



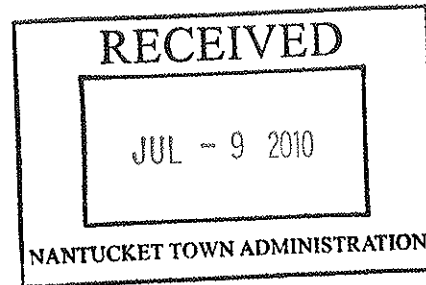
# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087  
<http://www.fws.gov/newengland>

Ms. Anne Kuszpa  
Town of Nantucket Energy Study Committee  
16 Broad Street  
Nantucket, MA 02554



July 6, 2010

Dear Ms. Kuszpa:

This responds to your June 9, 2010 letter requesting that we review the proposed installation of a single 1500-kW wind turbine at the DPW solid waste facility in Nantucket, Massachusetts, with respect to the potential presence of federally-listed endangered or threatened species or other significant wildlife resources. Our comments relative to endangered and threatened species are provided in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531, *et seq.*) and the Migratory Bird Treaty Act (16 U.S.C. 703-712).

Based on information currently available to us, federally-listed threatened piping plovers are known to breed on coastal beaches encircling the mainland location of the proposed wind turbine. The majority of plovers nest on Jetties Beach, Smith Point (Esther Island), the Galls, Coskata/Coatue, and Eel Point. Currently, there is little information regarding the migratory pathways used by piping plovers as they move along the coast to their breeding habitat, specifically whether they fly over land or follow the shoreline.

Research indicates that there is little movement by piping plovers once they are on their breeding beaches, either to new sites after a nest failure or between breeding and feeding habitat. Piping plovers rarely move great distances from one nest site to another after a nest failure. In a four-year study on Outer Cape Cod, MacIvor (1990)<sup>1</sup> documented less than 2% of 202 banded adult plovers changed beaches between re-nest attempts in one year. Distances from first nest site to re-nest site ranged from 8 to 23 miles (13 to 37 kilometers). With respect to movements between breeding and feeding habitats, MacIvor *et al.* (1985)<sup>2</sup> observed a single plover breeding at one beach and feeding at another site 23 miles (37 kilometers) away. Moreover, studies of banded

<sup>1</sup> MacIvor, L.H. 1990. Population dynamics, breeding ecology, and management of Piping Plovers on Outer Cape Cod, Massachusetts. M.S. Thesis. University of Massachusetts, Amherst, Massachusetts. 100 pp.

<sup>2</sup> MacIvor, L.H., C.R. Griffin and S. Melvin. 1985. Management, habitat selection and population dynamics of piping plovers on Outer Cape, Massachusetts. Progress Report. University of Massachusetts, Amherst, Massachusetts. 15 pp.

piping plovers indicate limited occasional overland flights. MacIvor (1990) reported a few piping plovers making overland crossings of the Cape.

Overland flights between beaches surrounding the proposed wind turbine facilities could make plovers vulnerable to mortality from the wind turbines if they are constructed in their flight paths. However, the likelihood of overland flights is difficult to assess based on the information currently available.

The federally-endangered American burying beetle (*Nicrophorus americanus*) occurs in the grasslands and heathlands of Nantucket as a result of introduction and augmentation efforts initiated in 1994, and continue through the present. In 2009, surveys documented the presence of one American burying beetle west of the Town of Nantucket; all other beetles were captured east of the town, with 55% of the captures occurring at the Massachusetts Audubon Society Sesachacha Heathland Wildlife Sanctuary (Foster *et al.* 2009).<sup>3</sup> It is unlikely that the American burying beetle would occur within the project area, since the proposed turbine will be located on previously disturbed land. Should the proposed turbine location be moved to an area that provides suitable habitat for the American burying beetle (as described above), you should contact Michael Amaral of this office for information on conservation measures that should be implemented to avoid the potential take of this species.

No other federally-listed threatened or endangered species are known to occur in the vicinity of the project area.

In some locations, operation of wind turbines can adversely affect a variety of wildlife species, including migratory birds and bats. In order to assess the level of risk and the scope of species potentially present in a wind turbine project area, the U.S. Fish and Wildlife Service (Service) recommends that the spatial and temporal uses of the rotor-swept zone by wildlife be identified and evaluated, e.g., by a qualified observer, or perhaps through the use of radar and other remote-sensing techniques.

Pre-construction surveys will inform the project proponent, as well as the Service, of potential wildlife conflicts during the site selection and planning stages. With this information, risks can be assessed, and methods to avoid, minimize and mitigate impacts to wildlife may be accommodated. Without pre-construction surveys, unexpected mortality of birds or bats may warrant operational adjustments to reduce or avoid further impacts to wildlife. Absent adequate pre-construction surveys and careful analysis of subsequent data, the siting, construction and operation of a wind project may result in the mortality of wildlife in violation of federal laws, such as the Migratory Bird Treaty Act or the Endangered Species Act. We are available for technical assistance in the development of pre- and post-construction surveys in order to ensure that impacts to birds and bats will be avoided and/or minimized.

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<sup>3</sup> Foster-Mckenna, A., J. Shuster, L. Perrotti, M. Steck and R. Kennedy. 2009. American burying beetle (*Nicrophorus americanus*) survey on Nantucket Island, Massachusetts. Report submitted to the U.S. Fish and Wildlife Service, New England Field Office, Concord, NH 03301. 18 pp.

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Please contact Susi von Oettingen for additional coordination related to the piping plover, or Maria Tur for further assistance relative to migratory birds. You may also visit the Wind Energy page on the New England Field Office's website for useful links, including guidance documents for avoiding and minimizing impacts to wildlife: (<http://www.fws.gov/newengland>).

Sincerely yours,



Thomas R. Chapman  
Supervisor  
New England Field Office

