Department of Transportation
Federal Aviation Administration
Alaskan Region
Anchorage, Alaska

Record of Decision

Runway Safety Area Improvements
at
Kodiak Airport
Kodiak, Alaska

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Summary

This Record of Decision (ROD) provides final determinations and approvals by the Federal Aviation Administration (FAA) for federal actions needed to improve the runway safety areas at Kodiak Airport, Kodiak, Alaska.

Included within this ROD are descriptions of the actions proposed to address the need for runway safety area improvements. This ROD also documents the purpose and need for the actions, alternatives to the actions, environmental impacts associated with the actions and alternatives, and mitigation measures to avoid, minimize, and compensate for environmental harm. This ROD also discloses the federal and state actions needed before the actions may be implemented and provides findings and determinations concerning resources of special concern. Conditions of approval that must be met by the Airport Sponsor (the Alaska Department of Transportation and Public Facilities, herein ADOT&PF) are listed. This ROD identifies the FAA's preferred alternatives and the environmentally preferred alternatives as well as the alternatives selected by the FAA for implementation. This ROD also includes the FAA's determinations under Title XI of the Alaska National Interest Lands Conservation Act (ANILCA).

The FAA is responsible for the preparation and content of the Draft Environmental Impact Statement (DEIS) and Final Environmental Impact Statement (FEIS), published on October 23, 2012 and August 2, 2013, respectively, and this ROD.[1] In developing the FEIS, the FAA relied on certain information provided by outside sources as authorized by Council on Environmental Quality Regulations on Implementing the National Environmental Policy Act Procedures (see 40 CFR. § 1506.5). The FAA is responsible for reviewing and independently verifying the accuracy of any information provided by outside entities including the ADOT&PF and cooperating agencies. In keeping with its oversight responsibility as the lead federal agency for the EIS, the FAA consistently exercised control over the scope, content, and development of the FEIS. The FAA selected a third-party contractor to assist with information verification and preparation of the FEIS.

In August 2006, a website was established to help provide the public and interested parties with information concerning the progress and status of the EIS and ANILCA processes. The website also includes maps and documents prepared for the Project, including the DEIS and FEIS, survey reports, geotechnical engineering studies, progress reports, and many others (see http://www.kodiakairporteis.com/). This ROD will be posted on the EIS website. This ROD will also be available on-line at the FAA's electronic ROD repository (see http://www.faa.gov/airports/environmental/records_decision/).

The FAA is responsible for the accuracy of all information within the FEIS and this ROD. For more information concerning the contents of this ROD or the FEIS, please contact:

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[1] Announcement of FEIS publication was provided in the Federal Register at https://www.federalregister.gov/articles/2013/08/02/2013-18697/environmental-impacts-statements-notice-of-availability and https://www.federalregister.gov/articles/2013/08/02/2013-18537/notice-of-availability-of-final-environmental-impact-statement-final-eis.

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1.0 Introduction and Project Overview

This Record of Decision (ROD) provides the Federal Aviation Administration's (FAA) final determinations and environmental approvals for the federal actions necessary to implement improvements to the Runway Safety Areas (RSAs) for Runways 07/25 and 18/36 at Kodiak Airport, Kodiak, Alaska. The FAA has selected Runway 07/25 Alternative 2 and Runway 18/36 Alternative 7 for implementation (referred to herein as "the Project" or "the Selected Alternatives"). The federal actions identified in Section 9.0 of this ROD are necessary to implement the Project. The Project includes the following actions:

- Improvement 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).[2] Fill will be placed beyond Runway end 25 to create a landmass 600 feet long by 500 feet wide. The 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 Runway 25 Runway End Identifier Lights (REILs) may need to be relocated to accommodate the installation of the EMAS bed. 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 the 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. This Project includes the relocation of the Runway 36 REILs and replacing the Runway 36 Visual Approach Slope Indicators (VASIs) with Precision Approach Path Indicators (PAPIs).

Section 3.0 of this ROD describes the Project's purpose and need. Section 4.0 of this ROD describes the alternatives the FAA considered for meeting the purpose and need. Section 5.0 of this ROD summarizes the environmental impacts of the alternatives. Section 6.0 of this ROD describes the FAA's preferred alternatives and the environmentally preferred alternatives. As is described in Section 7.0 of this ROD, the FAA has selected the preferred alternatives (which are also the environmentally preferred alternatives) for implementation.

1.1 Project Funding

The FAA understands that the ADOT&PF will apply for federal grant-in-aid funding from the FAA's Airport Improvement Program (AIP). There are findings and determinations prescribed by statute and regulation that must be made by the FAA as preconditions to agency approvals of airport project funding applications (see Section 10.0 of this ROD). This ROD includes the environmental determinations necessary to establish

[2] 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".

eligibility for approval of grants for federal funding, and it provides the basis to proceed with those findings and determinations. However, this ROD neither grants federal funding nor constitutes a funding commitment. The FAA will review funding requests upon submission by the ADOT&PF of a timely grant-in-aid application, and the FAA will make funding decisions in accordance with statutory and regulatory requirements.

1.2 Public and Agency Outreach

This ROD completes the environmental decision-making process undertaken by the FAA with the assistance of the ADOT&PF and cooperation of federal and state agencies, and through government-to-government consultation with Alaska Native Tribes. The U.S. Coast Guard (USCG), the U.S. Army Corps of Engineers (ACOE), and the National Marine Fisheries Service (NMFS) participated as Council on Environmental Quality (CEQ)-defined "cooperating agencies" (40 C.F.R. § 1501.6). Other agencies, particularly the U.S. Fish and Wildlife Service (USFWS), 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 FEIS, 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 – DEIS published, with informational meetings and a public hearing in Kodiak.
- August 2, 2013 – FEIS published.

The DEIS was released on October 19, 2012 for public and agency review and comment. The comment period closed December 18, 2012. The DEIS 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 DEIS was conducted on December 6, 2013. Notices of availability of the DEIS and FEIS 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 DEIS on October 19, 2012. The application is included in Appendix 12 of the FEIS. 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 FEIS, which also includes correspondence with interested agencies. **Appendix A** to this ROD contains agency concurrence letters.

1.3 Statutory Compliance

The FAA has conducted a thorough and careful environmental analysis of the potential environmental impacts of the alternatives for the Project. This analysis is disclosed in the FEIS. The FAA's Alaskan Region Regional Administrator has reviewed the FEIS and administrative record in support of this decision documented in this ROD.

The FAA is responsible for the preparation and content of the FEIS and this ROD in compliance with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. Sections 4321 et seq.), Council on Environmental Quality 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. This ROD is also used to demonstrate and document FAA compliance with procedural and substantive requirements as well as related environmental and programmatic statutes and regulations that apply to FAA decisions on airport actions and projects. The FAA arrived at the determinations and approvals documented in this ROD by reviewing the environmental analysis in the FEIS and all other information that comprises the administrative record for the EIS.

The FAA is responsible for reviewing and verifying the accuracy of any environmental information provided by outside entities. In keeping with its oversight responsibility, the FAA has consistently exercised control over the scope, content, and development of the EIS and related materials. FAA selected a third party Contractor to assist in the preparation of the EIS and this ROD. The FAA used its own resources, as well as the resources of the Contractor, to independently evaluate any environmental information and other submissions provided by cooperating agencies or other entities. In addition, the FAA and the Contractor used environmental information submitted by the ADOT&PF for development of the EIS only as permitted under 40 C.F.R. § 1506.5(a). The FAA and the Contractor independently reviewed environmental information provided by ADOT&PF for accuracy and completeness. The FAA believes that its degree of supervision exercised over the Contractor, and its involvement in the preparation and review of the EIS and this ROD, is consistent with CEQ regulations and its own Orders and fully demonstrates the integrity and objectivity of the EIS and this ROD.

2.0 Background

This section provides background context on Kodiak and the surrounding area, and a summary of facilities and operations at the Airport.

2.1 Location and Project Setting

Kodiak Island is located in the southwest portion of the State of Alaska, approximately 225 miles southwest of Anchorage and 1,240 miles northwest of Seattle, Washington. The Island, with high mountains and a long coastline encompassing almost 3,600 square miles, is the largest in an extensive group of islands known as the Kodiak Archipelago.

The Island is part of the Kodiak Island Borough, which includes the City of Kodiak, seven villages, and a USCG Base. In 2010 the U.S. Census Bureau noted that the Borough had a population of 13,592 while Kodiak, the largest city in the Borough, had approximately 6,130 people. There are two airports serving the city, including the Municipal Airport close to downtown, and the so-called State Airport (referred to in the EIS and this ROD as the "Kodiak Airport") located about seven (7) miles southwest of downtown. **Figure 1** shows the location of the Airport relative to Kodiak Island and within the State of Alaska.

2.2 Kodiak Airport

The Kodiak Airport was first constructed by the U.S. Navy in 1940 as a military airfield. In 1972, the Navy transferred the facility to the USCG and, combined with the issuance of Public Land Order 5550 in 1975, more than 20,000 acres of land, tideland, and submerged land of Kodiak Island that had been reserved from the public domain for the Navy were transferred to the USCG.

About 618 acres of land within the airfield, including runways, taxiways, and the terminal area, were leased to the State of Alaska for use as a civilian airport. As leaseholder, ADOT&PF is responsible for operation and maintenance of the Airport. The terms of the lease allow ADOT&PF to use the premises for commercial purposes in order to fund the cost of operating and maintaining the Airport. Kodiak Airport also continues to be used by the USCG and other transient military operations in association with the adjacent USCG Base. In summary, Kodiak Airport is wholly owned by the United States federal government, leased by the State of Alaska, operated by ADOT&PF, and used for civil and military aviation.

2.2.1 Airport Facilities

Within the FAA's National Plan of Integrated Airport Systems, Kodiak Airport is classified as a primary non-hub commercial service airport.[3] Currently, the Airport is served by two (2) commercial airline carriers on a daily basis, Alaska Airlines, using the Boeing 737 aircraft, and Era Aviation, using the Dash 8 turboprop series aircraft, and both offering service to Anchorage. Air taxi service is provided by Island Air Service (serving nearby island locations), and Servant Air (also serving nearby islands). The existing air cargo carriers which regularly serve Kodiak Airport include Alaska Airlines, Alaska Central Express, Hageland Aviation Service, Tatonduk Flying Service, Northern Air Cargo, Federal Express, and Servant Air.

[3] The term "hub" is used by FAA to identify busy commercial service airports as measured by passenger enplanements. Non-hubs are airports that accommodate less than 0.05% of total U.S. enplanements, but more than 10,000 annual enplanements. *Report to Congress, National Plan of Integrated Airport Systems (NPIAS)* 2013-2017.

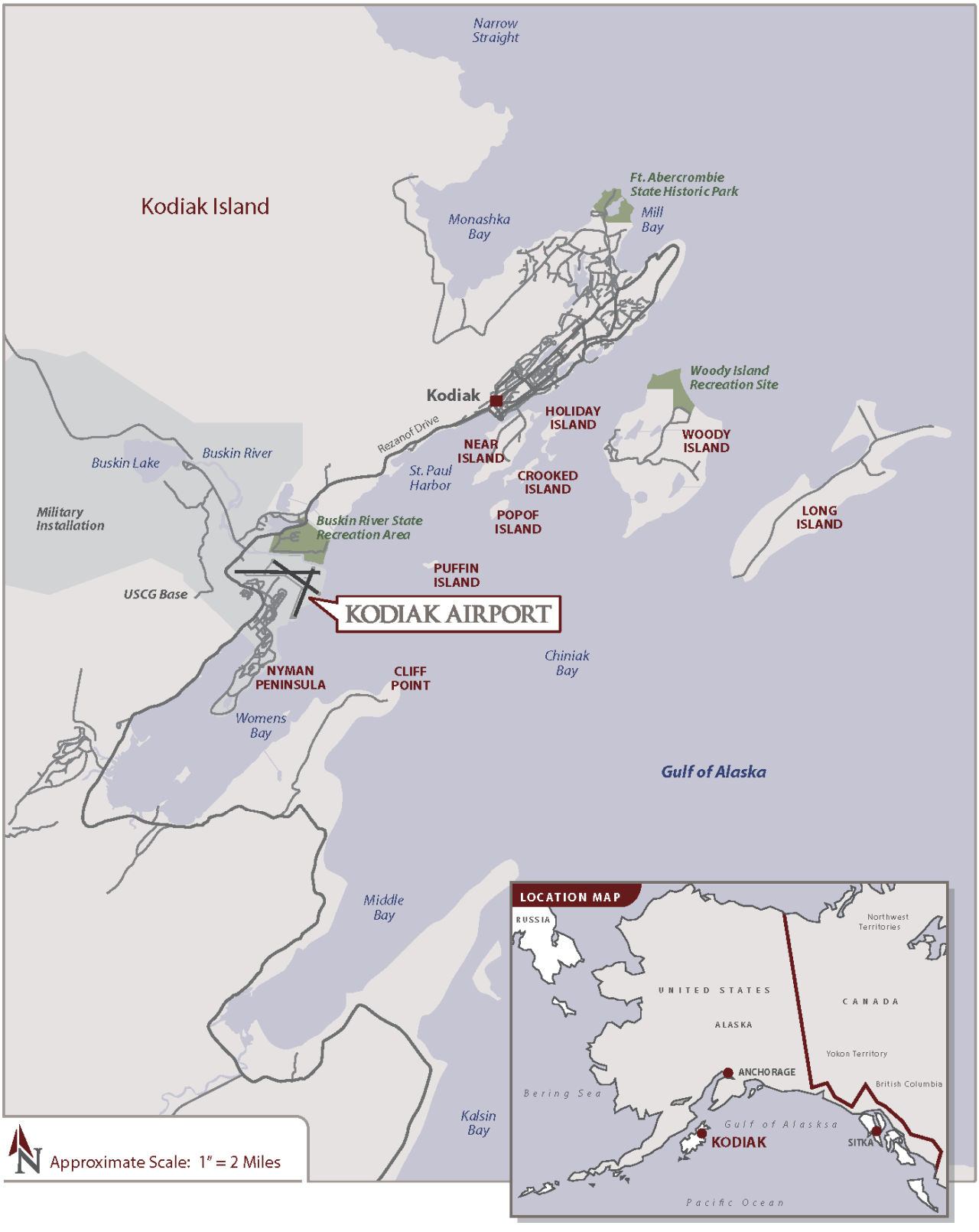

FIGURE 1 - AIRPORT LOCATION/VICINITY MAP

Kodiak Airport is home to a USCG Air Station, which operates both HH-60 "Jayhawk" and HH-65A "Dolphin" helicopters, and the HC-130 "Hercules" fixed wing aircraft. It is estimated that the USCG helicopters account for approximately 75% of the military operations at Kodiak and the fixed-wing aircraft (i.e., HC-130H aircraft) account for the remaining 25% of operations.

Kodiak Airport has three runways:

- **Runway 07/25** is the longest at 7,542 feet and is used by commercial and military aircraft and has a generally east-west orientation.
- **Runway 18/36** is the shortest of the three runways, at 5,013 feet, but the runway alignment and generally favorable terrain allow it to be used by both commercial and military aircraft; it has a generally north-south orientation.
- **Runway 11/29** is 5,399 feet in length and, because of the mountainous terrain inland of this runway, it is normally used only by smaller general aviation aircraft. It has a generally northwest-southeast orientation.

Air traffic control tower staff estimates that about half of the aircraft activity at Kodiak Airport takes place on Runway 07/25, which has an almost east-west orientation. Of the remaining operations, slightly more take place on the north-south runway, Runway 18/36 (~28%) than on the northwest-southeast trending Runway 11/29 (~22%). Runway 18/36 is the designated "crosswind" runway at Kodiak Airport, meaning that it serves to accommodate aircraft operations when the winds are not favorable for takeoffs or landings on the primary use runway (07/25). This runway is used by commercial service, USCG, and general aviation aircraft. Alaska Airlines estimates that 5% of its landings are conducted on Runway 36 and less than 1% of their operations occur on Runway 18.

In addition to the runway, the airside facilities at Kodiak Airport also consist of taxiways that provide access between the runway surfaces and the landside area. Taxiway "A" provides access from Runway 36 to the USCG apron. Taxiway "B" provides access to and from Runway 18/36. This taxiway is currently in disrepair, and receives limited use by the USCG. Because of these conditions, users often choose to back-taxi on Runway 18/36 when available. Other taxiways included Taxiway "C", "D", "E", and "F" which facilitate movement between runways and various parts of the Airport. The passenger terminal/general aviation apron is located at the west end of the Airport, north of the Runway 07 end. Taxiway "F" provides access to the passenger terminal/general aviation apron near the Runway 07 end. This asphalt-paved apron is designated for heavy aircraft use but also accommodates five Fixed Base Operators. The USCG apron is located west of the Runway 36 end at the head of Womens Bay. Access to the USCG apron is provided via Taxiway "A", which extends from the Runway 36 end.

2.2.2 Aviation Activity

Table 1 shown below lists the past, present, and forecast activity for the Airport.

TABLE 1
PAST, PRESENT, AND FORECAST ACTIVITY AT KODIAK AIRPORT

Year	Total Enplaned Passengers	Air Carrier Operations	Air Taxi & Commuter	General Aviation Itinerant	Civil Local Operations	Military	Total Annual Aircraft Operations
1990	73,951	2,369	16,285	7,514	3,075	8,908	38,151
1995	78,127	1,478	19,666	6,375	4,643	16,096	48,258
2000	67,759	1,542	9,515	2,939	1,942	14,761	30,699
2005	73,727	1,663	15,473	1,422	1,422	13,413	33,393
2010	78,403	1,434	18,906	1,785	1,125	11,513	34,763
2011	82,875	1,582	20,408	2,307	1,242	11,710	37,249
Forecast							
2012	80,532	1,370	19,038	2,128	827	10,693	34,056
2013	81,404	1,383	19,144	2,103	607	10,693	33,930
2014	82,284	1,396	19,250	2,099	608	10,693	34,046
2015	83,174	1,409	19,357	2,095	609	10,693	34,163
2020	87,773	1,474	19,899	2,075	614	10,693	34,755
2025	92,624	1,539	20,456	2,055	624	10,693	35,367
2030	97,745	1,608	21,029	2,035	634	10,693	35,999
2035	103,158	1,678	21,617	2,015	644	10,693	36,647
2040	108,874	1,753	22,224	1,995	654	10,693	37,319

Source: FAA Terminal Area Forecast (downloaded 6-4-2013); https://aspm.faa.gov/main/taf.asp

3.0 Purpose and Need

The CEQ Regulations require that an EIS specify the underlying purpose and need to which an agency is responding in proposing actions and alternatives (40 C.F.R. § 1502.13).

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."[4] 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). Those standards are contained in the FAA Advisory Circular 150/5300-13. The next three paragraphs describe the extent of RSA shortcomings on two of the runways at Kodiak Airport.

The minimum size for a particular RSA (known as the Design Standard) can vary depending on the type of aircraft expected to use the runway and, generally speaking, the largest and heaviest aircraft regularly operating on a runway dictates the RSA size. The FAA reviewed current and recent aircraft operational data for the Kodiak Airport and identified the Boeing 737-400 (which is operated by Alaska Airlines) as the "Design Aircraft" for Runways 07/25 and 18/36. The Boeing 737-400 falls within the wingspan category of Group III and approach category of C.[5]

The RSA design standard for this classification of aircraft at the runway ends is 600 feet of undershoot protection and 1,000 feet of overrun protection, with 250 feet of protection along each side of the runway centerline or 500-feet wide. Because the design aircraft could land and takeoff on either runway end, the RSA dimension for each of these runways can more simply be described as a 500-foot wide rectangular area centered upon the runway and extending 1,000 feet beyond each runway end.

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 2**, 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.

The purpose of this Project is to improve the RSAs for these runways to meet the FAA's standards to the extent practicable, and to do so by the statutory deadline. **Figure 2** depicts the existing airport layout and the dimensional criteria standards.

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

[5] All of the B737-series aircraft using or potentially using Kodiak Airport, such as the B737-200 or newer -700/800/900, fall within the same design categories and would require the same RSA dimensions.

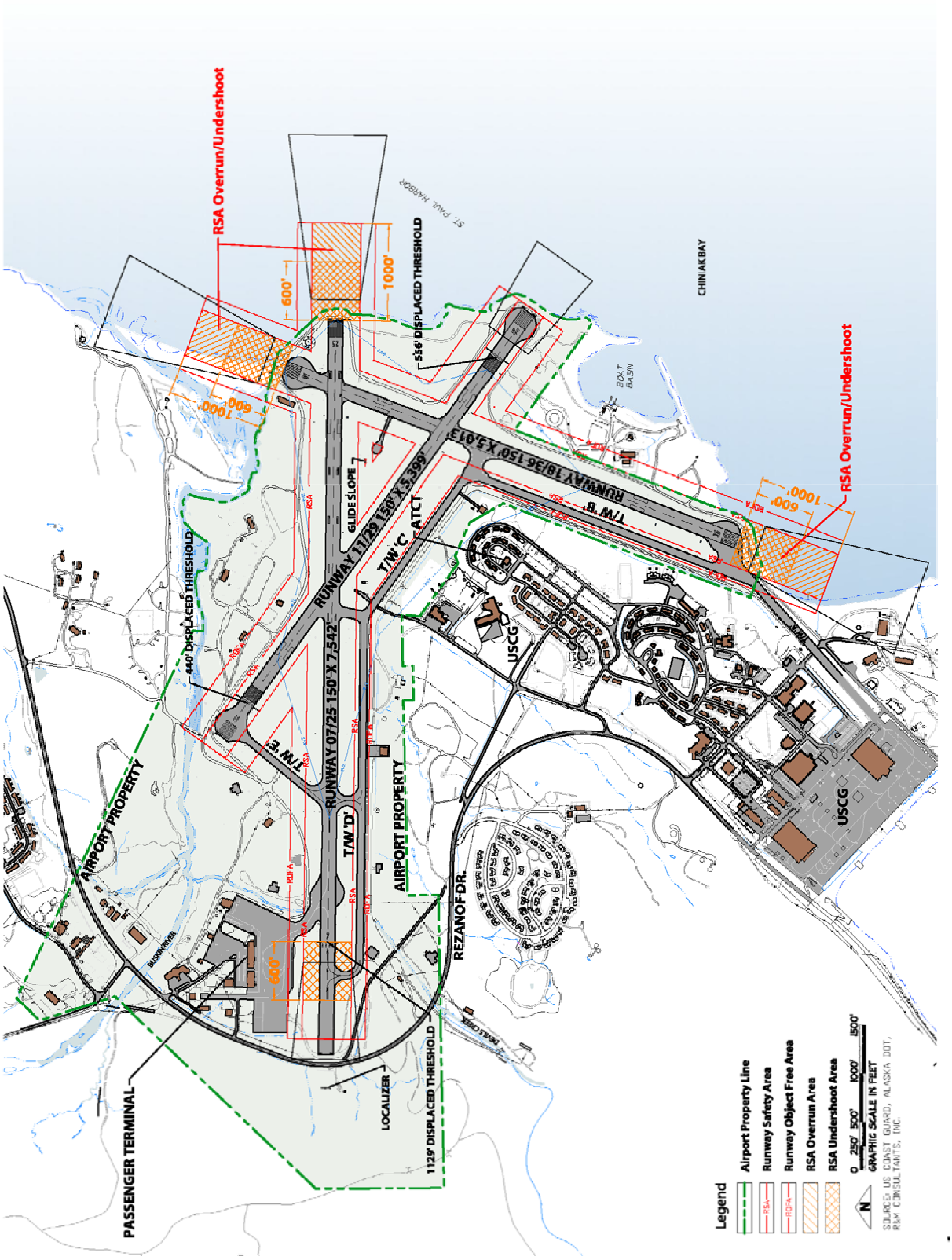

FIGURE 2 – EXISTING AIRPORT DIMENSIONAL CRITERIA

4.0 Alternatives

The CEQ Regulations (40 C.F.R. § 1502.14) require an evaluation of alternatives to satisfy the Project's purpose and need. 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 FEIS Chapter 2). The FAA identified reasonable alternatives for the need identified in Section 3.0 of this ROD. The ADOT&PF and state and federal agencies helped refine these alternatives through feedback obtained during meetings and in response to document reviews.

The FEIS 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 3 illustrates the alternatives and **Table 2** provides a summary of their characteristics.

TABLE 2
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: FEIS Table 2-2.

