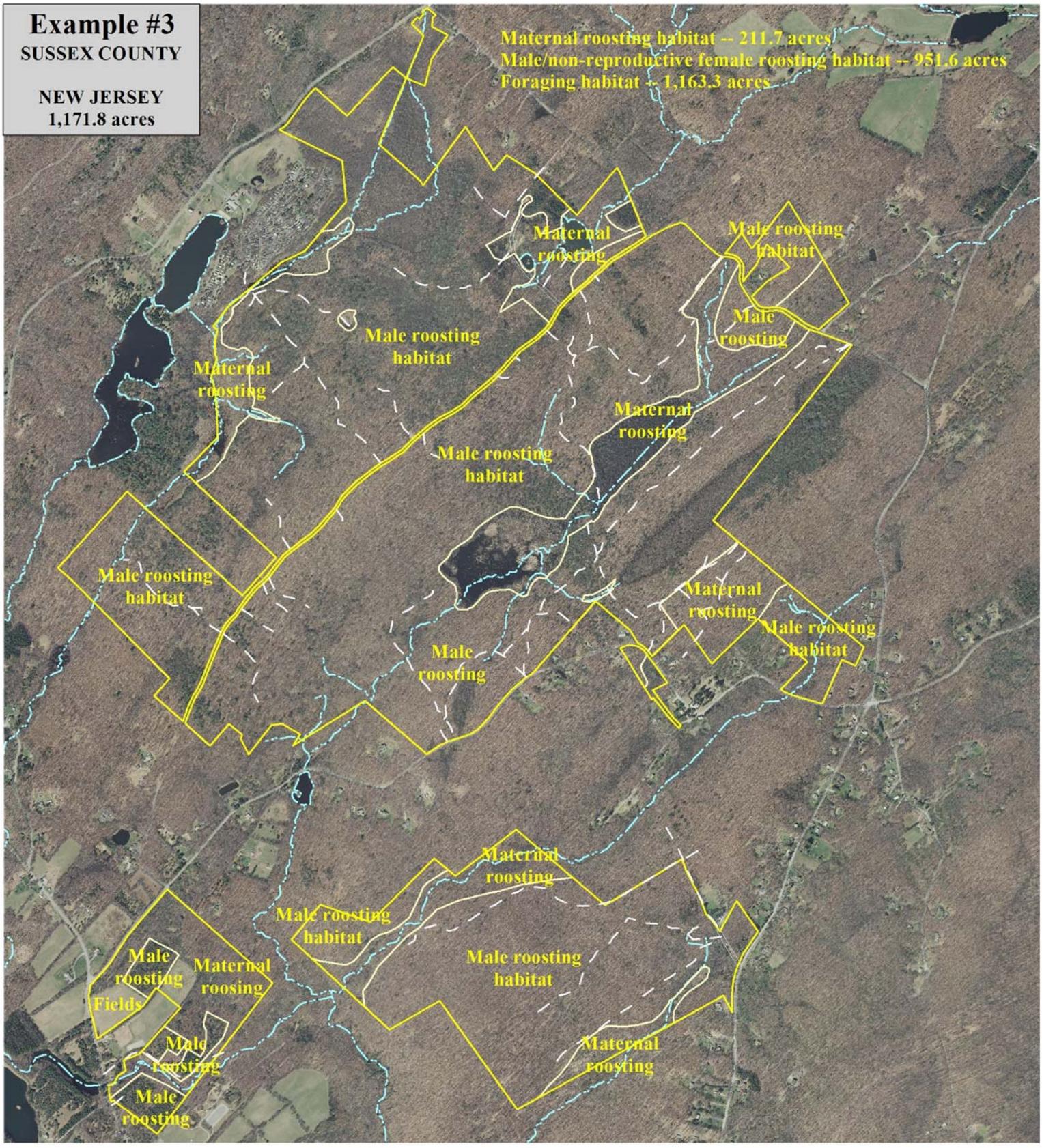
Example #3
SUSSEX COUNTY

NEW JERSEY
1,171.8 acres



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This map was developed using NJDEP GIS digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

