U.S. Department of the Interior
Fish and Wildlife Service
Region 7

Record of Decision

Runway Safety Area Improvements for Kodiak Airport, Kodiak, Alaska
November 20, 2013

The U.S. Fish and Wildlife Service (Service) worked closely with the Federal Aviation Administration (FAA) to prepare a Final Environmental Impact Statement (EIS) for the runway safety area improvements at Kodiak Airport. The project will impact submerged lands that are a part of the Alaska Maritime National Wildlife Refuge. The FAA was the lead agency in preparing the Draft and Final EIS. The Final EIS was published on August 2, 2013 and the FAA published their Record of Decision (ROD) on September 12, 2013. The Kodiak Airport, located within a federal withdrawal managed by the U.S. Coast Guard (USCG), is operated and maintained by the State of Alaska Department of Transportation and Public Facilities (ADOTPF) under lease from the USCG.

This ROD provides final determinations and approvals by the Service for federal actions needed to improve the runway safety areas at Kodiak Airport, Kodiak, Alaska. This document also contains the Alaska National Interest Lands Conservation Act (ANILCA) Title XI findings regarding the ADOTPF right-of-way application and a decision for an amendment to the Alaska Maritime National Wildlife Refuge Comprehensive Conservation Plan.

This ROD documents my decision for the Final EIS prepared by the FAA. It includes a summary of the alternatives considered, a discussion of public involvement in the decision making process, mitigation measures, and the basis for making this decision. This ROD also contains the analysis conducted for the Title XI right-of-way permit in Appendix A.

Decision

In concurrence with the FAA, it is my decision to adopt the Runway 07/25 Alternative 2 and Runway 18/36 Alternative 7 for implementation at Kodiak Airport, Kodiak, Alaska. These two alternatives will enable FAA to implement improvements to the Runway Safety Areas (RSAs) at Kodiak Airport. We participated throughout the course of the development of both the Draft EIS as well as the Final EIS. We reviewed the documents and provided comments to the FAA. We were an active participant with the FAA to develop mitigation measures. We received the application for the right-of-way for Alaska Maritime National Wildlife Refuge when the draft EIS was released. We agree with the purpose and need, the range of alternatives, the effects analysis as well as the mitigation proposed. This EIS meets our needs for National Environmental Policy Act of 1969 (NEPA) compliance. We posted the Final EIS on our website (http://www.fws.gov/alaska/nwr/planning/nepa.htm) and formally adopted the Final EIS at that time.

The selected alternatives include the following actions:

- Improvements of the east end of the Runway 07/25 RSA through an extension into St. Paul Harbor to the east and the use of an engineered materials arresting system (EMAS).[1] Fill will be placed beyond Runway end 25 to create a landmass 600 feet long by 500 feet wide. Kodiak Airport's existing runway length of 7,542 feet will be maintained. The Runway end 25 EMAS bed will be approximately 170 feet wide and 340 feet long, installed on pavement with a minimum setback of 35 feet from the runway threshold (final setback will be based upon final design). The site design will also include sufficient area around the perimeter of the EMAS bed footprint to allow emergency vehicle access. The RSA improvements will provide additional protection for aircraft overruns on Runway end 25 (i.e. for takeoffs to the east), the primary operational flow of Kodiak Airport for departures, providing an equivalent level of safety for aircraft overruns as that offered by a traditional graded 1,000-foot RSA. The expanded landmass beyond Runway end 25 will also meet FAA standards for undershoots (i.e., landing short of the runway) by providing 600 feet of RSA.
- Improvement of the Runway 18/36 RSA at the north and south ends through a 600-foot long by 500-foot wide landmass extension at the south, beyond Runway end 36 and shifting the runway 240 feet to the south. An EMAS bed approximately 170 feet wide and 155 feet long will be placed beyond Runway end 18 (north), installed on pavement with a minimum setback of 35 feet from the runway threshold. The EMAS bed will provide a 40-knot stopping capability on Runway end 18 for the runway's design aircraft.
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Purpose and Need for the Project

Two of Kodiak Airport's three runways do not meet the Federal Aviation Administration's (FAA) standards for Runway Safety Areas (RSAs), areas that reduce the potential for injury or property damage if an aircraft overruns, undershoots, or veers off of a runway. The purpose of this project is to improve the RSAs to meet the FAA's standards to the extent practicable by the statutory deadline of December 31, 2015. An RSA is a "defined surface surrounding a runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or other excursion from the runway."[2] The RSA must be capable, under normal (dry) conditions, of supporting aircraft that overrun the runway without causing structural damage to the aircraft or injury to its occupants. An RSA is found at either end of a runway, for undershoot and overshoot protection, and along the runway sides in case an aircraft veers off during landing or takeoff. RSAs make airports and flying safer, and reduce the potential for aircraft damage or injuries if a landing or takeoff has problems. RSAs also make it easier to get firefighting and rescue personnel and equipment to the response area.

Public Law 109-115 states that not later than December 31, 2015, the owner or operator of an airport certificated under 49 U.S.C. 44706 (such as the Kodiak Airport) shall improve the airport's RSAs to comply with the FAA design standards required by 14 Code of Federal Regulations part 139 (119 Stat. 2401 Nov. 30, 2005).

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[1] An EMAS is a bed of engineered materials built at the end of a runway. Engineered materials are defined in FAA Advisory Circular 150/5220-22A as "high energy absorbing materials of selected strength, which will reliably and predictably crush under the weight of an aircraft".

[2] FAA Advisory Circular 150/5300-13A, *Airport Design*, September 28, 2012

This Project is needed because the RSAs around Runway 07/25 and Runway 18/36 at Kodiak Airport do not meet the applicable standards, which Congress has directed be met by December 31, 2015. As shown in Table 1, the RSA beyond Runway end 07 provides no overrun protection and the RSA beyond Runway end 25 provides no overrun or undershoot protection. The RSAs beyond both runway ends for Runway 18/36 provide no overrun or undershoot protection.

