UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
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May 2, 2008

Patricia Sullivan
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Sitka EIS Project Manager
Federal Aviation Administration
Alaska Region
222 West 7th Avenue, #14
Anchorage, Alaska 99513

RE: Sitka Rocky Gutierrez Airport – Agency Review of Preliminary Draft Environmental Impact Statement (PDEIS)

Dear Ms. Sullivan:

The National Marine Fisheries Service (NMFS) Habitat Conservation Division (HCD) has reviewed the Federal Aviation Administration's (FAA) PDEIS for the proposed improvements to the Sitka Rocky Gutierrez Airport. The PDEIS does not include an Executive Summary, Essential Fish Habitat (EFH) Assessment, or Appendices. In addition, determination of specific mitigation, particularly for compensatory mitigation, is deferred to future interagency meetings. We offer general comments on the approach to analysis and specific editorial comments in the enclosed document.

Thank you for the opportunity to comment. If you have any questions please contact Linda Shaw at 907-586-7510.

Sincerely,

Robert D. Mecum
Acting Administrator, Alaska Region

cc: USFWS, Juneau, Richard Enriquez
EPA, Juneau, Chris Meade
Sitka Tribe, Heather Woody
ADF&G, Juneau, Tom Schumacher
ADOT&PF, Ben White and Jim Heumann
NMFS, PR, Kaja Brix

National Marine Fisheries Service, Habitat Conservation Division Comments
Sitka Rocky Gutierrez Airport – Agency Review of Preliminary Draft Environmental Impact Statement (PDEIS)

Proposed Actions, Including Preferred Alternative

The proposed actions include construction of runway safety areas, construction of a parallel taxiway, relocation of the airport seaplane pullout from west of the runway to the southeast side of Charcoal Island, installation of an approach light system, repairs and improvements to the airport seawall and acquisition of property needed for aviation and airport uses. The purposes of these actions are to improve the safety of airport operations and comply with mandated safety standards. FAA proposals and preferred alternatives for the remaining actions are summarized as follows.

Runway Safety Area

Meeting the standard runway safety area of 1000 feet off of both runways would require a considerable amount of fill to create 780 feet of landmass extension off Runway 11 and 760 feet of landmass extension off Runway 29. Consequently, FAA has determined that it is not practicable to implement full standard runway safety areas for this project. FAA is proposing a preferred alternative that combines the use of declared distances with an extension of Runway 29 by 280 feet of landmass to create a 500 foot pavement extension for the runway safety area. The preferred alternative does not propose an extension to Runway 11.

The preferred alternative for the runway safety area is Alternative 5, declared distances concept with a 280-foot landmass extension on runway 29 and additional runway pavement.

Parallel Taxiway

The preferred alternative for the parallel taxiway is Alternative 3, partial extension of the parallel taxiway to Charcoal Island. This project will reduce the potential for runway incursions from taxiing aircraft.

Seaplane Pullout

The preferred alternative for the seaplane pullout is Alternative 2, with construction of a fixed ramp seaplane pullout on Charcoal Island to reduce potential for incursions from seaplane pullout and transport across the runway.

Approach Lighting System

The FAA has determined that an approach lighting system to Runway 11 is not warranted based on capital costs, post-installation maintenance challenges, and potential environmental and social impacts associated with installation considering the minor improvements for aircraft access it would provide during inclement weather.

Seawall Repair and Improvement

Based on additional studies since first identifying this action, FAA has determined that the structural integrity of the seawall is not jeopardized and consequently, the No Action Alternative is preferred.

Acquisition of Property Needed for Aviation and Airport Uses

The FAA has determined that the Alaska Department of Transportation and Public Facilities (ADOT & PF) does not own or otherwise have sufficient land interest in portions of land previously believed to be owned by ADOT&PF. The FAA requires that for airports and airport projects supported with federal funding, the airport owner must acquire real property rights to the extent needed for the construction, operation, and maintenance of the facility. The preferred alternative would transfer lands, including submerged and filled lands currently owned by the Bureau of Land Management, to the ADOT&PF.