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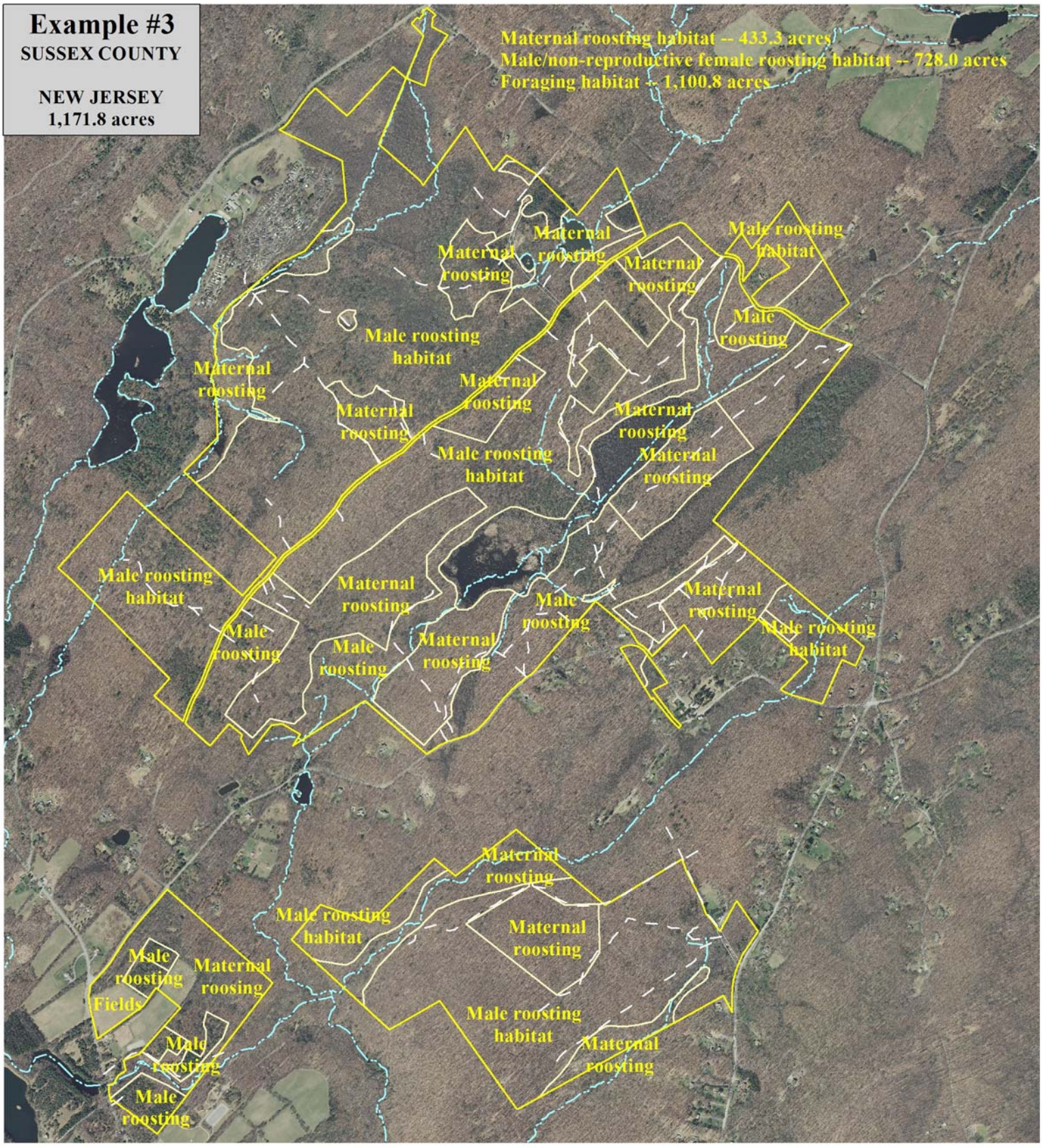