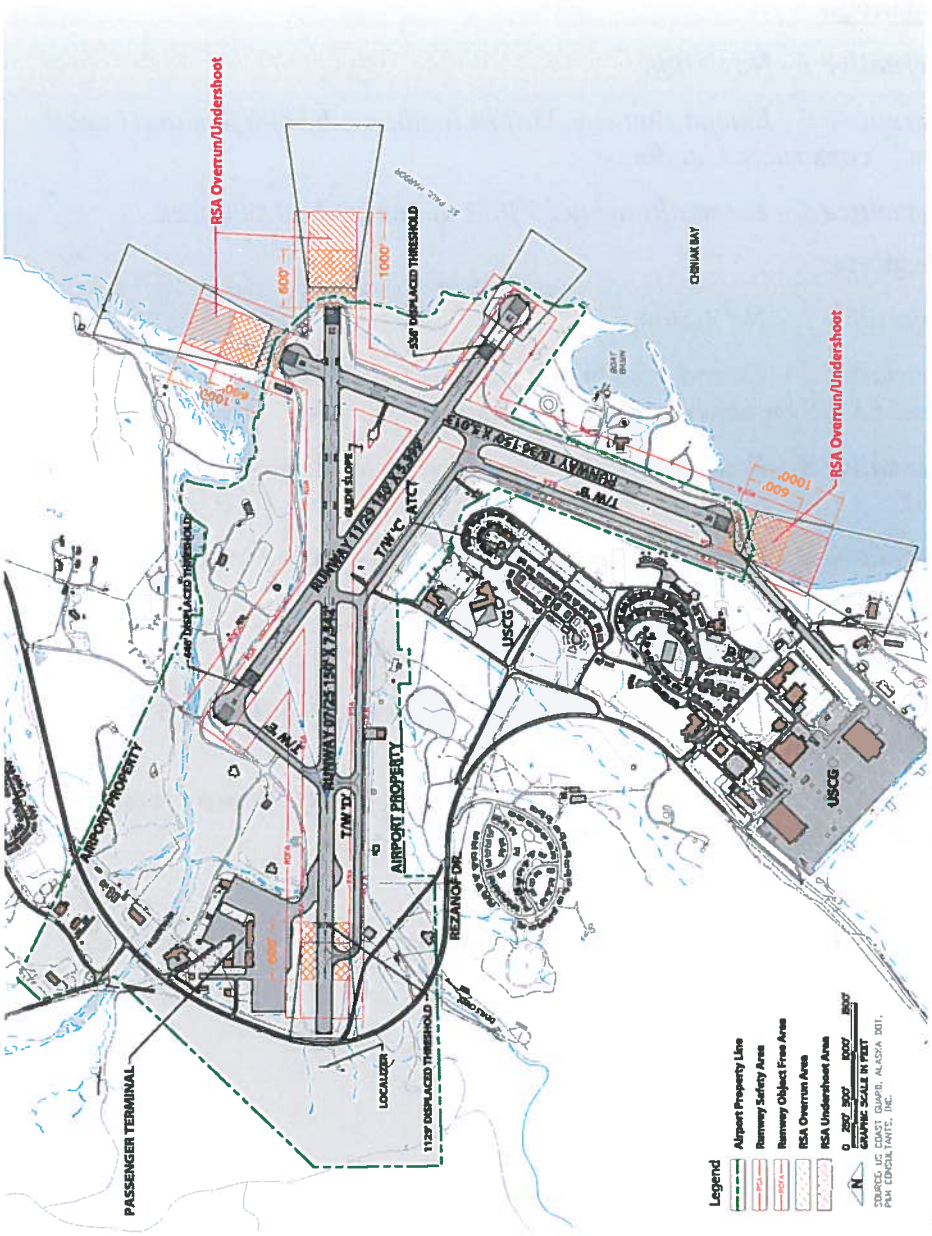

Figure 1 – Existing Kodiak Airport Dimensional Criteria

Alternatives Considered in Detail

The FAA identified a range of reasonable alternatives that may accomplish the objectives of the Project. The FAA evaluated each alternative for feasibility and meeting the Project's purpose and need. Those alternatives that did not meet the purpose and need or were not feasible were eliminated from detailed consideration (see Final EIS Chapter 2).

The Final EIS contains detailed environmental analysis of the following alternatives:

Runway 07/25 RSA Alternatives.

- *Runway 07/25 Alternative 1 - No Action.*
- *Runway 07/25 Alternative 2 - Extend Runway 25 RSA landmass by 600 feet and install 70-kt EMAS on newly constructed landmass.*
- *Runway 07/25 Alternative 3 – Extend Runway 25 RSA landmass by 1,000 feet.*

Runway 18/36 RSA Alternatives.

- *Runway 18/36 Alternative 1 – No Action.*
- *Runway 18/36 Alternative 2 – Extend RSA to the south by 600 feet, to the north by 240 feet and install 40-kt EMAS on newly constructed landmass (north).*
- *Runway 18/36 Alternative 3 – Extend RSA south by 240 feet, north by 450 feet and install 70-kt EMAS (north).*
- *Runway 18/36 Alternative 4 – Extend RSA to north and south by 300 feet and install 40-kt EMAS (both ends).*
- *Runway 18/36 Alternative 5 – Extend RSA to north and south by 600 feet.*
- *Runway 18/36 Alternative 6 – Extend RSA to south by 400 feet and to north by 240 feet and install 40-kt EMAS (both ends).*
- *Runway 18/36 Alternative 7 – Extend RSA to south by 600 feet, shift runway south 240 feet, and install 40-kt EMAS on existing pavement (north).*

Figure 2 illustrates the alternatives and Table 1 provides a summary of their characteristics.

TABLE 1

RANGE OF ALTERNATIVES SUMMARY

Runway 07/25	Runway end 07 RSA	Runway end 25 RSA	Meets Runway 07 Overrun Standard	Meets Runway 07 Undershoot Standard	Meets Runway 25 Overrun Standard	Meets Runway 25 Undershoot Standard	Estimated Cost
Alternative 1	0'	0'	No	Yes[1]	No	No	$0
Alternative 2	0'	600'[2]	Yes	Yes[1]	No	Yes	$22 million
Alternative 3	0'	1,000'	Yes	Yes[1]	No	Yes	$20 million
Runway 18/36	**Runway end 18 RSA**	**Runway end 36 RSA**	**Meets Runway 18 Overrun Standard**	**Meets Runway 18 Undershoot Standard**	**Meets Runway 36 Overrun Standard**	**Meets Runway 36 Undershoot Standard**	**Estimated Cost**
Alternative 1	0'	0'	No	No	No	No	$0
Alternative 2	240'[3]	600'	No	No	No	Yes	$27 million
Alternative 3	450'[2]	240'	No	No	Yes	No	$24 million
Alternative 4	300'[3]	300'[3]	No	No	No	No	$24 million
Alternative 5	600'	600'	No	Yes	No	Yes	$27 million
Alternative 6	240'[3]	400'[3]	No	No	No	No	$26 million
Alternative 7	240'[3,4]	360'[4]	No	No	No	No	$27 million

1 Existing Runway 07 Undershoot RSA meets standards because the landing threshold is displaced 1,129' (see Figure 2).

2 Incorporates the use of a 70-knot EMAS bed.

3 Incorporates the use of a 40-knot EMAS bed.

4 Incorporates a 240' runway shift to the south onto a 600' constructed landmass.

Source: Final EIS Table 2-2.