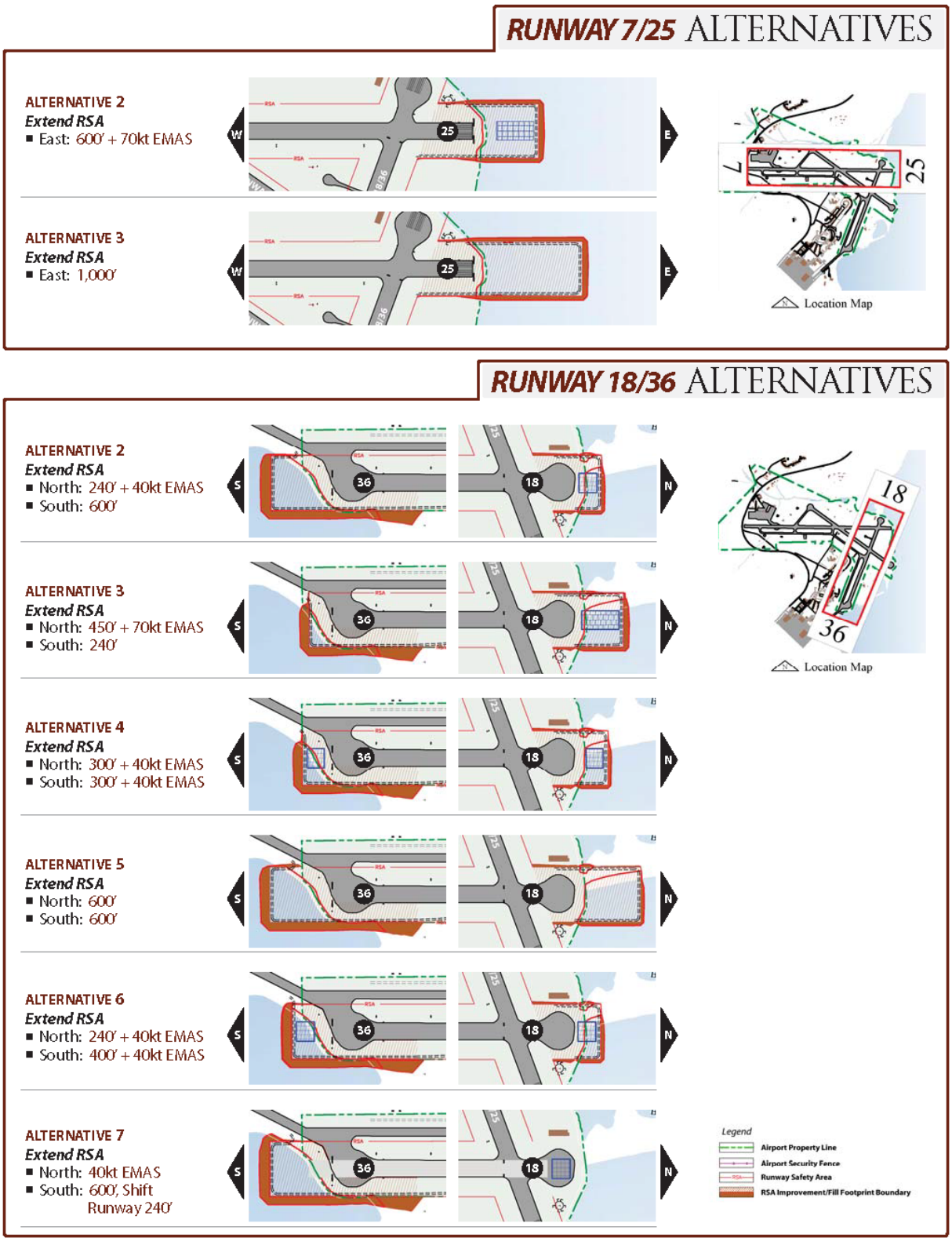

FIGURE 3 – RUNWAY SAFETY AREA (RSA) IMPROVEMENT BUILD ALTERNATIVES

Tables 3A and 3B included in Section 5.0 of this ROD summarize the environmental impacts associated with the RSA 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. As discussed in Section 7.0 of this ROD, the FAA's Selected Alternatives meet the purpose and need while taking all practicable measures to minimize potential adverse environmental effects.

4.1 Runway 07/25 Alternatives

The following sections briefly describe each alternative for Runway 07/25.

Runway 07/25 RSA Alternative 1: No Action: The No Action Alternative would retain the Runway 07/25 RSAs in their current non-standard dimensions with no RSA improvements. Overrun and undershoot protection for Runway end 25 would remain at 0 feet, overrun protection for Runway end 07 would remain at 0 feet, and undershoot protection for Runway end 07 would remain at 1,129 feet. Because no additional safety area would be constructed, this alternative would provide no safety benefit. The lack of RSA-related construction means there would be no adverse environmental impacts. Analysis of the No Action Alternative is required by the CEQ Regulations (40 C.F.R. § 1502.14).

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 2 would improve the RSA at the east end of the runway through an extension into St. Paul Harbor to the east and the use of EMAS. Fill would be placed off Runway end 25 to create a landmass 600 feet long by 500 feet wide. The Airport's existing runway length of 7,542 feet would be maintained. The Runway end 25 EMAS bed would 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 would be based upon final design). The site design would also include sufficient area around the perimeter of the EMAS bed footprint to allow emergency vehicle access. The Runway 25 REILs may need to be relocated to accommodate the installation of the EMAS bed.

The EMAS would provide a 70-knot stopping capability on Runway end 25 for the runway's design aircraft. The existing RSA would be improved for aircraft overruns on Runway end 25 (i.e. for takeoffs to the east), the primary operational flow of the 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 would also meet FAA standards for undershoots by providing 600 feet of RSA.

The cost of this alternative is estimated to be $22 million. The runway's existing takeoff and landing distances would be maintained for each runway use configuration, and the specified declared distances would be the same as those currently in place at Kodiak Airport.

Approximately 256,932 cubic yards of fill would be required to construct the new landmass needed to support the EMAS. The primary environmental impacts related to Runway 07/25 Alternative 2 would be associated with the loss of marine habitat from the placement of this fill to construct a 600-foot landmass expansion on Runway end 25.

Runway 07/25 Alternative 3 – Extend Runway 25 RSA landmass by 1,000 feet: This alternative would improve the RSA for overruns during takeoff and undershoot during landings for Runway end 25. Fill would be placed beyond Runway end 25 to the east to create a landmass 1,000 feet long by 500 feet wide.

The existing runway length of 7,542 feet would be maintained in its current configuration. This alternative would meet FAA standards for RSA for Runway end 25 by providing 1,000 feet of overrun protection for takeoffs to the east and undershoot protection (400 feet more than the 600-foot standard) for landings from the east. The cost of this alternative is estimated to be $20 million.

Approximately 455,158 cubic yards of fill would be required to construct the new runway extension and RSA. The primary environmental impacts related to Runway 07/25 Alternative 3 would be associated with the loss of marine habitat from the placement of fill to construct a 1,000-foot landmass expansion to Runway end 25.

4.2 Runway 18/36 Alternatives

The following sections briefly describe each alternative for Runway 18/36.

Runway 18/36 Alternative 1 – No Action: The No Action Alternative would retain the Runway 18/36 RSAs at their current non-standard dimensional status with no improvements. Overrun/undershoot protection for Runway end 18 would remain at 0 feet and overrun/undershoot for Runway end 36 would remain at 0 feet. No changes in landing or takeoff positions would occur with the No Action Alternative, reflecting no changes in airport efficiency. The lack of RSA-related construction means there would be no new environmental impacts or socioeconomic impacts. No enhancements in airfield safety would occur under the No Action Alternative. Analysis of a No Action Alternative is required by the CEQ Regulations (40 C.F.R. § 1502.14).

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 2 would improve the RSA at the south end of the runway through a 600-foot extension south into St. Paul Harbor and would improve the RSA at the north end of the runway through a 240-foot extension into St. Paul Harbor and the use of EMAS. The existing runway length of 5,013 feet would be maintained. The Runway end 18 EMAS bed would be approximately 170 feet wide and 155 feet long, installed on pavement with a minimum setback of 35 feet from the runway threshold (final setback would be based upon final design). The site design would also include sufficient area around the perimeter of the EMAS bed footprint to allow emergency vehicle access.

The EMAS would provide a 40-knot stopping capability on Runway end 18 for the runway's design aircraft. The existing RSA would be improved for aircraft overruns on Runway end 18 (i.e. for takeoffs to the north and landings from the south), the primary operational flow of the runway for departures. The expanded landmass on Runway end 18 would also improve the RSA undershoot dimension for landings from the north by 240 feet. This is an increase from the existing 0 feet but still 360 feet less than FAA standards. This alternative would provide a 600-foot RSA improvement beyond Runway end 36; therefore providing overrun for takeoffs and landings to the south and meeting FAA standards for undershoot protection for landings from the south.

The cost of this alternative is estimated to be $27 million. The runway's existing takeoff and landing distances would be maintained for each runway use configuration.

Approximately 517,354 cubic yards of fill would be required to construct the new landmasses. The primary environmental impacts related to Runway 18/36 Alternative 2 would be associated with the loss of marine habitat from the placement of this fill. This alternative would place the majority of fill to the south with a smaller fill footprint toward the Buskin River at the north end of the runway.

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 3 would improve the RSA at the south end of the runway through a 240-foot extension into St. Paul Harbor and would improve the RSA at the north end of the runway through a 450-foot extension into St. Paul Harbor and the use of EMAS. The existing runway length of 5,013 feet would be maintained. The Runway end 18 EMAS bed would 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 would be based upon final design). The site design would also include sufficient area around the perimeter of the EMAS bed footprint to allow emergency vehicle access.

The EMAS would provide a 70-knot stopping capability on Runway end 18 for the runway's design aircraft. The existing RSA would be improved for aircraft overruns on Runway end 18 (i.e. for takeoffs to the north and landings from the south), the primary operational flow of the runway, providing an equivalent level of safety for aircraft overruns as that offered by a traditional graded 1,000-foot RSA and meeting FAA standard for overrun protection. The expanded landmass on Runway end 18 would also improve the RSA undershoot dimension by 450 feet for landings from the north. This is more than the existing 0 feet but still 150 less than FAA standards for landings from the north. This alternative would provide 240 feet of RSA improvement beyond Runway end 36; providing the minimum protection for landings from the south or overrun for takeoffs to the south.

The cost of this alternative is estimated to be $24 million. The runway's existing takeoff and landing distances would be maintained for each runway use configuration.

Approximately 289,049 cubic yards of fill would be required to construct the new landmass needed to support the EMAS. The primary environmental impacts related the alternative would be associated with the loss of marine habitat from the placement of fill. This alternative would place a greater amount of fill to the north (toward the Buskin River) than to the south of the runway.

Runway 18/36 Alternative 4 – Extend RSA to north and south by 300 feet and install 40-kt EMAS (both ends): This alternative would improve the RSA at each end of Runway 18/36 through extensions of the landmasses at both ends of the runway into St. Paul Harbor. Fill would be placed beyond both the north and south ends of the runway to create two landmasses 300 feet long by 500 feet wide at each runway end for a total of 600 additional feet. An EMAS bed approximately 170 feet wide and 155 feet long would be placed beyond each runway end, installed on pavement with a minimum setback of 35 feet from the runway threshold (final setback would be based upon final design). The site design would also include sufficient area around the perimeter of the EMAS bed footprint to allow emergency vehicle access. The EMAS beds would provide a 40-knot stopping capability on both runway ends for the runway's design aircraft.

The existing runway pavement length of 5,013 feet would remain unchanged and the runway end thresholds would remain in their current locations. 300 feet of undershoot protection would be provided on each runway end. The cost of this alternative is estimated to be $24 million.

Approximately 286,248 cubic yards of fill would be required to construct the new 300-foot landmass added to each runway end. The primary environmental impacts related the alternative would be associated with the loss of marine habitat from the placement of fill. Fill to the north (toward the Buskin River) and south would be balanced.

***Runway 18/36 Alternative 5 – Extend RSA to north and south by 600 feet*:** This alternative would improve the RSA at each end of Runway 18/36 through extensions of the landmasses at both ends of the runway into St. Paul Harbor. Fill would be placed off both the north and south ends of the runway to create two landmasses 600 feet long by 500 feet wide beyond each runway end for a total of 1,200 additional feet.

The existing runway pavement length of 5,013 feet would remain unchanged and the runway end thresholds would remain in their current locations. 600 feet of overrun and undershoot protection would be provided on each runway end. This alternative would meet FAA standards for RSA undershoot protection but would be 400 feet less than the FAA standard 1,000 feet for overrun protection. The cost of this alternative is estimated to be about $27 million.

Approximately 630,235 cubic yards of fill would be required to construct the new 600-foot landmasses added to each runway end. The primary environmental impacts related to Runway 18/36 Alternative 5 would be associated with the loss of marine habitat from the placement of fill. This alternative would place the greatest amount of fill to the north toward the Buskin River.

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 6 would improve the RSA at the north end of the runway through a 240-foot extension into St. Paul Harbor and the use of EMAS. This alternative would also improve the RSA at the south end of the runway through a 400-foot extension into St. Paul Harbor and the use of EMAS. The existing runway length of 5,013 feet would be maintained. An EMAS bed approximately 170 feet wide and 155 feet long would be placed beyond each runway end, installed on pavement with a minimum setback of 35 feet from the runway threshold (final setback would be based upon final design). The site design would also include sufficient area around the perimeter of the EMAS bed footprint to allow emergency vehicle access. The EMAS beds would provide a 40-knot stopping capability on Runway end 18 for the runway's design aircraft.

The existing RSA would be improved for aircraft overruns on Runway end 18 (i.e. for takeoffs to the north and landings from the south), the primary operational flow of the runway for departures. The expanded landmass on Runway end 18 would also improve the RSA undershoot dimension by 240 feet for landings from the north. This is more than the existing 0 feet but 360 feet less than the FAA's standard requirement. This alternative would provide a 400-foot RSA improvement beyond Runway end 36; thereby providing improvement to undershoot protection for landings from the south and overrun for takeoffs and landings to the south.

The cost of this alternative is estimated to be $26 million. The runway's existing takeoff and landing distances would be maintained for each runway use configuration.

Approximately 347,625 cubic yards of fill would be required to construct the new landmasses. The primary environmental impacts related to this alternative would be associated with the loss of marine habitat from the placement of fill.

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): Runway 18/36 Alternative 7 would 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. An EMAS bed approximately 170 feet wide and 155 feet long would be placed beyond Runway end 18 (north), installed on pavement with a minimum setback of 35 feet from the runway threshold (final setback would be based upon final design). The EMAS bed would provide a 40-knot stopping capability on Runway end 18 for the runway's design aircraft. This alternative includes the relocation of the Runway 36 REILs and replacing the Runway 36 VASIs with PAPIs.

The existing runway length of 5,013 feet would not change but the runway end thresholds would be shifted 240 feet south of their current locations. This alternative would provide 360 feet of undershoot protection for landings from the south to Runway end 36 and 240 feet of undershoot protection for landings from the north to Runway end 18. This alternative would provide 40-knot stopping capability for overruns beyond Runway end 18 and would be provide 360 feet of overrun protection for landings and takeoffs to the south. The cost of this alternative is estimated to be $27 million.

Approximately 462,081 cubic yards of fill would be required to construct the new 600-foot landmass extension to the south beyond Runway end 36, shift the runway 240 feet, and install a 40-knot EMAS beyond the north end of the runway. The primary environmental impacts related the alternative would be associated with the loss of marine habitat from the placement of fill. This alternative is the only one that would not place any fill north of the runway toward the Buskin River.

5.0 Environmental Impacts

The primary effects of the Project associated with the Selected Alternatives are described in the following sections. Each of the resource categories described below includes a discussion of the major areas of concern and an overview of the environmental consequences that could result from construction and operation of the Project. Generally, the combined impacts of the Selected Alternatives are additive. The potential environmental impacts for all environmental resource categories evaluated for the entire range of alternatives is summarized in **Tables 3A and 3B** at the end of this section.

5.1 Wetlands and Other Waters of the U.S.

The Buskin River will not be directly affected by the Project, but the Project will directly impact the marine waters of St. Paul Harbor, as well as one small wetland. These waters of the U.S. are protected by one or more regulations under the federal Clean Water Act or the Rivers and Harbors Act.

Runway 07/25 Alternative 2 will fill marine waters of St. Paul Harbor, but have no effect on wetlands. It will have less direct impact on marine waters than the other Runway 07/25 Alternative; however, because of the magnitude of tidal waters lost and the adverse, indirect affect to the maintenance of natural systems that support fish habitat, the Runway 07/25 Alternative 2 will have a significant impact on waters of the U.S.

Runway 18/36 Alternative 7 will fill a small depressional palustrine wetland in the Airport infield. The consequences of this loss will be minor because the wetland is so small that the amount of ecological function it can provide is limited. Additionally, Runway 18/36 Alternative 7 will directly affect the marine waters of St. Paul Harbor through the placement of fill. Fill placed off of Runway end 36 into St. Paul Harbor will have a direct, adverse effect on both subtidal and intertidal marine waters.

5.2 Fish and Invertebrates

The Project will require placing fill in marine waters and 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 significantly change the distribution of the Buskin River freshwater plume, resulting in significant impacts. However, this alternative will minimize those impacts as compared to the other Runway 07/25 Build Alternative that has a larger fill footprint. Runway 07/25 Alternative 2 will change the substrate, gradient, and freshwater influence of existing habitats, resulting in major impacts to Buskin River salmonids.

At the landscape scale, Runway 07/25 Alternative 2 will have major impacts to sockeye salmon and Dolly Varden because the Buskin River basin is an essential and unique habitat for those populations, and the habitat loss will also affect one of the food sources for sockeye salmon, Pacific sand lance. However, these effects will be smaller than those of Runway 07/25 Alternative 3 due to the smaller fill footprint. Effects to other salmonids at the landscape scale will be minor because other Chiniak Bay stream basins produce populations of these species that contribute to the overall salmonid population in the Bay.

Runway 18/36 Alternative 7, which places fill on Runway end 36, will also affect aquatic species and functions, but to a lesser degree than fill to the north because the existing habitat is less unique and diverse. Moderate long term changes to physical processes and habitat functions will be anticipated from alternatives involving fill to the south beyond Runway end 36. Overall, Runway 18/36 Alternative 7 will have the least (moderate level) impacts because it will avoid filling toward the Buskin River and no fill will occur in areas of freshwater influence.

The Project is located in areas designated as Essential Fish Habitat (EFH) for Pacific salmon, various groundfish, and forage fish species. The Project 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.

The FAA has entered into a Cooperating Agency Agreement with the NMFS that includes consultation with NMFS and other agencies to assist in the determination of effects to fish, invertebrates, and other marine species under their jurisdiction. Additionally, the FAA consulted with other Federal and state agencies, including the USFWS and the ADF&G, to assist in the review of the analysis presented in the FEIS. The NMFS provided concurrence (see **Appendix A** of this ROD) on the Essential Fish Habitat Assessment.

5.3 Waterbirds

Five special-status waterbird species will be affected by improvement of RSAs. The Steller's Eider is a federally-listed threatened species, as well as an Alaska species of concern that is included on the Audubon Nationwide Watchlist. The four other species, including Black Oystercatcher, Emperor Goose, Pelagic Cormorant, and Marbled Murrelet, are all considered "Sensitive" species due to their inclusion on an Audubon Nationwide or Alaska Watchlist, or listing as a Bird of Conservation Concern Priority Species. This sensitive status is not a federal designation.

The direct, adverse impacts of the Project on waterbird species will include the permanent alteration and, in some cases, loss of habitats along with temporary displacement of waterbirds as a result of human presence and noise associated with Project construction activities. The loss of foraging habitat may have a minor impact on individual waterbirds, but will not affect the stability of any waterbird populations in the Project Area due to the large amount of available suitable habitat within Chiniak Bay. Waterbirds most affected by the Project will include divers, dabblers, gulls, terns, shorebirds, and some alcids that predominately use sandy intertidal habitats.

No significant impacts on waterbirds will result from the Project. The USFWS has provided a letter of concurrence (see **Appendix A** of this ROD) on the Biological Assessment.

5.4 Marine Mammals

Marine mammal habitat includes the intertidal and subtidal waters (collectively called nearshore waters) in the Project Area. The direct effects of the Project on marine mammals and their habitat will include the permanent removal and alteration of nearshore waters due to the placement of fill in these areas. Direct impacts will also include temporary displacement of some individuals from the Project Area as a result of human presence and noise associated with Project construction activities. The removal of designated critical habitat for the Northern sea otter will displace individual otters currently using the Project Area, but these individuals are expected to be able to utilize alternate areas in the vicinity and the displacement is not expected to affect their survival or reproduction. The number of displaced individuals is small relative to the population as a whole; therefore population level impacts are not expected. The loss of foraging habitat may have a minor impact on other individual marine mammals, but will not affect the stability of any other marine mammal populations in the Project Area.

The Project will have adverse effects on marine mammals in the short term due to construction activities and the placement of fill material. Over the long term, the increase of armor rock habitat, which will be similar in structure to the naturally occurring rocky shore habitat, could benefit marine mammals that use rocky shore habitats since it expected that the area will be colonized by benthic food resources or kelp.

The marine mammal habitat impacts are based on field-verified elevation data and represent the best scientifically available estimate for actual impacts to critical habitat. Runway 07/25 Alternative 2 will result in the least amount of Northern sea otter (11.0 acres or 3.5% of critical habitat in the Project Area) and Steller sea lion (9.7 acres or 3.0% of critical habitat in the Project Area) critical habitat removal. Runway 18/36 Alternative 7 will result in 8.4 acres (2.7% of critical habitat in the Project Area) of Northern sea otter and 7.6 (2.4% of critical habitat in the Project Area) of Steller sea lion critical habitat removal. The critical habitat unit within the Project Area is 310.9 acres for the sea otter and 319 acres for the Steller sea lion. Because of the small amount of area lost compared to total habitat available, regardless of which alternatives are chosen, function and conservation role of the affected critical habitat unit will not be adversely affected.

The FAA initiated ongoing informal consultation with the USFWS and NMFS for Kodiak Airport. A Biological Assessment for all federally-listed species potentially impacted by the Project (including the Steller's Eider, Northern sea otter, and Steller sea lion) has determined that there will not be significant adverse project-related impacts to any federally listed species or their designated critical habitat. Through consultation with the USFWS and NMFS, they have provided concurrence (see **Appendix A** of this ROD) with the Biological Assessment and the FAA's determination of effect.

5.5 Terrestrial Wildlife and Vegetation

Vegetation. Runway 07/25 Alternative 2 will affect about 3.2 acres, or less than 1% of the total vegetated cover in the Project Area. Of the six Runway 18/36 Build Alternatives, Alternative 7 will affect the smallest vegetated area, about 3.7 acres. The Project will result in a loss of about 2% of vegetated cover in the Project Area.

No significant impacts on vegetated cover types in the Project Area are expected. No federally listed threatened or endangered plants will be affected. Occupied and potential habitat for non-listed sensitive plants including sessileleaf scurvygrass, Oriental popcornflower, and Alaska mistmaiden are known to occur in the Project Area and the Landscape Area. The adverse impacts of project implementation on the overall productivity and population sustainability of non-listed sensitive plant species and vegetation types in the Landscape Area will be small and not significant.

Upland Wildlife. There are no federally listed threatened or endangered upland wildlife species known to occur in the Project Area or Landscape Area. The direct, adverse impacts of each of the Project on general, high-interest, and non-listed sensitive upland wildlife species will include the permanent removal or alteration of habitat. Direct impacts will also include temporary displacement of some wildlife individuals from the Project Area as a result of human presence and noise during construction. The loss of foraging habitat and breeding grounds may have a minor impact on some wildlife individuals, but will not affect the population sustainability of any wildlife species occurring in the Project Area.

Several wildlife species with potential to occur in the Project Area are considered high-interest species due to their popularity as watchable wildlife, controversy involving their management, their value as game or subsistence-use species, or their safety hazard to aircraft on approach or takeoff. High-interest species were identified during public and agency scoping and consist of the Kodiak brown bear, Sitka black-tailed deer, Bald Eagle, Arctic ground squirrel, American beaver, and snowshoe hare. Individuals of these species may be disturbed by construction activities, but these impacts will be temporary. There will be no substantive, long-term adverse impacts to high-interest species habitats resulting from project implementation. Effects on population dynamics or sustainability for Sitka black-tailed deer, Arctic ground squirrel, American beaver, and snowshoe hare will be minor and not significant. Adverse indirect impacts

to Kodiak brown bear and Bald Eagles are likely, but effects on population dynamics or sustainability will be less than significant.

Indirect impacts to the Kodiak brown bear are anticipated due to the likely reduction in salmon runs from the Project. The Selected Alternatives will have the least indirect effect on Kodiak brown bear.

Indirect effect on Bald Eagles could result from impacts to salmon runs upon which the Bald Eagle forages. However, given that Bald Eagles are highly mobile and able to use a variety of food resources within the Landscape Area, impacts to this high-interest species will be less than significant.

5.6 Historical, Architectural, Archaeological, and Cultural Resources

The historical runways at Kodiak Airport, which were identified as a contributing features of the Kodiak Naval Operating Base and Forts Greely and Abercrombie National Historic Landmark when it was established in 1985, will be altered by the installation of EMAS for the Project. The EMAS will introduce a new, non-traditional material to the visual appearance of the runway, and by extension the Landmark. The small amount of EMAS proposed will not constitute a significant visual intrusion on the Landmark, nor will it significantly affect the historical integrity of the runways. As such, the FAA has found that the Project will have *no adverse effect* on any known resources that are eligible for or listed on the National Register. The State Historic Preservation Officer provided a letter of concurrence with this finding in May 2012 (see **Appendix A** of this ROD).

The abundance and availability of subsistence resources that are tied to the cultural practices of the local Alaska Native Tribal community may be significantly affected in the long-term by the Project. The primary effects on subsistence resources will involve salmon, which use the coastal waters near the Airport and which are traditionally harvested from the Buskin River. A significant impact on this salmon fishery will also have an indirect but significant adverse effect on the traditional cultural activities associated with it. The Sun'aq Tribal Council and the Native Village of Afognak have both indicated that because of the very important role salmon plays in the traditional foods, traditional practices of sharing harvest, and the cultural identity associated with subsistence-based self-sufficiency and sharing, any significant reduction in the ability to harvest or the harvest quantity of salmon will have a significant impact on the cultural identity of the local Alaska Native community. Therefore, there may be a long-term, adverse effect on customary and traditional practices of the Sun'aq Tribe of Kodiak, Tangirnaq Native Village, and the Native Village of Afognak, because marine and river resources that are traditionally harvested and subject to sharing, consumption, or other actions as part of cultural custom may be significantly impacted.

5.7 Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

Due to the significant impact on fisheries of the Buskin River (particularly for subsistence species such as sockeye, coho and pink salmon), there may be a socioeconomic impact on Kodiak residents who use subsistence resources (over 99% of the population) from the Project. Because almost all residents in Kodiak use subsistence resources, the impact may affect nearly the entire population. However, because subsistence resources affect take home resources for food, the reduction in subsistence resources per capita will likely be felt to a larger extent by low income populations because higher income populations could generally 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 Tribe of Kodiak, Tangirnaq Native Village, and the Native Village of Afognak, there may be a disproportionately high and

adverse effect on customary and traditional practices and the cultural identity of those minority populations resulting from the Project.

No significant adverse impacts are expected to occur to populations of children and no adverse impacts to the health and safety of children are expected. Economic impacts of the project alternatives will include short-term positive direct and indirect impacts from construction due to jobs and expenditures.

5.8 Subsistence

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.

