

**BLACK BEAR CORRIDOR CROSSINGS IN THE  
VICINITY OF THE SEARSBURG WIND TURBINES  
AS INVESTIGATED IN 1995**

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**INTRODUCTION**

This paper is a result of a request from the Black Bear Sub-Group of the Deerfield Wind Project review team for a historic overview of the process undertaken in 1995 to investigate black bear movement corridors prior to the construction of the existing wind turbines in Searsburg, Vermont. At the June 20, 2005 meeting of the Sub-Group, it was thought that such an explanation could assist the US Forest Service in their overall evaluation of the proposed Deerfield Wind Project expansion onto federal land. This paper is simply a recount of the process undertaken in 1995 and does not offer any additional research or field investigation other than what transpired in the process of permitting the original project.

**BACKGROUND**

In 1995, large blocks of American beech were known to exist on both the east and west sides of VT Route 8 in the vicinity of the then proposed Searsburg wind turbine project. At the time, the VT Department of Fish & Wildlife (VDFW) relied on studies indicating that a fall diet rich with beechnuts had been found to enhance black bear reproduction and survival during the winter hibernation period. Consequently, VDFW considered large blocks of beech habitat to be critical to the survival of black bears.

American beech trees are found on the slope and ridge immediately rising to the west of Route 8, however, to the east, the beech are found in the Lamb Brook valley on the easterly side of a ridge that rises to nearly 3,000 feet. In other words, for bears to move from the western beechnut feeding area to the eastern beechnut feeding area, they must come off the western ridge, cross Rt 8, proceed up and over the ridge proposed for the original wind turbine project, and down into the Lamb Brook valley. Original concern by VDFW was that the proposed site of the wind project was in the path of bear movement between the habitat blocks. Construction of the wind project could potentially disrupt this historic black bear movement behavior and result in habitat fragmentation.

**1995 CORRIDOR REVIEW PROCESS**

The VDFW had public sighting records of bears crossing both Rt 8 and Sleepy Hollow Road. These sighting locations were reviewed with the District Wildlife Biologist and they suggested a clustered pattern. It was decided that it would be of value to contact a houndsman who was familiar with the area for assistance. Houndsmen who routinely

travel stretches of remote roads know when bear have crossed by the howling reaction of their dogs when they cross the path of a bear. A houndsman of particular competence was contacted who had previously been hired by both the VDFW to assist with capturing bears for their telemetry study and by Multiple Resource Management, Inc. to assist with a bear movement study on a different project. Our site visit confirmed three particular locations which were also in keeping with the houndsman's experience in traveling through the area.