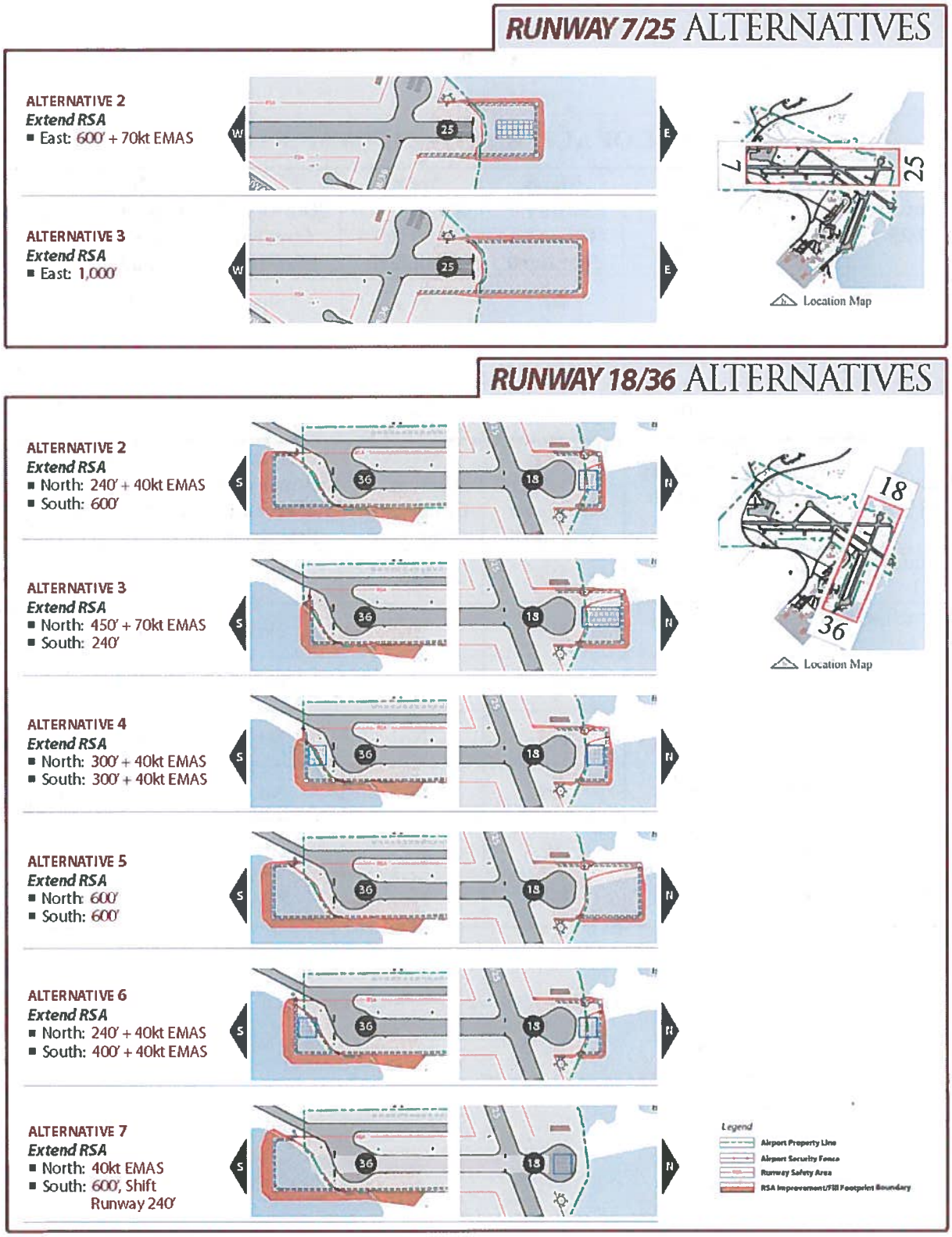

Figure 2 – Runway Safety Area (RSA) Improvement Build Alternatives

The environmental impacts to natural resources that would be caused by the different build alternatives arise from the expanded RSA footprints. Those alternatives with larger footprints would extend further into the marine environment, with commensurate losses of marine bottom habitat and waters of the U.S., and short-term displacement of mobile marine species to other areas for forage and shelter. Stormwater runoff would increase proportionate to the amount of new RSA and runway surface. Alternatives with the greatest amount of fill and construction would also increase impacts to other resources: truck and barge traffic to haul fill materials, short–term noise increases and air quality degradation; and other relatively minor consequences. Refer to Tables 3A and 3B in Section 5.0 of the FAA's ROD for a summarized list of the environmental impacts associated with the RSA alternatives. The Service's selected alternatives meet the purpose and need while taking all practicable measures to minimize potential adverse environmental effects.

Environmentally Preferable Alternative

NEPA regulations require that the ROD specify the alternative or alternatives considered environmentally preferable. Guidance provided by the Council on Environmental Quality (CEQ) states the environmentally preferable alternative is ordinarily considered as the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. The guidance also acknowledges that it can be difficult to identify the environmentally preferred alternative and recommends that the public and other agencies reviewing the EIS may help a lead agency identify the environmentally preferred alternative.

The alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances natural resources is Runway 07/25 Alternative 2 and Runway 18/36 Alternative 7 for implementation at Kodiak Airport, Kodiak, Alaska, the preferred alternative.

Preferred Alternative - Runway Safety Area Runway 07/25 (Alternative 2 - Extend Runway 25 RSA landmass by 600 feet and install 70-kt EMAS on newly constructed landmass)

This alternative, which includes the following, will generate the fewest adverse environmental effects of all Runway 25 build alternatives considered:

- 6.14 acres less fill of marine waters and associated marine environment;
- No significant adverse effects on water birds. This alternative would also impact a smaller percentage of habitat of Steller's Eider (-1.6%), Emperor Goose (-1.6%), Pelagic Cormorant (-1.2%), Black Oystercatcher (-1.3%), and Marbled Murrelet (-1.1%);
- No significant adverse effects on marine mammals. This alternative would also result in less loss of habitat for marine mammals (-1.8%), Northern. Sea Otter Critical Habitat (-1.6%), and Steller Sea Lion Critical Habitat (-1.6%);

- While no significant impact on either special status species or non-listed species will occur, the alternative will affect less total area (about -0.4%);
- Less fill will be required to develop the land mass (requiring about 205,149 CY less fill) and the associated natural resources that will be needed to create the landmass.

For these reasons, this alternative is also the environmentally preferred alternative for Runway 07/25.

Preferred Alternative - Runway Safety Area Runway 18/36 (Alternative 7 Extend RSA to south by 600 feet, shift runway south 240 feet, and install 40-kt EMAS on existing pavement (north))

This alternative, which includes the following, would generate the fewest adverse environmental of all Runway 18/36 build alternatives, including:

- Less wetland fill (about 0.21 less acres than all other alternatives), but more marine water effects than alternatives 3, 4, and 6. While the marine fill effects will not be the smallest of the build alternatives the resources affected will be not be significant and the Buskin River resources will be avoided;
- Unlike all other alternatives for this runway, there will be no fill into the Buskin River floodplain. The effects in the marine environment will include:
    - For this alternative, moderate effects for juvenile salmonid rearing and foraging habitat and salmonid prey species habitat. Other alternatives would have a major effect on these resources.
    - There will be negligible changes to the freshwater plume whereas the other alternatives would produce major changes;
    - This alternative will not have significant impacts to fisheries resources, whereas the other alternatives would have significant impacts.
- This alternative will have no effect on Kodiak brown bear due to a reduced salmon run. Other alternatives analyzed would have indirect effects on the Kodiak brown bear.
- This alternative will have short-term, minor effects on cultural customary and traditional subsistence practices and related cultural practices and identity of the Sun'aq, Native Village of Afognak, and Tangirnaq Native Village tribes. The other alternatives for this runway would have long-term and significant effects.
- The effects on Kodiak residents from the loss of subsistence resources will not occur with this alternative as it avoids fill into the Buskin River area;
- While this alternative will shift the runway threshold, it will not generate significant adverse noise effects; there will be no noise sensitive uses in the 65 Day-night sound level contour.

For these reasons, this alternative is also the environmentally preferred alternative for Runway 18/36.

Public Outreach

The FAA was the lead agency for this project. Therefore, they conducted all public outreach for this project. The USCG, the U.S. Army Corps of Engineers (ACOE), and the National Marine Fisheries Service (NMFS) participated as CEQ - defined "cooperating agencies" (40 C.F.R. § 1501.6). In addition to the Service, the U.S. Environmental Protection Agency (EPA), Alaska Department of Natural Resources (ADNR), and Alaska Department of Fish and Game (ADF&G), as well as local city and borough agencies and officials, worked closely with the FAA. In addition to cooperating agency agreements, the FAA offered and initiated formal government-to-government consultation with federally-recognized Alaska Native Tribes having interest in the Project.

Agencies, public interest groups, citizens, the ADOT&PF, and Alaska Native Tribes provided comment on project need, possible alternatives, resources affected, mitigation, and other subjects throughout the course of the EIS.

The FAA provided numerous opportunities for public involvement as documented in Appendix 13 of the Final EIS, including:

- 2007 – Notice of Intent published announcing plan to prepare an EIS.
- 2007 through 2013 – Project meetings conducted in Kodiak and Anchorage, participation in State Parks Citizen Advisory Board Meetings, and the issuance of updates by email and on the project website.
- March 28, 2007 – Project scoping, including public and focus group meetings.
- October 2012 – Draft EIS published, with informational meetings and a public hearing in Kodiak.
- August 2, 2013 – Final EIS published.

The Draft EIS was released on October 19, 2012 for public and agency review and comment. The comment period closed December 18, 2012. The Draft EIS was sent to interested parties, in addition to being available at several public locations in Kodiak and on the project website. A public information meeting and hearing on the Draft EIS was conducted on December 6, 2013. Notices of availability of the Draft EIS and Final EIS were published in the Federal Register and in local and regional newspapers.

An application for a right-of-way permit under Title XI of the Alaska National Interest Lands Conservation Act (ANICLA) was made available to reviewing agencies and the public concurrent with the Draft EIS on October 19, 2012. The application is included in Appendix 12 of the Final EIS. A subsistence evaluation consistent with Section 810 of ANILCA was made available and a subsequent 30-day public review was initiated with a Federal Register notice on February 27, 2013. ANILCA hearings were held in both Kodiak and Washington, DC in accordance with the ANICLA requirements on March 21 and March 18, 2013, respectively.

More information on the FAA's public involvement activities is provided in Appendix 13 to the Final EIS, which also includes correspondence with interested agencies.

Findings Required by Other Laws and Executive Orders

The FAA conducted a thorough and careful environmental analysis of the potential environmental impacts of the alternatives for the Project. This analysis is disclosed in the Final EIS. We have reviewed the Final EIS and ROD and concur that the FAA has complied with appropriate laws and executive orders.

The FAA is responsible for the preparation and content of the Final EIS and this ROD in compliance with NEPA (42 U.S.C. Sections 4321 et seq.), CEQ Regulations Implementing the Procedural Provisions of NEPA (CEQ Regulations; 40 C.F.R. Parts 1500-1508), and guidance contained in FAA Orders 1050.1E, Change 1, Environmental Impacts: Policies and Procedures, and 5050.4B, NEPA Implementing Instructions for Airport Projects. The Service arrived at the determinations and approvals documented in this ROD by reviewing the environmental analysis in the Final EIS, as well as being a participant in the development of the Final EIS.

