

## **APPENDIX B**

### **Wetlands Avoidance and Minimization Checklist**



## Wetland Avoidance and Minimization Analysis

**Project Name: Savoonga Airport Improvement**  
**Project Number: 62607**

### **I. Project Scope:** Provide a brief description of and reason for the project.

The Savoonga airport does not currently meet all safety standards as outlined in the Alaska Aviation Systems Plan Update and Federal Aviation Administration (FAA) standards, Federal Aviation Administration Advisory Circular 150/5300-13. Due to the remote location and limited seasonal accessibility, the State of Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the FAA, proposes to upgrade the Savoonga Airport that would result in a safer and more accessible airport to meet all aircraft design group aircraft.

Elements of the Proposed Action consist of the following: re-grade and resurface the runway and the apron; replace medium intensity airport lighting; realign and widen the taxiway safety area to 120 by 500 feet; construct a 225- by 400-foot addition on the east side of the existing apron; at the southeast end of the runway, construct a new 30- by 135-foot precision approach position indicator (PAPI) pad; at the northwest end of the airport, construct a new 30- by 135-foot PAPI pad, a 20- by 350-foot access road for a supplemental wind cone, and a 20- by 20-foot PAPI equipment storage building pad and supplemental wind cone; construct a new 20- by 350-foot access road and a 125- by 125-foot pad to relocating the segmented circle and windcone; re-grade the existing ditch and realign as necessary underneath the new taxiway; resurface a portion of the airport access road and install additional culverts; relocate utilities as necessary to accommodate realigned taxiway and apron expansion; and construct a concrete floor in the snow removal equipment building.

### **II. Avoidance Measures:**

1. Can the proposed project or project components be located in a non-wetland area? If not, explain in detail why not? (Refer to preliminary jurisdictional wetland determination.)

No, all airport improvements are based on the location of an existing airport and no upland areas are available that meet the purpose and need.

1.a. If yes, does this non-wetland area provide unique habitat to the area or contain other protected resources (e.g., cultural resource, federally listed or candidate species, bald eagles or

other raptors)? Consult with the agency with jurisdiction or expertise if appropriate (e.g., Corps, Service, NMFS, ADNR/OHMP).

N/A

1.b. Are there other project related impacts to the non-wetland area that are considered substantial (e.g., subsistence use or other socio-economic factors)? Consult with the agency with jurisdiction or expertise if appropriate (e.g., Corps, Service, NMFS, ADNR/OHMP).

N/A

1.c. Can impacts to active nests of migratory birds be avoided through adherence to construction timing windows (as identified in the USF&WS guidelines “Advisory: Recommended Time Periods for Avoiding Vegetation Clearing in Alaska to Protect Migratory Birds”)? If not, consult the Service.

No vegetative clearing will take place between May 20 to July 20.

2. In consideration of forecast changes in aircraft use, future airport projects, expected community growth and maintenance considerations, have facilities been sited to avoid wetland impacts? Has this been applied to all individual components of the airport (e.g., the runway, taxiways, aprons, lease lots, navigational aids)?

Yes, to the extent possible.

Describe the alternatives addressing the project purpose and need that have been evaluated to avoid wetland impacts. (Describe below or reference the applicable section in the NEPA document). If alternatives that avoid wetland impacts are not practicable, explain technical, financial, maintenance or other environmental reasons, and address the following:

Alternatives are described in Chapter 3.0 of the EA.

2.a. Can dimensions of facilities be traded off; i.e., length vs. width of the apron in order to lessen impacts?

No. The airport is surrounded by wetlands. However, the footprints of the taxiway, apron, and PAPI pads have been minimized to the extent practical.

2.b. Can the footprint of specific project components be reduced to avoid wetlands i.e., steeper side slopes on support facilities?

Yes. The side slopes of the non-runways areas have been steepened to minimize impacts.

2.c. Can facilities be consolidated to avoid impacts?

