

A

General Avian and Eagle Use Surveys Protocol

Apex – Lighthouse Wind Project General Avian and Eagle Use Surveys (Updated 12/24/2014 per NYDEC Review and Input)

Introduction

Avian/eagle point count surveys will be completed at 12 point locations twice per month, for one year to document the avian community onsite and evaluate potential risk posed by an operating wind project if located at the project site. Because at this stage the project size and layout is not well defined, the project area will be assessed for avian use to evaluate the avian community, assess risk to all species and inform sighting of project features. Additionally, data will be collected for eagles that will be used to estimate potential take using the US. Fish and Wildlife Service (USFWS) Bayesian model if appropriate.

Objectives

The objectives of the avian surveys are to estimate the seasonal, spatial, and temporal use of the study area by all birds and to provide information to assess risk of eagle take. Two survey types will be used due to the different visual scanning techniques required to detect birds with smaller ranges and those that are difficult to detect and identify at longer distances (called “small birds” for the purposes of this study: passerines, cuckoos, woodpeckers, small corvids) compared to those used to detect raptors and other larger birds that are highly visible and easier to identify at longer distance (i.e. vultures, hawks, falcons, eagles, accipiters, kites, northern harrier, osprey, owls, waterfowl (ducks and geese), shorebirds (sandpiper, plovers, etc.), waterbirds (cranes, herons, egrets, etc.), upland game birds, doves and pigeons, large corvids, and goatsuckers).

Methodology

Small bird surveys will evaluate a 100-m radius plots to assess small bird use and large bird surveys will evaluate 800-m radius plots to assess the raptor and large bird community. Point count locations will be located to optimize spatial coverage of the project and to sample habitats that are representative of areas proposed for turbine installation. Four of the 12 points will be placed fairly close to the Lake Ontario shoreline, 4 points will be placed in a more centrally located area of the project, and 4 points will be placed towards the south edge of the project area. This point count layout across the project will allow evaluation of the avian community using the project and assessment of avian use differences associated with distance from the shoreline, if present. Timing for completing these surveys will be distributed across the daylight period to allow assessment of birds with different detectability at different times of day. To address this issue as best as possible at the point-count level, the starting and ending points will be rotated for each survey to allow even sampling of each point throughout the daylight period within each season.

A conceptual layout of the point locations is presented in Figure 3-1 of the Avian and Bat Study Plan for the Proposed Lighthouse Wind Project; however, survey locations will be microsited in the field based on biologist's ability to optimize viewshed of habitats representative of turbine locations and to efficiently access survey locations. Many survey plots may need to be