Subsistence Use Evaluation and Finding (Section 810 of ANILCA)

A subsistence evaluation consistent with Section 810 of ANILCA was made available and a subsequent 30-day public review was initiated with a Federal Register notice on February 27, 2013. ANILCA hearings were held in both Kodiak and Washington, DC in accordance with the ANICLA requirements on March 21 and March 18, 2013, respectively.

The Project may result in a long-term reduction in the abundance and availability of harvestable resources used for subsistence purposes, decreased physical access to subsistence resources, and increased competition for subsistence resources. A reduction in subsistence resources would be a result of direct adverse impacts to or loss of subsistence resource habitat, causing a reduction in resource populations. Reductions in subsistence resource populations may result in reductions in abundance and availability for local subsistence users. Generally, loss of habitat causes reductions in resource populations due to reduced food availability, reduced access to required environmental conditions (such as the Buskin River freshwater plume important to juvenile salmonids), and reduced cover (or shelter), causing increased predation. A loss of habitat can also increase competition between and among species for food and cover. Some loss of subsistence resources will occur during construction particularly as fill material is dumped or pushed into marine habitat.

The Project will affect primarily marine habitats and marine subsistence resources and uses around Kodiak Airport. Non-marine subsistence resources affected include vegetation above mean high tide along small areas at the runway ends. The amount of impact under the cumulative scenario is not great enough to trigger the significance threshold (substantial interference with harvestable access to active subsistence-use sites, or major increases in non-rural resident use). Therefore, the cumulative effects of past, present, and reasonably foreseeable actions would not significantly restrict access to or competition for subsistence resources.

The FAA asserts the following findings for cumulative effects:

(A) Any significant restriction of subsistence uses that would result from past, present, and reasonably foreseeable future projects combined with the FAA preferred alternatives (Runway 07/25 Alternative 2 and Runway 18/36 Alternative 7) would be necessary to meet the runway safety needs of the Kodiak Airport and consistent with sound management principles for the utilization of the public lands.

(B) The preferred alternatives would not use the least amount of public lands necessary to meet the need for improved runway safety areas. A combination of Runway 07/25 Alternative 2 and Runway 18/36 RSA Alternative 6 would use a smaller amount of public lands and still meets the runway safety needs of the Kodiak Airport. However, both Runway 07/25 Alternative 2 and Runway 18/36 RSA Alternative 6 may cause a significant restriction to subsistence resources and uses. Runway 18/36 Alternative 7 would use more public lands, but would not cause a significant restriction of subsistence resources and uses.

(C) Reasonable steps would be taken to minimize adverse effects upon subsistence uses and resources resulting from the preferred alternatives. To minimize adverse impacts during construction, fill placement would only occur during periods when subsistence harvest is low and there would be minimal impact to migrating salmon. Additional construction and design measures are presented in Section 4.22 and Chapter 6 of the Final EIS.

Measures to Minimize Environmental Harm

"Mitigation" is the process used to avoid, minimize, and compensate for unavoidable environmental impacts of an action or management practice. Steps in this process typically include methods to avoid an impact altogether if possible, minimize or reduce the magnitude of impact to the extent practicable, and compensate for unavoidable impacts.

The selected alternatives would have the least environmental impact of all the practicable alternatives. The avoidance and minimization measures identified below are the result of careful consideration by project planners and design staff, and represent input from numerous state and federal agencies with resource management responsibilities. Even with these measures, however, the selected alternatives would still have adverse impacts, most notably to wetlands (0.1 ac), waters of the U.S. (17.8 ac), the Alaska Maritime National Wildlife Refuge (17.8 ac), and subsistence fisheries.

The development of compensatory mitigation for the Project has involved a number of State and Federal agencies because of specific and overlapping regulatory authorities. Mitigation planning for loss of wetlands and other waters of the U.S. has been done to comply with the compensatory mitigation regulations of the ACOE and EPA because the ACOE has permit authority over the marine waters and wetlands that would be affected by the Project. Additionally, the FAA has worked closely with the Service to ensure that the permit requirements of ANILCA would be met. Agency coordination on mitigation has also included the NMFS with regard to impacts on the marine environment, including Essential Fish Habitat.

To address the potential subsistence impacts, FAA consulted with the Sun'aq Tribe, Native Village of Afognak, Tangirnaq Native Village, the Service, the NMFS, and the Alaska Department of Fish and Game (ADF&G). Government-to-government consultation with the Alaska Native Tribes has been conducted throughout the EIS process. Consultation specific to mitigation began at an early stage of mitigation plan development (see Final EIS for details).

In developing the mitigation plan, the FAA carefully considered all relevant comments, including specific mitigation suggestions, provided by agencies, Alaska Native Tribes, and the public during the comment period and public hearings on the Draft EIS. The FAA also reviewed other recent projects that have been permitted which had similar identified impacts in order to see mitigation measures that might be considered comparable to those anticipated for this Project.

The selected alternatives incorporate elements to avoid environmental impacts and minimize harm over time. Taking all of these factors into account, the FAA has adopted all practicable means to avoid or minimize environmental harm from the selected alternatives.

Conservation Measures to Reduce or Minimize Environmental Impacts

The conservation measures described below will be implemented during construction to further reduce or minimize environmental impacts. A number of these were developed during preparation of the Final EIS and in consultation with representatives from permitting and consulting agencies. Use of these measures will ensure potential construction impacts are minimized to the extent practicable.

Wildlife observers will ensure Endangered Species Act (ESA) listed and candidate species are protected by adhering to the Service's *Observer Protocols for Fill Placement and Dredging* in the marine environment. The observer protocol will be re-evaluated following each construction season. No changes to the observer protocol will be made without review and approval by Service or NMFS, as applicable.

Project-related barge travel will avoid areas with high densities of endangered or threatened species to the extent practicable. Boat and barge operations will follow the Services' Boat Operation Guidance to Avoid Disturbing Sea Otters to minimize impacts to marine mammals.[4] The wildlife observer will tell the captain if any new areas with ESA listed species were observed.

- Known sea lion rookeries and major haul-outs will be avoided (as described in the Biological Assessment): the nearest major rookery to the Project Area is located on Marmot Island, approximately 38 miles northeast of the Kodiak Airport. Although there are no rookeries within inner Chiniak Bay, there are two major haul-outs that occur on the edge of the outer edge of Chiniak Bay. All major haul-outs in the area of designated critical habitat are listed in the *Federal Register* (50 CFR Part 226). One of these is

[4] U.S. Fish and Wildlife Service (USFWS). Boat Operation Guidance to Avoid Disturbing Sea Otters. Anchorage, 2012 AK: USFWS.

located on Long Island, approximately 11 miles east-northeast of the Kodiak Airport, and one is on Cape Chiniak, approximately 15 miles southwest of the Kodiak Airport.[5]

- Material barges will not be grounded in high-density kelp stands, which can be important foraging habitat.

The Cliff Point-Cliff Island-Zaimka Island area will be avoided by barges hauling fill gravel, under-layer stone, and/or armor stone to the site during the winter. This area is heavily used by Steller's eider and Emperor Goose and may provide important habitat for individuals displaced from the Kodiak Airport area during construction.

Placement of fill and other in-water noise production will occur only after other noise-generating activities have ramped up and animals have had the opportunity to leave the area of their own accord.

Fill placement will not occur when viewing conditions make it impossible to monitor the applicable distances. During periods of low visibility, work might continue if additional observers (stationed in boats, for example) could be added to provide complete visual coverage of the area.

Should a sea otter or sea lion be observed within 300 meters of the Project fill footprint prior to filling activities, Engineer notification and work initiation/ramp up/stop procedures will be followed as described above.