Following the release of the Draft Environmental Impact Statement (DEIS), the FAA received comments regarding the application of Section 810 of ANILCA. Although the FAA does not concede that an ANILCA Section 810 subsistence evaluation is legally required for this Project, following the release of the DEIS, the FAA prepared a full subsistence evaluation that is consistent with Section 810.

5.9 Department of Transportation Act Section 4(f)

The Alaska Maritime National Wildlife Refuge encompasses the submerged lands adjacent to the Airport, including the submerged lands beyond the runway ends. The Alaska Maritime National Wildlife Refuge was established by ANILCA to conserve marine mammals, seabirds, and other migratory birds and the marine resources upon which they rely. A physical use of 17.8 acres of the Alaska Maritime National Wildlife Refuge will occur with the Project.

The DEIS stated that the Selected Alternatives will result in a "constructive use" of the Buskin River State Recreation Site because of anticipated effects on local fish populations. However, after a careful reconsideration of the effects on sport fishing activities in the Buskin River State Recreation Site, and the overall potential impact of those effects in the context of all the activities, features, and attributes of the Buskin River State Recreation Site, the FAA determined that the Selected Alternatives would not result in a constructive use of the Buskin River State Recreation Site and that conclusion was included in the FEIS.

The Kodiak Naval Operating Base and Forts Greely and Abercrombie National Historic Landmark is within the Area of Potential Effect (APE) for this Project. Through coordination conducted during the EIS process, the SHPO has concurred with the FAA's finding of no adverse effect on historic properties by the Project (see **Appendix A** of this ROD).

There are no feasible and prudent alternatives that would avoid the use of Section 4(f) resources resulting from the placement of fill into marine waters within the Alaska Maritime National Wildlife Refuge. The Selected Alternatives, Runway 07/25 Alternative 2 and Runway 18/36 Alternative 7, will result in the least overall harm to Section 4(f) resources when compared to the other Build Alternatives because they will minimize the area of Refuge that will experience an impact near the Buskin River, which is an area of higher relative value within the Project Area due to important habitat associated with the mouth of the Buskin River.

5.10 Construction Impacts

The construction impacts associated with the Project generally correlate to the area of disturbance. The construction impact analysis examined local fill material sources and those outside the immediate area, barge off-loading sites, on-road travel routes, associated surface traffic congestion, and potential noise.

Because of the amount of construction activity necessary for the Project, construction impacts such as short-term effects on water quality, air quality, noise, and traffic congestion are possible. Construction projects have the potential to affect surface transportation traffic near the Airport and along routes used to transport construction materials.

There may also be short-term changes to normal aircraft operations, such as a temporary runway closure to accommodate construction on a runway end. Construction for the Project is expected to take approximately two years, with construction initiating in 2014 and completion scheduled for both runways by 2015.

While air, water, noise, and surface transportation impacts are expected from construction of the Project, they will be temporary and not significant through impact avoidance and minimization and Best Management Practices (see Section 8.0 of this ROD). The temporary, minor construction impacts are not expected to exceed any environmental or regulatory thresholds.

5.11 Cumulative Impacts

The CEQ regulations for implementing NEPA define cumulative effects as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR §1508.7).

Primary cumulative effects of the Selected Alternatives relate to the past, present, and reasonably foreseeable projects that result in additional impacts to the marine resources and subsistence resources.

Past alterations had various effects on marine and freshwater habitats and resources, including:

- Direct loss of intertidal and subtidal marine habitat, eliminating portions of the water column for residence by floral and faunal species.
- Direct loss of intertidal and subtidal soft-bottom habitats in the footprint of built structures, and creation of rocky intertidal and subtidal habitat from the structures themselves (e.g., runway fill and armor rock from existing runway ends).
- Direct loss of marine life (e.g., aquatic vegetation and sessile invertebrate species).
- Direct loss or alteration of freshwater and estuarine habitat.
- Modification of shoreline slope due to increased grade of armor rock embankments, resulting in loss of low-gradient intertidal habitat.
- Degraded connectivity of riparian and supratidal areas to subtidal habitats (resulting in decreased inputs of nutrients and invertebrates into marine waters, as well as decreased nutrient processing).
- Increased stormwater runoff due to decreased permeable surfaces and increased impermeable surfaces.
- Decreased water quality due to stormwater runoff.

Other marine projects may be built within the greater Kodiak area. The projects considered in the cumulative analysis will not be expected to add to potential impacts in the Project Area, but will add to the continued degradation of shoreline habitat in the Landscape Area (Chiniak Bay). Impacts of the Project, when combined with past, present, and reasonably foreseeable projects, will cumulatively degrade the shoreline habitat in the Project Area for fish and invertebrates and further reduce species population and diversity, which also relate to subsistence impacts. On a landscape scale, unaltered shoreline habitat is becoming increasingly limited in the greater Kodiak area and the added reduction in unaltered shoreline habitat from the alternatives will have an adverse cumulative effect on fish and invertebrates and potentially subsistence resources.

TABLE 3A
RUNWAY 07/25 ALTERNATIVES ENVIRONMENTAL IMPACT SUMMARY

Impact Category	Runway 07/25 Alt. 2	Runway 07/25 Alt. 3
Coastal Resources and Navigation	For Alternatives 2-3: CZMA does not apply; Resource specific impacts are detailed in other resource sections.	
Water Quality	For Alternatives 2-3: Increase in impervious surface/stormwater runoff; Moderate changes to sediment transport; moderate decrease in ability of Buskin River mouth to migrate; with BMPs/existing regulations and permits, no significant impacts expected.	
Wetlands and other waters of the U.S.	No fill into wetlands; 9.13 acres fill into marine waters; magnitude of tidal waters loss, adverse indirect effect to maintenance of natural systems supporting fish habitat will result in significant impacts to waters of the U.S.	No fill into wetlands; 15.27 acres fill into marine waters; magnitude of tidal waters loss, adverse indirect affect to maintenance of natural systems supporting fish habitat would result in significant impacts to waters of the U.S.
Floodplains	For Alternatives 2-3: No fill into Buskin River floodplain. No significant impacts.	
Fish and Invertebrates	For Alternatives 2-3: Major loss of juvenile salmonid rearing and foraging habitat; major loss of salmonid prey species habitat; minor increased stormwater runoff; major changes to freshwater plume; moderate changes to sediment transport; moderate decrease in ability of Buskin River mouth to migrate; major potential localized changes to aquatic assemblages. Significant impacts to Fisheries Resources. Effects for Alternative 3 are similar to the long-term impacts described for Runway 07/25 Alt. 2, but the magnitude of adverse impact from Alternative 3 is greater due to increased size of fill footprint.	
Waterbirds	Loss of small percentage of habitat in the Project Area for Steller's Eider (3.4%), Emperor Goose (3.4%), Pelagic Cormorant (2.8%), Black Oystercatcher (3.0%), Marbled Murrelet (2.3%). No significant impacts	Loss of small percentage of habitat in the Project Area for Steller's Eider (5.0%), Emperor Goose (5.0%), Pelagic Cormorant (4.0%), Black Oystercatcher (4.3%), Marbled Murrelet (3.4%). No significant impacts.
Marine Mammals	Loss of small percentage of habitat in Project Area for Marine Mammals (2.9%), N. Sea Otter Critical Habitat (3.5%), and Steller Sea Lion Critical Habitat (3.0%). No significant impacts.	Loss of small percentage of habitat in Project Area for Marine Mammals (4.7%), N. Sea Otter Critical Habitat (5.1%), and Steller Sea Lion Critical Habitat (4.6%). No significant impacts.

TABLE 3A (continued)
RUNWAY 07/25 ALTERNATIVES ENVIRONMENTAL IMPACT SUMMARY

Impact Category	Runway 07/25 Alt. 2	Runway 07/25 Alt. 3
Terrestrial Wildlife and Vegetation	1.2% of the total cover impacted in the Project Area; no federally listed threatened, endangered species in the terrestrial Project Area; indirect effects on Kodiak brown bear from reduced salmon runs. No significant impact on either special status species or non-listed species.	1.6% of the total cover impacted in the Project Area; no federally listed threatened, endangered species in the terrestrial Project Area; indirect effects on Kodiak brown bear from reduced salmon runs. No significant impact on either special status species or non-listed species.
Historical, Architectural, Archaeological, and Cultural Resources	For Alternatives 2-3: No adverse effect on historic properties. There may be long-term, significant adverse effect on customary and traditional practices of the Sun'aq Tribe of Kodiak, Native Village of Afognak, and Tangirnaq Native Village, because marine and river resources that are traditionally harvested and subject to sharing, consumption, or other actions as part of cultural custom may be significantly impacted. Potential impacts would be greater under Alternative 3 than Alternative 2.	
Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks	For Alternatives 2-3: Socioeconomic impact on Kodiak residents who use subsistence resources (over 99% of the population) from a potential reduction in per capita harvest. Because almost all residents in Kodiak tend to use subsistence resources, the impact would affect nearly the entire population; therefore there would not be any disproportionate impact to minority or low- income populations relative to the use of subsistence resources. However, because subsistence resources affect take home resources for food, the reduction in subsistence resources per capita would likely be felt to a larger extent by low income populations because higher income populations could generally 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 Tribe of Kodiak, 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. Potential economic benefit from construction; no effects on children's health or safety. Potential impacts would be less than under Alternative 3 due to greater impact on important habitat near the Buskin River.	

TABLE 3A (continued)
RUNWAY 07/25 ALTERNATIVES ENVIRONMENTAL IMPACT SUMMARY

Impact Category	Runway 07/25 Alt. 2	Runway 07/25 Alt. 3
Subsistence	For Alternatives 2-3: Some loss of immobile subsistence species and temporary displacement of mobile subsistence species during fill placement. Subsistence users would be displaced to other nearby marine areas to gather resources, which would likely increase competition for subsistence resources in those locations. Potential significant long-term impacts to abundance and availability of subsistence resources. Effects on abundance and availability in the affected important freshwater plume habitat because of potential for increased mortality of salmon smolts and, subsequently, returning adult salmonids. Potential impacts would be greater under Alternative 3 than Alternative 2 due to the increased size of fill footprint.	
Noise	For Alternatives 2-3: No change in number of operations, location of operations or the resulting noise contour; no noise sensitive uses in the 65 DNL contour; no effect on Buskin River State Recreation Sites, Alaska Maritime National Wildlife Refuge, or Finny Beach. No significant impacts.	
Compatible Land Use	For Alternatives 2-3: No significant noise impacts; required lease amendment.	
Department of Transportation Section 4(f)	Buskin River State Recreation Site: No physical use or constructive use. Alaska Maritime National Wildlife Refuge: Physical Use of 9.1 acres. National Historic Landmarks: De-minimis impact; no adverse effect on historic properties.	Buskin River State Recreation Site: No physical or constructive use. Alaska Maritime National Wildlife Refuge: Physical Use of 15.3 acres. National Historic Landmark: De-minimis impact; no adverse effect on historic properties.

TABLE 3A (continued)
RUNWAY 07/25 ALTERNATIVES ENVIRONMENTAL IMPACT SUMMARY

Impact Category	Runway 07/25 Alt. 2	Runway 07/25 Alt. 3
Light Emissions and Visual Impacts	For Alternatives 2-3: Moderate short and long-term visual impacts. No significant lighting impacts.	
Hazardous Materials, Pollution Prevention, and Solid Waste	For Alternatives 2-3: No disturbance of known contaminated sites; no substantial waste generated. No significant impacts.	
Farmland	For Alternatives 2-3: No prime or unique farmland impacted.	
Natural Resources and Energy Supply	256,932 cy of fill; small increase in fuel and electric use. No significant impacts.	455,158 cy of fill; small increase in fuel and electric use. No significant impacts.
Air Quality	For Alternatives 2-3: No change in number of aircraft operations; small short-term increases in emissions from construction. No significant impacts.	
Climate	For Alternatives 2-3: No change in number of aircraft operations; small short-term increases in emissions from construction. No significant impacts.	
Wild and Scenic Rivers	For Alternatives 2-3: Project Area does not include any designated wild and scenic rivers, study rivers, or otherwise eligible rivers.	
Construction Impacts	256,932 cy of fill; air, water, noise and surface transportation impacts from construction that will be temporary and not significant due to use of BMPs and avoidance/minimization measures.	462,081 cy of fill; air, water, noise and surface transportation impacts from construction that would be temporary and not significant due to use of BMPs and avoidance/minimization measures.
Secondary (Induced) Impacts	For Alternatives 2-3: No shifts in patterns of population movement or growth; no permanent changes in economic activity; primary effects result from induced effects from significant impacts to fisheries, associated subsistence and cultural practices.	

TABLE 3B

RUNWAY 18/36 ALTERNATIVES ENVIRONMENTAL IMPACT SUMMARY

Impact Category	Runway 18/36 Alt. 2	Runway 18/36 Alt.3	Runway 18/36 Alt.4	Runway 18/36 Alt.5	Runway 18/36 Alt.6	Runway 18/36 Alt.7
Coastal Resources and Navigation	For all Alternatives 2-7 CZMA does not apply; Resource specific impacts are detailed in other resource sections.					
Water Quality	For Alternatives 2-7: Increase in impervious surface/stormwater runoff; with BMPs/existing regulations and permits, no significant impacts expected.					
Wetlands and other waters of the U.S.	Fill into 0.32 acres into wetlands; 10.91 acres fill into marine waters; magnitude of tidal waters loss, adverse indirect affect to maintenance of natural systems supporting fish habitat result in significant impacts to waters of the U.S.	Fill into 0.32 acres into wetlands; 8.24 acres fill into marine waters; magnitude of tidal waters loss, adverse indirect affect to maintenance of natural systems supporting fish habitat result in significant impacts to waters of the U.S.	Fill into 0.32 acres into wetlands; 7.24 acres fill into marine waters; magnitude of tidal waters loss, adverse indirect affect to maintenance of natural systems supporting fish habitat result in significant impacts to waters of the U.S.	Fill into 0.32 acres into wetlands; 15.27 acres fill into marine waters; magnitude of tidal waters loss, adverse indirect affect to maintenance of natural systems supporting fish habitat result in significant impacts to waters of the U.S.	Fill into 0.32 acres into wetlands; 7.97 acres fill into marine waters; magnitude of tidal waters loss, adverse indirect affect to maintenance of natural systems supporting fish habitat result in significant impacts to waters of the U.S.	Fill into 0.11 acres into wetlands; 8.68 acres fill into marine waters; magnitude of tidal waters loss, adverse indirect affect to maintenance of natural systems supporting fish habitat result in significant impacts to waters of the U.S.
Floodplains	For all Alternatives 2-6 Small amount of fill into Buskin River 100-year floodplain; would not result in a considerable probability of loss of human life, likely future damage associated with the encroachment that could be substantial in cost or extent, or a notable adverse impact on the floodplain's natural and beneficial floodplain values. No significant impacts					No fill into Buskin River floodplain. No significant impacts

TABLE 3B (continued)

RUNWAY 18/36 ALTERNATIVES ENVIRONMENTAL IMPACT SUMMARY

Impact Category	Runway 18/36 Alt. 2	Runway 18/36 Alt.3	Runway 18/36 Alt.4	Runway 18/36 Alt.5	Runway 18/36 Alt.6	Runway 18/36 Alt.7
Fish and Invertebrates	For all Alternatives 2-6 Major loss of juvenile salmonid rearing and foraging habitat; major loss of salmonid prey species habitat; minor increased stormwater runoff; major changes to freshwater plume; moderate changes to sediment transport; moderate decrease in ability of Buskin River mouth to migrate; major potential localized changes to aquatic assemblages. Significant impacts to Fisheries Resources. Effects would be similar for Alts 2-6, but greater for those alternatives with higher footprints placed on freshwater-influenced habitats near the Buskin River.					Moderate loss of juvenile salmonid rearing and foraging habitat; moderate loss of salmonid prey species habitat; minor increased stormwater runoff; negligible changes to freshwater plume; negligible changes to sediment transport; negligible decreased ability of Buskin River mouth to migrate; moderate potential localized changes to aquatic assemblages. No Significant Impacts to Fisheries Resources.
Waterbirds	Loss of small percentage of habitat in the Project Area for Steller's Eider, Emperor Goose, Pelagic Cormorant, Black Oystercatcher, Marbled Murrelet (1.8-5.0%). No significant impacts.					

TABLE 3B (continued)
RUNWAY 18/36 ALTERNATIVES ENVIRONMENTAL IMPACT SUMMARY

Impact Category	Runway 18/36 Alt. 2	Runway 18/36 Alt.3	Runway 18/36 Alt.4	Runway 18/36 Alt.5	Runway 18/36 Alt.6	Runway 18/36 Alt.7
Marine Mammals	Loss of small amount of marine mammal habitat; N. Sea Otter Critical Habitat and Steller Sea Lion Critical Habitat (1.7-4.8%); no significant impacts due to small amount of area lost compared to total habitat, no significant impact on function or conservation role of affected critical habitat.					
Terrestrial Wildlife and Vegetation	Loss of small percentage of the total cover impacted in the Project Area; no federally listed threatened, endangered species in the terrestrial Project Area; indirect effects on Kodiak brown bear from reduced salmon runs. No significant impact on either special status species or non-listed species.					Loss of small percentage of total cover impacted in the Project Area; no federally listed threatened, endangered species in the terrestrial Project Area; no effects on Kodiak brown bear due to avoidance of fill toward the Buskin River. No significant impact on either special status species or non-listed species.
Historical, Architectural, Archaeological, and Cultural Resources	For all Alternatives 2-6 No adverse effect on historic properties. There may be long-term, significant adverse effect on customary and traditional practices of the Sun'aq Tribe of Kodiak, Native Village of Afognak, and Tangirnag Native Village, because marine and river resources that are traditionally harvested and subject to sharing, consumption, or other actions as part of cultural custom may be significantly impacted. Effects would be similar for Alts 2-6, but magnitude of effect differs slightly between alternatives based on extent of fill.					No adverse effect on historic properties. Short-term minor adverse effect on cultural customary and traditional subsistence practices and related cultural practices and identity of the Sun'aq Tribe of Kodiak, Tangirnaq Native Village, and the Native Village of Afognak.

TABLE 3B (continued)

RUNWAY 18/36 ALTERNATIVES ENVIRONMENTAL IMPACT SUMMARY

Impact Category	Runway 18/36 Alt. 2	Runway 18/36 Alt.3	Runway 18/36 Alt.4	Runway 18/36 Alt.5	Runway 18/36 Alt.6	Runway 18/36 Alt.7
Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks	Socioeconomic impact on Kodiak residents who use subsistence resources (over 99% of the population) from a potential reduction in per capita harvest. Because almost all residents in Kodiak tend to use subsistence resources, the impact would affect nearly the entire population; therefore there would not be any disproportionate impact to any just one section of minority or low- income population relative to the use of subsistence resources. However, because subsistence resources affect take home resources for food, the reduction in subsistence resources per capita would likely be felt to a larger extent by low income populations because higher income populations could generally 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. Potential economic benefit from construction; no effects on children's health or safety.					Impacts described for Alts 2-6 will not occur with Alt. 7, because it avoids fill into the Buskin River area, therefore avoiding the potentially significant subsistence impacts; Potential economic benefit from construction; no effects on children's health or safety.
Subsistence	For all Alternatives 2-6 Some loss of immobile subsistence species and temporary displacement of mobile subsistence species during fill placement. Subsistence users would be displaced to other nearby marine areas to gather resources, which would likely increase competition for subsistence resources in those locations. Potential significant long-term impacts to abundance and availability of subsistence resources. Effects on abundance and availability in the affected important freshwater plume habitat because of potential for increased mortality of salmon smolts and, subsequently, returning adult salmonids. Effects would be similar for Alts 2-6, but greater for those alternatives with higher footprints placed on freshwater-influenced habitats near the Buskin River.					No Significant Impacts due to lower use of area south of Runway end 36 by subsistence users and lower relative importance of habitats in this area relative to subsistence species. Placement of fill at Runway end 36 will displace habitat for subsistence resources, such as halibut and crab.

TABLE 3B (continued)

SUMMARY RUNWAY 18/36 ALTERNATIVES ENVIRONMENTAL IMPACTS

Impact Category	Runway 18/36 Alt. 2	Runway 18/36 Alt.3	Runway 18/36 Alt.4	Runway 18/36 Alt.5	Runway 18/36 Alt.6	Runway 18/36 Alt.7
Noise	For all Alternatives 2-6: No change in number of operations, location of operations or the resulting noise contour; no noise sensitive uses in the 65 DNL contour; no effect on Buskin River State Recreation Sites, Alaska Maritime National Wildlife Refuge, or Finny Beach. No significant impacts.					Slight shift in runway threshold; no noise sensitive uses in the 65 DNL contour.
Compatible Land Use	For all Alternatives 2-6: No significant noise impacts; required lease amendment.					No significant noise impacts; required lease amendment; required modification to avigation easements.
DOT Act Section 4(f)	Buskin River State Recreation Site: No physical or constructive use. Alaska Maritime National Wildlife Refuge: Physical Use of between 7.2 and 15.3 acres of land. National Historic Landmark: De-minimis impact; no adverse effect on historic properties.					Buskin River State Recreation Site : No use Alaska Maritime National Wildlife Refuge: Physical Use of 8.7 acres. National Historic Landmark: De-minimis impact; no adverse effect on historic properties.

TABLE 3B (continued)

RUNWAY 18/36 ALTERNATIVES ENVIRONMENTAL IMPACT SUMMARY

Impact Category	Runway 18/36 Alt. 2	Runway 18/36 Alt.3	Runway 18/36 Alt.4	Runway 18/36 Alt.5	Runway 18/36 Alt.6	Runway 18/36 Alt.7
Light Emissions and Visual Impacts	For all Alternatives 2-7: Major short-term visual impacts; minor long-term visual impacts; no significant lighting impacts.					
Hazardous Materials, Pollution Prevention, and Solid Waste	For all Alternatives 2-7: No disturbance of known contaminated sites that have not been cleaned up; no substantial waste generated; no significant impacts.					
Farmland	For all Alternatives 2-7: No prime or unique farmland impacted.					
Natural Resources and Energy Supply	517,354 cy of fill; small increase in fuel and electric use; no significant impacts.	289,049 cy of fill; small increase in fuel and electric use; no significant impacts.	286,248 cy of fill; small increase in fuel and electric use; no significant impacts.	630,235 cy of fill; small increase in fuel and electric use; no significant impacts.	347,625 cy of fill; small increase in fuel and electric use; no significant impacts.	462,081 cy of fill; small increase in fuel and electric use; no significant impacts.
Air Quality	For all Alternatives 2-7: No change in number of aircraft operations; small short-term increases in emissions from construction; no significant impacts.					
Climate	For all Alternatives 2-7: No change in number of aircraft operations; small short-term increases in emissions from construction; no significant impacts.					
Wild and Scenic Rivers	For all Alternatives 2-7: Project area does not include any designated wild and scenic rivers, study rivers, or otherwise eligible rivers.					

TABLE 3B (continued)
ENVIRONMENTAL IMPACT SUMMARY RUNWAY 18/36

Impact Category	Runway 18/36 Alt. 2	Runway 18/36 Alt.3	Runway 18/36 Alt.4	Runway 18/36 Alt.5	Runway 18/36 Alt.6	Runway 18/36 Alt.7
Construction Impacts	517,354 cy of fill; air, water, noise and surface transportation impacts from construction that would be temporary and not significant due to use of BMPs and avoidance/minimization measures.	289,049 cy of fill; air, water, noise and surface transportation impacts from construction that would be temporary and not significant due to use of BMPs and avoidance/minimization measures.	286,248 cy of fill; air, water, noise and surface transportation impacts from construction that would be temporary and not significant due to use of BMPs and avoidance/minimization measures.	630,235 cy of fill; air, water, noise and surface transportation impacts from construction that would be temporary and not significant due to use of BMPs and avoidance/minimization measures.	347,625 cy of fill; air, water, noise and surface transportation impacts from construction that would be temporary and not significant due to use of BMPs and avoidance/minimization measures.	462,081 cy of fill; air, water, noise and surface transportation impacts from construction that will be temporary and not significant due to use of BMPs and avoidance/minimization measures.
Secondary (Induced) Impacts	No shifts in patterns of population movement or growth; no permanent changes in economic activity; primary effects result from induced effects from significant impacts to fisheries, associated subsistence and cultural practices.					No shifts in patterns of population movement or growth; no permanent changes in economic activity; no significant impact on fisheries, subsistence, or resulting induced impacts due to avoidance of Buskin River.

6.0 Agency Preferred and Environmentally Preferred Alternatives

The CEQ Regulations (40 CFR 1502.14(e)), a lead agency must identify its preferred alternative in the FEIS and must identify the environmentally preferable alternative (40 CFR 1505.2(b)) in its ROD. The agency's preferred alternative is the alternative "which the agency believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors."[6] The environmentally preferred alternative is the alternative which best promotes the national environmental policies incorporated into Section 101 of NEPA. In general, this would be the alternative resulting in the least impact to the environment while still meeting the purpose and need, and which best protects natural and cultural resources.

This section provides a summary of the alternatives identified in Section 2.4 of the FEIS as the *FAA's preferred alternatives*. The rationales for these preferences are explained, and **Figure 4** illustrates the scope of the preferred and selected alternatives. As demonstrated in **Tables 3A and 3B**, these agency preferred alternatives are also the *environmentally preferred alternatives.*

The Approving Official for this ROD has selected the preferred alternatives based on a review of "each alternative's ability to fulfill the agency's mission while considering their economic and environmental impacts, and technical factors.[7] The FAA's preferred alternatives for Kodiak Airport are consistent with the mission of the FAA.

[6] Council on Environmental Quality "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," Question 4a. 1981. See http://www.nepa.gov/nepa/regs/40/40p3.htm

[7] FAA Order 5050.4B, Paragraph 1007e (7).

