



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
East Lansing Field Office (ES)  
2651 Coolidge Road, Suite 101  
East Lansing, Michigan 48823-6316

IN REPLY REFER TO:

November 4, 2011

Ms. Xio Cordoba  
Heritage Sustainable Energy  
121 East Front Street  
Traverse City, MI 49684-2570

Dear Ms. Cordoba:

Thank you for your previous correspondence with our office concerning Phase I of your proposed wind energy development located on the Garden Peninsula in Delta County – Township 39N, Range 18W, Sections 4, 5, 6, 7, 8, and 9; and Township 40N, Range 18W, Sections 28, 29, 32, and 33. Our records indicate that Phase I of the proposed project involves 14 commercial wind turbines located approximately 0.5 to 1.5 miles from the Lake Michigan shoreline.

The U.S. Fish and Wildlife Service (Service) supports the development of alternative energy sources. However, if not appropriately designed and sited, wind turbines may negatively impact wildlife and their habitats. Our comments in this letter are provided pursuant to the Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA) and Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d; Eagle Act). We provide this information to inform Heritage Sustainable Energy of our assessment of risk to migratory birds and bald eagles from this proposed wind development.

Based on the data currently available, we must once again recommend that you not construct a commercial wind energy development on the Garden Peninsula because of the high potential for avian mortalities and violations of Federal wildlife laws. Since 2007, our office has expressed significant concerns with this project. Our concerns are based on several factors, including the proximity of the project to a Great Lakes shoreline and Big Bay de Noc, the proximity of the project to adjacent wetland habitats, and the fact that this peninsula will tend to funnel avian migrants and serve as a point of departure or arrival for birds crossing Lake Michigan. These factors are all likely to lead to a high level of avian use on the Garden Peninsula that could result in high levels of avian mortality by wind turbines at the proposed project site.

Because of our concerns, in our early project correspondence with Dr. Paul Kerlinger on December 18, 2007, we recommended that no turbines be constructed within three miles of a Great Lakes shoreline. On June 25, 2009, in a letter to Mr. Rick Wilson, we again recommended

that no turbines be sited within three miles of the shoreline and further recognized that it would be very difficult to achieve this three-mile distance at any place within the Garden Peninsula. In 2011, Heritage presented our office with data collected specifically for this project site and this data, described in more detail below, has validated our wildlife related concerns for this proposed project.

We were in the process of finalizing additional information that you had requested concerning our bald eagle risk assessment, when we received your October 18, 2011, letter transmitting a "Comprehensive Avian Risk Assessment for the Garden Peninsula Wind Energy Project, Delta County, Michigan" (September 2011, Curry & Kerlinger, LLC-9-27-11). Your letter indicated that you accepted the conclusions of the Curry & Kerlinger Risk Assessment and intended to move forward with construction of the wind energy development, regardless of our previous recommendations and wildlife concerns.

First, we strongly disagree with the conclusions presented in the Curry & Kerlinger Risk Assessment. The data available suggests that construction of a commercial wind energy development on Garden Peninsula is likely to pose a very high risk for avian mortalities, including a high risk for bald eagle mortalities. The Service will provide you with a more detailed response related to our concerns about the Curry & Kerlinger Risk Assessment in the near future.

Second, although we have appreciated your periodic efforts to coordinate with our office as your project planning has progressed, you have failed to sufficiently collect and analyze comprehensive information concerning avian use of the project area prior to construction. The Service recommends that this information is collected and analyzed well in advance of project construction so that it is available to inform project siting. Additionally, you do not appear to be adequately considering the limited data you have collected. The proposed turbine locations are in areas where you have documented high avian use and thus are not adequately setback from the Great lakes shoreline or other important wildlife habitats. Therefore, we continue to recommend that the project be substantially reevaluated or abandoned.

### **Migratory Bird Treaty Act**

The MBTA implements four treaties that provide for international protection of migratory birds. The MBTA prohibits any taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Bald and golden eagles are afforded additional legal protection under the Eagle Act. Eagle concerns and recommendations are outlined in the next section of this letter.

Your project specific data documents the high levels of avian use at the proposed project site. For example, monitoring efforts for the proposed project produced a mean of 732.8 "large" birds detected per survey (122.1 "large" birds / hour) and 73.3 "small" birds detected per survey (366.5 "small" birds / hour) in the fall of 2010 within the project area. The presence of birds during these surveys supports the concerns that the Garden Peninsula is an avian migration corridor, especially during the fall, and it is likely an important movement corridor as birds traverse the island chain that extends north from Door County, Wisconsin.

