UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

March 20, 2003

Patricia Sullivan
Federal Aviation Administration
Alaska Region, Airports Division
222 West 7th Avenue #14
Anchorage, Alaska 99513

RE: Juneau International Airport Preliminary Draft Environmental Impact Statement

Dear Ms. Sullivan:

The National Marine Fisheries Service (NMFS) has reviewed the Juneau International Airport Preliminary Draft Environmental Impact Statement (PDEIS). NMFS, as a cooperating agency in the development of this NEPA document, recognizes the need to improve safety at the Juneau International Airport while minimizing the environmental effects of any such improvements. NMFS provides the following comments specific to the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), and the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as well as general comments referenced to the PDEIS by section and page number.

Endangered Marine Species

Section 7(a)(2) of the ESA directs interagency cooperation "to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species" or result in the destruction or adverse modification of critical habitat. NMFS' July 5, 2002 letter to the FAA requested the completion of a draft Biological Assessment analyzing the potential project related effects to the Steller sea lions and humpback whales. According to the PDEIS (page 4-18), the FAA is preparing this Biological Assessment for submission to NMFS prior to release of the public DEIS. Section 4.3.10 Wildlife states:

> "The threatened Stell[e]r sea lion and endangered humpback whale may be indirectly affected by potential reductions in forage fish (e.g. Pacific herring) populations associated with implementation of RSA alternatives. However, these reductions are not anticipated to exceed the natural range of variability in annual production for forage fish. Thus, while populations of forage fish may be incrementally reduced as a result of these actions, their [sic] losses are not expected to have any substantive adverse effects of Stell[e]r sea lions or humpback whales."

This cursory analysis is not an adequate basis for a Biological Assessment. The Biological Assessment needs to include estimates of the current population size and range and causes of population variation (fishing mortality, habitat loss, environmental change, etc.) of all forage species likely to be affected by the proposed action, using the best available scientific and/or commercial data. Estimates of the project's specific short term, long term and permanent effects on these species and their habitats must be made for each important forage species.

In section 3.9.7 of the PDEIS, the FAA states "No fish or aquatic organisms found in the airport vicinity are listed as federally threatened or endangered species." NMFS previously reported to the FAA (July 5, 2002) that Steller sea lions frequently, and humpback whales occasionally occur in Fritz Cove and the Mendenhall River adjacent to the airport where they feed upon Pacific herring, eulachon, sand lance, various species of flatfish and other marine fish species. The nearest major sea lion haulout is located at Benjamin Island in Lynn Canal, approximately ten miles northwest of the Juneau International Airport. This site is also designated as Critical Habitat for this species under the ESA and detailed descriptions of these areas are provided in 50 CFR part 226.12.

NMFS will review the draft Biological Assessment upon receipt, and continues to offer assistance to the FAA pursuant to interagency consultation under Section 7 of the ESA.

The DEIS should refer to "federally listed" threatened and endangered species rather than "federally threatened or endangered species."

Marine Mammal Species

Marine mammals protected under the Marine Mammal Protection Act of 1972, as amended, 16 U.S.C. 1361 *et seq.* (MMPA) range throughout Alaskan waters. Marine mammal species most frequently observed near the project area include humpback whales, harbor seals, harbor porpoises, and Steller sea lions. Table 4-33 (pages 4-67 to 4-70) is a summary of the RSA impacts to wildlife habitats within the project area. To determine the effects of the project on protected marine mammal species, this table should be expanded to include all areas affected by the project, which include habitats outside the designated project area. The expanded area of effect includes the waters of Fritz Cove and all wetland areas directly and indirectly altered by the proposed project that currently support or contribute to forage fish production. In particular, this area includes the intertidal wetlands that would be subject to altered tidal effects due to construction of expanded runway safety areas and runway safety light installation.