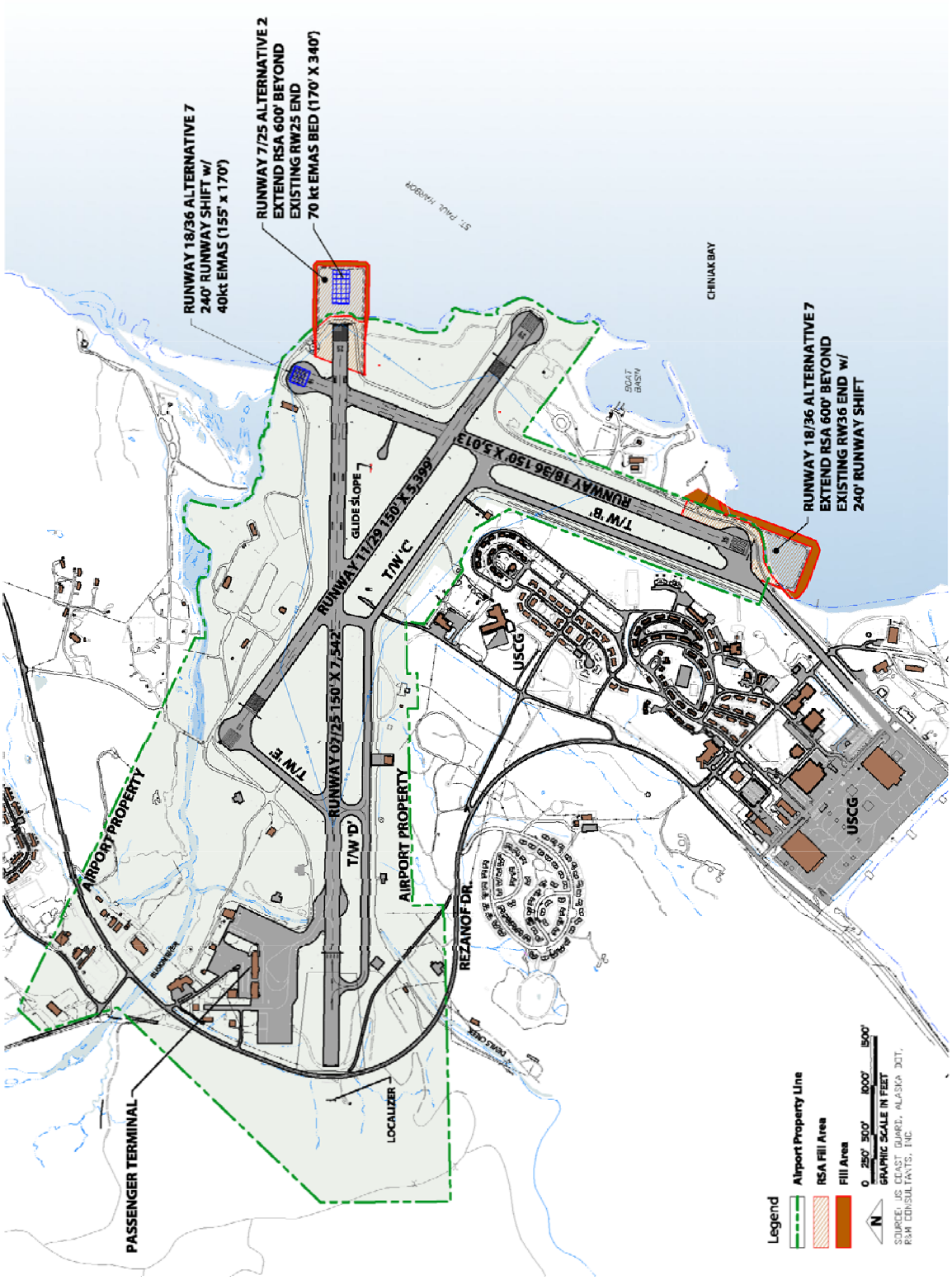

FIGURE 4 – SELECTED RSA IMPROVEMENT PROJECT ALTERNATIVES

6.1 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)

Runway 07/25 Alternative 2 will improve the RSA at the east end of the runway through an extension into St. Paul Harbor to the east and the use of EMAS. Fill will be placed off Runway end 25 to create a landmass 600 feet long by 500 feet wide. The EMAS will provide a 70-knot stopping capability on Runway end 25 for the runway's design aircraft. The existing RSA will be improved for aircraft overruns on Runway end 25 (i.e. for takeoffs to the east), the primary operational flow of the Airport for departures, providing an equivalent level of safety for aircraft overruns as that offered by a traditional graded 1,000-foot RSA. The Runway 25 REILs may need to be relocated to accommodate the installation of the EMAS bed. The expanded landmass beyond Runway end 25 will also meet FAA standards for undershoots by providing 600 feet of RSA.

This alternative will generate fewer adverse environmental effects when compared to Runway 07/25 Alternative 3, including:

- 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%), N. 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%);
- Both Build Alternatives will affect DOT 4(f) lands. However, this alternative will require about 6.2 acres less of the Alaska Maritime National Wildlife Refuge; and
- 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.

6.2 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))

Runway 18/36 Alternative 7 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 EMAS bed will provide a 40-knot stopping capability on Runway end 18 for the runway's design aircraft. This alternative will provide 360 feet of undershoot protection for landings from the south to Runway end 36 and 240 feet of undershoot protection for landings from the north to Runway end 18. This alternative includes the relocation of the Runway 36 REILs and replacing the Runway 36 VASIs with PAPIs. This alternative will provide 40-knot stopping capability for overruns beyond Runway end 18 and will be provide 360 feet of overrun protection for landings and takeoffs to the south.

This alternative would generate fewer adverse environmental effects relative to other Runway 18/36 Build Alternatives, including:

- Less wetland fill (about 0.21 less acres than all other Build 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:
    - Whereas other alternatives would have a major loss of juvenile salmonid rearing and foraging habitat and a major loss of salmonid prey species habitat, the effects of this alternative will be moderate);
    - There will be negligible changes to the freshwater plume whereas the other Build Alternatives would produce major changes;
    - This alternative will not have significant impacts to fisheries resources, whereas the other Build Alternatives would have significant impacts.
- Whereas the other Build Alternatives would have indirect effects on the Kodiak bear (due to reduced salmon runs), this alternative will have no such effects;
- Whereas 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 effects of the other alternatives for this runway would be long-term and significant.
- 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 DNL contour.

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

7.0 Selected Alternatives

Based on review of the comments and information presented in the FEIS, the FAA has selected the following alternatives for implementation:

- Runway Safety Area Runway 07/25: *Extend Runway 25 RSA landmass by 600 feet and install 70-kt EMAS on newly constructed landmass*
- Runway Safety Area Runway 18/36: *Extend RSA to south by 600 feet, shift runway south 240 feet, and install 40-kt EMAS on existing pavement (north)*

As explained in Section 7.0, the FAA's Selected Alternatives are also the environmentally preferred alternatives. The FAA has a statutory obligation, codified at 49 U.S.C. § 40104, to encourage the development of civil aeronautics and safety of air commerce in the United States. The mission of the FAA's Airports Program is to provide leadership in planning and developing a safe, efficient national airport system to satisfy the needs of the aviation interests of the United States (FAA Order 5050.4B, paragraph 1301.c(3)). Each of the FAA's Selected Alternatives meets statutory obligations and is consistent with the mission of the Airports Program while minimizing effects on the human and natural environment. These alternatives also incorporate all identified practicable measures to avoid or minimize environmental harm (see Section 8.0 of this ROD).

Section 5.0 of this ROD summarizes the environmental impacts associated with the Selected Alternatives. Mitigation, as described later in Section 8.0 of this ROD identifies the measures to be taken to lessen significant adverse effects.

The Selected Alternatives are expected to be implemented beginning in 2014 and completed by the end of 2015, pending receipt of applicable permits by the ADOT&PF and availability of project funding.

8.0 Mitigation

"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 USFWS 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 USFWS, 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 (December 2012).

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 DEIS. 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. Additional activities to avoid or minimize harm are identified in Sections 8.1 and 8.2 of this ROD, and compensatory mitigation for unavoidable impacts is described in Section 8.3. Taking all of these factors into account, the FAA has adopted all practicable means to avoid or minimize environmental harm from the Selected Alternatives.

8.1 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 FEIS 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 USFWS'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 USFWS 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 USFWS's Boat Operation Guidance to Avoid Disturbing Sea Otters to minimize impacts to marine mammals.[8] 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 Airport. Although there are no rookeries within inner Chiniak Bay, there are two major haulouts that occur on the edge of the outer edge of Chiniak Bay. All major haulouts in the area of designated critical habitat are listed in the *Federal Register* (50 CFR Part 226). One of these is located on Long Island, approximately 11 miles east-northeast of the Airport, and one is on Cape Chiniak, approximately 15 miles southwest of the Airport.[9]
- 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, underlayer 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 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.

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

[9] 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

- 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, USFWS 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.
    - 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 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 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 **f**or 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, USFWS 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*.

8.2 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 (SPCC) 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 USFWS 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 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 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.

8.3 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[10] 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.

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

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 USFWS, 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 USFWS, 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 is included in the Kodiak Airport EIS Wetland Delineation Report (included in FEIS Appendix 2, Wetlands, and summarized in FEIS 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.

The ILF payment is consistent with the preference hierarchy in the compensatory mitigation regulations issued by the ACOE and EPA (see FEIS 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 USFWS, 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 DEIS 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 FEIS, 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 FEIS (see Section 11.0 of this ROD). The result of this consultation was a Memorandum of Agreement between the FAA and the Tribe (see **Appendix B** of this ROD) 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.

8.4 Mitigation Implementation and Monitoring

All of the mitigation measures described in Sections 8.1, 8.2, and 8.3 of this ROD 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 (ALP) 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.

9.0 Necessary Federal Actions

The safe operation of the nation's airport and airway system is the highest aviation priority (49 U.S.C. § 47101(a)(1)), and the FAA has specific statutory authority to prescribe minimum safety standards for airports (49 U.S.C. § 44701(b)(2). In carrying out its responsibilities, the FAA is responsible for ensuring that its actions are in compliance with NEPA. It is national policy is that airport improvement projects provide for the protection and enhancement of natural resources and the quality of the environment of the United States (49 U.S.C. § 47101(a)(6)). As the lead federal agency, the FAA was responsible for supervising preparation of the EIS (40 C.F.R. § 1501.5(a)) and for requesting the participation of cooperating agencies as defined by CEQ (40 C.F.R. § 1501.6).

There are several FAA actions that are necessary for implementation of the Project. The ALP must be updated to reflect changes, and the Airport must receive the FAA's approval of the updated ALP. The FAA must also ensure that the Project will not adversely affect the safe and efficient use of airspace. The FAA will work with the ADOT&PF to develop plans for financial assistance with implementation of those portions of the Project determined to be eligible for FAA funding through the Airport Improvement Program (49 U.S.C. § 47101 et seq.) and the use of Passenger Facility Charges (49 U.S.C. § 40117).

There are a number of federal actions and approvals that are necessary for implementation of the Project (see **Table 4**).

TABLE 4
FEDERAL ACTIONS AND APPROVALS FOR KODIAK AIRPORT PROJECT IMPLEMENTATION

Agency	Action	Authority and Basis of Action
Federal Aviation Administration	Approval and Determination	49 U.S.C. §§ 40103, 44502, 47107(a)(16), and 47105. The FAA must approve ALP revisions and make a determination of no adverse effect to safe and efficient use of the airspace.
	Approval	49 U.S.C. § 44505(a)(1). The FAA must approve any relocation and/or upgrade of existing navigational aids.
	Approval and Funding	49 U.S.C. § 47101 et seq. The FAA will determine if and how much financial support can be provided for the actions and associated projects approved in this ROD.
	Determination	49 U.S.C. § 40103(b) and 49 U.S.C. § 40113. Determination, through the aeronautical study process of any off-airport objects that might be obstructions to the navigable airspace under the standards and criteria of 14 C.F.R. Part 77.
	Determination	49 U.S.C. § 40113(a). Determination under the standards and criteria of 14 C.F.R. Part 157 as to appropriateness of proposals for on-airport development from an airspace utilization and safety perspective based on aeronautical studies.
	Determination	49 U.S.C. § 47104 and 49 U.S.C. § 47107. Determinations pertaining to FAA funding for the Selected Alternatives.
	Determination	49 U.S.C. § 40113. Development and implementation of flight procedures for the Airport.
	Evaluation	49 U.S.C. §§ 44701, 47107(a)(7). The FAA will evaluate an aeronautical survey assessing the impact of runway threshold shift on approach and departure procedures.
	Determination	16 U.S.C. §§ 3101-3233. 43 CFR part 36. Determinations pertaining to the use of national wildlife refuge lands designated under the Alaska National Interest Lands Conservation Act.
U.S. Coast Guard	Determination, Permit	16 U.S.C. §§ 3101-3233. 43 CFR part 36. Determinations pertaining to the use of national wildlife refuge lands designated under the Alaska National Interest Lands Conservation Act and issuance of a right-of-way permit for use of the property.

TABLE 4
FEDERAL ACTIONS AND APPROVALS FOR KODIAK AIRPORT PROJECT IMPLEMENTATION

Agency	Action	Authority and Basis of Action
U.S. Army Corps of Engineers	Permit	33 U.S.C. § 403. Permit required for any structures to be placed in navigable waters of the U.S., or for work in or affecting navigable waters of the U.S.
	Permit	33 U.S.C. § 1344. Permit required for the discharge of dredged and fill material into waters of the U.S., including wetlands.
	Determination	16 U.S.C. §§ 3101-3233. 43 CFR part 36. Determinations pertaining to the use of national wildlife refuge lands designated under the Alaska National Interest Lands Conservation Act.
U.S. Fish and Wildlife Service	Determination	16 U.S.C. §§ 3101-3233. 43 CFR part 36. Determinations pertaining to the use of national wildlife refuge lands designated under the Alaska National Interest Lands Conservation Act.
U.S. Fish and Wildlife Service	Concurrence	16 U.S.C. §§ 1531-1544. 50 CFR part 402. Concurrence with FAA determinations regarding effect of the Project on listed species.
U.S. Fish and Wildlife Service	Determination, Permit	16 U.S.C. §§ 3101-3233. 43 CFR part 36. Determinations pertaining to the use of national wildlife refuge lands designated under the Alaska National Interest Lands Conservation Act and issuance of a right-of-way permit for use of the property.
National Marine Fisheries Service	Concurrence	16 U.S.C. §§ 1531-1544. 50 CFR part 402. Concurrence with FAA determinations regarding effect of the Project on listed species.

10.0 Findings and Determinations

In accordance with federal law and agency guidance, the FAA makes the following findings and determinations for the Selected Alternatives. These findings and determinations are based upon the information and analysis contained in the FEIS and the administrative record supporting the EIS and this ROD.

10.1 Compliance with Laws, Regulations, and Executive Orders

This section addresses laws, regulations, and Executive Orders not specific to the FAA's regulatory authority.

- **Alaska Native Interest Land Conservation Act (ANILCA)** (16 U.S.C. §§ 3101-3233)**.** Much of the submerged lands surrounding Kodiak Airport in Chiniak Bay are jointly managed by the USCG Kodiak Station and the USFWS (for the Alaska Maritime National Wildlife Refuge). As a result, both the USCG and the USFWS will issue a right-of-way permit for fill into Chiniak Bay. In the issuance of a right-of-way permit under ANILCA Title XI, the FAA, the USCG, the USFWS, and the ACOE need to document how the Project is compatible with the purpose of the conservation unit, subsistence, and what measures were taken to minimize adverse impacts (see Section 10.3 of this ROD for the ANILCA Title XI findings).

- **Magnuson-Stevens Fishery Conservation and Management Act** (16 U.S.C. § 1801 et seq.). This law requires consultation with the NMFS and identification of measures to minimize harm to essential fish habitat (EFH). The NMFS has responsibilities under the law to review federal actions that may adversely affect EFH and provide conservation recommendations that would avoid, reduce, or mitigate for the adverse effects of such actions.

  The Selected Alternatives will require placing fill in marine waters and will result in direct habitat loss as well as indirect effects to physical processes that shape aquatic habitats and the species that live there. Aquatic habitat at the Buskin River barrier bar (north of Runway end 18) is unique in Chiniak Bay and offers one of the few low-gradient, soft-bottom areas available to juvenile salmonids from the Buskin River. These species enter marine waters via the Buskin River freshwater plume and require a transitional rearing period during which they are dependent on areas reached by the plume. Loss of this habitat north of Runway end 18 will cause significant long-term adverse effects to aquatic species and populations in the Buskin River area. Runway 07/25 Alternative 2, the Selected Alternative for that runway, will change the distribution of the Buskin River freshwater plume. However, this alternative will minimize those impacts as compared to the other Runway 07/25 Build Alternative (Alternative 3), which has a larger fill footprint. Additionally, it will change the substrate, gradient, and freshwater influence of existing habitats, resulting in major impacts to Buskin River salmonids.

  The NMFS, in their comments on the DEIS dated December 17, 2012 (see **Appendix A** of this ROD), stated that the NMFS had no further comments on the alternatives listed in the DEIS or EFH assessment. The NMFS did note that the proposed alternatives would still have adverse effects on living marine resources, including EFH, and appropriate compensation should be identified. As a conservation measure, the NMFS provided the following conservation recommendations pursuant Section 305(b)(4)(A) of the Magnuson-Stevens Fisheries Conservation Act:

  > *NMFS recommends the FAA convene a meeting of interested resource agencies to develop mutually agreed upon mitigation to adequately compensate for the unavoidable impacts to the*

> *marine environment, including EFH. Further, we recommend that this mitigation package be included in the record of decision for the final Environmental Impact Statement.*

Since publication of the FEIS, the FAA has convened multiple meetings with interested resource agencies and Alaska Native Tribes for the purpose of developing mitigation to adequately compensate for the unavoidable impacts. The FAA has received written concurrence (see **Appendix A** of this ROD) from the NMFS on the mitigation plan.

- **Endangered Species Act of 1973 (ESA)** (16 U.S.C. § 1531 et seq.). Section 7(a)(2) of the ESA ensures that actions authorized, funded, or carried out by Federal agencies will not jeopardize the continued existence of any endangered or threatened species or adversely modify their critical habitat. Several stocks of Pacific salmon listed under the ESA range throughout the North Pacific, but according to the NMFS are "highly unlikely" to occur in the Project Area. Habitat for five special-status waterbird species will be affected by improvement of RSAs (Steller's Eider, Black Oystercatcher, Emperor Goose, Pelagic Cormorant, and Marbled Murrelet). The Selected Alternatives affect the least amount of the habitat of all Build Alternatives. Marine mammal habitat includes the intertidal and subtidal waters in the Project Area. The direct effects of the Selected Alternatives on marine mammals and their habitat will include the permanent removal and alteration of nearshore waters due to the placement of fill in these areas. Direct impacts will also include temporary displacement of some individuals from the Project area as a result of human presence and noise associated with construction activities. Through completion of a Biological Assessment, the FAA has determined that the Project is not likely to adversely affect any Federally-listed species and/or their designated critical habitat. The USFWS and the NMFS have concurred with the FAA's determination in letters dated May 31, 2013 and July 10, 2013, respectively (see **Appendix A** of this ROD).

- **Fish and Wildlife Coordination Act** (16 U.S.C. § 661-667e). To prevent loss of and damage to wildlife resources, the Fish and Wildlife Coordination Act establishes requirements for consultation with the USFWS and state wildlife agencies before starting any work that would impound, divert, or otherwise control or modify a body of water. The FAA, in accordance with this Act, consulted with the USFWS, the NMFS, the ADF&G and other agencies throughout the EIS process. Coordination was conducted throughout the impact assessment process, including review and comment by relevant agencies on the preliminary DEIS, the DEIS, and the FEIS (see Appendix 13 and Appendix 14 of the FEIS and **Appendix C** of this ROD). The coordination resulted in the refinement of Project alternatives as well as the identification of conservation measures and best management practices to avoid and minimize impacts to wildlife resources.

- **Migratory Bird Treaty Act of 1918** (16 U.S.C. § 703-712; Executive Order 13186[11]) prohibits the take of all migratory birds and bird parts (including eggs, nests, and feathers). The FEIS documents the FAA's consideration of the potential for impacts to migratory birds and, in particular, birds of special (protected) status and conservation concern. No significant adverse impacts to migratory birds will result from implementing the Selected Alternatives. The FAA also developed and documented avoidance and minimization measures to be incorporated into the Project to reduce possible impacts or "take" to protected migratory bird populations in the project region. The FAA and the ADOT&PF will continue to consult with the USFWS through permitting and final project design.

[11] Presidential Executive Order 13186: "Responsibilities of Federal Agencies to Protect Migratory Birds." Signed January 10, 2001.

- **Bald and Golden Eagle Protection Act of 1940** (16 U.S.C. § 668 et seq.). This law provides for the protection of the bald eagle and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession and commerce of the birds or any of their parts, eggs and nests. The analysis in the FEIS established there will be no significant adverse impacts to golden or bald eagles from the Selected Alternatives. The FAA has stipulated in Section 8.1 of this ROD that the Project will conform with National Bald Eagle Management Guidelines as prepared by the USFWS to protect bald and golden eagles.

- **Marine Mammal Protection Act of 1972** (16 U.S.C. § 1361-1421). The MMPA prohibits, with certain exceptions, the taking of marine mammals and the importation of marine mammals and marine mammal products into the U.S. The FAA has determined there will be no significant adverse effects on marine mammals from the Selected Alternatives. The ADOT&PF will be required to comply with requirements of the MMPA during construction activities.

- **Section 4(f) of the Department of Transportation Act of 1966** (49 U.S.C. § 303 & 23 U.S.C. § 138). Section 4(f) of the Department of Transportation Act of 1966 was recodified at 49 U.S.C. § 303(c), but is still commonly referred to as "Section 4(f)." This law provides for the protection of publicly-owned parks, recreation areas, and wildlife and waterfowl refuges of national, state, or local significance, and public or private historic sites of national, state, or local significance. The FAA may not approve a project requiring the use of Section 4(f) resources unless there is no prudent and feasible alternative to the use of such land, and the project includes all possible planning to minimize harm resulting from the use. Potential Section 4(f) properties were identified and described in Chapter 4, Section 14 of the FEIS. The FAA has determined that the Project will result in a use of a DOT Section 4(f) property, the Alaska Maritime National Wildlife Refuge. The Alaska Maritime National Wildlife Refuge encompasses the submerged lands adjacent to the Airport, including the submerged lands beyond the runway ends. This refuge was established by ANILCA to conserve marine mammals, seabirds, and other migratory birds and the marine resources upon which they rely.

  There are no feasible and prudent alternatives that would avoid placement of fill into marine waters within the Alaska Maritime National Wildlife Refuge due to topographical constraints surrounding the Kodiak Airport, including Barometer Mountain to the west and St. Paul Harbor to the east, as well as high terrain and surrounding land uses including the adjacent USCG Base. As discussed in Section 5.0 of this ROD and Chapter 4, Section 14, of the FEIS, the Selected Alternatives, Runway 07/25 Alternative 2 and Runway 18/36 Alternative 7, will result in the least overall harm to Section 4(f) resources when compared to the other Build Alternatives because they will minimize the area of the Alaska Maritime National Wildlife Refuge that will experience an impact near the Buskin River, which is an area of higher relative value within the Project Area due to important habitat associated with the mouth of the Buskin River. Moreover, as described in Chapter 6 of the FEIS and Section 8.0 of this ROD, mitigation for the Project includes all practicable means to avoid and minimize harm, as well as compensatory mitigation for unavoidable impacts. Accordingly, the FAA has determined that the Project includes all possible planning to minimize harm to the Alaska Maritime National Wildlife Refuge from the use.

  The DEIS stated that the preferred alternatives (which are the same as the Selected Alternatives) would result in a "constructive use" of the Buskin River State Recreation Site because of anticipated effects on local fish populations. However, as explained in Chapter 4, Section 14, of the FEIS, after a careful reconsideration of the effects on sport fishing activities in the Buskin River State Recreation Site, and the overall potential impact of those effects in the context of all the activities, features, and attributes of the Buskin River State Recreation Site, the FAA determined that the Selected Alternatives will not

result in a constructive use of the Buskin River State Recreation Site and that conclusion was included in the FEIS. The FAA consulted with the ADNR, the Kodiak State Parks Citizen Advisory Board, and other stakeholders during the reconsideration of the effect and there have been no objections or concerns raised.

- **Executive Order 12898**, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, and **Department of Transportation (DOT) Order 5610.2(a)**, *Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.[12] The Executive Order (EO) requires Federal agencies to provide public involvement for low-income or minority populations. This includes demographic analysis identifying and addressing potential action impacts on low-income or minority populations that may experience a disproportionately high and adverse effect. The DOT Order outlines the DOT's commitment to the principles of environmental justice and presents a program for department-wide implementation. The Order specifies that all Administrations with DOT, including the FAA, will ensure that any of their respective programs, policies, or activities that will have a disproportionately high and adverse effect on minority or low-income populations will only be carried out if a substantial need for the program, policy, or activity exists, based on the overall public interest, and alternatives that would have less adverse effects on protected populations and that still satisfy the need either would have other adverse social, economic, environmental, or human health impacts that are severe, or would involve increased costs of extraordinary magnitude. Additionally, the project will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effect are not practicable.

  In accordance with this EO and DOT Order, the FAA provided opportunities for meaningful public involvement by minority and low income populations (see Section 10.2.2 of this ROD). In addition, the FAA analyzed potential impacts to minority and low income populations (see Section 5.0 of this ROD and Chapter 4, Section 10 of the FEIS). The Preferred Alternative 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 as fill material is dumped or pushed into marine habitat. Because nearly all residents in Kodiak use subsistence resources, a decrease in the fish runs in the Buskin River may affect nearly the entire population. However, because subsistence resources affect take home resources for food, the reduction in subsistence resources per capita will likely be felt to a larger extent by low income populations because higher income populations could more easily make up the difference in subsistence use through other resources (salary, etc.). Also, because subsistence practices are tied to the cultural identity of the Sun'aq Tribe of Kodiak, 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.

[12] Presidential Executive Order 12898. "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations'." Signed February 11, 1994.