  - Construction Timing: In-water work construction will be excluded from April 1 to July 15 to avoid impacts to aquatic species. In-water work is defined as any work below the high tide line (Elevation 11.7 ft.).
  - Wildlife observers will inform the Engineer if a listed or candidate bird is within 300 meters of fill placement activities. If so, the work will be delayed until the bird or birds have moved out of the area on their own. This distance is based on the behavioral threshold for Steller's Eider.
  - Pre-construction raptor nest surveys will take place within 0.5-mile of the Project Area. If Bald Eagle nests are found during that survey, the *National Bald Eagle Management Guidelines* will be followed. Specifically, any nests within 660 feet of activities that may cause nest disturbance (i.e., vegetation clearing and construction) may require that a take permit be issued for compliance with the Bald and Golden Eagle Protection Act. Additionally, nests from 660 feet to 0.5-mile from construction activities will be monitored by a qualified biologist. If resident birds appear disturbed by construction activities, construction activities will cease until young have fledged. If nests of other raptor species are found, Service will be contacted and construction activities will be monitored within the appropriate species-specific spatial buffer around the nest location.

- Construction lighting:
  - Lighting will be kept to the minimum level needed for safety and security.

[5] National Oceanic and Atmospheric Administration (NOAA), "Kodiak Island and Shelikof Strait, Alaska - Environmentally Sensitive Areas: Winter (November-March)," National Oceanic and Atmospheric Administration, http://www.asgdc.state.ak.us/maps/cplans/kod/PDFS/WINTER.PDF

    - Lights with motion or infrared sensors and switches will be used to keep lights off when not needed.
    - Lights will be hooded, down-shielded, and directed to minimize horizontal and skyward illumination.
    - High-intensity lighting, steady-burning, or bright lights such as sodium vapor or spotlights will be avoided.
    - Construction lights will be directed away from the runway and other aircraft operation areas and might need to be shielded, if construction took place while the Kodiak Airport was open to air traffic.
    - Construction lighting will be deployed and directed in such a way as to minimize light and glare for residential areas with clear sightlines to the Kodiak Airport.
  - Steady lights will not be used to make cranes or other overhead structures more visible. Lights will be flashing red. Only strobe, strobe-like, or blinking incandescent lights will be used for this purpose.
  - Crane booms will be left unlit or be lit only with acceptable lighting, and will be lowered as close to ground level as feasible when not in use. The wildlife observer will confirm that any cranes used in construction were lowered when not in use and were not lighted, or if remaining up at night, were lit only with strobe lights.
- Caution will be required in areas of known hazardous materials contamination (such as Area 2 adjacent to Runway 18/36, or the former Snow Removal Equipment Building (just west of Runway end 18) if they were used for staging construction equipment and materials, or for construction haul routes. No excavation will take place in or adjacent to these areas. The Engineer will consider the use of contaminant screening devices, such as air/vapor monitors, if work were conducted in areas of known or suspected contamination.
- All work will be conducted in accordance with applicable permit stipulations (i.e., Corps 404 Permit, Service's ANILCA right-of-way).
- All on-site construction activities will be conducted in accordance with FAA Advisory Circular (AC) 150/5370-10F, *Standards for Specifying Construction of Airports* and FAA AC 150/5320-5C, *Surface Drainage Design*.

Construction Best Management Practices

During construction, ADOT&PF's *Specifications for Airport Construction* (Advisory Circular 150/537010F, Standards for Specifying Construction of Airports, as modified and approved by the FAA for Airport Improvement Program contracts in Alaska) will be followed. Best Management Practices (BMPs) are activities relatively common in construction that can help to prevent pollution, minimize environmental harm, and assure that appropriate response action is taken if unacceptable environmental impacts occur, such as during a fuel spill. A complete list of BMPs will be created after all permits have been received and the design has been completed. The following is a list of BMPs that have been identified thus far for the Project. The complete list will be included in the design documents and project special provisions of the contract.

- ADOT&PF general contract provision 70-07 for the treatment of unanticipated cultural (historic, archaeological, etc.) discoveries during construction will apply in accordance with FAA Order 1050.1E, App. A, sec. 11.5b (3). These protocols include measures for stopping construction if discoveries are made; having qualified archaeologists or other appropriate professionals examine the discovery; and consultation by the FAA with the State Historic Preservation Officer (SHPO), the ADOT&PF, federally recognized tribes, and other parties as relevant to the specific nature of the discovery.
- Construction will be phased, limiting the added barge traffic in the area during the placement of fill materials.
- Construction barges will be scheduled to minimize potential impacts on the USCG and other vessels in the area.
- Barges used for construction will follow standard BMPs for vessels to minimize the potential for oil or fuel spills (such as having an oil spill emergency plan). The only oil or fuel associated with barging of construction materials will be the fuel tanks used to operate the equipment to move the materials.
- Barges will adhere to standard protocols for ballast water exchange and hull inspection to minimize the risk of invasive species introductions.
- Fill areas in marine waters will be constructed during low tide periods of the day when feasible.
- Material sources will follow ADOT&PF's General Contractor Provision 60-02. Fill materials will be obtained from permitted sources (along road system, if possible) and will be clean (i.e., contain minimal fine particles such as silt and clay) to minimize sediment releases and turbidity outside of the fill zone.
- A construction stormwater pollution prevention plan (SWPPP) and a Spill Prevention, Control, and Countermeasure Plan will be prepared before starting construction, as required under ADOT&PF's Technical Provisions 157-2.1 and 157-2.3, to ensure potential pollutants are controlled and contained on site.
- Silt curtains will be the primary method of containment at both runway ends. If silt curtains were determined to not adequately contain fine sediments during fill activities, other techniques will be used to minimize sedimentation dispersion in the marine environment, such as using alternative fill placement methods or washing the fill. These alternative methods will be developed for and documented in the SWPPP (ADOT&PF's Technical Provisions 157-2.1c). If methods included in the SWPPP were not successful, the SWPPP will be modified to identify alternative methods for sediment containment, and the Service will be provided with an opportunity to review the revisions prior to implementation.
- Ground disturbance areas including runway ends will require appropriate erosion and sediment control during construction (ADOT&PF's Technical Provisions 157-231e). Design drawings will include an erosion and sediment control plan with the bid package

that includes erosion control techniques such as sediment fences, straw bales, straw wattles, diversion terracing, inlet protection, and stabilized construction entrances.

- As directed under ADOT&PF's General Contract Provision 70-11e (4), fueling, storage and maintenance of vehicles will be performed offsite or at designated areas. These areas will be at least 100 feet from any wetlands or waters of the U.S., with the exception of low-mobility equipment.
- Rock armor will be placed along fill edges as soon as feasible.
- The contractor will follow ADOT&PF's *Specifications for Airport Construction* (ADOT&PF 2013) General Contract Provision 70-11d and Technical Standards 157-2.2 for excavation and ground disturbance work in areas of known and suspected hazardous materials. The former military and ongoing aviation activities that have occurred in the Project Area raise the possibility that undocumented areas of contamination may be encountered during excavation activities. If contaminants were encountered or suspected, contractors will be required to stop work and, if possible, verify the type and extent of contamination. Appropriate authorities will be notified of the presence of contamination.
- As defined under ADOT&PF's Technical Provisions 151, construction activities will be confined to the minimum area necessary to complete the Project in order to reduce soil disturbance areas and vegetation removal.
- Soil, gravel, and debris along haul routes between the Kodiak Airport and the rock fill sources will be minimized. Haul roads will be restored to their original conditions, as required under General Contract Provision 70-11g.
- Dust prevention measures will be used along construction roads and stockpiles.
- Surface routes used for transport of materials to the Kodiak Airport or the movement of construction equipment will be selected to minimize noise and traffic conflicts in residential areas and other areas with sensitive receptors.
- To control the spread of weeds and invasive plant materials, the following measures will be conducted:
    - Weed-free native seed will be used in areas where re-vegetation is required;
    - Surface disturbance in areas where native vegetation is to be maintained will be minimized;
    - Fill materials will be free of invasive plant species;
    - Weed surveys and control will be conducted before surface disturbing activities began in order to minimize the spread of weed seeds into non-weedy areas; and
    - Reclamation activities will follow ground disturbing activities to minimize conditions that facilitate weed establishment.

Compensatory Mitigation Plan

The FAA's plan for compensatory mitigation has the following goals and objectives:

- Preserving the functions and values of high quality habitats in the Kodiak area that are related to anadromous fisheries, migratory birds, and marine resources and habitats;
- Providing access to and preservation of areas with subsistence resources that are located within the Kodiak area; and
- Managing the sustainability of subsistence resources in the Buskin River by providing funding to the ADF&G Subsistence Management Program.