Essential Fish Habitat

Section 3.9.6 of the PDEIS is entitled Essential Fish Habitat, but does not include an EFH assessment. The final paragraph of this brief section states: "By definition, EFH is essentially any location and habitat in which these species are found, including high marsh habitats within the highest tide elevation (Susan Walker, NMFS pers. comm. July 2002)." Congress defined EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth

to maturity" (16 U.S.C. 1802(10)). The EFH regulations at 50 CFR 600.10 further interpret the EFH definition as follows:

Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; **substrate** includes sediment, hard bottom, structures underlying the waters, and associated biological communities; **necessary** means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle. Based on this definition and interpretation, the North Pacific Fishery Management Council has identified EFH in Alaska, including the high marsh habitats of Southeast Alaska.

The MSFCMA requires NMFS to make conservation recommendations regarding any federal action that would adversely affect EFH. The proposed project is likely to adversely affect EFH resources, therefore the FAA must include an EFH analysis in the EIS. As mentioned in our July 5, 2002, letter to the FAA, the EFH assessment may be either a separate document or be clearly referenced in a support document, such as the EIS. Although the list of necessary components needed for an EFH assessment is included in the PDEIS (page 4-17), these required components are not in the PDEIS . The EFH assessment is not clearly referenced nor are the existing components easily located within the document. Section 3.9.6 (page 3-107) is entitled Essential Fish Habitat, but does not include all the necessary components of an EFH assessment nor does it reference these components elsewhere in the document, with the exception of a reference to Table 3.35. On page 4-17, the final sentence of the Fisheries section of the impact analysis chapter states, "This chapter, in combination with the habitat descriptions in Section 3.9 and the cumulative effects analysis in section 5.5.9, serves as an Essential Fish Habitat (EFH) Assessment."

NMFS finds that the existing EFH assessment in the PDEIS lacks an adequate analysis of the potential adverse effects of the action on EFH and the managed species, does not contain the FAA's conclusion regarding the effects of the action on EFH, and does not describe any proposed mitigation, which is applicable to this project. Moreover, the level of detail in the EFH components that are included is not commensurate with the complexity and magnitude of the potential adverse effects of the proposed action.

Examples of these inadequacies are found in the section 4.2.9 Fisheries and are briefly discussed below. The PDEIS states: "the impacts to habitat, including EFH for salmon, sculpins and forage fish are quantified in terms of acreage affected," yet the total acreage affected by the project does not include the indirect impacts to the wetlands that will degraded by alterations to tidal flows in high marsh habitats. The draft EIS needs to include estimates of the total acreage of wetlands that will be affected by the proposed project, not just those areas directly impacted by the footprints of project construction, and to estimate the effects of these total wetland alterations on EFH and federally managed species using the best available scientific information.
The fisheries section (4.2.9 page 4-16) states: "although high marsh habitats are considered EFH, they are inherently less valuable to fish than open water, tidal sloughs and low marsh simply because they are accessible so rarely and for such brief periods on the highest tides." No

references are cited to support this statement - although Bishop et al. 1987 is cited elsewhere in the document. This is an overly simplistic and erroneous view of the ecological dynamics of intertidal wetlands, and is not supported by current research findings that demonstrate the complexity and importance of high marsh habitats. While high marsh habitats are inundated less frequently than other marsh habitats, they constitute important edge habitat and are sites characterized by high rates of primary production and contribute substantial plant material, nutrients and detritus to the remainder of the estuary.

This section also states (page 4-16): "No attempt was made to gauge population impacts because of the large, naturally variable populations and the complex ecological dynamics." Large, naturally variable populations of salmon and forage species must be described and their population fluctuations referenced. The Pacific herring stock in Lynn Canal is depressed (PDEIS page 3-107) and further loss of important rearing habitat may result in further population decline - not in population fluctuations.

