

disease (i.e., “white nose syndrome”), and weather. In itself, the migration period for bats can be a time of high mortality, mostly when it coincides with adverse weather and other random events (Griffin, 1970; Fleming and Eby, 2003). The ranges of bat mortality estimated to result from the wind projects is not expected to add significantly to the mortality caused by these other factors, or to alter the population dynamics. While cumulative effects to bats may occur due to increased development in the area, factors external to the five projects evaluated herein, such as “white nose syndrome,” are likely to have greater cumulative effects on bats than the five projects.

The Applicant will conduct post-construction monitoring for birds and bats for a minimum period of 3 years to estimate direct impacts of the operating project in terms of mortality rates of birds and bats caused by collisions with wind turbines. These data will be provided to wildlife management agencies to better understand the implications of wind development on bird and bat populations, as well as to develop appropriate additional mitigation measures if impacts to bats significantly exceed the anticipated impacts. Cumulative impacts to Indiana bats are discussed separately in Section 4.1.3.2.

**Table 4-3**  
**Estimated Cumulative Bat Mortality from**  
**Wind Generation Facilities in Northern New York**

Project	Number of Turbines	Estimated Bat Fatalities per Year Based on NWCC 2004 National Average <sup>1</sup>	Estimated Bat Fatalities per Year Based on NWCC 2004 Eastern Average <sup>2</sup>	Estimated Range of Bat Fatalities per year based on 1 <sup>st</sup> Year Results of Maple Ridge Wind Farm <sup>3</sup>
St. Lawrence Windpower Project	53	180	2,454	806 – 1,299
Cape Vincent Wind Power Project	140	476	6,482	2,128 – 3,430
Hounsfield Wind Farm	84	286	3,889	1,277 – 2,058
Horse Creek Wind Power Project	62	211	2,871	942 – 1,519
Wolfe Island Wind Project	86	292	3,982	1,307 – 2,107
Total	425	1,445	19,678	6,460 – 10,413

<sup>1</sup> National Wind Coordinating Collaborative (NWCC 2004) reported national average bat mortality rates for the 3.4 bats per turbine per year (bats/turbine/year). Estimated bat fatalities based on NWCC results were derived by multiplying the number of turbines by the reported national average.

<sup>2</sup> NWCC (2004) reported bat mortality rates for the eastern US region of 46.3 bats/turbine/year. Estimated bat fatalities based on NWCC results were derived by multiplying the number of turbines by the reported eastern regional average. This estimate was used in the Marble River Wind Farm DEIS.

<sup>3</sup> Maple Ridge Wind Farm post-construction monitoring occurred from June through November 2006 using several methods. Depending on the method employed, average fatalities ranged from 15.2 to 24.5 bats/turbine/year (Jain et al. 2007). Ranges reported in this table, based on data from Maple Ridge, were estimated by multiplying the low and high average mortality rates per turbine per year by the number of turbines in each wind facility.