MEMORANDUM OF AGREEMENT
AMONG THE FEDERAL AVIATION ADMINISTRATION, U.S. ARMY CORPS OF ENGINEERS, ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES, U.S. FISH AND WILDLIFE SERVICE, AND ALASKA DEPARTMENT OF FISH AND GAME
REGARDING IMPACTS TO WETLAND AND OTHER AQUATIC RESOURCES, MITIGATION AND AIRPORT IMPROVEMENT PROJECTS IN ALASKA

Authorities: Section 404 of the Federal Water Pollution Control Act, as amended (Clean Water Act) (33 U.S.C. 1251 et seq.)

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

Airport and Airway Improvement Act of 1982, as amended (49 U.S.C. 47106(c), at seq.)

Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e)

National Environmental Policy Act, as amended (42 U.S.C. 4321-4347)

Executive Order 11990 (Protection of Wetlands)

Alaska Statutes 19 and 41

Purpose

In recognition of the safety needs of Alaskans as they relate to airport operations, the need to upgrade and /or relocate these facilities to meet Federal Aviation Administration (FAA) safety standards, the need to streamline the approval of these proposed projects, and the often limited opportunities to completely avoid and minimize impacts to the nation's fish and wildlife, the FAA; the U.S. Army Corps of Engineers (Corps); Alaska Department of Transportation and Public Facilities (ADOT&PF); Alaska Department of Fish and Game (ADF&G),; and the U.S. Fish and Wildlife Service (Service) are entering into this Memorandum of Agreement to streamline the environmental and permit evaluation process while collaboratively conserving Alaska's wetlands and aquatic resources and the species they harbor.

This Agreement is a programmatic approach to meeting the mitigation hierarchy of the National Environmental Policy Act (NEPA), the Clean Water Act (CWA) Section 404 (b)(1) Guidelines, the Executive Order 11990 (protection of wetlands) and the applicable agencies' mitigation policies. This MOA applies only to proposed airport development projects within FAA's jurisdiction. This approach will allow the signatory agencies to focus staff resources toward major projects (i.e., EIS level), while ensuring that all airport improvement projects avoid wetlands where practicable, minimize, and compensate for the loss of wetlands when avoidance is impractical.

Background

Alaska is a landscape that equals nearly one-quarter of the landmass of the contiguous United States yet much of it is largely un-roaded and air transportation provides the only year-round access to many communities throughout Alaska. Air travel is an essential component of commerce, communication, human health, education, recreation, and life in Alaska. Throughout most of the State when there is a life-threatening emergency, airports provide the vital life link to medical facilities. It is imperative to all Alaskans that the state's airports are capable of providing safe travel for all. Implementation of airport safety standards developed by FAA will improve the safety and reliability of Alaska's airports. Unfortunately, a high percentage of Alaska's public use airports (approximately 262) fail to meet current airport design safety standards and will need to be upgraded (e.g. the runways and runway safety areas are too short or narrow, aircraft are parked on aprons too close to runways). Approximately 20-30 of these airports may need to be relocated to meet FAA airport design standards and/or to minimize environmental impacts. In total, it is estimated that these airport renovation and relocation efforts will adversely impact and/or destroy approximately 8-10,000 acres of wetlands. Due to the nature of Alaska's landscape, the standardized requirements for airport improvements, and requirements to avoid wildlife hazards, options to avoid and minimize impacts to wetlands and other aquatic resources may be limited.

Alaska has an abundance of wetlands that are very important in supporting the state's rich wildlife legacy. Healthy populations of moose, bear, salmon, waterfowl and other migratory birds all rely on the benefits provided by wetlands. Wetlands and the functions they provide are critical not only to the state's fish and wildlife populations but also to tourism and recreation, the economy, and to the subsistence lifestyle of many rural Alaskans.

The signatory agencies to this Agreement recognize the need to improve the safety and reliability of air transportation in Alaska and are committed to working with FAA to streamline the implementation of improvements to Alaska's airports. These challenges and the recognition by all parties to this Agreement of the importance of balancing the need for airport upgrades and wetland conservation provided the impetus for this Agreement.