General Comments

The potential marine impacts of these projects have been reduced due to elimination of the seawall repair and improvement project, and the approach lighting system. Potential marine impacts are somewhat reduced by to the selection of Alternative 5 for the runway safety area, Alternative 3 for the parallel taxiway and Alternative 2 for the seaplane pullout relative to other alternatives proposed. Of most significance to HCD would be the elimination of marine impacts off Runway 11 by the lack of a landmass extension or placement of an approach lighting system. The area off Runway 11 is used most frequently by herring for spawning within the immediate area of the airport. Impacts remain to kelp beds, eelgrass/surfgrass and non-motile biota remain as the result of direct fill required for the preferred RSA alternative and parallel taxiway alternatives. Full recovery of these resources would not be expected for five or more years and would indirectly affect higher trophic levels. Some sand silt bottom habitat would be lost and the organisms it supports, such as clams. Additional concerns are outlined as follows.

Marine Resources

Herring spawning data for the vicinity of the airport are provided in Figure 3.3-4, for two years, spring, 2005, and spring, 2007. In Section 4.2.1, it is stated that "Herring spawn only intermittently around Runway end 29 and along the southwest side of the runway, so RSA Alternatives 2 through 5 would have minimal effect on this important activity. Effect of fill on herring spawn would be greatest in Mermaid Cove for the full taxiway expansion, near the base of the causeway for the seawall repair, and around the Runway end 11 for RSA Alternative 6 since these areas receive spawn in the majority of years." Later, in Section 4, page 4.2.22, it is noted that, according to Alaska Department of Fish

and Game (ADF&G) personnel, herring have spawned near the end of runway 29 in only one of the last ten years.

The preliminary DEIS should provide more data on the history of spawning in the airport vicinity. A map produced by Page Else of the Sitka Conservation Society and Ryan Rodidou shows 23 years of herring spawning data in the vicinity of the airport. Activity near runway 29 is classified as from 1- 6 years of spawning within the last 23 years. The data used to generate this map should be available from the ADF&G or the Sitka Conservation Society. This data should be used to gain a longer view of the significance of the area to herring.

Water Quality

The project area presents a number of concerns and challenges to protecting aquatic resources from degraded water quality.

1) Historic sources of contamination are degrading project area waters. Both ground and surface water samples collected by the Army Corps of Engineers contain detectable contamination in the form of petroleum hydrocarbons and lead. This is attributed to historic fuel storage from the former Sitka Naval Operating Base. However, it seems conceivable that the hydrocarbon contamination found in a drainage ditch by the remote parking area, which flows parallel to the Airport access road and into the Airport lagoon could be attributed to more recent sources rather than attributing this to "leaks or spills from historic fuel tanks once stored in this area." Indeed, sampling detected petroleum contaminated well water in this area with relatively un-degraded petroleum, suggesting a more recent release. No follow-up has been made for this finding.

2) Ground water on Japonski Island is derived solely from surface water infiltration and the bedrock on the island has low permeability, with little storage capacity to hold water. This lack of storage capacity may reduce the on-site breakdown of pollutants before they enter marine waters.

3) Stormwater runoff has increased with the cumulative increase in impervious surfaces and would increase further with the combined RSA and parallel taxiway projects. Reasonably foreseeable projects separate from the PDEIS, such as the filling of the airport lagoon, would increase impervious surfaces even more. The increased runoff would carry proportionally greater loads of pollutants to marine waters.

4) The impacts of impervious surface thresholds are not sufficiently justified. In chapter 4, RSA and parallel taxiway alternatives have a percentage reported for the increase in impervious surfaces that would result from those projects. For example, on page 4.2.29, for Alternative 5 for the RSA, the 8.36% increase in the impervious surfaces is considered "moderate", and "the resultant increase in the amount of runway deicer (urea) applied and subject to runoff into the marine environment would have no significant impact on marine water chemistry or productivity because of the strong circulation and wave mixing at the Runway 29."

The threshold for watershed impacts to freshwater streams is 10% impervious surfaces

(Arnolds and Gibbon, 1996; Schueler, 1994). It is unclear what the threshold of impacts to marine waters surrounding this project would be. The percentage increases reported for each alternative need to be added to the total existing percentage of impervious surfaces on the airport within their respective watersheds to present an accurate assessment of the cumulative potential impact to water quality. RSA and parallel taxiway increases should be reported together for the various alternative combinations possible as both percentage increases and total percentages for each watershed.

