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Bald Eagle Habitat (*Haliaeetus leucocephalus*) Investigation at the Proposed Plateau Associates Development, Village of Ossining, Westchester County, New York

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24 March 2009

Forest habitat was inspected on the Plateau Associates proposed Hidden Cove development site located along the Hudson River in the Village of Ossining, New York to determine the presence of breeding bald eagles (*Haliaeetus leucocephalus*), a state-threatened species. This investigation was carried out in two days: 3 March and 17 March 2009. The results of the investigation follow.

## **Bald Eagle Nesting Activity**

Bald eagles have been documented breeding on the subject property as recently as 2006, according to the New York State Department of Environmental Conservation (NYSDEC). The nest was located in a large white pine (*Pinus strobus*) that has bifurcated trunk and is situated on a forested slope in the eastern portion of the property. During this investigation the nest tree was carefully inspected from all available angles to identify a nest or nesting material. While some bald eagle nests can be obscured amongst the thickly vegetated pine branches, I was confident that no nest or nest material was present in the tree during each site visit. The crowns of each trunk of the nest tree appeared to have been damaged by wind in recent years, although they still appear suitable for supporting a nest.

The remainder of the property was surveyed for nests and suitable nest trees. A couple small, elliptically-shaped stick nests were found in large deciduous trees and were probably built by crows or smaller raptors. Several large (> 60' tall and >3' in diameter) deciduous trees are present on the property, including American beech (*Fagus grandifolia*), black locust (*Robinia pseudoacacia*), and oak (*Quercus sp.*). There are also two massive ginkgo trees (*Ginkgo biloba*) growing on the forested bluff above the river. The structure and density of the forest canopy throughout the property and to some extent adjacent lands rendered most of these large trees unsuitable for nesting by bald eagles, which, because of their size, require a relatively large, open flight path unobstructed by dense branches and foliage.

## **Bald Eagle Observations**

During the 3 March 2009 survey three bald eagles were observed. The observations included: 1) an immature eagle (first-year plumage) flying along the east side of the Hudson River close to the north of the Diamond Dairy facility; 2) an adult eagle soaring directly above the documented nest tree; 3) an immature eagle (third-year plumage) soaring above the neighboring property to the north of the subject site. The observation of the adult eagle soaring above the nest tree was interesting. Usually in this part of the range most eagles are nesting by January or February at the latest; however, on rare occasions bald eagles may nest later in the season. The follow-up visit made to the site on 17 March was to see if the eagles were indeed nesting late this season, but no such activity or bald eagles were observed.

## **NYSDEC Bald Eagle Protection and Potential Implications**

Although the bald eagle nest tree has not supported an active nest since 2006, a nest is deemed 'active' by the State of New York—and is therefore subject to endangered species regulations—within 5 years of its last use. Conversations with NYSDEC indicate that there is a highly likelihood that this tree will be used again, as local Hudson River bald eagle pairs have successfully fledged young in recent years (bald eagles take 4-5 years to reach sexual maturity), and suitable nest trees are not especially common in the area.

The New York Department of Environmental Conservation (NYSDEC) uses the federal Bald Eagle Management Guidelines as a basis for regulating land uses in the vicinity of bald eagle nests. These guidelines recommend a two-zone management system, consisting of a 'Primary Zone' and a 'Secondary Zone,' for protecting bald eagle nests. The Primary Zone generally ranges from 330-750 feet from the nest tree. The Primary Zone is intended to protect the nest tree itself and to limit physical disturbance within the immediate vicinity of the nest. This zone is the most restrictive and calls for virtually no disturbance to the environment within the zone. The 'Secondary Zone,' is a layer of protection 330-750 feet outward from Primary Zone. The Secondary Zone also calls for the avoidance of most activities but generally permits existing land uses. State biologists make the determination on how wide each zone is required to be for ensuring adequate protection of a particular nest.

The proposed Hidden Cove development is located with the Primary Zone. The topographically elevated location of the nest may have strong regulatory ramifications as the nesting eagles would have a relatively clear view of the down-slope project area. Visual, and to some extent, auditory disturbance during all phases of the nesting period can lead to the abandonment of the nest (Stalmaster, 1987). One possible alternative to avoid potential impacts to nesting eagles is to restrict construction activities/disturbance after chicks have fledged and before nesting building resumes, which typically coincides with the period of late summer to late fall. The viability of this alternative would of course first have to be discussed with NYSDEC and would be decided in the context of what the long-term impacts of the development could be.

The landscape context of this particular bald eagle nest is more 'urban' or developed than most bald eagle nest locations in New York, which tend to be in much more rural settings. This nest was built in the vicinity of pre-existing commercial and residential development. The

selection of this nest site could be an artifact of limited nest trees near suitable foraging habitat (i.e., Hudson River), or more likely, a sign that bald eagles are becoming more tolerant of human disturbance, which has been documented throughout the species' range. However, it cannot be predicted how a new source of disturbance (i.e., Hidden Cove) would affect bald eagle nesting even though the eagles are current subjected to a fair degree of visual and auditory disturbance. Protecting wildlife from impacts and risks is not an exact science, and regulatory policy tends to govern on a conservative basis, often erring on the side protection.

## References

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