Programmatic Approach to Streamlining FAA Airport Improvement Projects and Conserving Wetlands

In an effort to establish an efficient, streamlined, programmatic approach to address the over 200 airports that are either yet to be upgraded to FAA standards or will require future upgrades to accommodate changes in type of air service (e.g., changes in aircraft type, approach procedures, and/or nature of operations) as well as changes in airport design standards, we are mutually agreeing to initiate a pilot effort that recognizes the unique hydrology and geology of Alaska and the critical importance of air travel to all citizens. This pilot approach will be evaluated on an annual basis and modified if necessary. Annual meetings of the signatory agencies will be held to review the performance of this Agreement and identify future projects where coordination is required. Meetings will be held as necessary to resolve any difficulties that arise in

implementing this Agreement to ensure that this approach is successful. As soon as possible after the execution of this Agreement, joint training will be conducted for the staff of all signatory agencies to ensure that agency actions are consistent with the commitments of the Agreement. The streamlined approach will apply to all ADOT&PF sponsored FAA-funded airport improvement and relocation projects authorized as a FAA Categorical Exclusion (CE) or a FAA approved Environmental Assessment (EA). It will not apply to projects requiring the preparation of an Environmental Impact Statement (EIS) involving significant impacts to wetlands and aquatic resources.

Generally, this programmatic effort will work in the following manner. The signatory agencies have collaboratively developed standard Avoidance and Minimization Procedures (AMPs) to avoid and minimize impacts to wetlands and aquatic resources consistent with regulatory requirements (i.e., NEPA, Section 404(b)(1), E.O. 11990, the Fish and Wildlife Coordination Act, and applicable agencies' policies) (Attachment 1). ADOT&PF will integrate these measures into the planning and design of all state-sponsored, FAA approved and funded airport improvement projects.

All signatory agencies recognize that projects developed in conformance with this Agreement have, as a preliminary matter, avoided and minimized impacts to wetlands to the maximum extent practicable. Unavoidable impacts to wetlands will be compensated by ADOT&PF through payments into a fund based on a per acre basis (i.e., $500/acre). These funds will be used to address FAA's mitigation requirements identified in an FAA approved NEPA document or Corps permit issued under the CWA for FAA approved and funded airport development. An independent third party will manage this fund with oversight by a board representing all the signatory agencies.

For any project where conformance with this Agreement would not fully satisfy compliance with the CWA or NEPA, compensatory mitigation for that project would be negotiated between the Corps and ADOT&PF outside the terms of this Agreement.

All MOA signatory agencies recognize that ongoing communication, coordination, and cooperation will ensure that the MOA goals are met. The signatories to this Agreement will establish a monitoring protocol and annually assess the efficiency of this Agreement.

Specific Obligations of the Parties

The FAA:

- using the AMPs identified in Attachment 1, will work with ADOT&PF to fully integrate appropriate avoidance and minimization measures into all ADOT&PF sponsored FAA-funded and approved airport improvement projects to avoid and minimize wetland and aquatic resource impacts;

- will ensure that impacts to wetlands and aquatic resources have been fully assessed and that all impacts from project construction of runways, taxiways, access roads, materials

sites, and related support facilities and/or any other project feature have been documented in the FAA approved CE or EA;

- will ensure that unavoidable wetland and aquatic resource impacts resulting from an FAA approved and funded airport development project are compensated through deposits into the Alaska Wetland Conservation Fund in accordance with the procedures described in this Agreement and the area of affect and mitigation is documented in the environmental document for ADOT&PF sponsored FAA-funded and approved airport development;

- will assist in developing and evaluating any new AMPs determined to be necessary to avoid and minimize impacts to wetlands and aquatic resources;

- will work with ADOT&PF, the Corps, ADF&G, and the Service to establish a monitoring and evaluation plan to assess the effectiveness of this pilot programmatic approach to wetland conservation and environmental process streamlining efficiencies; and

- will participate on the Alaska Wetlands Conservation Fund Board to identify proposals to fund the protection, restoration, and enhancement of wetlands which do not conflict with other planned airport development, or create a wildlife or aviation hazard.