5) Current sources of pollution at the Sitka Airport are not in compliance. In Chapter 3, the PDEIS reports that the thresholds authorized by the Airport's discharge permit for oxygen demand are sometimes exceeded and for nitrate (measured as ammonia) are consistently exceeded. Threshold exceedences are attributed to the use of deicing compounds, later identified by specific chemical in Section 4, page 4.2.23 as urea. Insufficient analysis is provided on the use of deicer and its impact to the environment. An internet search on this subject yields numerous references. Urea degrades to ammonia, which is highly toxic to aquatic organisms. Given the sensitive nature of potential herring spawning immediately adjacent to the runway, the justification for the statement that "The small incremental increase in urea input would have no significant impact on marine water chemistry or productivity" is premature without additional analysis.

6) Petroleum hydrocarbons are known to be extremely toxic to early life history stages of both herring and salmonids at extremely low levels, in the parts per billion ranges (Carls, et al., 1997; Marty, et al., 1997). Given the extensive use of areas adjacent to the airport by both spawning herring and salmonids, particular care should be taken to understand, avoid, minimize and mitigate contamination of marine waters by hydrocarbons from both project construction and long-term operation of the improved runway and new taxiway.

7) Page 4.4.15 states that for parallel taxiways 2 and 3, "The new impervious surfaces would not be expected to carry greater concentrations of pollutants but there would be a net increase of the overall pollutant load to receiving waters…". This statement contradicts information provided in Table 1.2-2 that shows a steady increase passengers and air carrier operations forecasted for Sitka Rocky Gutierrez Airport annually through 2025, suggesting that, in fact, greater concentrations of pollutants would be expected to be carried by new impervious surfaces.

8) The discussion of Section 4.4, Water Quality is based entirely on mathematical models of flushing time as measured by six stations well away from the areas of herring spawning adjacent to the airport runway. The FAA should conduct empirical sampling of marine waters adjacent to the airport to determine actual levels of expected contaminants in worst-case environmental conditions for flushing (sunny days, quiescent waters) and during times of highest sensitivity of marine organisms (spawning and migration periods). The FAA should also search the scientific literature and compare known impacts of these contaminants to marine organisms to actual levels found.

9) The potential for "some minor increases of metals to stormwater" from aircraft turning and pivoting operations "from brake erosion" appears on pages 4.49, 4.4.12 and 4.4.13 under RSA alternatives 5 and 6 discussions. This statement is currently too vague and

needs to be expanded by explaining what types of metals, what a "minor" increase constitutes and what impacts these metals could have to marine organisms.

10) Table 3.6-1 lists wetlands PF04, PEM1 and PSS1 as having a "medium-high" value for sediment/toxicant retention; however, this value and effects of the loss of these wetlands to stormwater runoff treatment are not discussed in the Cumulative Impacts Section 5.3.5 when listing functions and values of significance due to wetland loss. The filling of wetlands in the past and foreseeable future will account for the loss of 16.99 acres, of which 4.3 acres were on the east and west of the runway where likely a sediment/toxicant retention function was provided. An overall scarcity of wetlands is left on Japonski Island at 1.21 acres palustrine wetlands. The loss of an additional 0.98 acres of wetlands for the Airport Road realignment project and 10.15 acres for filling the lagoon would apparently leave 0.23 acres. The loss of medium-high value toxicant/sediment retention wetlands to virtually nothing at a time when impervious surfaces are increasing stormwater delivery of pollutants qualifies as a threshold of significance for a cumulative impact to water quality and should be added as such in this discussion. Alternative methods need to be explored for treating stormwater runoff beyond construction zone settling and catch basins as long-term functioning, on-site, in-kind mitigation to offset project impacts to water quality due to the cumulative loss of wetlands that perform this function.

