

Appendix G



Mao Teng Lin/USFWS

The Margeson Estate main house at Great Bay National Wildlife Refuge

Compliance with Section 7 of the Endangered Species Act, Section 106 of the National Historic Preservation Act, and the Coastal Zone Management Act

INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM

Originating Person: Graham Taylor

Telephone Number: 978-465-5753, extension 201

Date: July 17, 2012

I. Service Program and Proposed Activity – NWRs, Great Bay National Wildlife Refuge (NWR), and Karner Blue Butterfly Easement; implementation of Comprehensive Conservation Plan (CCP).

II. Pertinent Species Within the Area

Karner blue butterfly (*Lycaedes melissa samuelis*) endangered
New England cottontail (*Sylvilagus transitionalis*) candidate

III. Station Name and Action

Great Bay NWR and Karner Blue Butterfly Conservation Easement – Implementation of final CCP.

Alternative B (CCP Preferred Alternative): emphasize the management of specific refuge habitats to support focal species whose habitat needs benefit other species of conservation concern that are found in the Great Bay region.

IV. Location

Great Bay NWR, Rockingham County, Newington, NH, and Karner Blue Easement, Merrimack County, Concord, NH

V. Determination of Effects

A. Explanation of effects of action on species and critical habitats listed in II

The Management Implementation and Direction chapter of the Final CCP includes specific objectives and strategies under Goal 5 for the Karner blue butterfly. Objective 2.3 (Upland Habitats) includes specific strategies for the New England cottontail. The CCP also considers using a portion of the Refuge as a captive-rearing site for the New England cottontail. For both of these species, the goals, objectives, and strategies have been developed to enable the Refuge to support efforts for the recovery of both species; thus having a positive and beneficial effect for both.

Karner blue butterfly - The Karner Blue Butterfly Recovery Plan (Recovery Plan), dated September 2003, provides a summary of the species' life history and is incorporated by reference. In summary, the only known food plant for the Karner blue butterfly is the wild blue lupine (*Lupinus perennis*), which typically occupies sandplain communities and grassy openings within very dry, pitch pine/scrub oak barrens. Fire is an important disturbance element for this habitat type that is needed to maintain the conditions that allow the lupine to persist. As a result of fire suppression throughout the Karner blue butterfly's range, habitat value has declined and some areas have degraded to the point that they no longer provide suitable habitat.

Habitat management for the Karner blue butterfly involves the implementation of prescribed fire and other vegetation management techniques (i.e., tree clearing and brush cutting) to create conditions that will allow wild lupine to persist. Because Karner blue butterfly eggs, larvae, pupae, and adults can be found on and near lupine during all times of the year, the use of prescribed fire and other habitat management techniques will result in the taking (harm or kill) of individual butterflies, while providing benefits to the population.

Continuation of public use of the Karner blue butterfly easement will also occur, primarily as foot traffic along existing trails and access ways. There is no evidence that this public use is having an adverse effect on the species at this site.

New England cottontail - Although not required by law, including candidate species is U.S. Fish and Wildlife Service (Service) policy when making natural resource decisions during internal Service conferencing to ensure that the Service action does not jeopardize the species.

New England Cottontail Controlled Propagation - Controlled propagation is currently being employed as a conservation measure to help recover the New England cottontail in the southern portion of the species range. Expansion of this effort into the northern portion of the species' range has been recommended as a way to establish new populations, or augment existing populations (see the current draft of the *Conservation Strategy for the New England Cottontail*, dated June 2012). To facilitate these efforts in the New Hampshire and Maine portions of the species' range, the Great Bay NWR is proposing to devote a portion of the Refuge as a captive-rearing site. As a result, a jeopardy analysis is needed.

In accordance with policy and regulation, a jeopardy analysis relies on four components: (1) the *Status of the Species*, which evaluates the condition of the species rangewide, the threats to the species and its survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the species in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; (3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated activities on the species; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the species.

Although the captive propagation of the New England cottontail is intended to complement the recovery of the species, a complete jeopardy analysis that includes conservation recommendations for ensuring the well-being of individual rabbits that are produced or maintained for this effort is needed. In addition to the need for internal conferencing on Service actions, compliance with the Service's *Controlled Propagation Policy* is also required (65 FR 56916), which will be completed upon finalization of a document describing husbandry and reintroduction procedures for the New England cottontail. Production of this document is currently underway by the New England cottontail Captive Breeding Working Group that includes individuals with expertise in veterinary care, animal husbandry, captive breeding for conservation, and taxonomic experts familiar with the biology of the species.

New England Cottontail Habitat Management – There are no known occurrences of the New England cottontail on the Great Bay NWR; therefore, implementation of habitat management on the Refuge will have no effect on the species. In the event that the New England cottontail disperses to, or is introduced to the Refuge, internal conferencing will be required and initiated by Great Bay NWR staff.

