



**CONESTOGA-ROVERS  
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## MEMORANDUM

TO: Robert Phillips, Planning Board Chairman REF. NO.: 630631

FROM: David Britton, Camie McGraw and Don Knorr /jac/035 DATE: December 10, 2010  
*CLM*

CC: Town Planning Board  
Carol Horowitz, Town Planner  
Daniel A. Spitzer, Esq.  
Benjamin Brazell, EDR  
Kevin Sheen, Everpower Renewables  
Douglas Ward, Young/Sommer, LLC

RE: **Allegany Wind Project – Forest Interior Bird Species**

### BACKGROUND

A CRA Infrastructure & Engineering, Inc. (CRA) biologist visited the Allegany Wind Power Project Site on November 11 and 12, 2010. The purpose of the visit was to observe the existing forest habitats within the Project Area. This visit was deemed necessary because the New York State Department of Environmental Conservation (DEC) and New York Audubon Society expressed concerns in their written comments over potential project impacts to birds, specifically impacts to "*forest interior species*", during the public comment period on the Draft Environmental Impact Statement (DEIS). These impacts are indirect impacts of the Project due to habitat modification. Direct impacts such as collisions with the turbines are not dealt with in this memo but have been addressed in other documents.

*Forest interior bird species* - are a grouping of bird species that require large tracts of contiguous mature forests to complete one or more of their life functions. Many of these *forest interior birds* are species of concern or are listed on a watch list due to their declining numbers. The recent DEC and NY Audubon Society comments focused in part on whether the Allegany Project will have a significant negative impact on forest interior species. DEC provided comments expressing their opinion that the Project Area contained suitable forest interior habitat, but the agency did not provide specific recommendations detailing what actions taken by the Project could implement to address these concerns.

The Project Sponsor's consultants, EDR and Stantec, have stated that suitable habitat does exist for a variety of forest interior species and that the habitat is currently disturbed and fragmented due to logging roads and other human impacts (such as oil production). Forest interior bird species were routinely observed by Stantec during their breeding bird survey conducted during 2008. In fact, the three species observed in the greatest numbers during the surveys, ovenbird, black-throated green warbler and red-eyed vireo, are all forest interior species. Another avian consultant observed a single cerulean warbler, a bird of special concern during their breeding bird survey in 2007 (the cerulean warbler was not observed in 2008 Stantec

surveys). The Project concluded that the small loss of forest interior habitat, due to the Project, would not be a significant loss.

Adverse impacts to the habitat of *forest interior birds* due to the Project include the reduction of contiguous forest, increased forest fragmentation and the creation of increased forest edges due to Project features (mainly construction and access roads and turbine towers). The forest fragmentation will result in the creation of additional forest edge habitats. *Forest interior birds* are affected by the loss of interior forest habitat and the creation of forest edges. Additional forest edge habitats will likely result in increased rates of nest predation and brood parasitism. Most nest predators (such as crows, blue jays and grackles) prefer edge habitats, as do brood parasites (the brown-headed cowbird). Brown headed cowbirds have migrated eastward from the open grassland habitats of the Midwest and are now a common species throughout the northeast. The extent of the brood parasitism due to cowbirds occurring in the Project Area is apparently unknown.

#### SITE VISIT COMMENTS

A CRA biologist visited the Project Area and observed the vegetation and habitats existing along the eastern and western proposed turbine arrays. The turbines are located along north-south oriented eastern and western ridge tops. The mountain side slopes and ridge tops are for the most part vegetated with forest tree species. Chipmunk Creek and a parallel roadway are present along the valley separating the eastern and western ridge tops. Most of the pasture and wetlands in the Project Area are located in a relatively narrow strip of land in the Chipmunk Creek valley. The ridge slopes are relatively steep and have secondary growth hardwood species. Most trees were sawtimber size (dbh  $\geq$  12 in.) followed by pole-sized (6-11 in dbh). A rough estimate made by the biologist of the forest in the Project Area was about 3,000 ha based on a topographic map. A large publicly owned forest (Allegany State Forest and Park, consisting of 79,000 ha of mostly forest) exists to the west of the Project's western turbine array. The Allegany State Forest and a portion of the mountain where the western turbine array is located have been classified by Audubon as an Important Bird Area (IBA).

The forest of the Project Area has historically been disturbed by logging and oil production. These activities continue to the present time. Numerous active and inactive logging and oil production access roads exist throughout both the eastern and western forest tracts. However, the degree of road use, the condition of the roads, and the extent of active logging and oil production is variable over the Project Area. Road use, timbering and oil production is greatest in the western array area.