The PDEIS states (without reference) that "Hatched larvae drift on tidal currents while feeding and growing." Considerable literature on Pacific herring life history does not support this statement. Pacific herring larvae begin to school at age 25 days (Marliave 1980, McGurk 1987) at which time they are able to swim and although their movements are influenced by current and tidal action, they do not exclusively drift (Norcross and Shaw 1984). They seek out protected bays and estuaries with relatively high primary production rates, low predation, low salinities and rich food resources (Blaxter 1985, Blaxter and Hunter 1982, Hourston and Haegele 1980) during the critical late summer larval growth period. The PDEIS states that Pacific herring juveniles sampled during August 2001 "....were washed in as well as out with the high tides and did not originate from the low marsh habitats." NMFS observes that numerous juvenile Pacific herring larvae were sampled from the intertidal habitats during the late summer foraging period which is a critical time frame for establishing year class strength (Alderdice and Hourston 1985). The sampling conducted for this study was limited in scope and not directed at quantitative or qualitative sampling specifically for herring or other forage species. Ideally, sampling would have covered at least one entire season, and gear and sample period would have been designed for the target species (e.g., night sampling with nets of appropriate mesh size for larval/juvenile herring). The limited information from this August sampling indicates that schooling Pacific herring juveniles are using intertidal habitat for foraging during a critical phase in their life history, and the intertidal wetlands are probably very important for this depressed herring stock.

Agency Regulatory Responsibilities (page 1-26 and Table 1-8 page 1-34)
NMFS responsibilities are not completely described in the PDEIS. In addition to the MSFCMA, the ESA and the MMPA, NMFS will be considering the effects of the project under these additional statutes:

Fish and Wildlife Coordination Act. This act requires that wildlife conservation be given equal consideration when determining how water resources should be used. The act provides authority for NMFS and Interior's Fish and Wildlife Service to evaluate the environmental impact of federally permitted projects.

Federal Water Pollution Control Act ("Clean Water Act"). Section 404 of the Clean Water Act authorizes the Army Corps of Engineers to issue permits for the discharge of dredged or fill material into the waters of the United States. Pursuant to Coordination Act authority, NMFS provides comments and recommendations to the Corps on permit applications.

Rivers and Harbors Act. Section 10 of this act requires that permits be obtained from the Army Corps of Engineers for construction activities on navigable waters, including wetlands. Pursuant to the Coordination Act authority, NMFS provides comments and recommendations to the Corps on section 10 applications.

National Environmental Policy Act. This act requires federal agencies to prepare environmental impact statements for federal actions that significantly affect the quality of the environment. NMFS must be given the opportunity to advise the sponsoring agency regarding protection of living marine resources that might be affected.

General Comments:

Affected Wetlands: Throughout the PDEIS and particularly in the impact analyses of Chapter 4, estimates of indirect wetland effects are vague and imprecise. NMFS continues to request that all affected intertidal habitat be mapped and quantified, regardless of its location within the delineated "project area" so that accurate comparisons of wetland effects for all alternatives can be made. For example, indirect effects to wetlands are briefly discussed and estimated on page 4-47, 4th paragraph. These affected areas should be quantified and this discussion should be expanded to all other pertinent sections to describe completely the likely project effects. Also, on page 4-51 paragraph 2 it is understated that "there is some concern that this channel location would permanently divert the tidal water toward the east and away from the estuarine wetlands." Is there "some concern" that this may happen or is this adverse effect likely or certain? NMFS continues to request that the PDEIS accurately and completely estimate the projects effects to all wetlands in both qualitative and quantitative terms. These data need to be added to the alternatives analysis under each alternative for sections 4.3.6 Water Resources and Floodplains (4.3.6.1 - 4.3.6.5), sections 4.3.7 - Vegetation (4.3.7.1 - 4.3.7.5), sections 4.3.8 - Wetlands (4.3.8.1 - 4.3.8.5), and sections 4.3.9 Fisheries (4.3.9.1 - 4.3.9.5) .

Under the No Action alternative's fisheries impact analysis the PDEIS states on page 4-17 paragraph 3, that, "...with respect to future conditions, it is recognized that natural processes including isostatic rebound are gradually uplifting the area around the airport and slowly reducing the area of EFH." While it is true that isostatic rebound affects the entire region of southeast Alaska, the conversion of intertidal habitat to upland is balanced by the conversion of subtidal habitat to intertidal habitat and is not a net loss of EFH.

