

Habitat Management Recommendations

Summit Woods Property
Route 52
Town of East Fishkill,
Dutchess County, NY

May 10, 2011

Prepared by:

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BOG TURTLE

In March 2002 Ecological Solutions, LLC identified potential Bog Turtle (*Glyptemys muhlenbergii*) habitat on the 325.22 acres Summit Woods property located on Route 52 in the Town of East Fishkill, Dutchess County, NY (Figure 1.0-1). The Bog Turtle is listed as a New York State endangered species¹ and is listed as a threatened species by the US Fish and Wildlife Service.

As part of the continuing environmental review for the project, the Applicant ABD Fishkill, LLC contracted with Ecological Solutions, LLC in April 2006 to undertake a Phase II Bog Turtle survey within a total of 3.55 acres (Area 1: 0.83 ac.; Area 2: 2.72 ac.) of excellent quality potential habitat (limestone fen) identified on the site (Figure 1.0-2). Two additional areas of herbaceous wetland with fen indicator species totaling 20.67 acres [Area 3: 11.97 ac.; Area 4: 8.70 ac. (Figure 1.0-2)] were also evaluated but were determined to be unsuitable based upon the absence of consistent groundwater-driven hydrology. This report provides the results of the Phase II Bog Turtle survey within the 3.55 acres of high quality limestone fen habitats on this site during April, May, and June 2006.

The Phase II survey was completed in accordance with the protocols outlined by the Fish and Wildlife Service (2001)². A bog turtle survey is an attempt to determine presence or probable absence of the species. Following the Phase II Bog Turtle Survey guidelines helps to maximize the potential for detection of bog turtles at previously undocumented sites at a minimum acceptable level of effort. Although the detection of bog turtles confirms their presence, failure to detect them does not absolutely confirm their absence likewise, bog turtles do not occur in all appropriate habitats and many seemingly suitable sites are devoid of the species.

No bog turtles were identified on the Summit Woods property during the Phase II investigation. The habitat examined during the surveys remains potentially useful for the species although natural succession processes are rapidly causing these somewhat open fen areas to become more forested wetlands which, if not expeditiously managed will lead to a permanent loss of this potential habitat for bog turtles. Woody successional species including red maple and alder make up approximately 50 percent of the core fen habitat at the property. Bog Turtles' preferred habitat includes shallow, spring-fed fens, sphagnum bogs, swamps, marshy wet meadows with soft, muddy, organic bottoms, slow moving water, and open canopies bordered by shrub and red maple swamps. Plant species found in association with bog turtles include shrubby

¹ New York State DEC Web Site Endangered Species Home Page Bog Turtle Fact Sheet

² US Fish and Wildlife Service 2001 Bog Turtle (*Clemmys muhlenbergii*) Northern Population, Recovery Plan Hadley, Massachusetts

cinquefoil (*Potentilla fruticosa*), sedges (*Carex* spp., especially *Carex stricta*), sphagnum moss (*Sphagnum* spp.), and skunk cabbage (*Symplocarpus foetidus*). The turtles frequently lay eggs atop tussock sedges in areas with open canopies and sparse shrub vegetation that would not shade the nests.

The Applicant in cooperation with the US Fish and Wildlife Service (USFWS) and US Army Corps of Engineers (USACE) is proposing to manage the limestone fen habitats identified during the surveys and mapped using GIS Arc View software by utilizing several accepted techniques cited by Robyn Niver of the USFWS in email correspondence. Currently the focus of the management of the fen areas is limited to the removal of high density woody material since no invasive plant species have been encountered in the primary fen habitats. Larger secondary habitats outside of the core fens have modified hydrology from past agricultural activities and are not considered part of this management effort due to the complexity of attempting to further modify hydrology on the property. Therefore, the Summit Woods effort includes:

A. Mapping/Surveying Habitat

1. Surveyor to field stake limits of appropriate fen habitat considered for management (i.e area of Phase II surveys – approximately 3.5 acres).
2. Install stakes with visible ribbon at 50 foot intervals as a guide for woody vegetation removal activities.
3. Biologist/s will identify and catalogue vegetation within five (5) 10 by 10 foot plots randomly placed in core fen to gather baseline data.