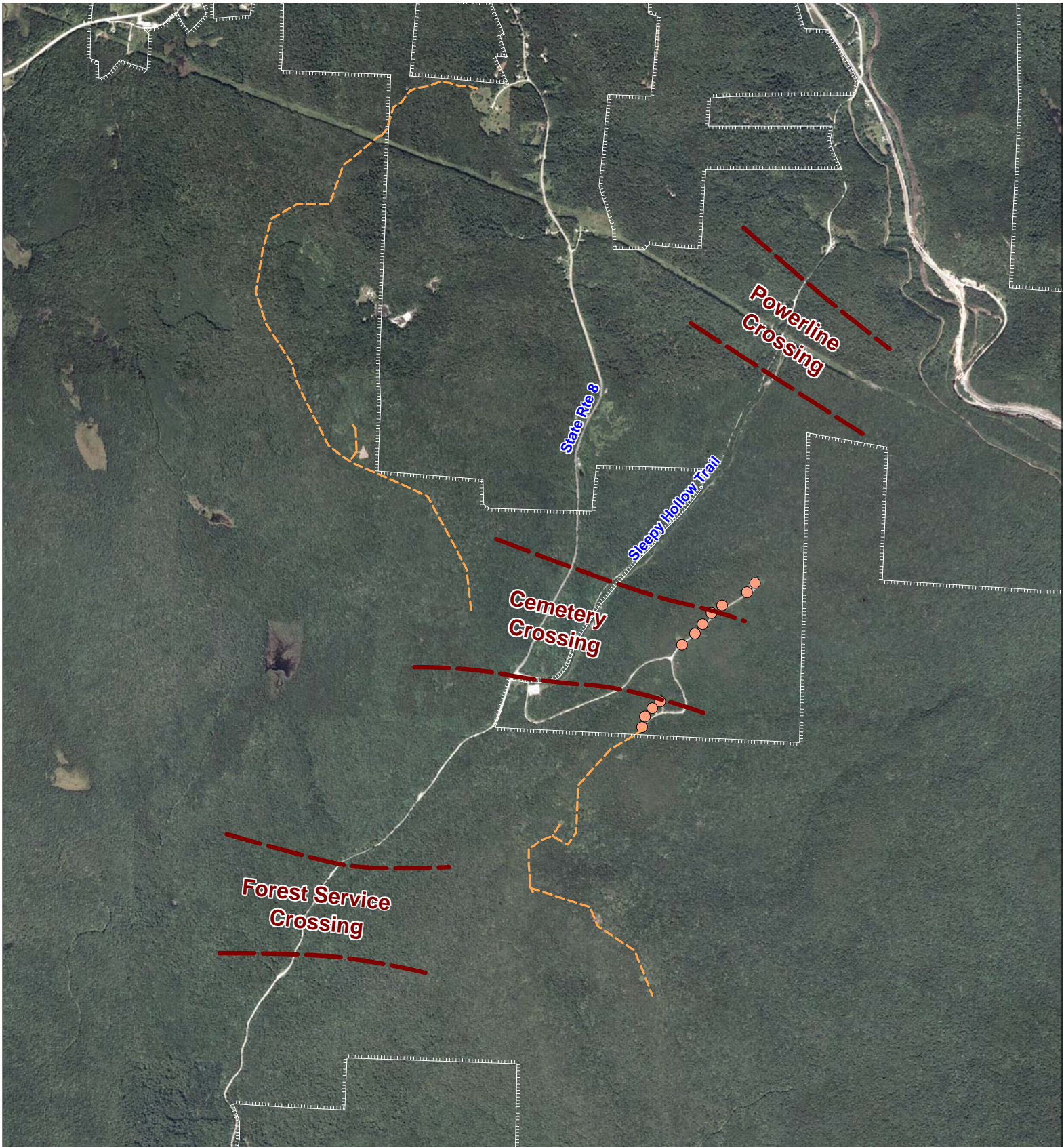
Figure 1 shows the three suspected corridor locations based on public sightings and the houndsman's experience. (Depiction of these corridor crossings is purely conceptual with no research basis.) The southerly one was referred to as the Forest Service crossing due to the proximity of US Forest Service property on either side of Rt 8. The cemetery crossing was at or just north of the cemetery at the intersection of Rt 8 and Sleepy Hollow Road. This crossing is where bears were thought to move up and over the ridge to the east, crossing the ridge at the then proposed location of what is now the existing wind turbines. The cemetery crossing consists of public land to the west and private land to the east of Rt 8. The third location is further north and was referred to as the power line crossing. This entire crossing is on private property.

## **RESULTS**




It was unknown whether construction of the wind project would cause disruption to the movement behavior of bears using the cemetery crossing. It did appear, however, that all three corridor crossing locations tied together the same two blocks of habitat. With this being the case, it was unlikely that either of the habitat blocks (west or east of Rt 8) would become isolated or fragmented if one of the three connecting corridors was eliminated by construction of the wind project. Whether or not the cemetery crossing would cease to support bear movement after construction of the ridgeline turbines could only be answered through a before-during-after study of bear movement. With the risk of fragmentation low (due to the existence of the other two corridor crossings) the VDFW agreed to development of the Searsburg project if the applicant agreed to such a study.

In cooperation with VDFW, a movement study was designed and implemented (Wallin, 1998). This study produced a partial count and trend of bears (not necessarily individuals) using the cemetery crossing before, during and after construction of the project. Briefly, the results showed numbers of bears falling dramatically during the year of construction but rebounding the first year following construction disturbance. Evidence continues to surface in the form of tracks, scat, hair and photos that shows the presence of black bears on the site as the project continues to operate.

Wallin, J.A. 1998. A movement study of black bears in the vicinity of a wind turbine project, Searsburg, Vermont. 12pp.



**Figure 1: Deerfield Wind Proposal: Black Bear Movement Suspected Corridor Locations**

-  Suspected Corridor Locations
-  Existing Searsburg Wind Turbines
-  Proposed Ridgeline Roads

