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**Wintering Grassland Raptor  
Survey Protocol**



# ecology and environment, inc.

Global Environmental Specialists

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## BUFFALO CORPORATE CENTER

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February 13, 2015

Ms. Brianna Gary  
Avian Ecologist  
Division of Fish, Wildlife and Marine Resources  
Bureau of Habitat  
625 Broadway, 5th Floor  
Albany, NY 12233-4756

*Submitted electronically to:* [Brianna.Gary@dec.ny.gov](mailto:Brianna.Gary@dec.ny.gov)

Re: Revised Study Plan for Wintering Grassland Raptor Surveys  
Proposed Lighthouse Wind Project  
Niagara and Orleans Counties, New York

Dear Ms. Gary:

Ecology and Environment, Inc., (E & E) has prepared this revised study plan for Apex Clean Energy, Inc. (Apex) based on our recent discussions with you and comments received on February 6, 2015, from regional New York State Department of Environmental Conservation (NYSDEC) staff regarding wintering grassland raptor surveys at the proposed Lighthouse Wind Project. This study plan has been revised based on NYSDEC review comments on our January 9, 2015 study plan. Surveys were initiated in January to document the presence and site use of wintering grassland raptor species while NYSDEC reviewed and provided multiple rounds of recommended revisions to the study plan. E & E and Apex believe that this plan incorporates NYSDEC comments in their entirety and should be approved as final. The ongoing winter grassland bird studies have been modified as of the date of this letter to incorporate these changes.

## INTRODUCTION

Apex is developing the approximately 200-megawatt Lighthouse Wind Project (Project) in the towns of Somerset (Niagara County) and Yates (Orleans County), New York. The number, type, and location of turbines have not been determined at this time. Wintering grassland raptor surveys will be conducted as part of a larger effort to determine bird use in the Project area. The primary focus of these surveys is to collect information on the occurrence and distribution of wintering raptor species, including New York State-listed raptor species, such as the Short-eared Owl (endangered) and the Northern Harrier (threatened) in the Project area. This study plan was prepared based on the NYSDEC *Draft Project Applicant Survey Protocol for State-listed Wintering Grassland Raptor Species* (12/22/2014 working draft edition) and recommended revisions per NYSDEC input. The results of these surveys will be used to assess Project risk to wintering raptor species and inform the siting of Project features.

## **OBJECTIVE**

The objective of the wintering grassland raptor surveys is to collect information on the presence and site use of winter raptor species in the Project area, including state-listed species such as the Short-eared Owl and the Northern Harrier. Surveys will allow a determination of the presence or apparent absence of wintering raptors and the identification of particular “concentration” areas, such as roosting or primary foraging locations.

## **METHODOLOGY**

As per NYSDEC guidance, two survey methods will be employed to assess winter raptor use and distribution: stationary surveys and driving routes. Surveys will be conducted during appropriate weather conditions and will not be conducted or continued during periods of inclement weather, such as heavy precipitation, fog limiting visibility to less than one-quarter mile, or strong winds exceeding 20 mph.

### **Stationary Surveys**

E & E previously identified four stations for stationary surveys based on suitable habitat for the Short-eared Owl and Northern Harrier and on personal/historical sightings of these species in the area. An additional five stations for stationary surveys have been included as per recent NYSDEC comments. The stations have been located in the field to provide the maximum view of the habitat and with consideration of the surveyor’s safety (see Figure 1). Six rounds of surveys will be conducted at these stations. Each round will be conducted approximately two weeks apart, with two rounds anticipated for each month (January, February, and March 2015). If Short-eared Owls or Northern Harriers are detected during the second round of March surveys, then E & E and Apex will contact NYSDEC to discuss conducting surveys in April 2015. Three rounds of stationary surveys will also be conducted between November 15, 2015, and December 31, 2015.

Surveys will be conducted during the period of one hour before sunset to a half hour after sunset and will be extended up to an additional half hour when visibility conditions allow. Dusk is considered the height of the daily activity period for these raptor species in Western New York.

For the duration of each survey, an E & E biologist will scan the surrounding open areas standing near a vehicle or a blind. Particular attention will be paid to raptors perching on utility poles and fence posts or coursing low over the ground. The biologist will listen for calls of Short-eared Owls and Northern Harriers to best track raptor movements.

### **Driving Routes**

Driving route surveys involve stopping at approximately 36 identified roadside points over two days. Driving surveys will be conducted during the afternoon and take place on the same day as stationary surveys. The locations were selected based on the presence of suitable foraging habitat near each roadside point (e.g., pasture/hayfields), previous experience with the focus raptor species within the Project area, NYSDEC input, and the sight-lines and visibility conditions that are unique to each location. At each point, an E & E biologist will exit the vehicle and, over a 3-minute period (minimum), scan the surrounding open areas while paying particular attention to the behavior and flight patterns