These goals and objectives will be achieved by making a $2 million "in-lieu fee" (ILF) payment to an approved ILF provider[6] for the purpose of purchasing high-value intertidal, estuarine, and/or coastal habitat in the Kodiak area (defined as the Kodiak Archipelago Islands) for preservation.

The ILF payment will be based on a ratio of 5.5:1 (i.e., 5.5 acres of mitigation for each acre of fill). This mitigation ratio was determined by the FAA through coordination with the Service, the NMFS, EPA, and the ACOE. In working with the regulatory and resource agencies, the following effects that may be caused by the Project were taken into consideration in developing the mitigation ratio:

- Change in the freshwater plume from the Buskin River
- Loss of fish habitat
- Increase in stormwater runoff
- Effects on aquatic assemblages
- Changes to geomorphology of the Buskin River mouth
- Loss of threatened and endangered species habitat
- Loss of Essential Fish Habitat
- Effects to bears from decreased fish runs
- Loss of migratory bird habitat

The FAA has consulted with the Service, the NMFS, EPA, the ACOE, and the ADF&G on the mitigation plan. A functional assessment using a methodology approved by the ACOE was performed for the wetlands and other waters of the U.S. affected by this Project and are included in the Kodiak Airport EIS Wetland Delineation Report (included in Final EIS Appendix 2, Wetlands, and summarized in Final EIS Chapter 4, Section 4.3. The ACOE has indicated that the proposed mitigation ratio of 5.5:1 is appropriate to compensate for the fill into waters of the U.S., and is consistent with Alaska District RGL No. 09-01.

[6] At this time, only The Conservation Fund has an approved ILF Instrument with the ACOE in the Kodiak area.

The ILF payment is consistent with the preference hierarchy in the compensatory mitigation regulations issued by the ACOE and EPA (see Final EIS Section 6.2, *Requirements Relevant to Mitigation*). The Project Area is not within the service area of a wetland mitigation bank, but is within the service area of an approved ILF program operated by The Conservation Fund (TCF). During coordination with the FAA, the relevant federal agencies (i.e., the ACOE, the Service, the NMFS, and EPA) agreed that acquisition and preservation of land through an ILF payment will be the preferred form of mitigation because it will provide long-term preservation of the functions and values of high quality habitat that are related to those resources that will be impacted (anadromous fish, migratory birds, and marine habitat). The ADF&G has also agreed to the mitigation plan described in this ROD. The FAA has been coordinating with TCF to ensure that the property (ies) acquired with the ILF payment will meet the mitigation goals for the Project.

In addition to the ILF payment, the mitigation plan includes a payment of $200,000 to the ADF&G to fund their existing subsistence management program on the Buskin River. This program aids in the management of sustainability of the salmon runs and helps manage the river for all subsistence users. During the Draft EIS process, the FAA received several comments suggesting either adult or smolt out-migration be monitored to evaluate short-term and long-term effects to the river's salmon runs. The ADF&G will use the $200,000 either to continue the current adult escapement monitoring to allow in-season management of the subsistence resource, or to develop a smolt enumeration study.

After publication of the Final EIS, the FAA continued to conduct government-to-government consultation with the Sun'aq Tribe of Kodiak to address their concerns with the mitigation plan described in the Final EIS. The result of this consultation was a Memorandum of Agreement between the FAA and the Tribe under which the mitigation for the Project will also include $450,000 for a five-year post-construction monitoring effort to document the change in habitat and species usage in the area influenced by the freshwater plume around the mouth of the Buskin River. This monitoring will be led by the Sun'aq Tribe of Kodiak.

Mitigation Implementation and Monitoring

All of the mitigation measures for the selected alternatives are conditions of the FAA's approval of the Project. In accordance with 40 C.F.R. § 1505.3, the FAA will take appropriate steps through federal funding grant assurances and conditions, airport layout plan approvals, and contract plans and specifications to ensure that the mitigation measures are implemented during project development. The ADOT&PF will monitor the implementation of the mitigation measures and update the FAA annually on the status those measures until they are complete. The ADOT&PF will obtain all necessary permits and authorizations prior to construction.

Findings and Basis for Decision

For the reasons summarized in this ROD, supported by disclosures and analysis presented in detail in the Final EIS, I have determined that the Project, consisting of the selected alternatives, is reasonable, feasible, and prudent and therefore approve the selected alternatives and the issuance of an ANILCA Title XI Right of Way Permit to ADOTPF.

This decision is consistent with the Service's statutory mission and policies, and is supported by the environmental findings and conclusions presented in the Final EIS and this ROD.

Tamara A. Bell — 12/4/13

U.S. Fish and Wildlife Service, Alaska

Acting Regional Director — Date

Supporting References

Alaska Department of Transportation and Public Facilities. 2013. Specifications for Airport Construction. Advisory Circular 150/537010F, Standards for Specifying Construction of Airports, as modified and approved by the Federal Aviation Administration for Airport Improvement Program contracts in Alaska.

Federal Aviation Administration. 2013. Runway Safety Improvements, Kodiak Airport Final Environmental Impact Statement. Federal Aviation Administration. Kodiak, AK

U.S. Fish and Wildlife Service. 2008. Kodiak National Wildlife Refuge Revised Comprehensive Conservation Plan and Environmental Impact Statement. U.S. Fish and Wildlife Service, Kodiak National Wildlife Refuge. Kodiak, AK.

APPENDIX A

ANILCA 810 SECTION DETERMINATION

ANILCA TITLE XI FINDINGS

RIGHT-OF-WAY APPLICATION DECISION

AMMENDMENT TO THE ALASKA MARITIME NATIONAL WILDLIFE REFUGE COMPREHENSIVE CONSERVATION PLAN

ANILCA Section 1104 (g) outlines the agency decision process after publication of the Final EIS. That section requires each agency to make a decision to approve or disapprove in accordance with applicable law; each authorization that applies with respect to the system and that is within the jurisdiction of that agency as well as to make detailed findings supported by substantial evidence, with respect to certain resources and uses as part of the decision-making process.

The findings include the following:

1. the need for, and economic feasibility of, the transportation or utility system (TUS)[7];
2. alternatives considered; including a determination on whether there is any economically and prudent alternative way to avoid the conservation system unit (CSU)[8] and, if not, whether there are alternative routes or modes which would result in fewer or less severe adverse impacts upon the CSU;
3. the feasibility and impacts of including different TUSs in the same area;
4. short and long-term social, economic, and environmental impacts of national, State, or local significance, including impacts on fish and wildlife and their habitat, and on rural, traditional lifestyles;
5. the impacts, if any, on the national security interests of the United States, that may result from approval or denial of the application for a TUS;
6. any impacts that would affect the purposes for which the Federal unit or area concerned was established;
7. measures which should be instituted to avoid or minimize negative impacts; and
8. a comparison of the short- and long-term public values that would be affected and the short- and long-term benefits to the public.

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[7] ANILCA Section 1102 (B) (vii) defines TUSs to include among others "roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation."

[8] Under ANILCA Section 102 (4), "any unit in Alaska of the...National Wildlife Refuge System..." is considered a "conservation system unit" (CSU).

Department of the Interior regulations implementing provisions of ANILCA Title XI (43 CFR Part 36.7) also require findings on impacts to subsistence uses. The FAA discusses these impacts in the findings on short and long-term social, economic, and environmental impacts (Finding #4 above).

The need for and economic feasibility of the RSA improvements

The RSAs around Runway 07/25 and Runway 18/36 at Kodiak Airport do not meet the FAA's standards that must be met by December 31, 2015. The purpose of this Project is to improve the RSAs for these runways to meet the FAA's standards to the extent practicable by that date.

Kodiak Airport currently does not meet FAA design standards for undershoot or overshoot protection of the design aircraft (i.e., the Boeing 737-400) for both ends of Runways 07/25 and 18/36. The FAA and the ADOT&PF proposed alternatives to improve the RSAs for Runways 07/25 and 18/36. The ends of both these runways are constrained by mountains and Chiniak Bay. Because of Barometer Mountain, RSA improvements cannot occur on Runway end 07. Therefore, the improvements to RSAs must occur out in Chiniak Bay, and cannot avoid filling into lands protected under ANILCA. The selection of Runway 07/25 Alternative 2 and Runway 18/36 Alternative 7 will improve aircraft overshoot and undershoot protection, while also minimizing environmental effects and use of Alaska Maritime National Wildlife Refuge lands.