No, there are no other facilities to consolidate. All aspects of the project are unique, both to the facilities and the area.

2.d. Have existing roads, pads, runways and other facilities been incorporated into the design of the proposed project to avoid wetland impacts?

N/A (Incorporating other facilities into the design would not minimize wetland impacts.)

2.e. Can the runway location or alignment be adjusted to avoid wetland impacts?

No, adjusting the location or alignment would cause further impacts.

3. Have crossings of fish streams been avoided? (Consult the Anadromous Fish Catalog for anadromous streams and contact ADNR/OHMP for information on resident fish bearing waters.)

N/A (No fish streams would be crossed).

4. If the Regional Environmental Coordinator has determined that the project may adversely affect Essential Fish Habitat (EFH) list the preliminary EFH conservation measures.

N/A (The NMFS has determined that the described action will not result in any adverse effect to EFH, and further EFH consultation is not necessary).

5. Are bald eagle nest trees at least 330 feet from the project? If not, consult the Service.

During scoping, the USFWS did not identify any bald eagle nest in the project area.

6. Have abandoned pads, roads, runways and other fills associated with the airport project been considered for gravel re-use, rehabilitation, and/or restoration?

Yes. Material from the existing taxiway will be incorporated into the existing project. Because the area under the existing taxiway was previously wetlands, it is assumed that once the fill is removed, the 1.35 acre area will revegetate and eventually return to a fully functioning wetland. As a result, the net loss of wetlands would be 12.65, or approximately 13 acres (14 acres of total wetland area impact minus 1.35 acre gain).

### **III. Minimization Measures (If the impacts can't be avoided continue):**

1. Can the proposed project or project components be located in a lower value wetland area? If not, explain in detail why not? (Refer to appropriate resource mapping or functional value assessment.)

No. None of the project components can be located in lower value wetlands. DOWL Engineers conducted a wetland function and value assessment for the Savoonga Airport in October 2005 and July 2006. All four wetland habitat types have the same functional value.

1.a. If yes, would construction affect other protected resources (e.g., cultural resource, federally listed or candidate species, bald eagles or other migratory birds)? Consult with the agency with jurisdiction or expertise if appropriate (e.g., Corps, Service, NMFS, ADNR/OHMP, and SHPO).

N/A

1.b. Are there other project related impacts to this lower value wetland considered substantial (e.g., cultural resource, subsistence use or other socio-economic factors)? Consult with the agency with jurisdiction or expertise if appropriate.

N/A

2. In consideration of forecast changes in aircraft use, future airport projects, expected community growth and maintenance considerations, have facilities been sited to minimize wetland impacts? Has this been applied to all individual components of the airport (e.g., the runway, taxiways, aprons, lease lots, navigational aids)?

Impacts have been minimized to the extent possible, as explained in previous sections. Impacts to wetlands from airport projects over the next 20 years are minor (net loss of 13 acres) and cannot be avoided.

Describe the alternatives addressing the project purpose and need that have been evaluated to minimize wetland impacts. (Describe below or reference the applicable section in the NEPA document). If alternatives that minimize wetland impacts are not practicable, explain technical, financial, maintenance or other environmental reasons, and address the following:

2.a. Can dimensions of facilities be traded off; i.e., length vs. width of the apron in order to lessen impacts?

No. However, the taxiway, apron, and PAPI pads have been consolidated to the extent practical.

2.b. Can the footprint of specific project components be a reduced i.e., steeper side slope on support facilities?

Yes. The side slopes of the non-runway areas have been steepened to minimize impacts.

2.c. Can facilities be consolidated to minimize impacts?

The taxiway, apron, and PAPI pads have been consolidated to the extent practical.

2.d. Have existing roads, pads, runways and other facilities been incorporated into the design of the proposed project to minimize wetland impacts?

N/A (Incorporating airport facilities into the design would not minimize wetland impacts).