The ADOT&PF:

- will identify and calculate the area of Waters of the U.S. and wetlands that will be affected by ADOT&PF sponsored FAA-funded and approved airport improvement projects;

- will ensure that impacts to wetlands and aquatic resources have been fully assessed and that all impacts from project construction of runways, taxiways, access, materials sites, and related support facilities and/or any other project feature have been documented in the FAA approved CE or EA;

- will submit wetland delineation data performed in accordance with the Corp's 1987 Wetland Delineation Manual to the Corps for review and a written determination of whether it is accurate;

- using the AMPs identified in Attachment 1, will work with FAA to fully integrate appropriate avoidance and minimization measures into all ADOT&PF sponsored FAA-funded and approved airport improvement projects to avoid and minimize wetland and aquatic resource impacts;

- will compensate for the unavoidable wetland and aquatic resource impacts through deposits into the Alaska Wetland Conservation Fund in accordance with the procedures described in this Agreement and document the area of affect and the mitigation in the environmental document for ADOT&PF sponsored FAA-funded and approved airport improvement projects and the Corp's permit application;

- will assist in developing and evaluating any new AMPs determined to be necessary to avoid and minimize impacts to wetlands and aquatic resources;

- will solicit information from and consult with MOA signatories as needed to further the goals of this MOA, beginning at the initial stage of each airport improvement project;

- will work with FAA, the Corps, ADF&G, and the Service to establish a monitoring and evaluation plan to assess the efficacy of this pilot programmatic approach to wetland conservation and environmental process streamlining efficiencies; and

- will participate on the Alaska Wetlands Conservation Fund Board to solicit and select proposals to fund the protection, restoration, and enhancement of wetlands.

The Corps:

- will continue to follow its established policies and procedures regarding evaluation of Section 404 and Section 10 permit applications for ADOT&PF sponsored FAA-funded and approved airport improvement projects occurring in Alaska, including the Corps making a project by project determination on a case by case basis whether conformance with this agreement fully satisfies compliance with the CWA and NEPA for any given proposal;

- will be available upon request from FAA or ADOT&PF to assist in the application of AMPs to specific projects;

- will assist in developing and evaluating any new AMPs determined to be necessary to avoid and minimize impacts to wetlands and aquatic resources;

- will verify the amount of wetland and aquatic resource acreage that will be impacted as the unavoidable consequence of ADOT&PF sponsored FAA-funded and approved airport improvement projects;

- will accept, where determined appropriate on a case by case basis, the payment of in-lieu fees to the Alaska Wetlands Conservation Fund, as described in this Agreement, as compensation for unavoidable wetland and aquatic resource impacts;

- will work with FAA, ADOT&PF, ADF&G, and the Service to establish a monitoring and evaluation plan to assess the effectiveness of this pilot programmatic approach to wetland conservation and environmental process streamlining efficiencies; and

- will offer advice to the Alaska Wetlands Conservation Fund Board on selecting proposals to protect, restore, and enhance wetlands.

The Service:

- will provide information on Federally-listed endangered or threatened species, migratory birds, and other important resources and habitats when requested by FAA or ADOT&PF;

- consult with FAA or their agent and the Corps if any proposed airport development project may affect listed species to ensure that the requirements of the Endangered Species Act are met;

- will be available upon request from FAA or ADOT&PF to assist in the application of AMPs to specific projects;

- will consult with ADF&G as needed to provide coordinated resource information to the FAA, ADOT&PF, and the Corps;

- will respond to the Corps' public notice for projects developed under this agreement with an unconditional non-objection or no comment;

- will not request additional compensatory mitigation on individual ADOT&PF sponsored FAA-funded airport improvement projects developed consistent with this Agreement;
- will work with FAA, ADOT&PF, the Corps, and ADF&G to establish a monitoring and evaluation plan to assess the efficacy of this pilot programmatic approach to wetland conservation and environmental process streamlining efficiencies; and

- will participate on the Alaska Wetlands Conservation Fund Board to solicit and select proposals to fund the protection, restoration, and enhancement of wetlands.