Essential Fish Habitat (EFH)

For the first bullet under Section 4.2.8, the avoidance of airport project impact areas by EFH species for two years due to turbidity and noise from construction impacts is acknowledged. NMFS disagrees with the conclusion that these would result in "little effect on foraging efficiency." For this localized area, it would be expected that two years of disruption and avoidance would have a significant effect on foraging efficiency of individual fish that depend on these areas.

NMFS disagrees with the following statement in bullet two, page 4.2.63 regarding the site fidelity of herring to airport shorelines. "Low site fidelity is illustrated by the fact that over the last 10 years herring have spawned at runway end 29 in just one of ten years, along the western side of Mermaid Cove in 6 of 10 years, and at the Runway end 11 in 8 of 10 years." For the western side of Mermaid Cove and end of Runway 11, spawning at a site more than 50% of a ten year period would indicate site fidelity. Regarding runway 29, other factors, such as total abundance of the herring stock and yearly differences in abiotic conditions may drive spawning occurrence other than herring site fidelity.

Cumulative Impacts

Section 1.4 is unclear whether all projects in the Sitka Airport Master Plan are considered in the cumulative impacts analysis of this preliminary EIS. Some projects listed under Section 1.5 are not included or adequately discussed in the cumulative impacts section. These include the fuel storage relocation or modifications, utility relocation and expansion, modifications to existing airport buildings, and airport parking lot expansion. Further there is a discrepancy of the commercial and heavy transit apron expansion and

GA apron and lease lot development being characterized as a future project in section 1.5 and a past project in the Cumulative Impact Section. These sections should track each other closely so they are easily comparable.

The Sitka Channel Breakwater is discussed regarding its construction in the "Past Projects" section and as a potential future project to fill the gap between the breakwaters, in the Water Quality Section, but is not in the Reasonably Foreseeable Future Actions Section. This project is a reasonably foreseeable future action and should be listed as such in this section.

The cumulative impacts section briefly discusses the planned filling of the airport lagoon. The discussion should also include cumulative increases to impervious surfaces and stormwater runoff that would occur as a result of this project.

Mitigation

The proposed mitigation lacks ideas for long-term on-site, in-kind mitigation of water quality impacts due to increased delivery of hydrocarbons and de-icers in stormwater input from increased impervious surfaces to be constructed.

Page 4.2.37 indicates that "ADOT&PF has received a permit for filling the entire Airport Lagoon and has an approved mitigation plan to compensate for those impacts." The mitigation section should describe the nature of the compensatory mitigation for the Airport Lagoon so that this is taken into account when planning for compensatory mitigation or the projects described in this PDEIS.

The Mitigation Section should acknowledge that, while loss of kelps will likely be temporary as they will be expected to re-colonize the rocky fill materials being used in the project, any impacts to eelgrass are likely to be permanent because the finer sediment bottoms they inhabit will not be replaced by project fill materials. Mitigation of eelgrass beds may be require specifically designed measures, such as reducing shading effects of project structures or transplanting beds to be filled or dredged.

Section 4.12, Hazardous Materials, Pollution Prevention and Solid Wastes notes on page 4.12.7 that "Opportunities for pollution prevention would be limited to stormwater management, and reductions in the use of de-icers", however, these measures are not discussed in the Mitigation Section. Page 4.12.13 adds that another potential post construction measure would be to "establish drainage basin capture systems that effectively remove pollutants from stormwater prior to discharge into receiving waters." These are later described as settling basins and catch basins for sediment removal on page 6.6. Such mitigation measures to reduce the impacts of stormwater runoff are explained only in the context of the project construction time frame and do not address hydrocarbons or urea. In light of the potential cumulative impacts of 1) past ground and surface water contamination 2) low ground retention of such water 3) loss of wetlands from past and future activities, and 4) potential future impacts of stormwater runoff from increased impervious surfaces, long term on-site stormwater treatment measures are needed as on-site, in-kind mitigation and put in place. These could include vegetated swales, oil-water separators, or a new approach, subsurface "wetlands" (Hinneins and

Liner, 2008). Mitigation measures should include monitoring and reporting of both spills and stormwater runoff contamination levels to allow for evaluation of treatment measure effectiveness with subsequent improvements to be put in place, if necessary.