As described in Section 8.0 of this ROD and Chapter 6 of the FEIS, mitigation for the Project includes all practicable measures to avoid and reduce adverse effects on minority and low-income populations. As described in Section 3.0 of this ROD, there is a substantial need for the Project, which is reflected in the statutory requirement that RSAs at certificated airports (such as the Kodiak Airport) be improved to comply with FAA standards by December 31, 2015.[13] There are no feasible alternatives that would meet the need for the Project and have less adverse effect on protected populations (see Section 4.0 of this ROD).

- **Executive Order 13045**, *Protection of Children from Environmental Health Risks and Safety Risks*.[14] The FAA has determined there will be no change in risk to health or safety for children caused by the Selected Alternatives.

- **Executive Order 11990**, *Protection of Wetlands*.[15] Under this EO, a federal agency must avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds that: (1) there is no practicable alternative to such construction; and (2) the proposed action includes all practicable measures to minimize harm to the wetlands. In making this finding, the head of the agency may take into account economic, environmental and other pertinent factors. The Selected Alternative for Runway 07/25 will have no effect on wetlands. The Selected Alternative for Runway 18/36 will fill a small (0.11 acres) depressional palustrine wetland in the Airport infield. There is no practicable alternative to filling this wetland. However, the consequences of this loss will be minor because the wetland is so small that the amount of ecological function it can provide is limited. Accordingly, the FAA finds that the Project is in compliance with Executive Order 11990.

- **Executive Order 11988,** *Floodplain Management*.[16] This EO, together with applicable DOT and FAA Orders, establishes a policy to avoid construction within a 100-year floodplain where practicable and, where avoidance is not practicable, to ensure that the construction design minimizes potential harm to or within the floodplain. The floodplain of the Buskin River is the only delineated 100-year floodplain within the Project Area that has the potential to be affected by the Project. The Project will not affect the Buskin River floodplain.

- **Coastal Zone Management Act** (16 U.S.C. § 1451). The Kodiak Airport is located within the coastal area of Kodiak Island and, until recently, the State of Alaska had an approved program. However, Alaska's program expired on June 30, 2011. Therefore, the federal consistency provisions of the Coastal Zone Management Act no longer apply to the potential RSA improvements alternatives for Kodiak Airport.

- **National Historic Preservation Act of 1966** (16 U.S.C. § 470). This Act requires Federal agencies having direct or indirect jurisdiction over proposed undertakings to consider the undertakings' effects on properties listed in or eligible for listing in the National Register of Historic Places ("historic properties"). The agencies must consult with the State Historic Preservation Officer (SHPO) when deciding if an undertaking has the potential to affect historic properties. If an undertaking has the potential to do so, further consultation is needed to determine if the effects would be adverse. The FAA conducted an evaluation of potential impacts to historic resources resulting from the Project in

[13] Public Law 109-115, 119 Stat. 2401 (Nov. 30, 2005).
[14] Presidential Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks," signed April 21, 1997.
[15] Presidential Executive Order 11990, "Protection of Wetlands," signed May 24, 1977.
[16] Presidential Executive Order 11988, "Floodplain Management," signed May 24, 1977.

accordance with Section 106 of the National Historic Preservation Act. As a result of this evaluation, the FAA has found that the Project will not have any adverse effect on historic properties. Through coordination conducted during the EIS process, the SHPO and the National Park Service have concurred (see **Appendix A** of this ROD) with the FAA's finding.

10.2 FAA Determinations Under Provisions of the Airport and Airways Improvement Act (49 U.S.C. Sections 47106 and 47107)

In accordance with applicable law, the FAA makes the following determinations for this Project based upon the appropriate information and data contained in the FEIS and the administrative record.

10.2.1 49 U.S.C. § 47106(a)(1) - The Selected Alternatives are Reasonably Consistent with Existing Plans of Public Agencies Responsible for Development in the Area

The determination prescribed by this statutory provision is necessary for approval by the FAA of airport project funding applications. To make this determination, the FAA considered local land use and development plans and requested confirmation from local authorities concerning consistency determinations. Kodiak Airport is wholly-owned by the United States federal government, leased by the State of Alaska, operated by the ADOT&PF, and used for civil and military aviation. The Borough contains 4.8 million acres of land, including tidelands and submerged lands, and the lands around the Airport. Nearly 71% of the Borough (3.4 million acres) is federally-owned, with much of that area consisting of public lands managed by the National Park Service and the USFWS. The State of Alaska owns approximately 13.3% of the land within the Borough.

The Kodiak Area Plan defines the land management status of marine areas and tidelands surrounding the Project Area, as noted in Chapter 4 Section 13 of the FEIS. The Buskin River State Recreation Site, the Kodiak Airport Uplands, and the Kodiak Airport Aquatic Airlanes are special management zones within the Kodiak Area Plan. These special management areas are located on or near the Kodiak Airport.

The current Airport lease provides a working agreement for upkeep, expansion, and use of utilities, and an aircraft rescue and firefighting agreement. Avigation easements covering runway protection zones and approach paths to three runways are also included in the lease agreement. The lease allows construction of improvements and movement of structures consistent with the operation of a public airport and related activities.

The Kodiak Island Borough Comprehensive Plan is adopted by the Borough Assembly as official policy for the Borough dealing mainly with land use, but including a wide array of other issues and concerns. Disposal and use of land within Borough boundaries is generally subject to Borough permitting and land use regulations. Based on the zoning map in the Comprehensive Plan, the state-leased portions of the Kodiak Airport are zoned Light Industrial. According to Borough municipal code, Title 17, permitted uses within the Light Industrial zone include service stations, automobile and boat sales and repair, manufacturing, outdoor storage, retail and service businesses, warehouses, wholesale and distribution operations, utility structures, and existing airport facilities. The Kodiak Island Borough has authority over potential material sources that are not on federal land, as well as the storage and staging of any off-island rock. Therefore, depending on the location of a proposed RSA land mass material site and the zoning applied to the parcel, local review may be required for the Project construction element. If required, the contractor will need to coordinate with the Kodiak Island Borough offices to determine a timeline for approval.

There is federal responsibility for lands in the Airport environs. The Alaska Maritime National Wildlife Refuge includes all submerged lands adjacent to the Airport. The USCG holds title to the uplands and tidelands where the Kodiak Airport is located. The submerged lands beyond the Project Area are administered by the USFWS. Primary management of the Refuge as a whole is through the USFWS, although portions are managed by other federal agencies; the USCG manages those around Kodiak Airport.

The USFWS and the USCG have reviewed the right-of-way permit application submitted by the ADOT&PF and found that it contains the information required under ANILCA for the agencies to make a decision. The USCG will issue a separate ROD for their determinations under NEPA and ANILCA for the requested right-of-way permit.

In light of the above, the FAA finds that the Selected Alternatives are reasonably consistent with the existing land use and development plans of public agencies in the area in which the Airport is located. The FAA is satisfied that it has fully complied with 49 U.S.C. § 47106(a)(1).

10.2.2 49 U.S.C. § 47106(b)(2) - The Interests of Communities in or Near the Project Location Have Been Given Fair Consideration

The determination prescribed by this statutory provision is necessary for approval by the FAA of airport development project funding applications.

The FAA issued a Notice of Intent (NOI) to prepare an EIS for proposed RSA improvement Project in the Federal Register on February 14, 2007. The public scoping meeting was conducted March 27 and 28, 2007. Agency, tribal, and stakeholder scoping meetings were conducted at that time in Kodiak, Alaska and in Anchorage, Alaska as noted in Appendix 13 of the FEIS.

Scoping comments received from the public, stakeholders, agencies, and Alaska Native Tribes generally focused around the potential for the proposed projects to affect natural resources in the vicinity of the Airport and the resources important to natural, commercial, and recreational uses, with a particular concern for Project effects on the Buskin River.

The DEIS was released in October 23, 2012 and was made available for public and agency review and comment from October 23, 2012 until December 18, 2012. The DEIS was sent to interested parties and made available at several public locations in Kodiak and Anchorage and on the project website. A public information meeting and hearing on the DEIS was conducted in Kodiak on December 6, 2012. Comments and responses to comments received on the DEIS are included in the FEIS Appendix 14.

Additionally, an application for a right-of-way permit under Title XI of ANICLA) was made available to reviewing agencies and the public concurrent with the DEIS on October 19, 2012. The application is included in Appendix 12 of the FEIS. 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 FEIS, which also includes correspondence with interested agencies. **Appendix A** to this ROD contains the agency concurrence letters received.

In light of the above, the FAA has determined that throughout the environmental process, leading up to publication of the FEIS and throughout public comment on the FEIS, beginning at its earliest planning stages, fair consideration was given to the interests of communities in or near the Project location.

10.2.3 49 U.S.C. § 47107(a)(10) - To the Extent Reasonable, the Airport Sponsor has Taken or Will Take Actions to Restrict Land Uses in the Airport Vicinity, including the Adoption of Zoning Laws, to Ensure the Uses are Compatible with Airport Operations

The ADOT&PF either owns or has submitted applications for acquiring land interests to all properties needed for safe and efficient airport operations. In light of the above, the FAA is satisfied that the ADOT&PF and USCG have taken and will continue to take actions necessary to restrict land uses in the vicinity of Kodiak Airport to ensure the allowed uses are compatible with Airport operations.

10.3 FAA Determinations Under ANILCA Title XI and 43 CFR 36.1: Determinations pertaining to the use of national wildlife refuge lands designated under the Alaska National Interest Lands Conservation Act

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)[17];
2. alternatives considered; including a determination on whether there is any economically and prudent alternative way to avoid the conservation system unit (CSU)[18] 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.

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).

[17] 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."

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

10.3.1 The need for and economic feasibility of the RSA improvements

The FAA finds a need for RSA improvements for Runways 07/25 and 18/36. 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.

The 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.

10.3.2 Alternatives Considered

The following presents a brief summary of alternatives considered for the Kodiak Airport EIS. A discussion of alternatives can be found in Section 4.0 of this ROD and Chapter 2 of the FEIS. 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 FEIS, but were eliminated from detailed analysis because they did not meet the purpose and need. Details on these eliminated alternatives can be found in Chapter 2 of the FEIS.

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. For more information on the alternatives, as well as those dismissed from further consideration, please see Chapter 2 of the FEIS.

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. The 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.

10.3.3 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 FEIS 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.

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

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

The FAA finds that 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.

The FAA finds that long-term, 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. The FAA finds that 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 FAA finds that 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

The FAA finds that 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 FAA finds that 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 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, the FAA finds there are no significant, adverse water quality or quantity impacts expected from the Selected Alternatives.

Hydrology and Coastal Resources

The FAA finds that 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 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, the FAA finds 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 Refuge. Because the area of impact to cover types are relatively small compared to their abundance in the Project and Landscape areas, the FAA finds these adverse effects are expected to be insignificant.

Soils

The FAA finds the Selected Alternatives will not affect terrestrial soils around the 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 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 FAA finds 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. The FAA finds that 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 essential fish habitat (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 FAA finds 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, the FAA finds 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 FAA finds that 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 FAA finds that 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 FAA finds that the Selected Alternatives will not result in significant environmental impacts.

10.3.5 Impacts on national security

The FAA finds that 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.

10.3.6 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 animal populations and habitats in their natural biodiversity, including but not limited to marine mammals, marine birds and other migratory birds, the marine resources upon which they rely, bears, caribou, and other animals.
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. Conduct 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 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 Section 5.0 of this ROD and FEIS Chapter 4, section 4.11and Section 4.2) (purpose number 5).

10.3.7 Measures instituted to avoid or minimize negative impacts

The FAA finds that conservation measures and the compensatory mitigation plan outlined in Section 8.0 of 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.

10.3.8 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. Section 10.3.6 of 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 Airport will make the 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.

10.4 The FAA has given the Project the independent and objective evaluation required by the Council on Environmental Quality (see 40 C.F.R. § 1506.5).

As documented in the FEIS and this ROD, the FAA has rigorously explored and objectively evaluated all reasonable alternatives for meeting the Project's purpose and need (see 40 C.F.R. § 1502.14(a)). The process included FAA selecting a consultant/contractor through a competitive process to assist in conducting the environmental review, which included identifying the Project purpose and need, identifying reasonable alternatives, fully analyzing and disclosing potential environmental impacts, and developing appropriate mitigation measures. The FAA directed the technical analysis provided in the DEIS and FEIS. From its inception, the FAA has taken a strong leadership role in the environmental evaluation of the Project and has maintained its objectivity.

11.0 Tribal Consultation

The FAA acknowledges the importance of tribal consultation to promote meaningful coordination with Alaska Native Tribes. The FAA recognized the potential for the proposed actions considered in the Kodiak Airport EIS to adversely affect resources of traditional, cultural, and religious importance to federally recognized Alaska Native Tribes. Concurrent with the EIS, the FAA invited government-to-government consultation with Alaska Native Tribes and tribal organizations who may have had an interest in the Airport improvement projects and their impacts. Requests for consultation were sent to the Sun'aq Tribe of Kodiak staff and council, the Native Village of Afognak staff and council, and the Tangirnaq Native Village and staff liaison.

The FAA engaged the tribal governments as consulting parties on a government-to-government basis beginning in 2007, and remained in consultation with them throughout the preparation of the EIS. Consultation with the tribal governments has consisted of periodic in-person and teleconference meetings with tribal councils and their assigned staff liaisons. The FAA has also provided copies of documentation related to the EIS, including summaries of technical studies, copies of presentations, the preliminary DEIS, the DEIS, and the FEIS. Throughout consultation, the tribal councils and staff liaisons provided a consistent message regarding the importance of subsistence activities to the maintenance of their cultural identity. They also clearly identified the key role the Buskin River, as the closest productive salmon fishery to the settled community of Kodiak, plays in those traditional subsistence activities, and they have stated that they would consider any negative effect on subsistence uses resulting from the RSA improvements to be significant. Accordingly, the FAA consulted with the tribal organizations during the impact assessment and refined the significance determinations for the Project based upon their input.

The Sun'aq Tribe of Kodiak has noted that the Elders of that tribe hold the location and landscape of the Buskin River, including the mouth of the river near the Airport, as culturally important. The local Alaska Native community views resource gathering activities occurring at the Buskin River and surrounding area to be key to the maintenance and perpetuation of customary and traditional practices and cultural identity. The Sun'aq Tribe of Kodiak Tribal Council and the Native Village of Afognak both indicated that because of the very important role salmon plays in the traditional foods, traditional practices of sharing harvest, and the cultural identity associated with subsistence-based self-sufficiency and sharing, any significant reduction in the ability to harvest or the harvest quantity of salmon will have a significant impact on the cultural identity of the local Alaska Native community.

During a government-to-government consultation in December, 2012, the Sun'aq Tribe of Kodiak requested that the FAA do one of the following as mitigation for the Project: (1) establish an area similar to the size of the habitat being lost from the Project as a clam bed and provide on-going testing of paralytic shell fish poisoning in clams at the Kodiak Area at no cost to tribal members; or (2) provide the Tribe $1 million to continue their salmon enhancement program. The FAA performed an assessment of the feasibility and practicability of each of the two requests and how they addressed or mitigated for the impacts identified in the EIS. The FAA found that neither of the two mitigation projects was practicable.

As the compensatory mitigation plan for the FEIS was being developed (December 2012 – June, 2013), the FAA continued coordination and consultation with the Alaska Native Tribes. When a draft of the plan was presented and shared with stakeholders, include the Alaska Native Tribes, the Sun'aq Tribe of Kodiak indicated that the mitigation plan as proposed was inadequate to compensate for the loss of subsistence resources. They explained this to the FAA during a consultation meeting and in a letter to the Secretary of the Interior and the Secretary of Transportation (see **Appendix B** of this ROD).

After further government-to-government consultation between the FAA and the Sun'aq Tribe of Kodiak, and coordination with other state and federal agencies (the ACOE, the USFWS, the NMFS, EPA, and the ADF&G), the FAA and the Tribe agreed that the mitigation for the Project will also include $450,000 for a five-year post-construction monitoring effort, to be led by the Tribe, to document the change in habitat and species usage in the area influenced by the freshwater plume around the mouth of the Buskin River as a result of the Project. This agreement is documented in a Memorandum of Agreement (see **Appendix B** of this ROD).

12.0 Other Sponsor-Initiated Actions

The ADOT&PF is the project sponsor for most actions at Kodiak Airport. In the course of implementing the alternatives selected in this ROD, the ADOT&PF will:

- Submit applications for federal financial assistance.
- Obtain the necessary Clean Water Act 401 certification and 404 permit.
- Construct the Selected Alternatives as funding is available and all necessary approvals are granted.

13.0 Decision and Order

Approval by the FAA to implement the Selected Alternatives signifies that applicable federal requirements relating to airport planning and improvement have been met and permits the ADOT&PF to proceed with the Project at the Airport. It may allow the ADOT&PF to receive federal funding and approval to impose and use Passenger Facility Charge funds for eligible items. Not approving these agency actions would preclude the ADOT&PF from proceeding with design and construction of the Selected Alternatives for the Airport.

Decision

For the reasons summarized in this ROD, supported by disclosures and analysis presented in detail in the FEIS, the FAA has determined that the Project, consisting of the Selected Alternatives, is reasonable, feasible, and prudent.

After reviewing the FEIS and related materials, I have carefully considered the FAA's goals and objectives in relation to various aeronautical aspects of the Project. The review included the purpose and need the Project would serve, alternative means of achieving the purpose and need, the environmental impacts of the alternatives, and the mitigation necessary to preserve and enhance the environment.

Under the authority delegated to me by the Administrator of the FAA, I find that the Selected Alternatives described in this ROD are reasonably supported and approved. I therefore direct that actions be taken to carry out this decision, including:

1. Determinations under 49 U.S.C. § 47106 and § 47107 pertaining to funding by the FAA of airport development, including approval of the revised Airport Layout Plan (ALP) in accordance with 49 U.S.C. § 47107(a)(16) for the Selected Alternatives, described in Section 2.5 of the FEIS and Section 7.0 of this ROD and including the following elements:
   - Project designs.
   - Site preparation.
   - Runway and runway safety area construction.
   - Changes to aircraft arrival and departure procedures.
   - Changes to and relocation of ground based aircraft navigational aids.
   - Environmental mitigation.

2. Application of the avoidance and minimization measures, conservation measures, monitoring and reporting requirements, and best management practices described in Section 8.0 of this ROD in the design and construction of the Project.
3. Approval under 49 U.S.C. § 47107 et seq. of the Project's eligibility for Federal grant-in-aid funds under 49 U.S.C. § 47104.
4. Determination, through the aeronautical study process, of any off-airport objects that might be obstructions to the navigable airspace under the standards and criteria of 14 C.F.R. Part 77 (49 U.S.C. §§ 40103(b) and 40113).
5. Determination under the standards and criteria of 14 C.F.R. Part 157 (49 U.S.C. § 40113(a)) as to the appropriateness of proposals for on-airport development from an airspace utilization and safety perspective based on aeronautical studies.

6. Development of new and/or amended instrument flight procedures (per 49 U.S.C. §§ 40113 and 44701).
7. Review and subsequent approval of an amended Airport Certification Manual for the Airport (per 14 C.F.R. Part 139).
8. Approval of protocols for maintaining coordination among the ADOT&PF offices, construction personnel, and appropriate FAA program offices, ensuring safety during construction.
9. Determinations under the Alaska National Interest Lands Conservation Act (ANILCA) Title XI and 43 CFR 36.1 pertaining to the use of national wildlife refuge lands.

This decision is consistent with the FAA's statutory mission and policies, and is supported by the environmental findings and conclusions presented in the FEIS and this ROD. Finally, based upon the administrative record of this Project, I certify, as prescribed by 49 U.S.C. § 44502(b), that implementation of the Selected Alternatives is reasonably necessary for use in air commerce.

Approved and Ordered

Robert N. Lewis
Regional Administrator, Alaskan Region

September 12, 2013
Date

Right of Appeal

This Record of Decision is the FAA's final decision and approval for the actions identified. This Record of Decision is a decision document and constitutes a final order by the FAA Administrator. Under 49 U.S.C. § 46110(a), this Record of Decision is subject to the exclusive judicial review by either (1) the United States Court of Appeals for the District of Columbia Circuit, or (2) in the court of appeals of the United States for the circuit in which the person who seeks review resides or has its principal place of business. Under 49 U.S.C. § 46110(a), a petition for review of this Record of Decision must be filed no later than 60 days after this Record of Decision is issued absent reasonable grounds. A petitioner who seeks to stay implementation of this Record of Decision must, per Fed. R. App. P. 18(a), first move the FAA for a stay pending review.

Appendix A – Agency Concurrence Letters

This appendix includes the following documentation:

Date	Correspondence	Regarding
8/3/2009	Letter	Office of History and Archaeology – Concurrence with the FAA's finding that no historic properties adversely affected.
5/22/2012	Letter	Office of History and Archaeology – Concurrence with FAA's finding that no historic properties adversely affected.
12/17/2012	Email	U.S. Department of Interior, Office of Environmental Policy and Compliance – Concurrence with the FAA's de-minimis impacts finding for DOT Section 4(f) and no adverse effect on historic properties.
12/17/2012, 5/30/13	Email	National Oceanic and Atmospheric Administration, National Marine Fisheries Service – Essential Fish Habitat Evaluation determination and conservation recommendations.
5/31/2013	Letter	U.S. Fish and Wildlife Service – Concurrence with the FAA's determination that the Project is not likely to adversely affect protected species.
6/9/2013	Letter	U.S. Fish and Wildlife Service – Agreement with proposed mitigation developed for the FEIS.
6/17/2013	Email	National Oceanic and Atmospheric Administration, National Marine Fisheries Service – Support for the goals and objectives of the mitigation plan developed for the FEIS.
7/10/2013	Letter	National Oceanic and Atmospheric Administration, National Marine Fisheries Service - Concurrence with the FAA's determination that the Project is not likely to adversely affect protected species.

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STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS & OUTDOOR RECREATION
OFFICE OF HISTORY AND ARCHAEOLOGY

550 WEST 7TH AVENUE, SUITE 1310
ANCHORAGE, ALASKA 99501-3565
PHONE: (907) 269-8721
FAX: (907) 269-8908

August 3, 2009

File No.: 3130-1R FAA

Leslie Grey
Federal Aviation Administration
Alaskan Region Airports Division
222 West 7th Avenue #14
Anchorage, AK 99513

Subject: Kodiak Airport Cultural Resources Technical Report

Dear Leslie Grey:

This office received your letter on July 30, 2009 concerning the proposed runway safety upgrades at the Kodiak Airport. We reviewed this undertaking for potential impacts to historic and archaeological resources pursuant to Section 106 of the National Historic Preservation Act. We concur with your finding that the proposed undertaking will result in No Historic Properties Adversely Affected.

Please contact Doug Gasek at 269-8726 if you have any questions or need further assistance.

Sincerely,

Jan M. Anderson

Judith E. Bittner
State Historic Preservation Officer

Deputy

JEB:dfg

5/22/2012 3130-1R FAA

RECEIVED

MAY 23 2012

U.S. Department
of Transportation
Federal Aviation Administration

Alaskan Region Airports Division
222 West 7th Ave #14
Anchorage, AK 99513

No Historic Properties Adversely Affected
Alaska State Historic Preservation Officer
Date: 5/22/2012
File No. 3130-1R FAA SHPO

In Reply Refer To:
3-02-0158-010-2007

May 9, 2012

RECEIVED

MAY 14 2012

OHA

Ms. Judith Bittner
State Historic Preservation Officer
Alaska Office of History and Archaeology
550 W. 7th Avenue, Suite 1310
Anchorage, AK 99501-3565

RE: Kodiak Airport Environmental Impact Statement; Amended ***Finding of Effect***
File No. 3130-IR FAA

Dear Ms. Bittner:

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is proposing to improve runway safety areas at the Kodiak Airport, in Kodiak, Alaska (T. 28 S., R. 20 W., S. 12, 22, and 23; Seward Meridian; USGS topographical maps Kodiak C-2 and Kodiak D-2). The FAA is the lead federal agency for the undertaking and is preparing an environmental impact statement (EIS) to evaluate and disclose the potential effects of implementing any of the several alternatives under consideration.

In July 2009, the FAA transmitted the technical report describing the area of potential effects (APE), summarizing the methods used to identify historic properties, and detailing the results of those methods. With the technical report, the FAA also submitted our finding of effect that the proposed project would result in no adverse effect on any historic properties. We received your concurrence with that finding in a letter dated August 3, 2009. Subsequent to our finding of effect, the FAA has undertaken additional work on the EIS and has modified the alternatives under consideration. Figures showing the new alternatives are provided as attachments to this letter. Given the reconfiguration of alternatives, we are submitting to you an updated finding of effect to document our evaluation of the current alternatives relative to historic properties. All of the current alternatives fall within the APE (see attached figure) previously established for this project and on which you provided your concurrence; therefore, no new efforts to identify historic properties were necessary.

Pursuant to 36 CFR 800.5(b), implementing regulations of Section 106 of the National Historic Preservation Act, FAA finds ***no adverse effect*** on historic properties by the new alternatives for the proposed project.

As you may recall from our previous correspondence, the project consists of expanding the approach and departure runway safety areas (RSAs) at the ends of two runways at the Kodiak Airport: Runway 07/25 and Runway 18/36. Improving the RSAs to meet federal standards to the extent practical will require placement of fill to extend the landmass around the existing airport. The FAA is considering three alternatives, including the No-Action Alternative, for Runway 07/25 and seven

alternatives, including the No-Action Alternative, for Runway 18/36. The different action alternatives vary by the amount and location of fill (see attached figures).

As reported previously, only one historic property, the Kodiak Naval Operating Base and Forts Greely and Abercrombie National Historic Landmark (NHL) (KOD-124) is located in the APE for this project. The NHL boundary encompasses the entire airport property (see attached figure), which is owned by the U.S. Coast Guard, and contains numerous contributing features, including the runways (KOD-762 and KOD-764).

The FAA has concluded that all of the action alternatives for each of the two runways would result in ***no adverse effect*** to the historic property. The No-Action Alternatives would result in ***no historic properties affected***. Each of the action alternatives for the two runway safety area projects would result in the extension of the landmass off one or more runway ends for Runways 07/25 (KOD-764) and 18/36 (KOD-762). This placement of fill would have a minor affect on the design and setting of the NHL, but the affect would not alter those characteristics of the site that render it eligible for the National Register of Historic Places or its status as an NHL. The height of the fill – the landmass extension(s) – would match the existing landmass height, and the side slopes of the new fill would be contoured and clad in materials consistent with the existing coastline of the NHL.