The ADF&G:

- will provide information on fish and wildlife resources and other important resources and habitats to FAA or ADOT&PF;

- will be available upon request from FAA or ADOT&PF to assist in the application of AMPs to specific projects;

- will assist in developing and evaluating any new AMPs determined to be necessary to avoid and minimize impacts to wetlands and aquatic resources;

- in consideration of the specialized procedures contained in this Agreement to address habitat and resource issues, will no longer independently review and comment on projects developed under this Agreement in response to Corps public notices;

- will consult with the Service as needed to provide coordinated resource information to the FAA, ADOT&PF, and the Corps;

- will work with FAA, ADOT&PF, the Corps, and the Service to establish a monitoring and evaluation plan to assess the efficacy of this pilot programmatic approach to wetland conservation and environmental process streamlining efficiencies; and

- will participate on the Alaska Wetlands Conservation Fund Board to solicit and select proposals to fund the protection, restoration, and enhancement of wetlands.

Alaska Wetlands Conservation Fund

Signatories agree that in-lieu fee compensation for unavoidable loss of wetlands due to ADOT&PF sponsored FAA-funded airport improvement projects in Alaska shall be made as a fee of $500 per acre compensated at a 1:1 ratio. This will be documented in the FAA approved environmental document CE or EA/FONSI and ADOT&PF's permit application. Further it is agreed that projects developed in accordance with this Agreement preliminarily satisfies the requirements of the CWA, Fish and Wildlife Coordination Act, and Executive Order 11990. By signing this agreement, the Alaska District Army Corps of Engineers does not recognize a cumulative loss of wetlands as the basis for requiring compensatory mitigation. Rather, the Corps is accepting a voluntary programmatic approach to providing proposed compensation and will reserve the right to make project specific determinations to fully comply with the CWA and NEPA for mitigation purposes. The ADOT&PF will deposit the compensation funds into the Alaska Wetlands Conservation Fund established for the purpose of this pilot approach to be paid prior to project construction. These funds will be used to address FAA's mitigation requirements identified in an FAA approved NEPA document or Corps permit issued under the CWA for FAA approved and funded airport development.

It is mutually agreed that all parties will work together to identify an appropriate Non-Governmental Organization (NGO) such as The Conservation Fund, The Nature Conservancy, Great Land Trust, or similar organization to establish and manage the Alaska Wetlands Conservation Fund as an interest bearing account within 6 months of the execution of this Agreement. All ADOT&PF sponsored FAA-funded airport project related wetland and aquatic resource compensation dollars will be deposited into this account for mitigation required under section 404 of the CWA or listed in the FAA approved NEPA document. The compensation dollars will be deposited into the fund after issuance of the Corps 404 permit or the FAA NEPA determination. The Fund may receive deposits from private donations, agency grants, legislative appropriations, or other sources for the conservation of high value wetlands.

Funds deposited into the Alaska Wetlands Conservation Fund will be used to protect, restore or enhance high value wetlands and aquatic resources in Alaska. All lands purchased with the Fund must comply with the requirements of Public Law 91.646, the Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 and FAA wildlife hazard separation criteria. The NGO land acquisition procedures must comply with the applicable provisions of the Federal Uniform Act regulations provided in 49 CFR Part 24. A Board composed of the signatories to this Agreement will oversee the disbursement of funds. The Board in coordination with the selected NGO will develop guidelines on the use of the Fund to ensure conforming land acquisition procedures are developed and followed and that these monies are utilized for the

purposes they were intended prior to any expenditure of funds. The Board will also develop the procedures for applying for funding consideration and the criteria to be used in ranking proposals submitted to the Fund. The Board will ensure that all lands purchased, restored, or enhanced using the Fund will be owned or managed by an appropriate agency or organization to ensure their long-term protection and will not be further modified to create a wildlife hazard attractant.

Financial Administration

The NGO that is selected to manage the Alaska Wetlands Conservation Fund shall deposit all contributions to the Fund and hold them in escrow in a bank, which must be a member of the Federal Deposit Insurance Corporation (FDIC), separate from all other funds. The selected NGO must keep the contributions made in conformance with this agreement separate from any other accounts that the NGO may manage. The monies held in the escrow account shall earn an interest rate as the bank and NGO agree. The NGO shall authorize the Bank to invest the funds in direct obligations of the Government of the United States of America or in obligations of agencies and insurers that are guaranteed by the Government of the United States of America. The funds shall be invested in such a manner to ensure immediate liquidity. All interest and earnings shall accrue to the Fund.

