Intra-Service Section 7 Biological Evaluation Form
Region 7

Originating Person: Nancy Hoffman Date Submitted: 1/19/2010

Telephone Number: 907-532-2445

I. **Service Program and Geographic Area or Station Name**:

Izembek National Wildlife Refuge; Cold Bay, Alaska

III. **Species/Critical Habitat**: List federally-listed, proposed, and candidate species and designated or proposed critical habitat that occur or may occur within the action area:

Steller's eider (*Polysticta stelleri*)
Spectacled eider (*Somateria fischeri*)

IV **Location**: Location of the project including County, State, and section, township, & range. Attach map(s) if appropriate. Include any information that will assist in evaluating potential effects (e.g., location of specie/habitat, distance and direction to nearest town, etc.):

Aleutians East Borough; Cold Bay, Alaska (see Map 1)
Sec. 25, T057S, R089W

Refuge Headquarters building, (see Figure 1)
Living Quarters 1 – 4 and Bunkhouse (see Figure 1)

I. **Project Description:** Describe proposed project or action or, if referencing other documents (e.g. the Grant Proposal), prepare an executive summary containing the pertinent information (attach additional pages as needed):

The proposed activity is to install (3-4) vertical axis wind turbines (VAWT) in Cold Bay, AK on refuge administrative lands. All three VAWTs are proposed to be installed in the developed area at refuge headquarters/living quarters area. The VAWT proposed is designed by Tangerie Alternative Power and is a drag turbine system. The turbines will be affixed to a monopole, with no guy wires, and will be approximately 25 feet in height, transmission lines will be underground. Funding for this project was granted through the American Recovery and Reinvestment Act. The primary purpose of this project is to reduce refuges greenhouse gas emissions as required by Executive Order 13423 and 13514. In addition, this project will reduce the refuges use of heating fuel.

VI. **Determination of Effects:**

(A) Description of Effects: Describe the effects of the action(s) on the species and critical habitats listed in item III. For each section 7 determination made below, attach an explanation of such determination for all applicable species or critical habitat. Documentation should include a brief discussion of each of the following: 1) species status both within and outside the action area - population trends, distribution in and around the action area, 2) habitat status - critical or noncritical; species use such as breeding, sheltering, and feeding in and around the action area, and 3) impacts of the action - how the proposed action will affect species/critical habitat (consider direct, indirect, and cumulative effects). Beneficial and adverse effects, as well as actions to avoid or minimize adverse effects, should be identified (attach additional pages as needed).

Steller's eider regularly occur on Izembek NWR in the winter, with Izembek and Nelson lagoons among the most important molting areas. Both of these lagoons are designated critical habitat for the Steller's eider. However, these lagoons are approximately 5.5 and 70 miles from the project site, respectively. Steller's eider also utilize portions of Cold Bay during winter, some areas being less than 0.5 miles from the project site. While these birds use the bay and coastal areas, they have never been documented flying over the project site area.

Spectacled eiders have only very rarely been documented near Izembek NWR administrative lands. A subadult male was observed off the Cold Bay dock (12/30/2005) and a pair was reported in the 1960's on Izembek Lagoon. An adult male was also observed in Herendeen Bay southeast of Nelson Lagoon on 4/7/1992.

The turbine location at refuge headquarters is near the waters of Cold Bay (see Map 1) but it is not in an area where ducks are known to fly across land. Additionally, three 40 foot tall communications towers stand adjacent to the proposed turbine location. Two of these towers include guy wires between them and to the ground. There are no documented bird strikes related to these towers. The turbines will be approximately 600-800 feet from the waters edge of Cold Bay.

The VAWT was chosen by the Service because these types of turbines do not have a similar plane of sweep to intersect the flight path of birds. Additionally, the rotor structure is of solid material that inhabits a defined space at all times of rotation; so the perception of sight influenced wildlife would be of a solid object. It would consist of a six foot VAWT affixed to monopole, with no guy wires, standing vertical adjacent to refuge headquarters or adjacent to existing residences, transmission lines will be underground.

VI. **Determination of Effects** (continued):

(B) Determination: Determine the anticipated effects of the proposed project on species and critical habitats listed in item III. Check all applicable boxes and list the species associated with each determination.

	Response requested
G *"No Effect"* This determination is appropriate when the proposed project will not directly or indirectly affect (neither negatively nor beneficially) a listed/proposed/candidate species or designated/proposed critical habitat of such species. List species applicable to this determination (or attach a list):	_____ Concurrence
G *"May Affect but Not Likely to Adversely Affect species/critical habitat"* This determination is appropriate when the proposed project is not likely to adversely impact a listed species or designated critical habitat of such species. List species applicable to this determination (or attach a list):	__X___ Concurrence Steller's eider Spectacled eider
G *"May Affect and Likely to Adversely Affect species/critical habitat"* This determination is appropriate when the proposed project is likely to adversely impact a listed species or designated critical habitat of such species. List species applicable to this determination (or attach a list):	_____ Formal Consultation
G *" Not Likely to Jeopardize candidate or proposed species/critical habitat"* This determination is appropriate when the proposed project is not expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. List species applicable to this determination (or attach a list)	____ Concurrence Informal Conference optional
G *"Likely to Jeopardize candidate or proposed species/critical habitat"* This determination is appropriate when the proposed project is reasonably expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. List species applicable to this determination (or attach a list):	____ Formal Conference

Signature

Nancy Hoffman, Refuge Manager

20 January 2010

Date

Reviewing Ecological Services Office Evaluation (check all that apply):

A. **Concurrence** X **Nonconcurrence** _____

Explanation for nonconcurrence:

B. Formal consultation required _____
List species or critical habitat unit

C. Conference required _____
List species or critical habitat unit

Signature [Reviewing ES Office Supervisor]

1/21/10
Date

Name of Reviewing ES Office

Consultation # 2010-0054