No contributing features of the NHL would be adversely affected. The runway pavement for both ends of Runway 18/36 would be altered under Alternative 7 for that runway. Under this alternative, a bed of synthetic crushable concrete, referred to by the acronym EMAS, would be placed on top of the existing runway pavement at the north end of the runway. At the same time, new pavement would be added off of the south end of the runway to extend the overall length of the runway. The FAA finds that neither of these actions would significantly affect the location, design, materials, workmanship, setting, feeling, or association of the runway or, by extension, the NHL. While the original runways were identified as a contributing feature of the NHL at the time the NHL was designated, the runways have been repaved and maintained since that time, and the limited extension of the runway pavement under Runway 18/36 Alternative 7 would not adversely affect the characteristics of the runway that render it a contributing resource.

As part of our consultation for this project and due to the presence of the NHL, the FAA will be submitting a copy of this amended finding of effect to the National Park Service for their consideration. The FAA will also continue to engage in consultation with federally recognized tribes and other consulting parties throughout the preparation of the EIS.

The FAA respectfully requests your concurrence with our findings of ***no adverse effect*** for the any of the action alternatives being considered for Runways 07/25 and 18/36. Please, feel free to contact me if you have any questions or comments regarding the enclosed materials or require additional information. I can be reached at the address above or at 907-271-5453.

Sincerely,

Leslie A. Grey
FAA, Alaskan Region Airports Division
Kodiak Airport EIS Project Manager

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1689 C Street, Room 119
Anchorage, Alaska 99501-5126

VIA ELECTRONIC MAIL, NO HARD COPY TO FOLLOW

9043.1
ER12/768
PEP/ANC

December 17, 2012

Leslie Grey AAL 614
FAA Alaska Regional Office
222 West 7th Avenue, Box 14
Anchorage, Alaska 99513-7587

Dear Ms. Grey:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (EIS) for the Kodiak Airport Runway Safety Area (RSA) Improvements Project (Project) dated October 2012. The Project is proposed to expand runaway facilities to conform to safety and design standards mandated by the Federal Aviation Agency (FAA). We request the following comments be addressed in the Final EIS for this Project. Departmental comments are based on authorities found in the Fish and Wildlife Coordination Act, Endangered Species Act (ESA), National Historic Properties Act, Alaska National Interest Lands Conservation Act, and National Environmental Policy Act.

Fish and Wildlife

The Department's U.S. Fish and Wildlife Service (FWS) has been working with the FAA and the Alaska Department of Transportation and Public Facilities (ADOT/PF) since April 2007 to help identify, avoid, and minimize potential adverse effects from the proposed Project on fish and wildlife. FWS previously expressed concerns about potentially-significant Project effects related to several Project alternatives in their comments, which were submitted to the FAA on February 25, 20111, on the Preliminary Draft EIS (PDEIS). We note that the Draft EIS incorporates many suggested changes put forth by FWS for the Buskin River area.

The Project is located in Chiniak Bay, which is a highly productive marine /estuarine environment. The Project area includes the lower reaches of the Buskin River, its estuary, wetlands, and marine waters, all of which are important locations for numerous species of migratory birds, anadromous fish, and marine mammals. The area near the mouth of the Buskin River supports an important subsistence salmon fishery managed by FWS. Chiniak Bay provides habitat for numerous bird species managed by FWS, including bald eagles, Steller's eiders (listed as threatened under the ESA) and yellow-billed loons (a candidate for listing under the ESA). The proposed Project would also involve expanding sections of runway and

placing fill into submerged lands that are a part of the Alaska Maritime National Wildlife Refuge (NWR).

Placement of fill in the mouth of the Buskin River was the most challenging aspect of the runway expansions described in the PDEIS (Figure 1). FWS appreciates the FAA and ADOT/PF avoiding that aspect of the Project by identifying preferred alternatives (Runway 07/25 Alternative 2 and Runway 18/36 Alternative 7) in the Draft EIS, which meet the purpose and need of the Project, while helping minimize potential adverse environmental impacts. The Runway 07/25 preferred alternative would require the smallest footprint in marine water (9.13 acres of fill) compared with the originally-proposed alternative (15.27 acres of fill). However, while the Runway 18/36 preferred alternative avoids placing fill in the Buskin River estuary (as compared with the original proposal of 6.59 acres of fill), it would still result in 8.68 acres of marine fill at the south end of the runway.

FWS is currently collaborating with FAA, ADOT/PF, and other appropriate State and Federal agencies to develop a mitigation plan, which following implementation, would adequately compensate for significant and unavoidable impacts to fish and wildlife and the Alaska Maritime NWR that could not be avoided or minimized as a result of the Project. We recommend that the final mitigation plan be approved by FWS and included in the Final EIS.

Historic Properties

The Department's National Park Service (NPS) administers the National Historic Landmarks (NHL) program for the Secretary of the Interior. This project is within the Kodiak Naval Operating Base NHL, and for that reason, the Draft EIS has been reviewed for impacts to the NHL. Based on review by the NPS Alaska NHL Historian, including consultation with an Alaska State Historic Preservation Office representative and the NPS Alaska 4(f) reviewer, the NPS agrees with the Draft EIS conclusion of "*de-minimis* impact; no adverse effect on historic properties" of the NHL for the preferred alternative.

For further information or consultation regarding the NHL, please contact Janet Clemens, NPS NHL Historian, at (907) 644-3461 or via email at janet_clemens@nps.gov, or Paul Hunter, NPS 4(f) reviewer, at (907) 644-3528 or via e-mail at paul_hunter@nps.gov. For further information regarding fish and wildlife comments, please contact Phil Brna, FWS Anchorage Fish and Wildlife Field Office, at (907) 271-2440 or via e-mail at phil_brna@fws.gov.

Sincerely,

Pamela Bergmann
Regional Environmental Officer - Alaska

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

December 17, 2012

Leslie A. Grey
Environmental Protection Specialist
FAA-Alaska Region, Airports Division
222 West 7th Avenue, M/S #14
Anchorage, Alaska 99513

Re: DEIS Kodiak Island Airport RSAs
and EFH Assessment

Dear Ms. Grey:

The National Marine Fisheries Service (NMFS) has reviewed the Draft Environmental Impact Statement (DEIS) for the Kodiak Airport Runway Safety Area (RSA) Improvements Project, dated October 15, 2012. The Federal Aviation Administration (FAA) is the lead federal action agency on this project. Currently, the safety areas for runway 07/25 and runway 18/36 at the Kodiak Airport do not meet federal standards. FAA is working with the Alaska Department of Transportation and Public Facilities (ADOT&PF) to improve the RSAs. Under Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), federal agencies are required to consult with the Secretary of Commerce on any action that may adversely affect Essential Fish Habitat (EFH).

EFH has been designated in the project area (nearshore marine waters of Chiniak Bay) for coho, chum, pink, sockeye, and Chinook salmon, as well as walleye pollock, pacific cod, sablefish, flatfish, rockfish, Atka mackerel, skates, squid, sculpins, sharks, octopus, and forage fish. For both RSAs a total of 339,090 cubic yards of clean fill material will be placed in 17.8 acres of intertidal and subtidal marine EFH. The EFH Assessment, (DEIS, Appendix 5) states that the construction of the RSAs for runway 07/25 and runway 18/36 will adversely affect salmon and groundfish EFH. NMFS agrees with the Assessment.

The EFH Assessment describes impacts to EFH for salmon and groundfish from the construction of the RSA for runway 7/25 due to the permanent loss of kelp and algal habitat, as well as shallow, freshwater-influenced habitat near the mouth of the Buskin River. These habitats function as nursery, foraging, and spawning grounds for a variety of fish and invertebrate species. In addition, changes to existing slopes and substrates, will displace juvenile salmon into lower quality habitats.

Additionally, the EFH Assessment states that effects to EFH for salmon and groundfish from the construction of the RSA for runway 18/36 will be less pronounced due to the existing steep, armored shoreline, limited algal cover, and low habitat complexity. The Assessment further states that while there will be loss of EFH, biotic communities will likely remain similar to existing communities and displaced organisms will be expected to find suitable nearby habitat. This assumption fails to take into account the mechanisms that sustain these communities and the consequences that will result from the permanent loss of habitat as a result of the RSA for runway 18/36.

Over the past five years, NMFS has worked closely with the FAA and ADOT&PF to reduce impacts to EFH, resulting in the proposed preferred alternatives. NMFS applauds the efforts of the FAA and ADOT&PF in developing avoidance and minimization measures. Due to this early coordination, NMFS has no further comments on the alternatives listed in the DEIS or EFH assessment. However, these alternatives would still have adverse effects on living marine resources, including EFH, and appropriate compensation should be identified.

In order to compensate for unavoidable impacts to resources ADOT&PF has proposed a fee-in-lieu payment at a 2:1 ratio. This is inadequate to compensate for the permanent loss of nearly 18 acres of productive marine EFH in Chiniak Bay, much of it unique to the area. NMFS notes that other recent projects in Alaska that caused the loss of similar habitats, resulted in higher mitigation ratios (Unalaska Airport, 3:1; Cottonwood Bay, 5:1). NMFS also notes that no analysis has been provided to justify the 2:1 ratio, giving the appearance that this amount was arbitrarily selected.

Clear processes for calculating mitigation are available. The Anchorage Debit-Credit Method, part of the Anchorage Wetlands Management Plan, is one such process where the Environmental Protection Agency, the Corps of Engineers, and the Municipality of Anchorage have developed a methodology to calculate debits and credits for use in fee-in-lieu programs. The Port of Anchorage Expansion project is an example where this methodology was used to calculate compensation for 130 acres of intertidal and sub-tidal fill in Upper Cook Inlet; resulting in an assessed value of $8.8 million, or approximately $67,000 an acre. While NMFS understands this methodology was developed for Anchorage wetlands, the process could be adapted to determine mitigation values for the proposed project.

EFH Conservation Recommendations

NMFS provides the following conservation recommendations pursuant Section 305(b)(4)(A) of the MSA.

1. NMFS recommends the FAA convene a meeting of interested resource agencies to develop mutually agreed upon mitigation to adequately compensate for the unavoidable impacts to the marine environment, including EFH. Further, we recommend that this mitigation package be included in the record of decision for the final Environmental Impact Statement.

Should you have any questions please contact Brian Lance at 907-271-1301 or brian.lance@noaa.gov.

Sincerely,

James W. Balsiger, Ph.D.
Administrator, Alaska Region

cc: phil_brna@fws.gov
jack.j.hewitt@usace.army.mil

Jeanne Hanson
11/17/12

G:\PRD SHARED FILES\2-HCD\Kodiak Airport Runway Safty Areas FAA EFH Consultation DEIS comments\FAA EFH Consultation and DEIS comments Kodiak Airport Runway Safety areas _BL_12-15-12.docx

From: Leslie.Grey@faa.gov
Sent: Monday, May 20, 2013 3:50 PM
To: Brian Lance - NOAA Federal
Cc: Leyla Arsan; Amanda Childs; Brad Rolf; Leslie.Grey@faa.gov
Subject: Re: Fw: Kodiak Airport NMFS MSA Consultation

Thanks so much Brian! LG

Leslie A. Grey
Environmental Protection Specialist
FAA - Alaskan Region, Airports Division
907-271-5453

From: Brian Lance - NOAA Federal <brian.lance@noaa.gov>
To: Leslie Grey/AAL/FAA@FAA
Date: 05/20/2013 01:27 PM
Subject: Re: Fw: Kodiak Airport NMFS MSA Consultation

Hi Leslie

This email confirms that the determination and conservation recommendations in the letter from the National Marine Fisheries Service re: DEIS Kodiak Island Airport RSAs and EFH Assessment dated December 17, 2012 remain unchanged and thus apply to the final EFH Assessment dated April 2013.

Please contact me should you have any questions.

Brian

On Mon, May 20, 2013 at 12:50 PM, <Leslie.Grey@faa.gov> wrote:

Hello Brian,

Just a little reminder that when you get a chance, and if you agree, I would really appreciate it if we could get your response to the email below. Thanks so much! Leslie

Leslie A. Grey
Environmental Protection Specialist
FAA - Alaskan Region, Airports Division
907-271-5453

----- Forwarded by Leslie Grey/AAL/FAA on 05/20/2013 12:43 PM -----

From: Leslie Grey/AAL/FAA
AAL-601, Airports Division
To: Brian Lance
Cc: achilds@swca.com, Brad Rolf <Brad.Rolf@meadhunt.com>, Leyla Arsan <larsan@swca.com>, Leslie Grey/AAL/FAA@FAA
Date: 05/07/2013 09:57 AM
Subject: Re: Kodiak Airport NMFS MSA Consultation

Brian,
Nice talking with you yesterday. With regard to the Final EFHA:

Please reply by to this email to confirm that the findings letter from the National Marine Fisheries Service re: DEIS Kodiak Island Airport RSAs and EFH Assessment dated December 17, 2012 applies to the final EFH Assessment as well as the draft assessment. Your response confirms that the determination and conservation recommendations in the letter apply to the final EFH Assessment dated April 2013.

Thank you very much and as always, please contact me with questions or concerns. Leslie

Leslie A. Grey
Environmental Protection Specialist
FAA - Alaskan Region, Airports Division
907-271-5453

From: Leslie Grey/AAL/FAA
AAL-601, Airports Division
To: brian.lance@noaa.gov
Cc: Leslie Grey/AAL/FAA@FAA, Brad Rolf <Brad.Rolf@meadhunt.com>, Leyla Arsan <larsan@swca.com>, achilds@swca.com
Date: 05/02/2013 08:46 AM
Subject: Kodiak Airport NMFS MSA Consultation

Brian,

The final Essential Fish Habitat Assessment for the Kodiak Airport Runway Safety Area Improvement Project is ready for your review and can be downloaded by following the directions below. A hardcopy of the document is also being sent to you. We have been coordinating with NMFS on this informal consultation and look forward to your concurrence. Please feel free to contact me (271-5453, leslie.grey@faa.gov) or Leyla Arsan (279-7922, larsan@swca.com) to discuss the EFHA or request additional information.

Go to www.swca.com
Scroll to the bottom of the page.
In the gray box at the bottom, under "Login," select "Client Access."
Username: Kodiak
Password: EISaccess4BDC [case sensitive]

Thank you! Leslie

Leslie A. Grey
Environmental Protection Specialist
FAA - Alaskan Region, Airports Division
907-271-5453

Brian Lance
Marine Habitat Biologist
National Marine Fisheries Service
222 West 7th Ave. Room 552
P.O.Box 43
Anchorage, Alaska
907 271-1301
907 271-3030 fax
brian.lance@noaa.gov

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish & Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249

In reply refer to: AFWFO

May 31, 2013

Emailed to:
Leslie Grey
Federal Aviation Administration
222 West 7th Ave #14
Anchorage, AK 99513

Re: Kodiak Airport Runway expansion (*Consultation Number 2009-0100)*

Dear Ms. Grey,

Thank you for your April 29, 2013, request for informal consultation pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq., as amended; ESA). The Federal Aviation Administration (FAA) has proposed an expansion of the Runway Safety Area (RSA) at Kodiak Airport, and has appointed SWCA Environmental Consultants (SWCA) as their nonfederal representatives. The U.S. Fish and Wildlife Service (Service) has been consulting with FAA on this proposed activity since 2007. We have valued your agency's efforts to minimize impacts to our trust resources.

Project Description
The proposed project is fully described in the Final Biological Assessment (SWCA 2013) and Draft Environmental Impact Statement (ADOT&PF & FAA 2012). The action area is defined as Chiniak Bay. The proposed project will extend the RSAs of two of the airport's runways into marine and intertidal habitat. Transport of fill materials may temporarily increase vessel traffic in Chiniak Bay by up to one additional barge per day. Construction may take place year-round and will be completed in 2015.

Potential Effects to ESA-Listed and Candidate Species and Critical Habitat
The threatened, Alaska breeding population of Steller's eider (*Polysticta stelleri*) and the threatened southwest distinct population segment of northern sea otter (*Enhydra lutris kenyoni*) frequent Chiniak Bay (SWCA 2009, Larned and Zwiefelhofer 2001, 2002). The intertidal and marine habitat in the action area is federally-designated critical habitat for the sea otter. The Kittlitz's murrelet (*Brachyramphus brevirostris*) and yellow-billed loon (*Gavia adamsii*), which are candidates under the ESA, may also be found in the vicinity (Stenhouse et al. 2008, SWCA 2013). Candidates receive no formal protection under the ESA, but have been included in this review to simplify the reinitiation process if they are listed prior to project completion.

The proposed project will result in the permanent loss of approximately 20 acres of nearshore marine habitat due to the placement of fill for creation of uplands. Noisy activities, such as placement of fill may cause physical harm to submerged animals or cause them to leave the area. The risk of exposure to petroleum hydrocarbons from accidental fuel spills and leaks increases during construction when heavy equipment will be used and vessel traffic will increase. Placement of fill will cause sediments to be released into marine habitat and may smother benthic invertebrates, which are prey eaten by Steller's

eiders and otters. Finally, Steller's eiders are known to collide with vessels and on-land structures; lighting associated with the RSA expansions may attract eiders, increasing the collision risk.

Avoidance and Minimization Measures Built into the Proposed Action

To reduce or avoid the risk of harm to listed species, the FAA will implement the following measures:

1. Wildlife observers will minimize potential for noise to cause harm to listed species by adhering to the Service's Observer Protocols for in-water placement of fill. The protocols will be re-evaluated after each construction season. No changes will be made without approval by the Service.
2. Fill materials will be obtained from permitted sources (along the road system, if possible) and will be clean (i.e., will contain minimal fine particles such as silt and clay) to minimize sedimentation.
3. A construction stormwater pollution prevention plan (SWPPP) and a spill prevention, control, and countermeasure plan (SPCC) will be prepared to minimize discharges of fuel, oil, and sediments during construction. These plans will include Best Management Practices (BMPs) such as:
    a. Silt curtains will be used during fill placement. If silt curtains are determined to be inadequate, other techniques will be used to minimize sedimentation. The Service will review and approve any modifications to the SWPPP.
    b. Construction in marine waters will occur during low tide.
    c. Dust prevention measures will be used along construction roads and near stockpiles.
    d. Storage of construction equipment and material stockpiles will be located as far away from water bodies as practical.
    e. Erosion control techniques such as sediment fences, straw bales, straw wattles, diversion terracing, inlet protection, and stabilized construction entrances will be used.
    f. Fueling and maintenance of vehicles will be done offsite or at designated areas.
4. The contractor will prepare a contaminant monitoring plan in order to detect and respond to any undocumented areas of contamination from former military activities.
5. Material barges will not be grounded in kelp stands.
6. Barges will avoid areas with high densities of listed species. Vessel operators will follow the Service's Boat Operation Guidance to minimize disturbance and avoid collisions.
7. Barges will follow standard BMPs for vessels to minimize oil or fuel spills (such as having an oil spill emergency plan).
8. If ground lighting is needed for work areas within ½ mile of the coast, the following measures will be taken to minimize bird attraction and collision:
    a. Lighting will be kept to the minimum level needed for safety and security.
    b. Motion or infrared sensors and switches will be used to keep lights off when not needed.
    c. Lights will be hooded or down-shielded to minimize horizontal and skyward illumination.
    d. High-intensity, steady-burning, or bright lights such as sodium vapor lights will be avoided.
    e. Steady lights will not be used to make cranes or other overhead structures more visible. Only strobe, strobe-like, or blinking incandescent lights will be used for this purpose.
    f. The wildlife observer will confirm that any cranes used in construction are lowered when not in use and are not lighted, or if remaining up at night, lit only with strobe lights.

Analysis of Effects

The most likely adverse effect to listed species is from displacement due to habitat loss or disturbance. Displacement can harm an animal if it is forced to move away from productive habitat into areas with fewer food resources or less shelter, or if displacement uses excessive energy. Steller's eiders and sea otters are frequently found in areas of Chiniak Bay other than those adjacent to the airport (SWCA 2009). Assuming that presence indicates habitat suitability, we conclude these alternate areas contain suitable food and shelter. Additionally, we assume all of the listed and candidate species are capable of traveling the necessary distances without expending large amounts of energy. Otters have been observed moving more than 3 km/day, and can travel up to 5.5 km per hour (Garshelis and Garshelis

1984). In a Steller's eider capture and banding study conducted in Unalaska Bay (Flint and Reed 2004), eiders regularly moved more than 3 km. Steller's eiders, Kittlitz's murrelets and yellow-billed loons are all capable of migrations of thousands of miles, suggesting that short distance flights are not problematic. There are no known barriers preventing the movement of these species in and around the action area. Therefore, we assume that displacement from the affected area (which comprises only a small portion, <1%, of the available habitat available within Chiniak Bay) will not significantly impact listed or candidate species.

Construction activities will likely to produce temporary visual or audible disturbance that may cause marine mammals and birds to cease feeding, adopt vigilant behaviors, or disperse to other areas. Disturbed animals reacting in this manner may experience greater exposure to predators or a reduction in food resources. Ongoing disturbance can reduce body condition or result in loss of reproductive opportunities, particularly if no alternative suitable habitat is available.

Noise levels produced by placement of fill can reach levels capable of impairing the hearing ability of marine mammals (NOAA 2009). However, because observer protocols and minimization measures will be implemented sea otters are unlikely to be adversely affected.

Wildlife in the action area may be at risk of exposure to petroleum hydrocarbons, which can be toxic to birds and mammals, can weaken immune responses and contaminate food resources. The proposed action could increase exposure risk during construction by increasing the amount of fuel transported through Chiniak Bay for use by heavy equipment. Excavation of fill materials may also expose areas of buried hydrocarbons from previous military activities. These possibilities will be minimized by development and implementation of a SWPPP, SPCC, and contaminant monitoring plan. After construction, the risk of spills and leaks is expected to return to pre-construction levels. Exposure to petroleum hydrocarbons is therefore unlikely to occur.

Sediments will be directly released into marine waters during placement of fill and indirectly through discharge of sediment-laden stormwater runoff. Increases in sediment loads can affect sea otter and Steller's eider food resources by smothering benthic invertebrates. Placement of silt curtains and the actions specified in a construction SWPPP will minimize sedimentation. If sedimentation does occur and forage availability is reduced, listed species are likely to respond by dispersing short distances to other suitable habitat areas.

Bird collisions with on-land structures and vessels are relatively rare but are known to occur. Steller's eiders seem particularly vulnerable to striking these structures, but listed Steller's eiders are very rare in the Kodiak area. With avoidance and minimization measures to reduce the risk of bird strikes, we believe the likelihood that a listed Steller's eider will strike onshore infrastructure is very low.

Conclusions

Habitat loss and disturbance from the proposed action will not result in harm to individuals because Steller's eiders, sea otters, Kittlitz's murrelets, and yellow-billed loons are capable of dispersing short distances to other areas of suitable habitat nearby. Avoidance and minimization measures included in the proposed action will reduce the risk of adverse effects to listed and candidate species from noise disturbance, exposure to contaminants, and bird strikes. **Therefore, the Service concurs with the FAA's determination that Kodiak Airport RSA expansions are not likely to adversely affect Steller's eiders or sea otters.** The proposed action will result in loss of 20 acres of federally-designated sea otter critical habitat. The amount of critical habitat lost is small relative to that available in the action area, and even smaller relative to the 5,900 square miles of critical habitat overall. The

Service believes the proposed action will not impair the conservation value of the habitat, and **therefore, will not result in adverse modification of sea otter critical habitat.**

Requirements of section 7 of the ESA have been satisfied. However, if new information reveals project impacts that may affect listed species or critical habitat in a manner not previously considered, if this action is subsequently modified in a manner which was not considered in this assessment, or if a new species is listed or critical habitat is determined that may be affected by the proposed action, section 7 consultation must be reinitiated. For example, if a source of construction material is newly developed or expanded beyond its permitted limits, the FAA should reinitiate consultation with the Service. This letter relates only to federally-listed or candidate species and designated or proposed critical habitat under jurisdiction of the Service. It does not address species under the jurisdiction of National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, Clean Water Act, National Environmental Policy Act, or Bald and Golden Eagle Protection Act. Thank you for your participation in section 7 consultation. If you have any questions, please contact me at (907) 271-1467 or Endangered Species Biologist Kimberly Klein at (907) 271-2066.

Sincerely,

Ellen W. Lance
Endangered Species Branch Chief

cc: Mike Edelmann, FAA
Wolfgang Junge, ADOT
Leyla Arsan, SWCA

Literature Cited

[ADOT&PF & FAA] Alaska Department of Transportation and Public Facilities and the Federal Aviation Administration. 2012. Draft Environmental Impact Statement for improvements to the Runway Safety Areas at Kodiak Airport in Kodiak, Alaska. Anchorage, Alaska. October, 2012. 940 pp+apps.

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[SWCA] SWCA Environmental Consultants. 2013. Final Biological Assessment of Listed Species under United States Fish and Wildlife Service Jurisdiction for the Kodiak Airport Runway Safety Area Improvement Project. Prepared for Federal Aviation Administration and Alaska Department of Transportation and Public Facilities. Anchorage, Alaska. April 2013, 49 pp.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Road
Anchorage, Alaska 99503-6199

IN REPLY REFER TO:
Re/8550 DC

Leslie A. Grey
Environmental Protection Specialist
Federal Aviation Administration
Alaskan Region, Airports Division, AAL-600
222 West 7th Avenue #14
Anchorage, Alaska 99513

Dear Ms. Grey;

Please accept my apology for the time it has taken to respond to your June 14, 2013 letter requesting the U.S. Fish and Wildlife Service's (Service) agreement with the final compensatory mitigation plan for the effects of the Kodiak Airport Runway Safety Area Project on the Alaska Maritime National Wildlife Refuge (NWR). You have provided additional detail that addresses the concern expressed in our April 18, 2013 letter (Mitch Ellis, Chief of Refuges to Byron Huffman, Airports Division Manager) that accepted the Federal Aviation Administration's (FAA) proposed compensatory mitigation.