The high level of avian use documented to date at the project site likely presents an incomplete picture of actual avian use and risk. As acknowledged in Curry & Kerlinger Risk Assessment, nocturnal migrating birds very likely utilize the Garden Peninsula in high numbers and congregate in suitable stopover habitat throughout the peninsula in both the fall and the spring. Congregation of these birds is especially likely, near the southern tip of the peninsula. During nocturnal movements to and from these stopover sites, these birds very likely utilize a large percentage of the airspace over the peninsula as they pass south during the fall and north during the spring. To date, Heritage has provided no data regarding use of airspace during nocturnal movements of birds within the peninsula or within this project's phase one boundary. Previous studies using weather radar data has shown large movements of land bird migrations in the fall at night from the Upper Peninsula of Michigan in route to crossing Lake Michigan and presumably passing directly through the Garden Peninsula (Diehl *et al* 2003)<sup>1</sup>. We believe avian mortality during nocturnal movements, particularly when birds are arriving or departing these stopover sites, may be one of the most significant threats to migratory birds from this proposed project.

### **Bald and Golden Eagle Protection Act**

The Eagle Act is one of the primary federal laws protecting eagles and prohibits, among other things, the killing and disturbance of eagles. The Service published a Final Eagle Permit Rule on September 11, 2009 (50 CFR 22.26) authorizing limited issuance of permits to take bald and golden eagles where the take is associated with but not the purpose of an otherwise lawful activity (74 Fed. Reg. 46836, September 11, 2009). A permit is not required to conduct any particular activity, but is necessary to avoid potential liability for take caused by an activity.

Based on the available information to date, our assessment is that the proposed commercial wind energy development on the Garden Peninsula is likely to take bald eagles. We conducted this assessment using the evaluation process described in the Eagle Conservation Plan Guidance. Our assessment is supported by your spring and fall 2010 data which indicates that eagles frequently use the project area and fly within and below the proposed rotor swept area. The results of our initial assessment suggested that eagle fatality rates at the proposed project site may be approximately one eagle every 2.05 years and may be as high as one bald eagle every 0.97 years. Further, the actual risk to eagles may be substantially greater than our initial assessment since eagle use was not quantified for several periods during the year due to a lack of site-specific monitoring data during the early breeding season, late breeding/early fledging period and winter when suitable foraging habitat may be present very near the project area.

### **Summary**

As discussed in previous meetings, previous correspondence, and in this letter, any eagle or migratory bird mortalities caused by your proposed facility would be a violation of the MBTA and/or the Eagle Act. Please be advised, any take of migratory birds is a potential criminal violation of the MBTA and/or the Eagle Act. These events will be properly referred to our law enforcement office for appropriate follow-up. While the Eagle Act does allow the Service to issue a permit for the take of eagles under certain circumstances, (1) based on the information

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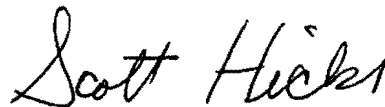
<sup>1</sup> Diehl, R.H., R.P. Larkin, and J.E. Black. 2003. Radar Observations of Bird Migration Over the Great Lakes. *The Auk* 120(2): 278-290.

you have provided, we are not sure that you will be able to meet the criteria [50 CFR § 22.26 (f) - #4 and #5] necessary for a permit to be issued; and (2) you have not applied for a permit to authorize take of an eagle. Currently there is no permit available to authorize the take of migratory birds at wind facilities.

Based on existing knowledge of avian movements in the Upper Peninsula and data provided by you, the project as currently proposed appears to present a very high risk for migratory bird mortalities. Once again, the Service recommends that you reevaluate your project and select an alternative location with less potential for impacts to federally protected wildlife. This has been our recommendation since our first correspondence in 2007 and remains our recommendation today.

Thank you for the opportunity to provide comments on and recommendations for this proposed wind energy development. We welcome the opportunity to work with you in planning of future projects in Michigan, including helping you to screen preliminary sites in order to identify areas early in the process where wind energy is not likely to have high levels of wildlife impacts. Additionally, we are willing to provide advice on wildlife study design to inform future pre-construction studies and of site selection. For questions or further discussion on the contents of this letter, including migratory bird or eagle risk please contact Matt Stuber at 517/351-8469 or [matthew\\_stuber@fws.gov](mailto:matthew_stuber@fws.gov).

Sincerely,



Scott Hicks  
Field Supervisor

cc: MDNR, Wildlife Division, Lansing, MI (Attn: Karen Cleveland)  
MNFI, Joelle Gehring, Lansing, MI  
USFWS, Christie Deloria, Marquette, MI  
USFWS, Chris Aldrich, Office of Law Enforcement, Marquette, MI  
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