Design Aircraft (page 1-15) During inter-agency discussions with the FAA, the cooperating agencies were informed that the design aircraft used to calculate critical runway departure, landing and accelerated stop distances would be the Boeing 737-400. The agencies requested use of this aircraft instead of the Boeing 737-900 because the 900 series aircraft is not currently in use at JNU and it would require additional runway length over the 400 series aircraft for

accelerated stop procedures. The agencies considered that using the B737-900 aircraft as the design aircraft would constitute a potential for speculative wetland fill. The PDEIS now uses the 900 series aircraft as the design aircraft for landing operations at the airport, and contains the following confusing discussion:

> "...for the estimated mission aircraft mission weight from Juneau to Seattle, the B737-400 still requires more runway length (7,806 feet) for departures than does the B737-900 (7,285). Specifically for landings, the B737-900 requires approximately 900 extra feet of runway for wet pavement conditions than that of the B737-400 aircraft."

NMFS requests reconsideration by the FAA on the selection of a design aircraft that is currently not being used in Juneau, requires more runway length than does the currently used design aircraft and would potentially result in more fill of wetlands to allow for the additional runway length and related runway safety area expansion needed for the B737-900 aircraft to land in Juneau.

Feasibility of Increasing the Size of RSA by Including Additional Land Parcels, Even if it Results in an RSA of Irregular Size (i.e. non standard runway page 2-21) The PDEIS states that a wide range of alternatives would be available to provide nonstandard RSAs, but that the FAA will not consider non-standard RSAs unless none of the alternatives for RSAs of standard dimension are practicable. NMFS and the other cooperating agencies provided an alternative to the FAA for NEPA analysis that was designed to achieve a balance of maximal safety improvements while minimizing environmental harm. We request that the FAA conduct a full NEPA analysis of this or a similar alternative at this time in the NEPA process to preclude the need for a supplemental EIS should none of the alternatives for standard RSAs be deemed practicable.

Table 3-36, Under the "Wild escapement" row, this table should be expanded to add figures for sockeye salmon.

4.2.7, The text contains a reference to relative rarity of estuarine habitat in southeast Alaska. This statement needs to be substantiated with data on the amount of estuarine habitat that exists in the region.

Table 4.4 This table needs to have "primary production" added to the Aquatic support category. Primary production is a basic function of shallow estuarine and high marsh habitats that contributes to the overall productivity of these important wetlands.

Table 4.31 Direct Loss of EFH: RSA Alternatives 1 - Altered tidal flow will directly cause loss of additional EFH - this area of effect needs to be quantified and added to this table.

Page 4-62, paragraph 5, addresses adverse effects to anadromous fish passage through Jordan Creek: "While fish passage has been studied extensively in shorter culverts (less than 300 feet long) related to road crossings [no citation], *there are no analogs to this situation*, especially considering the tidal fluctuations affecting it, from which to make predictions." NMFS suggests the FAA look for analogs to this situation by searching for citations describing the restoration

process of "daylighting" creeks that occurs commonly throughout the Pacific northwest. Fish passage in many of these creeks is being restored by removal of culverts well in excess of the 770 foot distance proposed for Jordan Creek. Routing anadromous streams through long culverts was a common practice throughout the Pacific northwest that had disastrous consequences for native salmon stocks, hence the now common-place and expensive restoration efforts to free these streams from the confines of their long culverts.

Thank you for considering NMFS comments on the PDEIS. We look forward to continued cooperation on this important project. Please direct any questions to Susan Walker, Habitat Conservation Division, (907-586-7646, susan.walker@noaa.gov).

Sincerely,

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For Administrator, Alaska Region

cc: R. Spencer Martin, SWCA
Richard Enriquez, USFWS Juneau
Catherine Pohl, ADF&G Habitat Division, Douglas
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