B. Woody Vegetation Clearing

1. Target species to be removed are trees and shrubs. Size of trees/shrubs to be removed: <4" diameter: red maples and other tree species, mature alders, willows, dogwoods, arrow-wood, highbush blueberry and other shrubs except poison sumac which will remain.
2. Removal method: Hand-operated mechanical brush-cutter and chainsaw.
3. Debris pile placement and removal corridor: All larger stems/trunks/slash to be removed by hand and placed outside wetlands.
4. No nesting areas known.
5. Timing of Actions: Vegetation clearing will take place from September through November for two consecutive years after final approval and potentially a third year if required.

C. Monitoring Post Clearing

1. Biologist/s will identify and catalogue vegetation within five (5) 10 by 10 foot plots to document effects of clearing on succession processes and suitability as

bog turtle habitat (during the month of June for two consecutive years following final approval by the Town of East Fishkill Planning Board).

2. Report submitted to USFWS and New York State Department of Environmental Conservation (NYSDEC) (during the month of June for two consecutive years following final approval by the Town of East Fishkill Planning Board).

INDIANA BAT

The Summit Woods Property was evaluated for potential Indiana Bat (*Myotis sodalis*) habitat by The Chazen Companies with information from the evaluation shown in a report entitled, “Endangered and Threatened Species Report” dated April 10, 2006. Excerpts from this report regarding the evaluation for Indiana bat habitat are provided in several locations in the report and are shown below in quotations. The initial quote is from the introductory paragraph:

“Potential summer roosting habitat for Indiana bats occurs on the Property in wooded areas within NYSDEC Wetland HJ-49 and on Stormville Mountain. However, as no wetland impacts are proposed, and as the forested hillside will be designated as open space, we do not anticipate any impacts to Indiana bat habitat. Preliminary consultation with USFWS indicates that this agency agrees with TCC’s assessment that the proposed development plan does not incorporate significant impacts to bat habitat and that further evaluation of this issue is not necessary”.

Section 2.1 of the report follows:

“2.1 Indiana bats

The USFWS requested that the Property be surveyed to determine the presence, amount, and distribution of suitable summer roosting/maternity habitat, and the presence of any mines/caves that could serve as hibernacula. Indiana bat summer roosting habitat is given by wooded areas with trees that have a southern exposure, are ≥ 5 inches in diameter, and exhibit specific physical characteristics (e.g., exfoliating bark, crevices, dead limbs, snags).³ During a 2005 site visit, representatives from USFWS determined that potential Indiana bat habitat exists on the Site in HJ-49 and on the forested hillside along the Site’s southern border. No mines and caves were observed on the Property. However, as the footprint of development will be limited to old field habitats, and as HJ-49 and the wooded hillside occur in areas designated as open space, no impacts to bat habitat will occur according to the proposed development

³ Indiana Bat Project Review Fact Sheet. USFWS New York Field Office. August 2005.

plan. USFWS staff verbally agreed with the assessment of no impacts to bats based on the current site plan and indicated that no further evaluation of the bat issue is warranted.”

The conclusion statement in the report specifically related to Indiana bats states the following:

“Potential Indiana bat summer roosting habitat occurs in various forested areas on the Summit Woods Site. However, the proposed designation of these areas as open space will preserve this habitat.”

In summary, The Chazen Companies evaluation of the Summit Woods property for Indiana bat summer habitat states clearly that the potential habitat on the property is found in the forested wetlands and wooded hillside that will remain as open space. Since there are no direct impacts expected there is only standard mitigation measures proposed as outlined below:

A bright orange plastic mesh project-limiting fence will be erected at the proposed limit of clearing on the site prior to any vegetation being cleared from the site. This fence will provide a clear visual and physical barrier to prevent inadvertent clearing of naturally vegetated areas that are not intended to be cleared for this project. The project limiting fence will not be removed from the site until all site development has been completed.

Street lighting on the site will use Town of East Fishkill Planning Board approved light fixtures that have tops that direct light down to minimize light pollution and not interfere with potential bat foraging activities.

Finally, as described extensively in the Environmental Impact Statement soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti tracking pads to prevent erosion and sedimentation in surface waters on the site will be strictly followed.