2.e. Can obstruction removal for FAR Part 77 purposes be accomplished by methods that do not disturb the root mass or soil surface to minimize vegetation loss? [Note: Any associated chipping of stumps and limbs may result in a regulated discharge if the wood chips are "piled" in waters of the U.S. including jurisdictional wetlands.]

N/A. No obstruction removal is planned.

3. Have crossings of fish streams been located to minimize adverse impacts to the extent practicable? (Contact agencies with jurisdiction or special expertise as appropriate.)

N/A (There are no crossings of fish streams).

3.a. Has adverse affects to fish spawning habitat been minimized?

No affects to fish spawning habitat are anticipated. The State of Alaska Department of Natural Resources Office of Habitat Management Permitting has not mapped spawning habitat in the immediate project area.

3.b. Have stream crossings been designed in accordance with the ADOT&PF/ADF&G culvert design and construction memorandum of agreement?

N/A (There are no crossings of fish streams).

4. If the Regional Environmental Coordinator has determined that the project may adversely affect Essential Fish Habitat (EFH) list the preliminary EFH conservation measures.

N/A (The NMFS has determined that the described action will not result in any adverse effect to EFH and further EFH consultation is not necessary).

5. Have abandoned pads, roads, runways and other fills associated with the airport project been considered for gravel re-use, rehabilitation, and/or restoration?

Yes. Material from the existing taxiway will be incorporated into the existing project. Because the area under the existing taxiway was previously wetlands, it is assumed that once the fill is removed, the 1.35 acre area will revegetate and eventually return to a fully functioning wetland. As a result, the net loss of wetlands would be 12.65, or approximately 13 acres (14 acres of total wetland area impact minus 1.35 acre gain).

#### **IV. Material Site Considerations:**

Contractor supplied and commercial material sites are not to an avoidance and minimization review.

1. Has a material site been identified for the project? If yes continue, if no go to V.

The material would be contractor supplied. The most likely and reasonable material site has been identified as the middle branch site.

1.a. If a new material site is required, have you considered locating and accessing material an adequate distance from the airport so that it can be reclaimed as wetlands or other wildlife habitat?

This is an existing material site.

1.b. Would a new site, located a safe distance from the airport, require a new road, resulting in additional wetland resource or community use impacts? Are there means to avoid a new access road? Would development of this new site result in more or less wetland impacts than a new or existing material site located closer to the airport?

There is an existing access road to the material site. No wetland impacts are associated with the material site.

1.c. If a new or existing material site has been selected that would be located a safe distance from the airport and requires minimal additional road building, has a mine reclamation plan? If located an appropriate distance from the airport can the material site be reclaimed to provide open water habitat such as, shallows, islands, and irregular shorelines? (Consult agencies with jurisdiction or special expertise.)

A mine site reclamation plan has been developed for the existing material site. The material site would continue to be used as such and therefore it would not be reclaimed to provide open water habitat.

1.d. Has geotechnical and hydrological information been collected and used to maximize gravel exploitation while minimizing wetland impacts (e.g., mining deeper, adjusting material site boundaries, and using portions of the pit for temporary stockpiling of material)?

A geotechnical report was prepared. The material site does not impact wetlands.

1.e. Has a long-term material site been considered? If so, can a portion of the site be closed and reclaimed at the end of this project?

This is an existing long-term material site.

**V. Additional Material Site Considerations:**

1. Will project overburden be stockpiled (preferably in uplands) for use as “top soil” or in reclamation of material sites or previously disturbed areas?

N/A. No overburden exists in the material sites.

2. How will access roads and other fills associated with the material site be restored upon project completion?

There is a permanent access road to the material site.

3. Can development of the material site be timed to avoid or minimize affects during spawning, migration and nesting periods? (Consult agencies with jurisdiction or special expertise)

The existing material site is located in uplands and will not affect spawning or migration. Any clearing windows included in the USACE permit will be adhered to.