B. Explanations of actions to be implemented to reduce adverse effects.

Karner blue butterfly - At the Karner blue butterfly easement, Great Bay NWR staff proposes the continuation of habitat management activities that will maintain the habitat and enhance the long-term viability of the Karner blue butterfly population, but these activities may result in the take (death or injury) of individuals. Actions to avoid take may include timing management activities to avoid impacts to adults, and pre-activity surveys for eggs, larvae and pupae, and relocating those that may be impacted. However, the eggs, larvae and pupae of the Karner blue butterfly are difficult to find because they are extremely small and easily hidden by leaf litter; accordingly, we expect that surveys will be unable to find all Karner blue butterflies that are present in the various life stages. As a result of the take of Karner blue butterflies resulting from the implementation of recovery actions, Great Bay NWR will apply for a Section 10(a)(1)(A) Enhancement of Survival Permit.

New England Cottontail Controlled Propagation - A document describing propagation and reintroduction protocols for the New England cottontail is currently being developed by the New England cottontail Captive Breeding Working Group. These protocols will include recommendations to ensure the well being of individual rabbits that are confined or produced for release into the wild.

New England Cottontail Habitat Management – Because the New England cottontail is not known to occur at the Great Bay NWR, adverse effects are not anticipated.

VI. Effect Determination and Response Requested

A. Listed Species Determination

Karner blue butterfly – Management actions are expected to have a beneficial effect on the Karner blue butterfly population; however, implementation of the habitat management actions is likely to adversely affect the species because the actions are expected to result in take of Karner blue butterflies. To address this take, Great Bay NWR will apply for a Section 10 (A)(1)(a) Enhancement of Survival Permit. Formal consultation, in association with the issuance of the recovery permit will address those actions taking place on the Karner blue butterfly easement.

New England Cottontail Controlled Propagation - Because the controlled propagation of the New England cottontail is being proposed in support of recovery actions for the species, the controlled propagation of the species at the Great Bay NWR is not expected to jeopardize the continued existence of the species. However, a complete jeopardy analysis will be conducted upon completion of a document describing husbandry and reintroduction protocols for the New England cottontail that are expected to be completed by January 2013.

New England Cottontail Habitat Management – Is not likely to adversely affect.

B. Response Requested

Concurrence

VII. Reviewing Ecological Services Office Evaluation

A. Concurrence

B. Formal Consultation Required

C. Conference Required

D. Nonconcurrence

Remarks:



Thomas R. Chapman, Supervisor
New England Field Office

20 July 2012
Date



NEW HAMPSHIRE DIVISION OF HISTORICAL RESOURCES

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April 3, 2012

Nancy L. McGarigal
NWRS Planning Team Leader, Region 5
300 Westgate Center Drive
Hadley, MA 01035

Re: Request for comment on the Draft Comprehensive Conservation Plan and Environmental Assessment (CCP/EA) for the Great Bay Wildlife Refuge in Newington, NH.

Dear Ms. McGarigal:

The NH Division of Historical Resources (Division) appreciates the invitation to comment on the Draft Comprehensive Conservation Plan and Environmental Assessment (CCP/EA) for the Great Bay Wildlife Refuge in Newington, NH.

The information presented in the Draft CCP/EA for the Great Bay Wildlife Refuge is considered thorough and comprehensive.

Within the Great Bay Wildlife Refuge many areas are considered archaeologically sensitive with regard to Native American site potential and early historic site potential. The Division would be concerned with areas proposed for wildlife management and proposed projects for the public use program with regard to trail enhancements or other ground disturbing activities.

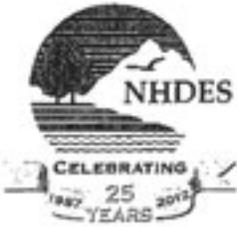
The Division requests that as this planning process continues identified cultural resources and areas considered sensitive are taken into consideration. The Division understands that those activities may directly or indirectly affect the historical resources located within the Great Bay Wildlife Refuge. Please continue to provide the Division an opportunity to comment as plans develop.

Sincerely,

Richard Boisvert, State Archaeologist
Deputy SHPO, Division of Historical Resources

RAB/emf





The State of New Hampshire
Department of Environmental Services

Thomas S. Burack, Commissioner

*Celebrating 25 Years of Protecting
New Hampshire's Environment*



April 16, 2012

Graham Taylor
Refuge Manager
c/o Parker River National Wildlife Refuge
6 Plum Island Turnpike
Newburyport, MA 01950

RE: File No. 2012-04; Great Bay National Wildlife Refuge Draft Comprehensive Conservation Plan

Dear Mr. Taylor:

The New Hampshire Coastal Program has received the U.S. Fish and Wildlife Service's federal consistency determination for the Great Bay National Wildlife Refuge Draft Comprehensive Conservation Plan (CCP), pursuant to Section 307(c)(1) of the Coastal Zone Management Act, 16 U.S.C. § 1456(c)(1). After reviewing the Draft CCP, we find it to be consistent, to the maximum extent practicable, with the enforceable policies of New Hampshire's federally approved coastal management program.

Should you have any questions, please feel free to contact me at (603) 559-0025.

Sincerely,

A handwritten signature in cursive script that reads "Christian Williams".

Christian Williams
Federal Consistency Coordinator
New Hampshire Coastal Program

cc: Nancy McGarigal, USFWS
Doug Grout, NH Fish & Game Dept.

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