The managing NGO shall receive, at the time the funds are contributed to the Fund, an initial administrative overhead reimbursement equal to two per cent (2%) of funds contributed to the Fund to cover expenses for the day to day management of the Fund, initial bank charges for the establishment of the Fund, and for personnel time in carrying out the responsibilities of the Fund manager, including costs associated with Uniform Act compliance. This reimbursement shall be made against the corpus of the Fund's account.

A separate agreement shall be executed with the NGO selected to manage the Fund that will specify fully the duties and responsibilities of the Fund manager. The Fund manager shall furnish an annual report to the signatory agencies detailing all income, disbursements, and interest earned. The signatory agencies shall retain the right to audit all books and records of the NGO related to the management of the Fund. An agency's undertakings pursuant to this agreement are subject to the availability of funds.

Effective Date, Amendments and Termination

This Agreement will be effective as of the last date signed below, and will apply to all ADOT&PF sponsored FAA-funded airport improvement projects in Alaska for which an application under the Clean Water Act or Section 10 of the Rivers and Harbors Act of 1899 has not been submitted to the Corps prior to the effective date.

Amendments to this Agreement may be proposed by any signatory party in writing and will become effective upon being reduced to a written instrument and being signed by the duly authorized representative of all parties.

This Agreement may be terminated by a signatory upon 30 days written notice to the other parties. If the Agreement is terminated, the Fund manager shall dispense the remaining funds in accordance with the terms of the agreement between the NGO and the Board to compensate for FAA approved and funded project mitigation requirements to wetland conservation projects and then close the Fund.

Signatory agencies agree to terminate this Agreement should two projects in any calendar year be found to not satisfy compliance with the CWA.

Nothing in this Agreement is intended to diminish, modify or otherwise affect the statutory or regulatory authorities of the agencies involved. An agency's undertakings pursuant to this agreement are subject to the availability of funds.

Executed on _____ , by:

SEE ORIGINAL MOA & AMENDMENT #1 FOR SIGNATURES

_____

Division Manager, Date
Airports Division, Federal Aviation Administration

_____

Commissioner, Date
Alaska Department of Transportation/Public Facilities

_____

Commissioner, Date
Alaska Department of Fish and Game

_____

District Engineer, Date
U.S. Army Corps of Engineers

_____

Regional Director, Date
U.S. Fish and Wildlife Service

APPENDIX 1

AVOIDANCE AND MINIMIZATION PROCEDURES (AMPs)

These Avoidance and Minimization Procedures (AMPs) are to assist the Federal Aviation Administration (FAA) and Alaska Department of Transportation and Public Facilities (ADOT&PF) staff in their evaluation of practicable alternatives and design options for airport construction projects sponsored by the State of Alaska that avoid or minimize adverse impacts to Waters of the United States and wetlands. ADOT&PF staff must evaluate avoidance and minimization measures to meet the requirements of Executive Order (E.O.) 11990, the National Environmental Policy Act and Section 404(b)(1) of the Clean Water Act. The E.O. and Section 404(b)(1) require that impacts to wetlands be avoided or minimized if there is a practicable alternative. Thoroughly evaluating design and location alternatives and balancing the airport planning and engineering considerations, including cost, with environmental factors (e.g., functions and values) is what determines if there are "practicable alternatives".

In evaluating avoidance and minimization options, ADOT&PF staff will consult as appropriate with the agency or agencies with jurisdiction and special expertise [e.g., U.S. Army Corps of Engineers (Corps); U.S. Fish and Wildlife Service (Service); U.S. Environmental Protection Agency (EPA); National Marine Fisheries Service (NMFS), Alaska Department of Fish & Game (ADF&G), Alaska Department of Natural Resources, Office of Habitat Management and Permitting (ADNR/OHMP); ; ADNR/Office of Project Management and Permitting (OPMP) or local coastal district, and Alaska State Historical Preservation Officer (SHPO)]. ADOT&PF staff will document the evaluation of avoidance and minimization options with the ADOT&PF Wetland Avoidance and Minimization Analysis form. The Analysis form is appended to the project specific environmental document (Categorical Exclusion or Environmental Assessment) and included in the project specific Corps Section 404 permit application.