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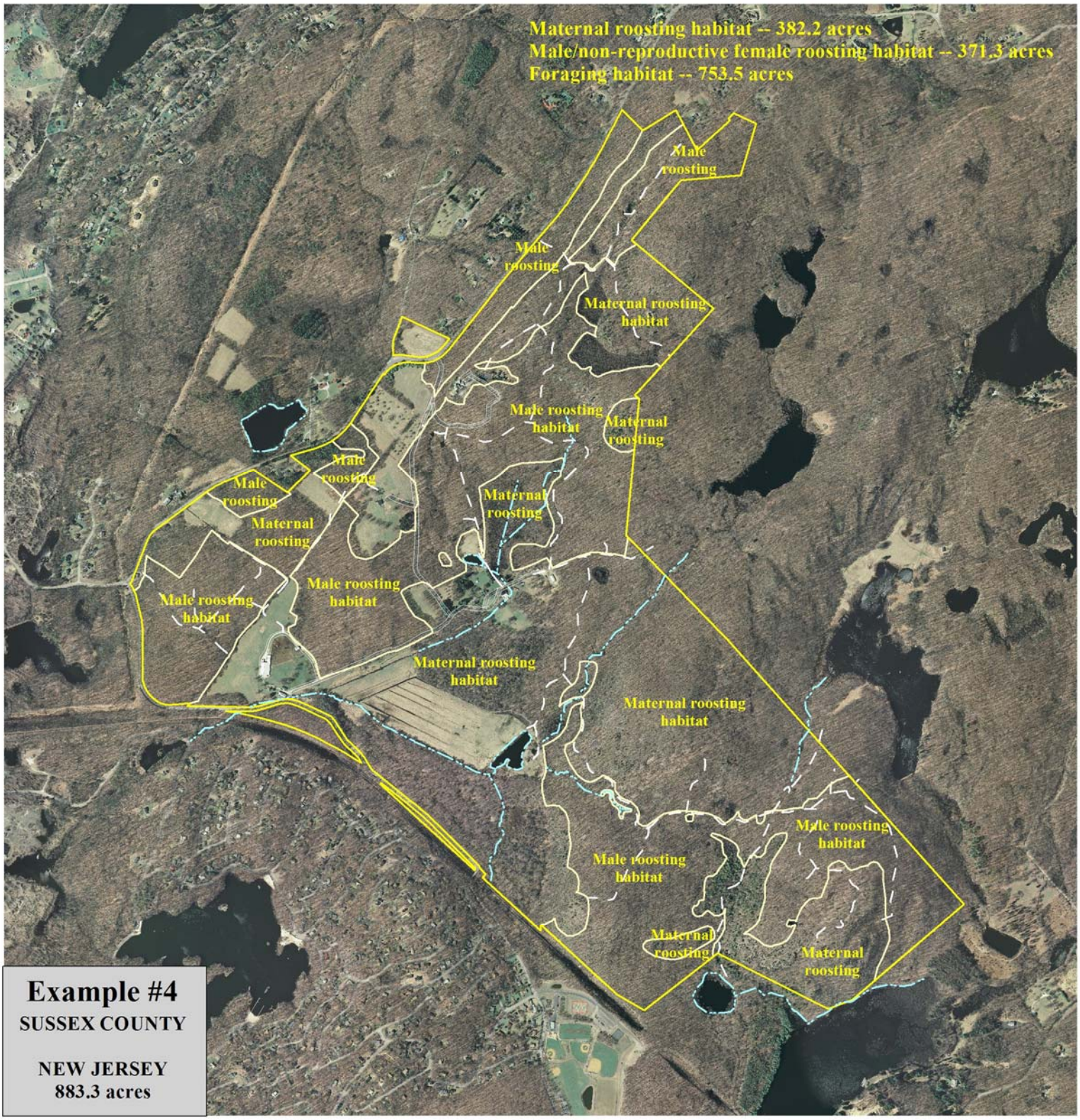

Example #4
SUSSEX COUNTY

NEW JERSEY
883.3 acres

SCALE: 1"-1,500'