Inclusion of the following clauses in the mitigation plan's goals addresses our concern that limiting the geographic area, within which lost subsistence opportunities would be replaced, to the vicinity of Kodiak City was too limiting.

Preserving the functions and values of high quality habitats that are related to anadromous fisheries, migratory birds, and marine resources and habitats by purchasing property with either eintertidal, estuarine, or coastal shoreline habitat.

Providing access to and preservation of areas with subsistence resources that are located within the Kodiak area. (The Kodiak area is defined as Kodiak-Archipelago Islands.)

The Service agrees with the mitigation as proposed for inclusion in the Final Environmental Impact Statement (FEIA).

We greatly appreciate Federal Aviation Administration's (FAA) efforts on this project. We are particularly impressed with the quality of the Environmental Impact Statement (EIS) and FAA's attention to mitigating the effects on the resources of Alaska Maritime NWR as well as all natural resources within the project area. I enjoyed working with you and your team and thank you for your willingness to work with us.

Sincerely,

Douglas M. Campbell
Acting Chief, Division of Realty
& Conservation Planning

TAKE PRIDE IN AMERICA

From: Brian Lance - NOAA Federal <brian.lance@noaa.gov>
AAL-601, Airports Division
To: Leslie Grey/AAL/FAA@FAA,
Date: 06/17/2013 03:25 PM
Subject: Re: Kodiak Airport EIS mitigation plan ltr

Leslie

NMFS reviewed the FAA letter (dated June 14, 2013) that outlines the Kodiak Airport EIS mitigation plan. NMFS supports the goals and objectives outlined and appreciate the efforts of the FAA at avoiding and minimizing impacts from the project, as well as developing a comprehensive compensatory mitigation plan that addresses unavoidable impacts to marine resources. Should you have any further questions, please contact me.

cheers

Brian

On Fri, Jun 14, 2013 at 1:27 PM, <Leslie.Grey@faa.gov> wrote:
Brian,
As discussed at our mitigation meeting this week - attached is the FAA letter that outlines the Kodiak Airport EIS mitigation plan. Please respond in writing of your concurrence. If it is easier for you, reply to this email referencing the letter for your concurrence.

It has been a pleasure working with you and thanks so very much for all your efforts! Leslie

Leslie A. Grey
Environmental Protection Specialist
FAA - Alaskan Region, Airports Division

907-271-5453

--
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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668
July 10, 2013

Ms. Leslie Grey
U.S. Department of Transportation
Federal Aviation Administration
222 West 7th Ave, #14
Anchorage, Alaska 99513

Re: Kodiak Airport Runway Safety Area Improvement Project

Dear Ms. Grey:

The National Marine Fisheries Service (NMFS) has completed informal consultation under section 7(a)(2) of the Endangered Species Act of 1973, as amended (ESA), regarding the Federal Aviation Administration's (FAA) proposed Kodiak Airport runway safety area (RSA) improvement project. FAA proposes to enhance, to the extent practicable, the RSAs on Runway ends 25 and 36 at the Kodiak Airport by placing fill in waters off the existing runway ends. FAA requires that public use airports have RSAs that serve as buffers, should aircraft deviate from the runway during an accident or emergency. Runways 25 and 36 do not include the length of RSAs necessary at the runway ends to provide adequate overrun or undershoot protection. Based on our analysis of the information provided to us (initiation request letter dated May 8, 2009 and Biological Assessment dated April 2013), NMFS concurs with your determination that this project may affect, but is not likely to adversely affect, the endangered humpback whale (*Megaptera novaeangliae*), or the endangered western distinct population segment (DPS) of Steller sea lion (*Eumetopias jubatus*) or its critical habitat.

A complete administrative record of this consultation is on file in this office. While the proposed action may affect humpback whales, Steller sea lions and critical habitat, our assessment finds any such effects are insignificant (such effects could not be meaningfully measured or detected) or discountable (such effects would not reasonably be expected to occur). The rationale for this determination is discussed below.

Listed Species and Critical Habitat affected by the Action

The endangered humpback whale and endangered Steller sea lion (Table 1) may occur in the action area. Critical habitat has not been designated for the humpback whale, but designated critical habitat for the Steller sea lion is within the action area.

	Division	Status	Listing	Critical Habitat
Humpback Whale	*Megaptera novaeangliae*	Endangered	December, 2, 1970 35 FR 18319	Not designated
Western DPS Steller Sea Lion	*Eumetopias jubatus*	Endangered	62 FR 24345 May 5, 1997	58 FR 45269 August 27, 1993

Table 1. Listing status and critical habitat designation for marine mammal species considered in this letter of concurrence.

Humpback whale

Allen and Angliss (2012) summarized that, in the North Pacific, humpback whales are found throughout their historic summer feeding range, including coastal and inland waters around the Pacific Rim from Point Conception, California, north to the Gulf of Alaska and the Bering Sea, west through the Aleutian Islands to the Kamchatka Peninsula and the Sea of Okhotsk. Kodiak lies in a zone of overlap between the Western and Central North Pacific stocks of humpback whales. The Western North Pacific stock primarily winters off Japan and summers west of Unimak Pass, though they may extend as far east as Kodiak Island. The Central North Pacific stock of humpback whales spends winter and spring in the Hawaiian Islands and then migrates to northern British Columbia, Southeast Alaska, Prince William Sound, and west to Kodiak, in the summer and fall. The Central North Pacific stock is further divided into three separate feeding aggregations: southeastern Alaska, Prince William Sound, and Kodiak.

The worldwide population is at least 80,000 humpback whales; while the best estimate for humpback whale abundance (excluding calves) for all feeding and wintering areas in the North Pacific is 18,302 animals (Calambokidis et al. 2008). The abundance estimates for the Gulf of Alaska and for Southeast Alaska/northern British Columbia ranged from 3,000-5,000 animals (Calambokidis et al. 2008).

Humpback whales feed during the summer in polar waters and migrate to tropical or subtropical waters to breed and give birth in the winter. In the Northern Hemisphere, known prey include: euphausiids (krill); copepods; juvenile salmonids (*Oncorhynchus* spp.); Arctic cod (*Boreogadus saida*); walleye pollock (*Theragra chalcogramma*); pteropods; and cephalopods (Johnson and Wolman 1984; Perry et al. 1999).

Humpback whales can be found in and around the nearshore areas of Kodiak Island. These whales range throughout Chiniak Bay and are known to occur there in the summer and fall, with peak abundances during June and July (Baraff 2006; Witteveen et al. 2006). Humpback whale use of Chiniak Bay is expected to be low in the winter and spring, when most whales migrate southward to warmer waters. However, humpback whales have been observed in Uganik Bay (on the northwest side of Kodiak Island) during the winter.[1] Although it is possible that humpback whales could occur in Chiniak Bay year round,

[1] Witteveen, B. 2007. Marine Advisory Program, Kodiak, Alaska. Personal communication via Leyla Arsan, SWCA Environmental Consultants.

humpback whales were not observed there during boat-based surveys conducted for the Kodiak Airport Environmental Impact Statement (SWCA 2013).

As is the case for all large baleen whales, direct information about the hearing abilities of humpback whales is not available. In a study on the mysticete auditory apparatus morphology, Ketten (1997) hypothesized that large mysticetes have acute infrasonic hearing. Southall et al. (2007) assigned humpback whales to the low frequency cetacean functional hearing group. This group has an estimated auditory bandwidth of 7 Hz to 22 kHz. Like all mysticetes, direct data on humpback whale hearing sensitivity is not available but has been estimated based on behavioral responses to sounds at various frequencies, favored vocalization frequencies, body size, ambient noise levels at favored frequencies, and cochlear morphometry.

Steller Sea Lion

The Steller sea lion is distributed throughout the northern Pacific Ocean, including coastal and inland waters from Russia (Kuril Islands and the Sea of Okhotsk), east to Alaska, and south to central California (Año Nuevo Island). There are two Steller sea lion DPSs in Alaska: an eastern DPS listed as threatened under the ESA, east of Cape Suckling, Alaska (144°W); and a western DPS listed as endangered, west of Cape Suckling (Allen and Angliss 2012), which includes Kodiak Island and the associated action area. Steller sea lions are not known to migrate, but individuals may widely disperse outside the breeding season (late May to early July). At sea, Steller sea lions commonly occur near the 200 meter (m) (656 foot [ft.]) depth contour, but have been seen near shore, to well beyond the continental shelf (Kajimura and Loughlin 1988).

Steller sea lions, the largest eared seal (*Otariidae*) have a worldwide population estimated at 120,000-140,000 animals. The western DPS population size declined by about 75 percent during 1976-1990. Factors that may have contributed to this decline include: 1) incidental take in fisheries, 2) legal and illegal shooting, 3) predation, 4) contaminants, 5) disease, and 6) climate change. Non-pup Steller sea lion counts at trend sites in western Alaska increased 11 percent during 2000-2004. These counts were the first region wide increases for the western stock since standardized surveys began in the 1970s; and were due to increased or stable counts in all regions, except the western Aleutian Islands. During 2004-2008 western Alaska non-pup counts increased only 3 percent; eastern Gulf of Alaska (Prince William Sound area) counts were higher; Kenai Peninsula through Kiska Island, including Kodiak Island, counts were stable; and western Aleutian counts continued to decline. The most recent comprehensive estimate (pups and non-pups) for the western DPS abundance in Alaska is 52,209 sea lions, based on aerial surveys of non-pups conducted in June and July 2008-2011 (DeMaster 2011); and aerial and ground based pup counts conducted in June and July 2009-2011 (DeMaster 2011).

Steller sea lions are opportunistic predators, feeding primarily on a wide variety of fishes and cephalopods, including: Atka mackerel (*Pleurogrammus monopterygius*), walleye pollock, Pacific herring (*Clupea pallasi*), capelin (*Mallotus villosus*), Pacific cod (*Gadus macrocephalus*), Pacific sand lance (*Ammodytes hexapterus*), and salmon (Pitcher 1981; Merrick et al. 1997). On rare occasions, Steller sea lions prey on seals, and possibly sea otter (*Enhydra lutris*) pups.

Although Steller sea lions can be found in Chiniak Bay, they were not observed during the Kodiak Airport point count surveys. However 40 Steller sea lions were observed during the boat based surveys: 19 individuals were observed in February, seven sea lions in May, and 14 sea lions in September 2008. All but two individuals were observed out of the water, resting on the Dog Bay haulout in Kodiak's Inner Harbor.

The ability to detect sound and communicate underwater is important for a variety of functions for the Steller sea lion, including reproduction and predator avoidance, and is relevant to this consultation because of the potential effects of construction-related noise. Kastelein et al. (2005) determined unmasked underwater hearing sensitivities in captive adult male and female Steller sea lions using behavioral psychophysics. The male Steller sea lion's maximum sensitivity, 77 decibel (dB) re: 1 μPa root mean square (RMS), occurred at 1 kHz. The best hearing range, 10 dB from the maximum sensitivity, was from 1-16 kHz. Higher hearing thresholds, indicating poorer sensitivity, were observed below 1 kHz and above 16 kHz. The maximum sensitivity for the female Steller sea lion, 73 dB re: 1 μPa RMS occurred at 25 kHz. Higher hearing thresholds, indicating poorer sensitivity, were observed for signals below 16 kHz and above 25 kHz. At frequencies for which both subjects were tested, hearing thresholds for the male were significantly higher than those for the female. Differences in hearing sensitivity between the male and female Steller sea lions in this study may be due to individual differences in sensitivity between the subjects, or due to sexual dimorphism in hearing.

Critical Habitat

Critical habitat has not been designated for humpback whales.

On August 27,1993 (58 FR 45269) critical habitat was designated for Steller sea lions, which, in Alaska, includes: 1) a 20 nautical mile (nm) (23miles [mi]) buffer around all major haulouts and rookeries; 2) associated terrestrial, air, and aquatic zones; and 3) three large offshore foraging areas.

Sea lion haulouts and rookery sites are numerous throughout the breeding range. One rookery and two haulouts are located close to the Kodiak Airport (Table 2). The nearest major rookery to the action area is on Marmot Island, approximately 61 kilometer (km) (38 mi) northeast of Kodiak Airport. The critical habitat surrounding the rookery at Marmot Island does not overlap with the action area. The two major haulouts that occur on the edge of the action area (i.e., on the outer edge of Chiniak Bay) are located on Long Island, approximately 18 km (11 mi) east-northeast of the airport; and Cape Chiniak, approximately 24 km (15 mi) southwest of the airport (NOAA 1997). The entire action area, including nearshore waters at the airport, falls within the 20 nm (23 mi) aquatic buffer around these two haulouts and thus is within designated critical habitat (Figure 3).

Site Name	Adults and Juveniles			Rookery
	2008	2009	2010	
Marmot Island	646	1027	579	Yes
Long Island	59	39	0	No
Cape Chiniak	131	117	113	No

Table 2. Summer sea lion count for 2008-2010 (DeMaster 2011).

One nontraditional, human made haulout that is not designated critical habitat is located in Dog Bay, Kodiak boat harbor on Near Island. The Dog Bay haulout was created out of empty dock to discourage Steller sea lions from hauling out on active harbor floats and to limit interactions between humans and sea lions. A small number of individual sea lions inhabit Dog Bay year-round and frequent the harbor and nearby cannery docks.

Action Area

The Kodiak Airport is located on the northeastern corner of Kodiak Island, Alaska, in the town of Kodiak, within the Gulf of Alaska. Kodiak is approximately 402 km (250 mi) south of Anchorage.

The action area is defined in the ESA (50 CFR 402.02) as the area within which all of the direct and indirect effects of the project will occur. The action area is distinct from and larger than the project footprint because some elements or consequences of the project may affect listed species some distance from the project footprint or at some future time. The action area, therefore, extends out to a point where no measurable effects from the project are expected to occur.

Since 1997, NMFS has used generic sound exposure thresholds to determine whether an activity produces under water and out of water sounds that might result in impacts to marine mammals (70 FR 1871, January 11, 1997). The current Level A (injury) threshold for impulse noise (e.g., impact pile driving) is 180 dB re 1 µPa root mean square (RMS) for cetaceans (whales, dolphins, and porpoises) and 190 dB re1 µPa RMS for pinnipeds (seals, sea lions). The current Level B (disturbance) threshold for impulse noise (e.g., impact pile driving) is 160 dB 1 µPa RMS for cetaceans and pinnipeds. The current threshold for continuous noise is 120 dB re 1 µPa RMS. The action area includes the area where marine mammals may be subjected to underwater project related sound levels greater than background levels, equal to or more than 120 dB re 1 µPa.

Kodiak Airport is located in Sections 14 and 15, Township 28 South, Range 20 West (Seward Meridian) in Kodiak, Alaska. The project area consists of the airport and the nearshore marine waters in the immediate vicinity of the proposed RSA extensions (Figure 1). The project area is the area within which federally listed species will be directly affected by construction disturbance; or indirectly affected by long-term changes in habitat or water chemistry, due to potential project related changes in distribution of the Buskin River freshwater plume.

The action area for the Kodiak Airport expands beyond the project area and consists of a 63,000 acre area comprising the proposed fill footprints adjacent to the airport, and the surrounding areas of Chiniak Bay and its sub-bays: St. Paul Harbor, Womens Bay, Middle Bay, and Kalsin Bay (Figure 1). Chiniak Bay is contiguous with and thus physically, chemically, and biologically connected to the nearshore waters adjacent to the airport where the RSAs will be constructed. Furthermore, construction of the RSAs will require barging under layer rock and armor rock from off the island. Given the potential for barge

traffic to physically affect listed species, Chiniak Bay is considered part of the action area for this consultation.

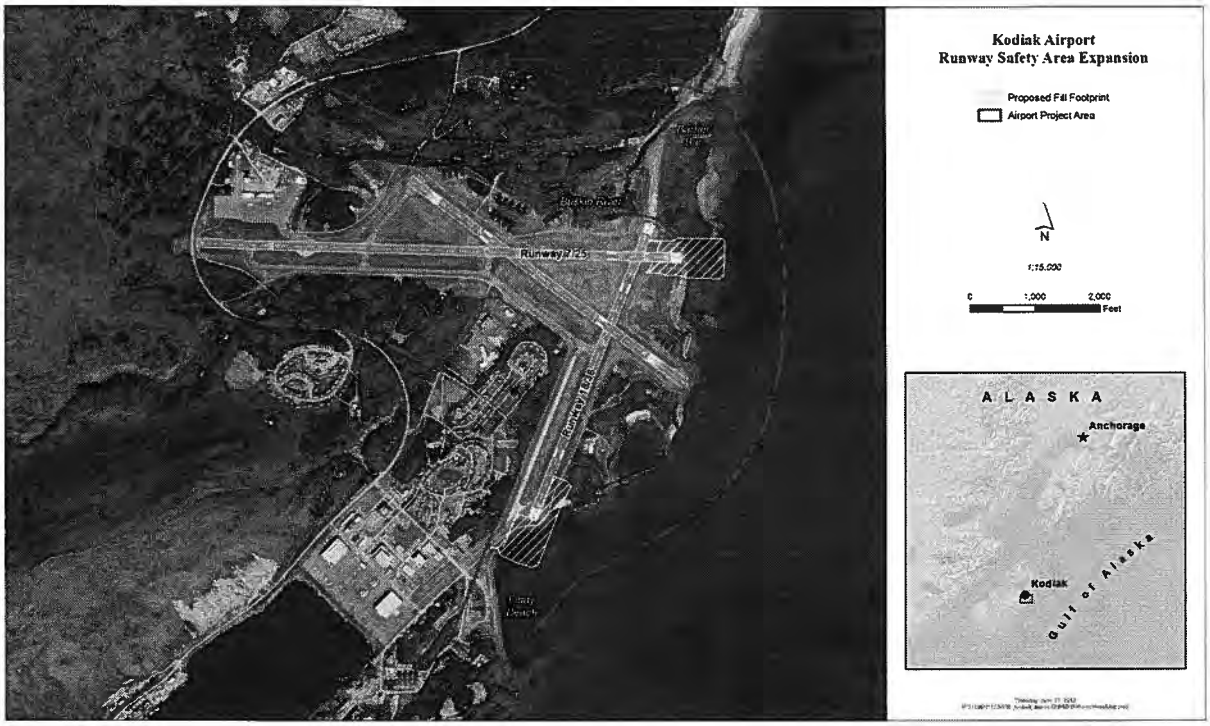

Figure 1. Kodiak Airport and RSA extensions on runway ends: 18, 25, and 36.

Description of the Action

Alaska Department of Transportation and Public Facilities (ADOT) proposes to bring the airport runways into compliance with FAA RSA design standards to the extent practicable.

Construction of the RSAs will require approximately 549,715 cubic meters (m^3) (719,000 cubic yards [yds^3]) of fill, which includes: gravel for the embankments, medium size under layer stone, large size armor stone, crushed aggregate base course, and sub-base course (DOWL HKM 2009).

Gravel for the embankments will come from a Kodiak Island source and will be delivered, by truck to the site. Using a Kodiak area fill source will require hauling operations for 45-90 days, 10 hours a day (DOWL HKM 2009). Haul routes will be located along the Kodiak Island road system and on existing airport access roads. Alternatively, gravel may be barged to the work sites. Embankment materials will be placed by conventional end dump methods from the existing embankments.

Under layer and armor stone will come from an off-island source and will be barged to the construction area. Transporting the under layer and armor stone will require 10-20 barge trips during the construction period. Armor rock will be placed into its final location with a crane or loader (DOWL HKM 2009). Currently, there are 1-2 large vessels and 10-20

small vessels traveling in and out of Kodiak via the Chiniak Bay ship channel on a daily basis. If all fill materials (armor rock and gravel) are barged to the site and small barges are used for project construction, about 400 barge trips will be required. This will result in approximately one additional barge trip per day compared to the current boat traffic in Chiniak Bay.

Construction will take place during the course of approximately three years and will be completed in 2015. Construction will be phased so that in-water work will not occur on more than one runway at a time. It is anticipated that improvements to Runway 07/25 will be initiated first. Improvements to Runway 18/36 will be implemented upon completion of work on Runway 07/25. Work will also be scheduled to minimize impacts to operations by large aircraft, such as Alaska Airlines' 737s and the U.S. Coast Guard's C-130s. For these aircraft, off-peak season is typically from November-March, and work at this time will have the fewest impacts on their operations (DOWL HKM 2009). Some construction activities, such as preparation of the finished surfaces (e.g., sub-base, crushed aggregates, and paving) will need to be completed during the summer, in coordination with ADOT, FAA, and U.S. Coast Guard.

Effects of the Action

The ESA section 7 implementing regulations (50 CFR 402.02) define "effects of the action" as:

> The direct and indirect effects of an action on the species or critical habitat together with the effects of other activities which are interrelated or interdependent with that action, that will be added to the environmental baseline. The environmental baseline includes the past and present impacts of all federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur.

There are three possible determinations of effects under the ESA:

No Effect: The proposed action or interrelated or interdependent actions will not affect (positively or negatively) listed species or their habitat.

May affect, not likely to adversely affect: The proposed action or interrelated or interdependent actions may affect listed species or their habitat, but the effects are expected to be insignificant, discountable, or entirely beneficial.

> *Insignificant effects* relate to the size of the impact and should never reach the scale where a take will occur.
>
> *Discountable effects* are those that are extremely unlikely to occur. Based on best judgment, one would not 1) be able to meaningfully measure, detect, or evaluate insignificant effects; or 2) expect discountable effects to occur.

Beneficial effects are contemporaneous positive effects with no adverse effects to listed species.

May affect, likely to adversely affect: The proposed action or interrelated or interdependent actions may have measurable or significant adverse effects on listed species or their habitat. Such a determination requires formal ESA Section 7 consultation.

The proposed RSA improvements project could reduce existing humpback whale and Steller sea lion use of the project area on a short term basis because of 1) noise from construction; 2) construction related increases in turbidity; 3) barge traffic, and 4) effects on prey availability.

Noise

The RSA improvement project will introduce sounds into the air and water. However, source level sounds from this project are generally expected to diminish rapidly with distance from the source. Therefore, the source level sounds are not expected to adversely affect humpback whales or Steller sea lions, due to the nature of the project and its mitigation measures.

Possible impacts to marine mammals exposed to loud sounds include mortality (directly from the noise or indirectly from a reaction to the noise), injury, and disturbance that ranges from severe (e.g., abandonment of vital habitat) to mild (e.g., startle response). Underwater noise is the primary concern for both species covered in this assessment. Humpback whale and Steller sea lion exposure to sound pressure levels (SPL) depend on the source; the intensity, frequency, and duration of the sound; the animal's distance from the source; and the acoustic environment in which the sound was produced.

Airborne Noise

The primary airborne noise from the project will be from engine noise from barges and heavy construction equipment, which are not muffled in the same manner as cars and trucks. Table 4 provides airborne noise data for equipment similar to what will be used at Kodiak Airport.

Effects of Airborne Noise on Humpback Whales

Submerged animals, like the humpback whale, would normally not be affected by airborne noise. Airborne noise is generally reflected at the sea surface outside of a 26 degree cone extending downward from an airborne source (Richardson et al. 1995), directly below the noise source (ex., barge). Submerged animals would normally have to be directly under the noise sources before they would be affected. Underwater acoustic transmissions from air are complex and are affected by the noise level and frequency, sea state, other surface conditions, water depth, and sea floor conditions

Source Sound	No. of Units	Reference Sound Level per Unit (dBA)	Reference Distance (m/ft.)	Data Source	Comment
Tug Boat	1	87	15 / 50	Port of Oakland FEIS	Assumes

					900-1,000 horsepower
Work Boat	1	72	15 / 50	8m (25 ft.) long twin screw tugboat measured at Island End River site while moving a barge	Tender Tug
Heavy Construction Equipment		85-98	50	***Handbook of Noise Assessment*, May, D.N. Page 215. Van Nostrand Reinhold Company, New York, 1978**	

CONSTRUCTION EQUIPMENT NOISE

Type	Typical Sound Level dB(A) at 50'
Dump Truck	88
Portable Air	81
Concrete Mixer	85
Jackhammer	88
Scraper	88
Dozer	87
Paver	89
Generator	76
Rock Drill	98
Pump	76
Pneumatic Tools	85
Backhoe	85

Source: *Handbook of Noise Assessment*, May, D.N. Page 215. Van Nostrand Reinhold Company, New York, 1978.

Table 4. The dBA sound levels for typical construction equipment that could be used for the RSA improvement project at the Kodiak Airport.

Given the recorded in-air noise levels from project equipment (Table 4), it is unlikely that the noise would penetrate below the surface to reach Level B (disturbance) or Level A (injury) levels to affect humpback whales. Any project sounds that would penetrate beneath the sea surface would not persist in the water for more than a few feet or more than a few seconds.

Humpback whales are unlikely to be affected by airborne noise from engines on the water's surface. The reference sound level for a tug boat (source level) is 87 dBA (Table 4). The distance from the tugboat to below the 87 dBA is 3.4 m (11 ft.). Given that dBA and dB RMS are not directly comparable, FAA used a more conservative airborne disturbance threshold of 80 dBA and determined that 34 m (112 ft.) is the distance from the tugboat to below this 80 dBA disturbance threshold. In the event that humpback whales are present in the action area during construction activities, FAA intends to reduce the risk that airborne noise will adversely affect humpback whales by requiring that all such activities have shut down procedures when humpback whales are identified within a 50 m (164 ft.) exclusion zone. This exclusion zone is intended to be conservative in terms

of sound propagation. Marine mammal observers will be on site during construction and will have the authority and the responsibility to immediately stop noise generating work when humpback whales are within or about to enter the exclusion zone.

The ADOT-proposed shutdown (stop activity) radius for humpback whales will be a distance of 50 m (164 ft.), which should be very conservative as to potential exposure levels (received levels at 34 m are estimated to be 80 dBA). In addition, humpback whales are unlikely to be found at the surface near the Kodiak Airport project area, or near the barge and equipment where airborne noise is likely to transmit below the water's surface. NMFS concurs with FAA's determination that effects from airborne noise, most likely from vessel operations, are not expected to result in take of the humpback whales and are insignificant.

