



Memo

To: Haines Borough Energy & Sustainability Commissioners
Jan Hill, Mayor, Haines Borough
Tom Bolen, Manager, Haines Borough
Pat Philpot
Stan Jones

From: Stephanie Scott, Energy & Sustainability Coordinator

Date: January 15, 2009

Re: Literature Search to Determine Impacts of Commercial Grade Wind Turbines on Eagles

In response to the Commission's January 8 follow-up request to the Alaska Chilkat Bald Eagle Preserve Advisory Council, for a research plan regarding the potential risk to the Chilkat bald eagle population from wind turbines, Joel Telford, DNR, Council Co-Chair, advised as follows in a January 15 email to the Haines Borough Energy & Sustainability Coordinator:

My recommendations for moving ahead with a risk assessment would be for the Haines Borough Energy & Sustainability Commission to hire a consultant to perform a literature search and determine the impacts from existing commercial grade wind turbines.

As a project outside of the boundaries of the Alaska Chilkat Bald Eagle Preserve, note that the Division of Parks does not have any permitting authority in this instance. However, the Alaska Chilkat Bald Eagle Preserve Advisory Council would be happy to review any findings and provide additional input.

As Bald Eagles are federally protected under the Bald and Golden Eagle Protection act, I did contact Phil Schempf with the USF&W for his input. Phil graciously provided me with a number of items that may help as a starting point. I will forward those to you shortly. Please let me know if I can be of any further assistance.

Papers and references have been provided to the Commission by Mark R. Fuller, USGS, Forest and Rangeland Ecosystem Science Center, Snake River Field Station, and Boise State University – Raptor Research Center

(mark_fuller@usgs.gov) through Phil Schempf, US Fish & Wildlife Service, (Phil_Schempf@fws.gov)

Mr. Fuller also recommends corresponding with Carl Thelander, BioResource Consultants, who studies birds relative to wind energy (CT@BioRC.com, 408-459-9100); and Grainger Hunt, who studied the high density golden eagles in the Altamont area of center CA for several years (REGNIARG@aol.com, 5030336-7281).

Fuller, who was provided with a map of the Kicking Horse project area (Philpot), the Stan Jones project area, and a map of the catalogued eagle nests, stated in an email to Phil Schempf dated 11/03/08:

The bottom line, I think, is, as in all real estate, LOCATION, LOCATION, LOCATION. If wind turbines are erected in areas more heavily used by birds, there is more risk of birds colliding with turbines. I have not found anything comparable to what the scenario is along the Chilkat, and as the FWS guidelines note, every situation should be studied because unique considerations about terrain, wind, species, etc. is the norm.

Phil Schempf was a little more direct in his response:

I made some inquiries about potential impacts, possible methods to minimize risk and legal liability of the project proponent and got a mixed bag of responses. The biologist I talked with in our Washington, DC, office was literally speechless that we would even consider authorizing such a project. I didn't get a concrete answer from LE about liability. Take is illegal under the Bald and Golden Eagle Protection Act, but take is not a certainty. My interpretation of what I heard was LE would react to take if it occurred. Most folks I talked with were of the opinion that some hard to estimate level of take would be unavoidable due to the density of eagles. Putting those two things together, it seems likely to be a problem. In my opinion it would be better to avoid it and the investment of a bunch of time and money for something with a high probability of ending up in court.

The following papers and reference lists have been provided and can be accessed through the Commission web site (see wind).

- Draft Association of Fish and Wildlife Agencies (AFWA) Position Statement, Wind Energy Impacts on Wildlife and Wildlife Habitat, 3/20/2008
- Map of Bird Sensitivities to Wind Farms in Scotland: A tool to aid planning and Conservation, 2008.
- Bird Mortality in the Altamont Pass Wind Resource Area, California, 2007

- Wind Power: Impacts on Wildlife and Government Responsibilities for Regulating Development and Protecting Wildlife, Government Accounting Office (GAO), 2005
- Behavior of Red-Tailed Hawks in a Wind turbine Development, 2005
- The Effects of a Wind Farm on Birds in a Migration Point: The Strait of Gibraltar, 2004
- Behavioral and Environmental Correlates of Soaring-Bird Mortality at On-Shore Wind Turbines, 2004
- Windfarms and Birds: An analysis of the effects of windfarms on birds, and guidance on environmental assessment criteria and site selection issues, 2003

Lists of Articles

- Raptor Information System, list of 27 pertinent articles.
- Web of Science, Ovid Databases searches for wind energy and eagles, 6 articles

Many papers listed on the reference lists can be obtained from the Raptor Information System (RIS) (<http://ris.wr.usgs.gov/search.asp>) at the Boise State University Raptor Research Center by contacting Susan Toussaint (stoussai@usgu.gov).