Fill and Gravel Sources

The PDEIS needs to identify fill and gravel sources from local quarry or borrow sites and analyze the potential impacts of their extraction to anadromous streams.

Specific Comments

Section 1.5 lists the "Airport Perimeter Security Projects" bullet twice.

The Alternatives Section does not adequately describe and quantify proposed dredging for the Seaplane Pullout project, which is later discussed in the Environmental Consequences, Section 4.2.5.2.2.

Statements on juvenile salmonids use of kelp on page 3.3.9 being only because of reduced current contradict those on pages 3.3.13, 3.3.14 and 3.3.15 suggesting that migrating juvenile salmonids use kelp beds to feed and avoid predators.

On pag 3.3.12, add "sea" to last sentence between "orange" and "cucumbers".

Section 3.3.2, Primary Productivity, should note the locations of eelgrass/surfgrass beds, as is done for various species of kelp. The PDEIS should acknowledge that eelgrass is designated as a special aquatic site under the Clean Water Act 404(b) (1) guidelines, and as such, is subject to a higher burden of justification for discharges in eelgrass beds by assuming that practicable alternatives exist unless proven otherwise by the applicant.

In Table 4.2-1, quantify the loss of kelp and eelgrass/surfgrass in acres.

Page 4.2.29 reports an increase in impervious surface of 8.36%, while table 4.4-3 on page 4.4-10 reports an increase of 8.12% for RSA alternative 5.

Section 4.2.5.4.2 describes the potential for green algal blooms to occur as a result of urea run-off from the 23% increase in impervious surfaces from Parallel Taxiway Alternative 2. In addition the Section should note that another outcome could be some mortality up to 1,000 feet of herring spawn, as has occurred in Mermaid Cove in the last eight of the last ten years. Urea was found to significantly reduce survivability of freshwater prawn broods (Ara Ali et al., 2007). This section also should discuss the potential of this alternative to increase hydrocarbon delivery to surrounding waters, including the potential consequences to herring.

Section 4.2.5.4.3 does not report the increase in impervious surface for Alternative 3 of the parallel taxiway or its potential to increase delivery of hydrocarbons and urea to surrounding waters.

The Environmental Consequences Sections 4.2.5.4, 4.2.5.5, 4.2.5.7, and 4.2.5.9, should

describe how much kelp and eelgrass/surfgrass, in acres, will be impacted (including from shading) by all but the no-action alternatives.

Section 4.2.5.9, Combined Effects of Project, should describe the total impervious surfaces in addition to the 31% increase as a result of the PDEIS projects. The Section should include hydrocarbon runoff in addition to urea runoff. The conclusion of no significant impact from urea and hydrocarbon runoff is not justified without testing water quality in affected areas when runoff is most concentrated and comparing this to know toxic levels of these substances to herring eggs or other marine organisms.

Section 4.2.6.1 lists potential best management practices, including "slope reduction, incorporation of marsh terraces, and riparian vegetation." Given that this site does not include any anadromous streams, estuarine or saltwater marshes, this statement would be more appropriately limited to suggesting the possibility of slope reduction alone.

On page 4.2.60, third bullet, "steams" should be spelled as "streams".

Tables 4.2.7 and 6-1 should quantify marine habitat impacts in terms of increase and total impervious surfaces, length of herring spawning shoreline, acres of kelp, acres of eelgrass, acres of surfgrass, and acres of mixed-soft substrate habitat.

Page 6.10 should use the more descriptive bullet on artificial reefs as possible mitigation from page 4.2.60.

Sentence three of paragraph two on page 4.2.63 is incomplete.

Under Section 5.2.1, Past Projects, the year is not given for the Mausoleum Removal Project.

Literature Cited

Ara Ali, Anjuman, Mannen, M.A., Parween, S. 2007. Effect of urea and malathion on the freshwater prawn, *Macrobrachium lamarrei* (H.M. Edwards). University Journal of Zoology, Rajshahi Universtiy, Vol 26, pp. 107-108.

Arnold, C.L. and Gibbons, C.J. 1996. Impervious surface coverage: the emergence of a key environmental indicator, *Journal of the American Planning Association* **62** (2) (1996), pp. 243–258.

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