The RSA improvements will be completed using a combination of state and federal funding. Federal funding, using the FAA Aviation Trust Fund, comes primarily from a nationwide airline passenger ticket tax. The FAA and the ADOT&PF have set aside funds for construction of the selected alternatives.

Alternatives Considered

The following presents a brief summary of alternatives considered for the Kodiak Airport EIS. A discussion of alternatives can be found in Chapter 2 of the Final EIS. In addition to the no action alternative, other alternatives, such as relocation of the airport and other transportation modes, were considered as part of the Final EIS, but were eliminated from detailed analysis because they did not meet the purpose and need. Details on these eliminated alternatives can also be found in Chapter 2 of the Final EIS.

Of all the alternatives considered by the FAA, only the Physical Airport Improvements alternatives for the RSA had the potential to meet the Project's purpose and need. Therefore, a range of alternatives relative to physical RSA improvements was analyzed. A range of these options was brought forward into the EIS analysis, including two build alternatives for Runway 07/25 and six build alternatives for Runway 18/36, along with the No Action Alternative, as required by NEPA. The two selected alternatives (one for each runway) are detailed below.

Runway 07/25 - FAA considered two build alternatives for Runway 07/25 and has identified Alternative 2 as the selected alternative. Alternative 2 reduces the environmental impacts compared to the other build alternative. Alternative 2 will improve the RSA at the east end of the runway through an extension into St. Paul Harbor and the use of 70-kt EMAS. Fill will be placed off Runway end 25 to create a landmass 600 feet long by 500 feet wide in size. Kodiak Airport's existing runway length of 7,542 feet will be maintained. This alternative will affect 9.13 acres of the Alaska Maritime National Wildlife Refuge. This alternative minimizes the environmental impact to resources within the Refuge, while also meeting the need for RSA improvements.

Runway 18/36 - FAA considered six build alternatives for Runway 18/36 and has identified Alternative 7 as the selected alternative. Alternative 7 will reduce environmental impacts from the RSA improvements. This alternative will avoid placing any fill near the mouth of the Buskin River and will not affect the freshwater plume of the Buskin River. This alternative will improve the RSA at the north and south end of Runway 18/36 through a 600-foot long by 500-foot-wide landmass extension at the south, beyond Runway end 36 and shifting the runway 240 feet to the south. The existing runway length of 5,013 feet will not change; however, the runway end thresholds will be shifted 240 feet south of their current locations. This alternative will affect 8.68 acres off Runway end 36 (total 8.68 acres) of the Alaska Maritime National Wildlife Refuge.

Feasibility and impacts of including different transportation units in the same area

The ADOT&PF does not propose construction of a new transportation unit in the area of the Kodiak Airport. Instead, the ADOT&PF proposes to improve RSAs for the existing Kodiak Airport. Chapter 2 of the Final EIS outlines other transportation alternatives considered, but dismissed from further analysis.

Other reasonably foreseeable future transportation projects identified in Chapter 5 of the Final EIS in the Alaska Maritime National Wildlife Refuge portions of Chiniak Bay include repair/replacement of the USCG fuel dock and construction of a private cargo facility in Women's Bay. These projects would affect portions of the Alaska Maritime National Wildlife Refuge within Women's Bay. However, these projects by themselves do not contribute significant effects to resources within the refuge.

Short and long-term social, economic, and environmental impacts

Local Population Including Socioeconomic Effects, Environmental Justice, and Effects to Rural Traditional Lifestyles (Subsistence)

Economic impacts of the selected alternatives consist of short-term, positive direct and indirect impacts from construction due to jobs and expenditures. Based on the 2010 Census of the Kodiak area (the most recent Census data), no low-income or minority populations will be disproportionately impacted by the selected alternatives. Minor, adverse short-term, indirect

economic impacts may occur to commercial and sport fishing and related businesses during construction.

Adverse impacts from loss of fisheries habitat under Alternative 07/25 Alternative 2 may cause significant long-term impacts to subsistence resources associated with the Buskin River. Similar short-term and long-term impacts will occur to subsistence users fishing in the Project Area. The FAA finds Runway 18/36 Alternative 7, which avoids fill near the mouth or in the freshwater plume of the Buskin River, will not have significant long-term impacts to subsistence resources and uses.

Due to the significant impact on fisheries of the Buskin River (particularly for subsistence species such as sockeye, coho and pink salmon) from Runway 07/25 Alternative 2, there will be a socioeconomic impact on Kodiak residents who use subsistence resources (over 99% of the population). Because subsistence resources affect take-home resources for food, the reduction in subsistence resources per capita will likely be felt largely by low-income populations since higher income populations could make up the difference in subsistence use through other resources (salary, etc.). Additionally, because subsistence practices are tied to the cultural identity of the Sun'aq, Tangirnaq Native Village, and the Native Village of Afognak, there could be a disproportionately high and adverse effect on customary and traditional practices and the cultural identity of those minority populations.

These potential indirect effects on low-income and minority populations will not occur with Runway 18/36 Alternative 7, because it avoids fill into the Buskin River area, therefore avoiding the potentially significant subsistence impacts. No significant adverse impacts, such as an increase in noise over residential areas, are expected to occur to populations of children, and no adverse impacts to the health and safety of children are expected.

Air Quality

The selected Alternatives will not significantly impact air quality nor will the alternatives adversely affect the area's attainment status.

Visual Resources and Light Emissions

There will be no long-term, significant impacts to visual resources from the selected alternatives, but there will be major, short-term impacts during the construction period for Runway 18/36 Alternative 7.

Surface Water and Groundwater Quality

The most notable, long-term, direct impact to freshwater quality from the selected alternatives will be from the addition of impervious surfaces created by construction of the RSAs. These new impervious surfaces will increase the quantity of stormwater runoff draining to local receiving

waters but the new impervious surface area will be minor compared to the total existing impervious surface area at the Kodiak Airport. In addition, short-term, direct impacts to freshwater quality could occur during RSA construction from earthmoving activities contributing sediments to and increasing turbidity into area waters. However, identified best management practices (BMPs) will minimize any construction impacts.

No long-term changes to freshwater inputs, effluent mixing zones, or marine water quality are anticipated from any of the selected alternatives. Some localized saltwater/freshwater mixing zones may be altered due to the placement of fill in marine waters. Short-term increases in turbidity in marine waters will likely occur during construction of any of the alternatives, but could be minimized through BMPs. There are no anticipated effects to fresh or marine water quantity from the selected alternatives. As a result, there are no significant, adverse water quality or quantity impacts expected from the selected alternatives.

Hydrology and Coastal Resources

None of the selected alternatives will affect designated shipping lanes or commercial traffic. The RSA extensions will locally displace recreational and fishing boats and will limit the access to certain areas during construction. However, these restrictions will be short term and will not result in significant impacts on the navigation of vessels. Minor, localized changes in sediment transport and current patterns are anticipated with the placement of any RSA fill structures into the marine waters, but these changes are not expected to adversely affect marine navigation.

Fill from Runway 07/25 Alternative 2 will have a long-term indirect effect on adjacent (or connected) waters because the resultant changes in currents and the spatial distribution of the Buskin River freshwater plume. Runway 07/25 Alternative 2 will fill marine waters of St. Paul Harbor, but will have no effect on wetlands. However, because of the magnitude of tidal waters lost and the adverse, indirect effect to the maintenance of natural systems that support fish habitat, Runway 07/25 Alternative 2 will have a significant impact on waters of the U.S.

In addition, Runway 18/36 Alternative 7 will directly affect the marine waters of St. Paul Harbor. However, Runway 18/36 Alternative 7 is the only runway alternative that does not involve fill that will impact the Buskin River freshwater plume. Because this alternative does not affect the maintenance of natural systems that support fish habitat, Runway 18/36 Alternative 7 will not have a significant impact on waters of the U.S.

