

1.0 Introduction and Background

St. Lawrence Windpower, LLC (SLW) is evaluating the feasibility of wind energy development in Jefferson County, New York. The proposed project, *St. Lawrence Windpower*, is located south of the St. Lawrence River and north of Chaumont Bay, near the town of Cape Vincent, New York (Figure 1). The exact location and size of the development will be based on a number of factors including power purchase agreement(s), electricity markets, transmission constraints, permitting, and results of site surveys.

Through the early project evaluation process, SLW contacted the New York State Department of Environmental Conservation (NYSDEC) to introduce the project and determine biological resources of concern for the project. Issues that were raised included potential impacts from the project on avian and bat resources, in particular nocturnal migrant birds and migrant raptors, migrant and resident bats, and species of concern that may occupy the site. In response to comments from the NYSDEC, SLW requested that Western EcoSystems Technology, Inc. (WEST) develop an avian and bat survey protocol for a one-year study that would address the agency concerns and provide site-specific data for the resources of concern.

The principal goals of the study, initiated in April 2006, were to:

- 1) Provide baseline information on avian and bat resources and use of the study area that is useful in evaluating potential impacts from wind power development;
- 2) Provide baseline information on avian and bat migration over the proposed development area that is useful in evaluating the relative risk of the proposed wind project location;
- 3) Provide information on avian, bat, and sensitive species use of the study area that will help in designing a wind plant that is less likely to expose species to potential collisions with turbines, and;
- 4) Provide recommendations for further monitoring studies and potential mitigation measures, if appropriate.

Specific objectives of the study were to: (1) describe and quantify nocturnal migration over the proposed project area; (2) describe and quantify spring and fall (diurnal) raptor migration through the proposed project; (3) describe and quantify breeding bird use in the proposed development area (turbine locations); (4) describe and quantify migrant bat use over the proposed project; (5) identify resident bat species in the project area; (6) describe and quantify waterfowl migration through the project area; (7) and identify the presence of any federal and state-listed species that may occur within in the project area, as well as potential habitat for these species. The protocol was developed based on input from NYSDEC and the USFWS, as well as the expertise and experience of WEST implementing and conducting similar studies for wind energy development throughout the U.S.