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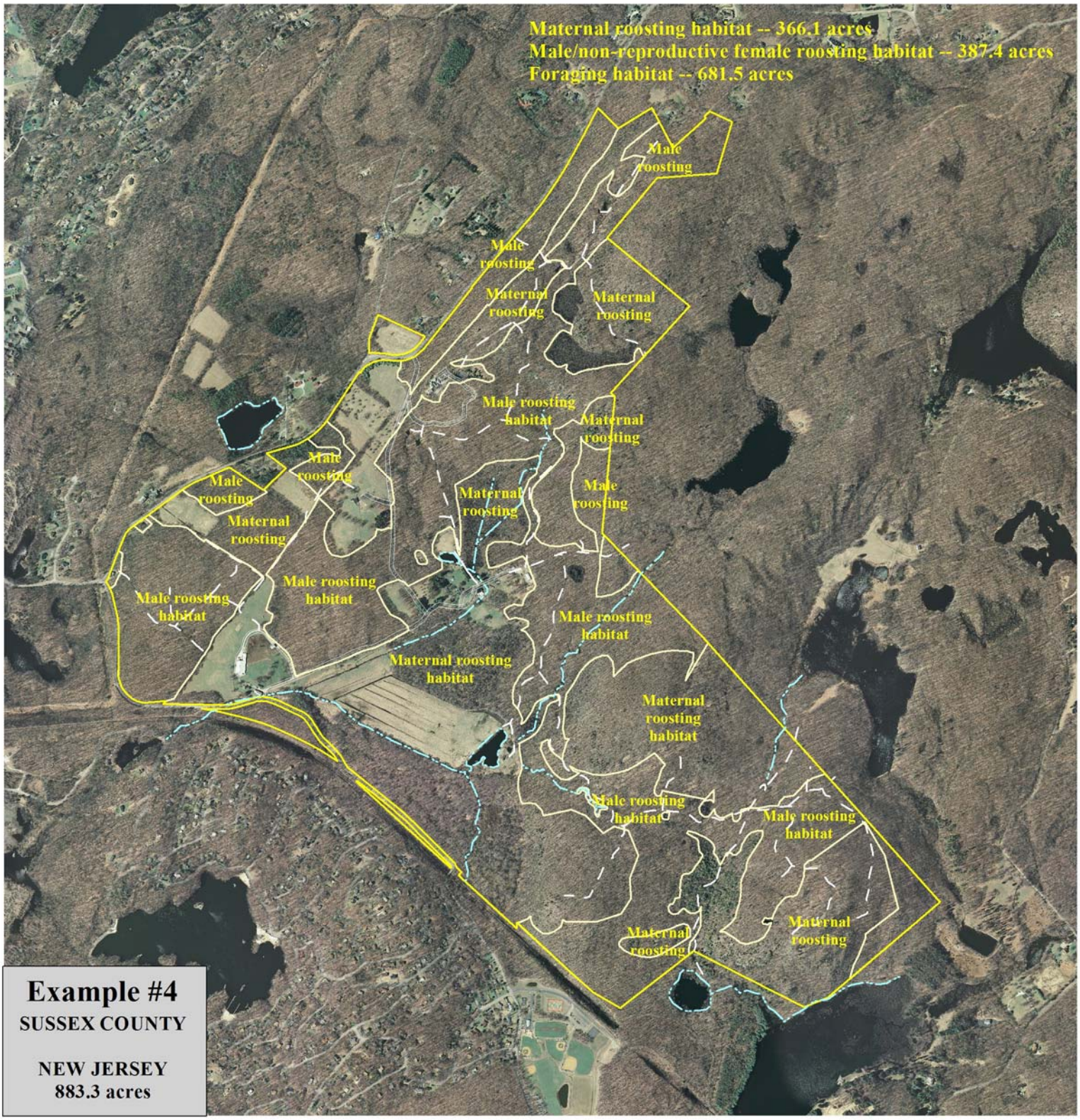
MAP OF NLEB HABITAT AT END OF TEN-YEAR PERIOD



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