Noise

Noise from aircraft operations at the Kodiak Airport does not currently have a significant impact and none of the alternatives will result in a change in number or type of aircraft operations. Additionally, Runway 07/25 Alternative 2 will keep runway thresholds in their existing position. As a consequence, this alternative will have no effect on noise exposure and aircraft noise levels to humans or noise-sensitive uses. Runway 18/36 Alternative 7 will change aircraft operation locations by a 240-foot shift south, resulting in a comparably minor shift of noise to the south. However, even with the shift in operations, there will be no significant impact on human

populations or noise-sensitive locations from this shift. Therefore, there will be no significant noise impacts from the selected alternatives.

Vegetation

The combined impact of the selected alternatives will be approximately 6.9 acres to upland vegetation. The direct, adverse effects of the selected alternatives could include permanent loss of vegetated areas and habitat for sensitive plant species, as well as an irretrievable loss of vegetation productivity. Indirect, adverse effects will include an increased potential for weedy plant species invasion in areas disturbed by Project-related construction. The selected alternatives will not affect upland vegetation resources on the Alaska Maritime National Wildlife Refuge. Because the area of impact to cover types are relatively small compared to their abundance in the Project and landscape areas, these adverse effects are expected to be insignificant.

Soils

The selected alternatives will not affect terrestrial soils around the Kodiak Airport. There will be some minor increase in transport of existing marine sediment from changes in current patterns in marine waters.

Wetlands

Runway 07/25 Alternative 2 will have no effect on wetlands. Runway 18/36 Alternative 7 will fill a small depressional palustrine wetland in the Kodiak Airport infield (Wetland D). Wetland D provides low to moderate water quality, flood attenuation, and habitat functions, and these will be eliminated if the wetland were filled. The consequences of this loss will be minor because the wetland is small and the ecological function it provides is limited.

Fish and Invertebrates

The selected alternatives will require placing fill in marine waters. All marine fish and invertebrate habitat in the Project Area is within the Alaska Maritime National Wildlife Refuge. Freshwater (and estuarine) fish and invertebrate habitat in the Project Area is outside of the Alaska Maritime National Wildlife Refuge. The selected alternatives will result in direct habitat loss as well as indirect effects to physical processes that shape aquatic habitats and the species that live there. Runway 07/25 Alternative 2 will change the substrate, gradient, and freshwater influence of existing habitats near the mouth of Buskin River, resulting in major impacts to Buskin River salmonids. Runway 18/36 Alternative 7 at Runway end 36 will also affect aquatic species and habitat functions, but to a lesser degree because the existing habitat is less unique and diverse. This alternative avoids placing fill in freshwater-influenced habitats. These alternatives minimize effects to fish and invertebrates, particularly to Buskin River salmon populations, while still providing for the needed RSA improvements.

All build alternatives would be located in areas designated as EFH for Pacific salmon, various groundfish, and forage fish species. The selected alternatives will adversely affect EFH by filling habitat and replacing the perimeter of the RSAs with armor rock, and substrate with lower function and value for most EFH species. However, the selected alternatives minimize alteration of unique EFH by avoiding placement of fill into the Buskin River barrier bar and minimizing fill into the Buskin River freshwater plume.

Waterbirds

The direct, adverse impacts of each build alternative on waterbird species will include the permanent alteration (and in some cases loss) of habitats and the temporary displacement of waterbirds from human presence and project-related construction noise. Over the long term, some species may benefit from the selected alternatives by creating armor rock habitat around RSA side and end slopes. Therefore, there will be no significant impacts on waterbirds will result from the selected alternatives.

Marine Mammals

The selected alternatives will have adverse effects on marine mammals in the short term due to construction activities and the placement of fill material. Direct impacts will also include temporary displacement of some marine mammals from the Project Area from human presence and project-related construction noise and the loss of foraging habitat. However, population-level impacts are not expected. Because of the small amount of area lost from construction of the selected alternatives compared to total habitat available, the function and conservation role of the affected critical habitat will not be adversely affected.

Terrestrial Wildlife

The direct, adverse impacts of each build alternative on general, high-interest, and sensitive upland wildlife species would include the permanent removal or alteration of habitat and displacement of some wildlife individuals from the Project Area during construction. The loss of foraging habitat and breeding grounds from the selected alternatives may have a minor impact on some wildlife individuals but will not affect population sustainability of any wildlife species in the Project Area. Additionally, the creation of armor rock habitat will benefit some wildlife species.

Hazardous Waste/Materials

Construction of the RSA, including EMAS installation, will not generate hazardous wastes because any hazardous materials used during this work (such as fuels, lubricants, solvents and paints) will be consumed. Because no substantial amount of waste will be generated and because there will not be any disturbance of hazardous material storage sites or sites contaminated by hazardous wastes, the selected alternatives will not result in significant environmental impacts.

Impacts on national security

The selected alternatives will have a positive effect to national security. Each of the selected alternatives will improve the RSAs for the runways commonly used by both the public airport and the USCG Base. Improved RSAs will allow for safer air transportation to and from Kodiak Island. Improved RSAs will assist the USCG in their mission of safeguarding the maritime interests of the United States by providing better safety margins for takeoff and landings of USCG aircraft. The improved RSAs will also reduce the potential for aircraft damage from overshooting or undershooting the runways.

Impacts on the purposes of the Alaska Maritime National Wildlife Refuge

ANILCA provides the following five purposes for establishing and managing the Alaska Maritime National Wildlife Refuge:

1. Conserve the refuge's fish and wildlife populations and habitats in their natural diversity, including but not limited to marine mammals, marine birds and other migratory birds, the marine resources upon which they rely, bears, caribou, and other mammals.
2. Fulfill international treaty obligations of the United States relating to fish and wildlife and their habitats.
3. Provide opportunities for continued subsistence uses by local residents in a manner consistent with purposes number 1 and 2.
4. Provide a program of national and international scientific research on marine resources in a manner consistent with purposes number 1 and 2.
5. Ensure water quality and quantity within the refuge, to the maximum extent practicable and in a manner consistent with purpose number 1.

Because Alaska Maritime National Wildlife Refuge lands within the Project Area contains only submerged lands and waters, the only potential direct adverse impacts to refuge animal populations and habitats will occur to fish, marine invertebrates, marine mammals, marine birds, and migratory birds. There will also be potential indirect adverse impacts to brown bears and Bald Eagles adjacent to the Alaska Maritime National Wildlife Refuge because of potential reductions in adult salmon populations on the Buskin River. Despite potential adverse effects to fish, marine invertebrates, marine mammals and marine/migratory birds (including threatened and endangered species) from the selected alternatives, it is not anticipated that effects to those resources and their habitats will affect international treaty obligations of the United States (purpose number 2).

The selected alternatives could result in a long-term reduction in the abundance and availability of harvestable resources used for subsistence purposes, decreased physical access to subsistence resources, and increased competition for subsistence resources in the Buskin River due to fill placed in marine habitats affected by the Buskin freshwater plume (purpose number 3). The ability to conduct scientific research on some resources may be compromised from habitat loss at

locations where fill is placed, particularly for Runway 07/25 Alternative 2 (purpose number 4). There are no anticipated significant effects to water quality and quantity as a result of the selected alternatives (see Final EIS Chapter 4, section 4.11and Section 4.2) (purpose number 5).

Measures instituted to avoid or minimize negative impacts

The conservation measures and the compensatory mitigation plan are outlined in in this ROD both minimize effects to resources during construction and operation of the RSA build alternatives and mitigate adverse effects to waters of the U.S. and to Alaska Maritime National Wildlife Refuge resources.

Comparison of the short and long-term public values affected versus the short and long-term public benefits

Under Department of the Interior regulations implementing ANILCA Title XI (43 CFR Part 36.2), the public values are defined as the public purposes for the conservation system unit during creation of the unit. This ROD describes the public values/purposes of the Alaska Maritime National Wildlife Refuge and assesses the impacts to those values/purposes under the selected alternatives.

The anticipated public benefit for the Project is that improvement of the RSAs at the Kodiak Airport will make the Kodiak Airport safer for all passengers and pilots, and reduce the potential for damage to planes in the event of a runoff overshoot, undershoot, or veeroff. Additional socioeconomic public benefits from the Project include construction related jobs and expenditures into the local economy.