Effects of Airborne Noise on Steller Sea Lions
Steller sea lions require both terrestrial and aquatic resources for survival in the wild. Behavioral reactions among hauled out Steller sea lions could be anticipated at levels more than 100 dB re 20 μPa, although this would depend largely on ambient noise levels as well as the behavior of the animals themselves. Steller sea lion haulouts and rookeries are distant from the action area.

The reference sound level for a tug boat (source level) is 87 dBA (Table 4). The distance from the tugboat to below the 87 dBA is 3.4 m (11 ft.). In the event that Steller sea lions are present in the action area during construction activities, FAA intends to reduce the risk that airborne noise will adversely affect Steller sea lions by requiring that all such activities have shut down procedures when sea lions are identified within the 50 m (164 ft.) exclusion zone. This exclusion zone is intended to be conservative in terms of sound propagation. Marine mammal observers will be on site during construction and will have the authority and the responsibility to immediately stop noise generating work when Steller sea lions are within or about to enter the exclusion zone.

Underwater Noise
The primary underwater noise from the project will be from the fill placement and barge movements.

Effects of Underwater Noise on Humpback Whales and Steller Sea Lions
Underwater noise from the construction activities could harass humpback whales and Steller sea lions. However, most in-water construction activities are planned during November-March when it is unlikely that humpback whales are in the action area, and small numbers of Steller sea lions may be in the action area during this time. In the event that humpback whales and/or Steller sea lions are present in the action area during construction activities, FAA intends to reduce the risk that construction activities will adversely affect listed species by requiring that all such activities have shut down procedures when humpback whales and/or Steller sea lions are identified within a 300 m (984 ft.) exclusion zone. This exclusion zone is intended to be conservative in terms of sound propagation. Marine mammal observers will be on site during in-water construction and will have the authority and the responsibility to immediately stop noise-generating work when any humpback whales and/or Steller sea lions are within or about to enter the

exclusion zone. FAA's exclusion zone is based on data described in USFWS's noise protocols (USWFS 2012).

NMFS concurs with FAA's determination that this work and the mitigative measures are adequate to avoid significant behavioral change or harassment of humpback whales and/or Steller sea lions present in the action area. Humpback whales are unlikely to be present and there is a low probability that Steller sea lions are in the area during the construction activities. Marine mammal monitoring during these activities would prevent exposure to levels capable of causing any significant changes in behaviors. We find that improvements to Runway 07/25 and Runway 18/36 would not result in significant behavioral change or harassment of humpback whales and Steller sea lions, or other measurable effects; therefore, the effects from underwater noise are considered insignificant.

Effects of Barge Traffic Noise on Humpback Whales and Steller Sea Lions
Underwater noise from the tugboat would be audible to humpback whales and Steller sea lions, but it occurs at very low frequencies and would be part of the overall noise environment in Chiniak Bay. Although humpback whales are not expected near the Kodiak Airport project area, Steller sea lions could occur this close to shore. Tugboats used during the RSA improvement project would not be any different than the wide range of routine noise sources already present in the Chiniak Bay ship channel. There is no indication that humpback whales or Steller sea lions are disturbed or injured from underwater tugboat noise.

For moving barges it is not possible to stop suddenly since the vessel cannot simply stop in the currents of Chiniak Bay, without possibly drifting into hazards, such as other vessels. However, barges will slow down to avoid marine mammals that approach a 50 m (164 ft.) perimeter around the vessel, while a safe maneuvering speed is maintained at all times. We would expect noise to diminish rapidly with distance from the source, and for the 120 dB harassment threshold to exist only very near the barge. NMFS concurs with FAA's determination that a 50 m (164 ft.) perimeter around the vessel with a safe maneuvering speed at all times is adequate to ensure that humpback whales and Steller sea lions are not exposed to continuous noise at or exceeding 120 dB. Therefore, the effects from the barge noise are unlikely to result in the the harassment or have measurable effects on humpback whales and/or Steller sea lions, and as a result, are insignificant

Water Quality
Construction of the RSAs will require approximately 549,715 m^3 (719,000 yds^3) of fill, including gravel for the embankments, medium size under layer stone, large size armor stone, crushed aggregate base course, and sub-base course (DOWL HKM 2009) placed onto approximately 18.1 acres of marine habitat. To be compliant with Alaska Department of Environmental Conservation (ADEC) Clean Water Act Section 401, the contractor will obtain clean fill material from permitted sources (i.e., the material will contain minimal fine particles such as silt and clay) to minimize sediment releases and turbidity outside the fill zone. The fill materials will be free of invasive species. A construction storm water pollution prevention plan and a construction oil spill prevention and response plan will be prepared, according to ADEC requirements, to avoid or minimize discharges of sediment or hydrocarbons during construction.

Since the fill material will be obtained from permitted sources, shall be clean and free of invasive species, and since the likelihood that suspended sediment will cover adjacent habitat in fill footprint is very low; this project is not expected to affect water quality. NMFS agrees with FAA's determination that effects to water quality are not expected to adversely affect humpback whales or Steller sea lions and, as a result, are insignificant.

Vessel Strikes

Ship strikes/collisions with humpback whales or Steller sea lions would be extremely unlikely to occur, given the fact that these tugboats travel slowly (8 knots [9.2 mph]). Fishing vessels and other craft are common to these waters, and such collisions are rare. NMFS agrees with FAA's determination that effects from marine transportation are extremely unlikely to result in the take of humpback whales and Steller sea lions and, as a result, are discountable.

Prey Availability

Effects of Construction Activity on Prey for Humpback Whales and Steller Sea Lions
Indirect effects to the humpback whale associated with the proposed action include habitat loss for prey species. Fill placement has the potential to remove productive habitat and can eliminate important habitat function for fish. The proposed action will result in the loss of approximately 18.1 acres of marine habitat. However, NMFS has no information to indicate that this habitat supports humpback whale feeding, and even if it does, the loss of prey derived from this area would be inconsequential to humpback whales.

NMFS concurs with FAA's determination that the decline in production of small fish and invertebrate prey associated with the RSA improvements will be unlikely to have a substantive effect on humpback whale food availability within the action area. We find that the impacts to fish and fish habitat from improvements to Runway 07/25 and Runway 18/36 would not result in any measurable behavioral changes to humpback whalesand therefore are insignificant.

Direct, negative effects to the Steller sea lion associated with the proposed action include loss of approximately 18.1 acres of marine intertidal and subtidal habitat known to support prey species used by sea lions, including salmonid species, Pacific sand lance, capelin, Atka mackerel, and Pacific herring. Although the area of habitat lost represents less than 0.1 percent of potentially suitable foraging habitat in the action area, its removal could have minor direct, negative effects on the Steller sea lion resulting from reduced food resources within the project area. Consequently, impacts to Steller sea lions, resulting from effects on its prey, will be negligible.

NMFS concurs with FAA's determination that the short term decline in production of prey associated with the RSA improvements will be unlikely to have a substantive effect on Steller sea lion food availability within the action area. We find that the impacts to fish and fish habitat from improvements to Runway 07/25 and Runway 18/36 would not result in any measurable behavioral changes to Steller sea lions and therefore are insignificant.

Critical Habitat

Steller sea lions gather on well-defined haulouts and rookeries to rest and breed, respectively. All major haulouts and major rookeries are considered critical habitat. The RSA improvement areas at the Kodiak Airport fall within the 20 nm (23 mi) critical habitat radius surrounding two major haulouts: Long Island and Cape Chiniak. Project related disturbances to Steller sea lion critical habitat would most likely be from noise and prey availability.

Airborne and Underwater Noise

The primary airborne noise from the project would be from engine noise associated with tugboats and heavy construction equipment. The loudest expected airborne noise is 87 dBA, with a reference distance of 15 m (50 ft.), well away from the haulout sites.

The underwater noises expected from the project are pulsed sounds expected from tugboats, where the injury threshold of 180 dB RMS, if reached at all, would be encountered at a distance from the source of 1 m (3 ft.).

The underwater disturbance level from tugboats; the associated effects on the quality, quantity, or availability of critical habitat; or on its values in terms of recovery to the western DPS Steller sea lions, are too small to be estimated. The noise produced by the project activities in critical habitat also would be temporary in nature and are not expected to cause prey species to move to areas that are unavailable to Steller sea lions. Therefore, NMFS concurs that the effects to Critical Habitat from the RSA improvements at the Kodiak Airport would be insignificant, especially when considering: 1) activity that already occurs in the action area, 2) apparent tolerance to noise by the sea lions in the area, 3) nearby habitat for prey species to relocate, and 4) continued availability of prey species to Steller sea lions.

Prey Availability

Steller sea lions are opportunistic predators that feed primarily on a wide variety of fishes and cephalopods. Kodiak's Steller sea lions prey on a diverse diet, including Pacific sand lance, arrowtooth flounder (*Atheresthes stomias*), walleye pollock, Pacific cod, and salmon (Wynne et al. 2005). Prey species used by Steller sea lions will likely not be affected by the project activities because, should the prey species be around during project activities (ex., fill placement), these prey species will likely move to nearby habitats where they may continue to be available to sea lions. We expect that prey would continue to be available around the dredging and disposal locations following construction and these areas would continue to provide foraging habitat in proximity to the Long Island and Cape Chiniak haulouts.

Oil Spill

The most likely spill scenario in the marine environment from this project would be a small (less than 379 liters [100 gallons]) to medium (less than 3,785 liters [1,000 gallons]) size spill, associated with the tug operations. NMFS expects that most oil from any spill would be contained by booms or other containment equipment routinely present on site, as

standard operating procedures. Any oil escaping from the containment equipment would likely be a small percentage and would rapidly disperse by currents and waves. Therefore, an effect from a small to medium fuel spill is expected to be insignificant to humpback whales, Steller sea lions, and Steller sea lion critical habitat.

Conclusion

We have considered the potential effects from the proposed RSA improvement project at Kodiak Airport on humpback whales, Steller sea lions, and Steller sea lion critical habitat. While the proposed action may affect humpback whales, Steller sea lions, and designated critical habitat, NMFS concurs that the proposed action is not likely to adversely affect these species or critical habitat. NMFS' assessment finds any effects are insignificant (such effects could not be meaningfully measured or detected) or discountable (such effects would not reasonably be expected to occur).

This concludes consultation for this action. Reinitiating consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: 1) take of a listed species occurs, 2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered, 3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not previously considered, or 4) a new species is listed or critical habitat is designated that may be affected by the action.

If there are any questions please contact Barbara Mahoney in our Anchorage office at 907-271-3448.

Sincerely,

for James W. Balsiger, Ph.D.
Administrator, Alaska Region

cc:

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Appendix B – Memorandum of Agreement Between the FAA and Sun'aq Tribe of Kodiak

This appendix includes the Memorandum of Agreement between the FAA and the Sun'aq Tribe of Kodiak for mitigation to be completed for the Project.

MEMORANDUM OF AGREEMENT
BETWEEN
THE FEDERAL AVIATION ADMINISTRATION
AND
THE SUN'AQ TRIBE OF KODIAK
REGARDING RUNWAY SAFETY AREA IMPROVEMENTS
AT
KODIAK AIRPORT, KODIAK, ALASKA

WHEREAS, the Federal Aviation Administration ("FAA") is considering whether to approve revisions to the Airport Layout Plan for the Kodiak Airport, Kodiak, Alaska ("the Airport") and provide associated approvals for improvements to the runway safety areas of Runways 07/25 and 18/36 ("the Project") at the Airport, including potential grant-in-aid funding from the FAA's Airport Improvement Program (AIP); and

WHEREAS, the FAA has determined that the Project could have significant adverse effects from runway safety area improvements on Runway 07/25 to salmonids using the Buskin River and its estuary; and

WHEREAS, the Sun'aq Tribal Council is the governmental body for the Sun'aq Tribe of Kodiak ("the Tribe") and is responsible for the promotion of the health, welfare, and employment of their tribal citizens, the Tribal Court, the preservation of Sug'piaq Alutiiq culture, and the protection of customary and traditional resources and practices; and

WHEREAS, the FAA has engaged in government-to-government consultation with the Tribe, a federally recognized sovereign Alaska Native Tribe, under FAA Order 1210.20 and Executive Order 13175; and

WHEREAS, the Tribe does not own or have legal jurisdiction over the lands or resources that would be significantly affected by the Project, but their customary and traditional subsistence area includes lands and waters affected by the Project; and

WHEREAS, the Sun'aq Tribal Council has identified the Buskin River salmon fishery as an important customary and traditional harvest area and has informed the FAA that anticipated significant adverse effects to salmonids would also adversely affect the customary and traditional subsistence practices of tribal members and other individuals using the fishery for subsistence harvest; and

WHEREAS, the Tribe believes the FAA's mitigation plan, as described in Chapter 6 of the Final Environmental Impact Statement for the Project, is inadequate regarding the effects on customary and traditional subsistence practices; and

WHEREAS, for any grant-in-aid funding from the AIP, the FAA would be the granting agency for the Project; the State of Alaska, represented by the Alaska Department of Transportation & Public Facilities (ADOT&PF), would be the grantee; and the Tribe would be the sub-grantee or similar recipient of funding through the State of Alaska;

NOW, THEREFORE, the FAA and the Tribe agree that if the FAA issues a Record of Decision approving the Project, the Project will be implemented according to the following stipulations to provide additional mitigation for the adverse effects to customary and traditional subsistence practices.

STIPULATIONS

If the FAA issues a Record of Decision (ROD) approving the Project, the FAA and the Tribe stipulate that the following actions will be taken:

I. For the purposes of these Stipulations,

the "Project" means the FAA's unconditional (final) approval—as embodied in the ROD—of the Airport's Airport Layout Plan amendments for the Alaska Department of Transportation & Public Facilities ("ADOT&PF") to construct, with potential FAA funding, the following runway safety area improvements:

i. Runway Safety Area Runway 07/25: *Extend Runway 25 RSA landmass by 600 feet and install 70-kt EMAS on newly constructed landmass*

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

II. Additional Measures to Mitigate Adverse Effects to Customary and Traditional Subsistence Practices

A. The FAA will instruct the ADOT&PF—as part of conditions related to AIP funding for the Project—to provide a sum of $450,000 to the Tribe for the purpose of executing scientific studies of changes to the freshwater plume and nearshore habitat and prey abundance in nearshore habitats in the area affected by the placement of fill on Runway end 25 ("the Studies").

i. The Studies will have a duration of up to five (5) years from the receipt of the grant by the Tribe.

ii. Prior to execution of the Studies, the Tribe will provide the FAA with a detailed scope of work describing the nature of the Studies, their relationship to the Project, and their intended goal and plans for publication and public interpretation.

iii. The FAA will review the scope of work for adherence with FAA AIP funding requirements and may coordinate with other parties to request review of technical aspects of the scope of work.

iv. Should any dispute over the scope of work arise, the FAA and the Tribe will meet to resolve the dispute.

B. If, during the course of the Studies, the Tribe identifies a need to alter the scope of the Studies, the FAA will be afforded an opportunity to review and comment on the revised scope of work for adherence to FAA funding requirements.

C. The FAA reserves the right to periodically request progress reports from the Tribe relative to the Studies.

D. The Tribe will be responsible for obtaining all necessary permits and rights-of-access (e.g., from the U.S. Coast Guard) to complete the Studies.

E. The Tribe will ensure that all technical work is completed by parties holding the appropriate qualifications.

F. The Tribe will enter into an agreement or contract with the ADOT&PF (or their designated representative) that outlines the administrative and procedural terms of funding.

G. Funding provided through the AIP program will be all-inclusive. Neither the FAA nor ADOT&PF are obligated to provide any additional funding above the $450,000 related to the Studies or the mitigation of effects to the Sun'aq Tribe from the Project.

H. Provision of funding by the FAA under this Agreement does not obligate the FAA or ADOT&PF to take any action in response to the results of the Studies.

III. Dispute Resolution:

A. Should the Tribe object in writing to the FAA regarding any action carried out or proposed with respect to the implementation of this Agreement, the FAA will consult with the Tribe to resolve the objection.

B. If, after initiating consultation, the FAA determines that the dispute cannot be resolved at the staff level within the FAA, the dispute will be elevated according to procedures outlined in FAA Order 1210.20.

C. After the initial consultation to resolve the dispute, the Tribe may request the FAA to elevate the dispute according to procedures outlined in FAA Order 1210.20.

D. This MOA shall not conflict or negate any stipulation of Presidential Executive Order 13175, nor diminish the right of the Tribe to consult on a Government to Government basis with the United States.

IV. Duration, Amendment, and Termination:

A. This Agreement will terminate no later than December 31st of the sixth (6th) year following receipt of the designated funding by the Tribe. Should the Tribe require additional time to complete the Studies and any associated documentation or reporting, the Tribe will consult with the FAA in accordance with Stipulation IV.B, below, to request an amendment to this Agreement.

B. Either signatory to this Agreement may request that it be amended, whereupon the signatories will consult to reach a consensus on the proposed amendment. No amendment will be effective unless it is in writing and signed by both signatories to this Agreement.

C. If either signatory to this Agreement determines that its terms cannot be carried out, that signatory will immediately consult with the other signatory to develop an amendment per Stipulation IV.B. If within ninety (90) days an amendment cannot be reached, either signatory may terminate this Agreement upon written notification to the other signatory.

D. If the Agreement terminates, all remaining funding for the Studies will be remanded by the Tribe to the ADOT&PF within ninety (90) days of the date of termination.

V. Anti-Deficiency Act:

The FAA's obligations under this Agreement are subject to the availability of appropriated funding, and the Stipulations of this Agreement are subject to the provisions of the Anti-Deficiency Act. The FAA will make reasonable and good faith efforts to secure the necessary funds to implement this Agreement in its entirety. If compliance with the Anti-Deficiency Act alters or impairs the FAA's ability to implement the stipulations of this Agreement, the FAA will consult in accordance with the amendment and termination procedures set forth in Stipulation IV.

VI. Availability of Sun'aq Tribe of Kodiak Resources:

The obligations of the Tribe under this Agreement are contingent upon the Tribe having sufficient governmental organization, staff, partners, consultant support, and/or facilities to implement the measures outlined herein. If necessary resources to fulfill the obligations under this Agreement are not available, the Tribe will consult with the FAA pursuant to the amendment and termination procedures set forth in Stipulation IV.

VII. Execution:

Execution of this Agreement by the FAA and the Tribe, and the implementation of its terms, constitutes evidence that the FAA has resolved the Tribe's concerns over the mitigation of adverse effects from the Project. The signatories below affirm they have the authority to enter into this Agreement on behalf of the agency or organization they represent.

SUN'AQ TRIBE OF KODIAK

Trisha Pruitt

Vice Chair

Council Chairwoman

9-9-2013

Date

FEDERAL AVIATION ADMINISTRATION, ALASKAN REGION

Byron K. Huffman

Airports Division Manager

9/10/2013

Date

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Appendix C –Comments on the Final EIS

This appendix includes comments regarding the Final Environmental Impact Statement. A response to each substantive comment is also included in this appendix.

The following agencies, tribes, stakeholder groups, and individuals submitted comments to the FAA on the Draft EIS during the comment period.

Organization	Date
U.S. Environmental Protection Agency	August 28, 2013

Response to U.S. Environmental Protection Agency
Christine B. Reichgott, Manager, Environmental Review and Sediments Management Unit
August 28, 2013

Comment EPA 1
In our December 18, 20 I 2, letter on the Draft EIS we identified a rating of EC-2 and stated our primary concerns regarding mitigation for potential cumulative impacts to resources in the project area, as well as the direct loss of intertidal and subtidal marine habitat, loss of marine life, decreased water quality and reduced habitat connectivity. We also expressed concern regarding the lack of information quantifying the incremental reduction in the extent of personal injury and aircraft damage anticipated with each alternative.

Response EPA 1
Thank you for your comment. All comments received on the Draft EIS were considered by the FAA and responses were prepared and included in Appendix 14 of the FEIS.

Comment EPA 2
We recognize and commend the efforts of the FAA and partner agencies to develop a mitigation plan that will offset and compensate for the unavoidable impacts to waters of the U.S. and other resources that have the potential to be affected by this project. We continue to recommend that mitigation plans contain an explanation of how proposed actions will offset specific impacts identified in the EIS. In addition, it is important for the mitigation plan to articulate the methods used to calculate project debits and/or compensation ratios. The disclosure of this information lies firmly within NEPA practice. For this specific project, it is also important that the U.S. Army Corps of Engineers be able to readily demonstrate that the proposed compensatory mitigation complies with the standards found in 33 CFR Part 332/40 CFR Part 230 Compensatory Mitigation for Losses of Aquatic Resources.

Response EPA 2

Thank you for your comment. Section 8.0 of this ROD describes the mitigation measures to avoid, minimize, and compensate for the impact resulting from the Project. Chapter 6 of the FEIS describes the process used to develop the mitigation plan for this project and Section 6.5 of that chapter describes the factors used when coordinating and determining an appropriate mitigation ratio. When coordinating the compensatory mitigation ratio appropriate for this project, mitigation ratios used in other coastal states were reviewed to establish a range of ratios for comparison to this project. Few states have developed protocols for mitigation in tidal wetlands and even fewer address impacts to marine waters. Other coastal states do not have established ratios and compensatory mitigation is determined on a case-by-case basis. Nationally, the amount of mitigation required when using a mitigation bank or in-lieu fee (ILF) program also varies.

Several methods for assessing mitigation in coastal areas from Alaska and other coastal states were reviewed, including the Hood Canal Coordination Council ILF Program Instrument. Some were project-specific and others more generally applicable methodologies. Of these, some covered low and high marsh but not marine waters and some were intended for use with a specific mitigation site instead of an ILF program. Alaska has not adopted functional or condition assessment methods or other suitable metrics for evaluating impacts to marine and nearshore waters. Methodologies are under development to standardize these assessments, but few are available for marine environments.

For this project the compensatory mitigation ratio was determined by the FAA through coordination with USFWS, NMFS, EPA, and the ACOE. The ACOE has indicated that for this project the mitigation ratio of 5.5:1 is appropriate to compensate for fill into waters of the U.S., consistent with Alaska District Regulatory Guidance Letter (RGL) No. 09-01. Within the framework of this RGL, the ACOE Alaska District decides how: (1) adversely affected resources would be accounted for, in terms of resource function and value; and (2) credit would be assigned for specific types of mitigation. Factors used in making these determinations include, but were not limited to, habitat types affected; amount and locations of habitat; similarity of the habitat affected versus that proposed for establishment, restoration, enhancement or preservation; and mitigation timing.

Comment EPA 3

We also remain concerned that the EIS does not include estimates regarding the incremental improvements in safety provided by each alternative. We continue to believe that this is an important piece of information to justify the environmental impacts as well as high costs of these types of projects. We will continue to recommend that this information be included for similar projects in future analyses.

Response EPA 3

Thank you for your comment. The risks of an aircraft overrunning or undershooting a runway depend on a number of circumstances related to conditions like weather, runway surface conditions, distance required to land or take off, available runway distance, terrain obstacles, and many others.

Additionally, human error and mechanical malfunction of aircraft also factor into the potential for accidents that could benefit from standard RSAs.

The Federal Aviation Administration (FAA) has determined that each of the alternatives carried forward in the Draft and Final Environmental Impact Statements (DEIS and FEIS) would meet the project's purpose and need of improving the RSAs at Kodiak Airport to meet FAA standards to the extent practicable. It is not possible to accurately estimate the difference in safety enhancement between each of the alternatives for all relevant operating conditions and scenarios. Moreover, it would not be useful to do so, since the Preferred Alternatives, developed in coordination with federal, state, tribal, and local stakeholders, are also the environmentally preferable alternatives.

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OFFICE OF
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August 28, 2013

Leslie Grey
Environmental Protection Specialist, AAL-614
Federal Aviation Administration, Alaska Region, Airports
222 W. 7th Avenue, #14
Anchorage, Alaska 99513-7587

Re: EPA comments on the Final Environmental Impact Statement for Improvements to the Runway Safety Area at the Kodiak Airport, EPA Project #07-007-FAA.

Dear Ms. Grey:

We have reviewed the Final Environmental Impact Statement for the Improvements to the Runway Safety Area at the Kodiak Airport project in Kodiak, Alaska (CEQ #20130229) in accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act.

In our December 18, 2012, letter on the Draft EIS we identified a rating of EC-2 and stated our primary concerns regarding mitigation for potential cumulative impacts to resources in the project area, as well as the direct loss of intertidal and subtidal marine habitat, loss of marine life, decreased water quality and reduced habitat connectivity. We also expressed concern regarding the lack of information quantifying the incremental reduction in the extent of personal injury and aircraft damage anticipated with each alternative.

We recognize and commend the efforts of the FAA and partner agencies to develop a mitigation plan that will offset and compensate for the unavoidable impacts to waters of the U.S. and other resources that have the potential to be affected by this project. We continue to recommend that mitigation plans contain an explanation of how proposed actions will offset specific impacts identified in the EIS. In addition, it is important for the mitigation plan to articulate the methods used to calculate project debits and/or compensation ratios. The disclosure of this information lies firmly within NEPA practice. For this specific project, it is also important that the U.S. Army Corps of Engineers be able to readily demonstrate that the proposed compensatory mitigation complies with the standards found in 33 CFR Part 332/40 CFR Part 230 *Compensatory Mitigation for Losses of Aquatic Resources.*

We also remain concerned that the EIS does not include estimates regarding the incremental improvements in safety provided by each alternative. We continue to believe that this is an important piece of information to justify the environmental impacts as well as high costs of these types of projects. We will continue to recommend that this information be included for similar projects in future analyses.

We appreciate the opportunity to review the Final EIS and for including our staff in the ongoing mitigation discussions. Please contact me at (206) 553-1601 or by electronic mail at reichgott.christine@epa.gov, or you may contact Jennifer Curtis of my staff in Anchorage at (907) 271-6324 or curtis.jennifer@epa.gov , with any questions you have regarding our comments.

Sincerely,

Christine B. Reichgott

Christine B. Reichgott, Manager
Environmental Review and Sediments Management Unit