

ALASKA DEPARTMENT OF FISH AND GAME  
FEDERAL AID PROJECT  
ANNUAL PERFORMANCE REPORT

**Grant Number:** E-5-HP

**Grant Segment:** 1

**Grant Title:** HCP for Alaska Coastal Species: Studies Related to Listed/Candidate Marine Birds

**Project Number:** 4.0

**Project Title:** Susceptibility of Eiders to Impacts of Coastal Wind Generation Facilities

**Project Duration:** February 28, 2003 to December 31, 2005

**Project Reporting Period:** May 28, 2004 to June 15, 2005

**Project Interim Report Due:** June 28, 2005

**Location:** Statewide

**Project Objectives:**

The objectives of this component are:

1. Facilitate the testing and evaluation of ground observations and radar observations to detect and quantify movements of eiders near potential wind-generation sites in coastal areas.
2. Assist in the collection of data on eider occurrence and movements at Gambell (particularly in fall) and Hooper Bay (particularly in spring) to evaluate feasibility and siting considerations for wind generation facilities.
3. Contribute toward development of a database on seasonal waterfowl movements in areas of western and northern Alaska as related to potential windfarm developments.
4. Attempt to document mortality of eiders at towers already in place (e.g., FAA, communications) at Gambell and Hooper Bay.

**Summary of Project Accomplishments:**

1. Testing methods—Testing and evaluation of methods for ground and radar observations of eiders have been completed at three study sites. Sampling strategies, data-collection formats, and sampling schedules have been developed by the contractor in proposed protocols for future site-specific studies. Field methods will be applied under the direction of the Alaska Village Electric Cooperative (AVEC).
2. Field data collection—Final reports were produced AVEC and the Alaska Energy Authority (AEA) by Alaska Biological Research (ABR) on abundance and movements of eiders and other birds to assess feasibility and siting considerations for potential wind generation facilities at three sites (copies enclosed). Fieldwork was completed during November 2002 and a final report was issued in March 2004. Fieldwork focused on spectacled and Steller's eiders was conducted during spring 2004 at Hooper Bay; the final report was produced April 2005. Mekoryuk studies were conducted during fall 2004, with a final report issued in April 2005. AEA, AVEC, and ABR staff collaborated with ADFG on annual work plans, project design, and review of results. They also consulted with USFWS field office personnel to advise on plans and progress, as well as transmit final reports.

3. Database development—During this reporting period, AEA, AVEC, and ABR conceptually explored development of a regional database on seasonal waterfowl movements in areas of western and northern Alaska. The product would be intended as a general planning tool for initial assessment of potential windfarm developments and risks to birds. A recent commitment has been made to develop a pilot project in 2005, including an evaluation of the availability of basic datasets (e.g., USFWS survey data, landforms, weather information), GIS format and accessibility needs, and the scope of applications.
4. Mortality data from existing structures—Data on mortality of eiders at existing towers were collected to the extent possible at all three major study sites. Field monitoring and data collection consisted of visually determined movements, numbers, and species composition of birds moving near potential windfarm sites during the period of study. In addition, consultants conducted surveys for dead birds near existing towers and interviewed local residents to gather historical reports of mortalities.

**Problems or Deviations from Work Plan:** No deviations from work plan.

**Anticipated Focus Next Reporting Period:** Development of the pilot project for a regional GIS-based planning tool for potential windfarm sites. Work will focus on accessing datasets, designing GIS program structure, and determining the value and utility of applications.

**Interim Project Costs (estimated):** During this reporting period, AEA and AVEC expended grant and match funds as shown below. To date, total expenditures on this project component have been about \$97,400 including a federal share of \$73,000.

Federal share	\$ 41,700
State share	\$ 13,900
Total	\$ 55,600

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**Report Date:** June 15, 2005