

INDIANA BAT ASSESSMENT

Species Background The Indiana bat is a Federal and State listed Endangered Species. In New York knowledge of the distribution of this species is limited to known wintering locations in caves and mines in which they hibernate (hibernacula). There are eight known Indiana bat hibernacula in New York (NYS DEC Indiana Bat Fact Sheet). The major potential impact to Indiana bats is disturbance of the hibernacula since this is the most vulnerable period in the life-cycle of this species. Many of the non-hibernating habitat requirements of this species are not well understood. Outside the hibernation period, Indiana bats utilize a variety of both live trees and snags with exfoliating bark for roosts in a range of wetland and upland habitats. In the spring females congregate in nursery colonies, only a handful of which have been discovered. The nursery colonies that were discovered were located along the banks of stream or lakes in forested habitat, under the loose bark of dead trees, and contained 50 to 100 females. Indiana bats do not use the same roost continually, but switch roosts every 2 to 4 days. An arbitrary density of at least 5 roost trees per acre is generally considered a minimum for this species. Indiana bats use many habitats for foraging including riparian areas, upland forests, ponds, fields and crop land. Recent observations and anecdotal evidence suggests that this species may be more adaptable to disturbance than previously thought (USDA, 1991 and US FWS, 1999).

Lake Walton Site Indiana Bat Habitat Assessment An assessment as to the suitability of the Lake Walton site as potential Indiana bat hibernating, foraging and roosting habitat was conducted by Evans Associates on June 21, 2005 to assess whether there is potential hibernating, foraging or roosting habitat present for this species. There are no caves or mines on the Site that could be utilized as a potential Indiana bat hibernacula. The closest hibernacula to the Lake Walton site is located in Ulster County, about 25 miles away, on the west side of the Hudson River. The Indiana bat utilizes a wide variety of foraging habitats and the lake, forested wetlands and forested areas surrounding Lake Walton meet the requirements as foraging habitat for this species. Trees that may serve as Indiana bat roosting habitat that are within, or near the portion of the Site that is proposed for development were located during the June 21, 2005 field assessment. The suitability of any tree as a roost was determined by (1) its condition (dead or alive), (2) the quantity of loose bark, (3) the tree's solar exposure, (4) the tree's location relative to other trees, and (5) the tree's spatial relationship to water resources and foraging areas (US FWS, 1999). Potential roost trees were located with a GPS unit. Based on the field investigation, several potential roost trees were identified in two areas of the Site. The first area is located north of the lake and just south of the Central Hudson Gas & Electric right-of-way. Potential roost trees in this area consist of several live shagbark hickory trees and dead oak trees with exfoliating bark. The second potential roost tree area is located in the southeast portion of the Site in the area that previously contained trailer homes. Potential roost trees in this portion of the site consist of dead oak trees with exfoliating bark.

Potential Indiana Bat Impacts and Proposed Mitigation Although the species is not documented as being present on the Lake Walton site, potential Indiana bat foraging and roosting habitat does exist. Based on review of the literature described above the greatest

potential impact to this species is destruction of the hibernating habitat or disturbance of the bats during hibernation.

No Indiana bat hibernating habitat exists on the Site with the closest hibernacula located in Ulster County, about 25 miles away on the west side of the Hudson River. Recent observations and anecdotal evidence suggests that this species may be more adaptable to disturbance than previously thought. Dead trees with exfoliating bark only provide optimal roosting habitat over a finite period of time before either the bark falls off or the tree falls over. The Indiana bats strategy of having many roost trees and changing roost trees every 2 to 4 days allows for potential loss of a roost tree. The Lake Walton project will mitigate for potential disturbance to roosting bats by only removing potential roost trees that are within the proposed development area during the hibernating period (beginning of October until beginning of May) when bats would not be present on the Site. Based on the above, the proposed Lake Walton project should not have a significant impact on the Indiana bat population in the region.

References:

New York State Department of Environmental Conservation, "Indiana Bat Fact Sheet".
<http://www.dec.state.ny.us/website/dfwmr/wildlife/endspec/inbafs.html>

Menzel, Michael A.; Jennifer M.; Carter, Timothy C.; Ford, W. Mark; Edwards, John W. 2001., "Review of the Forest Habitat Relationships of the Indiana Bat (*Myotis sodalis*)", General Tech. Rep. NE-284. U.S. Newtown Square, Pennsylvania, U.S. Department of Agriculture, Forest Service, Northeastern Research Station. 21 pp.

U.S. Fish & Wildlife Service. 1999, "Agency Draft - Indiana Bat (*Myotis sodalis*) Revised Recovery Plan", Fort Snelling, Minnesota. 53 pp.