The following shall be considered in evaluating measures to avoid and minimize impacts to Waters of the U.S. and wetlands:

A. Locate airport facilities in uplands where practicable. Practicable is defined as "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes (40 CFR 230.3)." Document the rationale when it is determined that siting in uplands is not considered practicable. For example, the rationale may include: cultural resources, eagle nest trees, threatened, endangered or candidate species habitat, subsistence and socio-economic factors.

B. Evaluate build alternatives and design options that avoid wetlands. If there are no suitable upland sites for accommodating airport improvements within reasonable proximity of the community, or proximity to existing sewage lagoons, landfills, cultural resources etc. then locating the site in uplands is not considered practicable.

C. Evaluate the dimensions of the airport development facilities to determine if they can be adjusted to avoid or lessen the footprint in wetlands and high value habitats. This includes adjustments in the height of fill, line and grade, steepness of slope for support facilities, and other appropriate measures will be evaluated to decrease the footprint in wetlands.

D. Evaluate measures to minimize the proposed project impacts on wetlands, particularly on higher value wetlands (open water, emergent, and estuarine wetlands). These measures will include locating the improvements to minimize the effects of the project on higher value wetlands, incorporating existing fills into the project, rehabilitating abandoned fills and other appropriate measures.

E. Evaluate appropriate measures to avoid and minimize involvement in fish streams (i.e., cataloged anadromous fish streams and resident fish streams). These measures may include realignment of facilities to avoid streams, bridging, or culverts that simulate the stream under normal conditions. If the stream provides spawning habitat at the proposed crossing site then consideration of a bridge or realignment to a section of the creek where spawning does not occur will be evaluated. All culverts in fish streams will be designed in accordance with the ADOT&PF/ADF&G Culvert Design and Construction Memorandum of Agreement (August 2001).

F. To comply with the Bald and Golden Eagle Protection Act, identify all existing bald eagle nests within ¼ mile of the project area (by search of existing databases and if necessary, field surveys). If the project is located within 330 feet of an active eagle nest, then ADOT&PF will avoid construction within 330 feet diameter around tree during the March 1 to July 15 nesting period or have a trained observer monitor the nest during the nesting period while construction activities occurs to ensure the nesting activity is not disturbed.

G. Consult with or confer with the Service or NMFS in accordance with the requirements of the Endangered Species Act if it is determined that the project could affect a Federally-listed or candidate species, respectively. If the consultation or conference results in a determination that the project may adversely affect a listed or candidate species or critical habitat, the consultation process defined in the Act will be completed by ADOT&PF.

The following Wetland Avoidance and Minimization Analysis form is designed to quickly document avoidance and minimization evaluation and assist in the process of determining if there are practicable alternatives to first avoid, and then minimize impacts to aquatic resources. The Analysis will be completed for all projects that may affect Waters of the U.S. and wetlands. This Analysis will be completed as early as practicable using appropriate resource, airport planning, and engineering data developed for the environmental document (CE or Draft EA), but prior to submittal of the Section 404 permit application. It is not intended to reduce or replace the resource assessments necessary for completing the environmental document. The Analysis is attached to the ADOT&PF Section 404 permit application. The Corps will incorporate the Analysis to the extent practicable in their Section 404(b)(1) determination and permit decision.

Although each airport project is developed to National and Statewide standards, each is unique in terms of location, environment, and design considerations. For each individual project, there will ultimately be a mix of measures that best meet the project purpose and need, while avoiding or minimizing to the extent practicable wetland impacts. The extent to which wetland impacts can be avoided or minimized will depend on the project's site-specific conditions, design criteria, technical feasibility and cost. In certain situations, protection may be appropriate for higher value non-wetland habitats (e.g., riparian, deep water, and unique or locally rare upland habitats). Under such circumstances, avoidance of those non-wetland habitats may be appropriate.

State of Alaska
Department of Transportation
& Public Facilities
Statewide Design &
Engineering Services

Wetland Avoidance and Minimization Analysis

Project Name:
Project Number:

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

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.)

> 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).
>
> 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).
>
> 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.

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)?

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:

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

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

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

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

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

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

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

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

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.)

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).

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.

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)?

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?

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

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

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

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.)

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

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

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

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

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.

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?

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?

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.)

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)?

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?

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?

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

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)