Most of the Project Area has been logged in the past and several areas were being logged during the site visit. Commercial logging is a principal objective of the current landowner. Likewise, most of the Project Area was affected by oil production in the past. The area between turbine locations 3W and 7W and the east-facing slope of the western ridge had active oil production activities in operation during the site visit.

However, portions of the Project Area, especially the eastern array ridge and adjacent slopes have recovered or were recovering from the past logging and oil production. Oil production in the eastern ridge area was for the most part only evident by the abandoned oil production equipment and access roads left behind. These access roads were narrow and for the most part covered by overhanging vegetation. Active logging in the eastern area was more restricted to smaller plots and tree cutting was less intensive. The recovering forest in these areas has suitable habitat for many of the forest interior birds. This suitable habitat of regenerated trees with a high to moderate degree of closed canopies was observed near 1W-2W,

9W-11W, 1E-3E and 8E and 18E. Access roads in these areas were relatively narrow (10-12 ft) and had closed canopies in many locations thereby reducing the edge effect.

The most intensive current logging and oil production activities observed were occurring on the west ridge between proposed turbines 3W and 7W and extending eastward down-slope to Chipmunk Road. Logging operations were more extensive here and numerous oil pump derricks, tanks and other oil equipment were scattered throughout this portion of the forest. Access roads in this area were wider (up to 20 ft) and many areas did not have closed canopies.

There is a distinction in terms of impacts between oil production and logging. Oil production facilities (pumps, pipelines and roads) are present on a long term basis and used on a frequent basis. Human activities in these areas are high. Logging on the other hand occurs during a discrete period of time and then the forest begins recovery (this is true even for clear cut practices). Therefore, the effects of logging are considered by some a temporary impact to forest habitats.

### DISCUSSION

It appears that both the DEC and the Project Sponsor have valid observations and comments. As DEC stated in their comments much of the Project Area is probably suitable for forest interior birds. The Project Sponsor stated that the area is scattered with logging roads and oil production facilities. Both of these statements are accurate. However, the question of the degree of impact the Project will have on forest interior birds remains. The incremental impact to the regional population of *forest interior birds*, due to the proposed 29 turbines spread over 3,000 ha of "disturbed" forest that is adjacent to a 79,000 ha forest preserve, is probably not significant from a regional basis. Kerlinger (1998) found a decline in some species of forest interior birds apparently due to the edge effect created at the Green Mountain project in Vermont. But he felt that the decline was probably not significant and recommended that additional monitoring be conducted. The conclusion that the Project is unlikely to have an impact on regional populations of forest interior birds may seem logical. However, some degree of local impacts will likely occur. A more thorough discussion of these issues by the Project Sponsor is recommended in the Final Environmental Impact Statement (FEIS).

### RECOMMENDATIONS

Additional response from the Project Sponsor to address the potential impact to forest interior species is recommended in response to DEC comments in the FEIS and may include one or a combination of the following:

- a) An avian risk assessment focused on assessing the degree of impacts to forest interior birds.
- b) An impact-minimization assessment either alone or in combination with the avian risk assessment that identifies and quantifies the existing optimal forest habitats in the Project Area and further develops avoidance measures that will protect this habitat.

This may include a combination of the following measures: reduce the extent of edge effects and forest fragmentation (such as reducing the extent of roads and road widths, allowing canopy to cover over the roads, varying the width of roads, restoring roads during the construction as opposed to following construction, measures to allow rapid re-colonization of disturbed area with native

shrubs and saplings, placing turbines closer together or reducing the number of turbines, allowing shrubs and saplings to grow adjacent to roads, etc.).

Several of these issues are already in the restoration plans of the Project, but a separate report detailing the minimization of impacts may be useful.

- c) The Project Sponsor may also wish to consider developing mitigation options such as conservation easements for the preservation of adjacent forest tracts; working with landowners to develop sustainable forest programs adjacent to turbines; contributing to region forest preservation programs, and participating in regional brown-headed cowbird control programs, if any.

CRA discussed these issues with the Project Sponsor's consultants on December 3, 2010 during a conference call. There was general agreement to consider these issues and discuss in more detail the potential impacts of the Project on forest interior birds and to further consider impact minimization measures. The consultants will revise their proposed responses to comments as part of the FEIS and submit to CRA for review and comment.

#### References Cited:

Kerlinger. Paul. 1998. An Assessment of the Impacts of Green Mountain Power Corporation's Searsburg, Vermont, Wind Power Facility on Breeding and Migrating Birds. Report for the Nat. Renewable Energy Lab., Golden, CO. (<http://www.nrel.gov/wind/pdfs/28591.pdf>)