

**MITIGATION PLAN
JUNEAU INTERNATIONAL AIRPORT
LARGE PROJECT**

Introduction

The group of projects represented in the permit application package is hereinafter referred to as the Juneau Airport Large Project (JALP). The JALP is identified in the Final Environmental Impact Statement (FEIS) as the Agency Preferred Alternative (see 2.13.2 “Agency Preferred Alternative” in the FEIS) and includes the following ten projects:

1. Runway Safety Area (RSA) Extension
2. Medium Intensity Approach Lighting System (MALSR)
3. Snow Removal Equipment Facility (SREF)
4. Northeast Development Project
5. Northwest Development Project & Duck Creek Relocation
6. Fuel Farm Access Road
7. West End Wetlands Fill
8. Float Plane Pond Dredging
9. Removal of Rock Dam at Jordan Creek
10. Automated Surface Observation System (ASOS) Relocation

Mitigation Requirement

Background

The JALP requires federal, state, and municipal authorizations. The project will impact aquatic environment and aquatic ecosystems (hereinafter referred to as wetlands) both on airport property and in what is currently the Mendenhall Wetlands State Game Refuge (MWSGR), and it will impact fish habitat in the Mendenhall River, Duck Creek, and Jordan Creek.

The FEIS consultant, SWCA, prepared a functional assessment of project-related impacts to wetlands and habitat as part of the FEIS development. Based on information provided by SWCA for the preferred alternative (**Appendix A**), the total area of wetlands impacted by the JALP is 72.84 acres, representing 8,708.7 FCUs. Of that total, 13.64 acres, representing 1,712.8 FCUs, occur on what is currently MWSGR land.

Impacts to Wetlands

Federal Jurisdiction

The Army Corps of Engineers (COE) is the federal agency responsible for regulating work in waters of the United States and has overall permitting authority for projects that

impact wetlands. The JALP impacts wetlands on-airport and in the MWSGR and the COE has jurisdiction over both.

Federal, state, and municipal agencies (and the public) have the opportunity to review and comment on the JALP permit application, including the mitigation plan detailed herein. The recently published FEIS has also benefited from agency and public comment during the National Environmental Policy Act (NEPA) process. Table 1-8 in the FEIS provides a summary of the various agencies involved and the roles played by each during the NEPA process.

As detailed in the FEIS (see 2.11 “Methods to Reduce and Minimize Environmental Impacts” and 2.12 “Mitigation” in the FEIS), the JALP has been developed to avoid and minimize impacts to wetlands to the maximum extent possible, while still meeting project purpose and need. Since the JALP will still result in unavoidable impacts to the environment, compensatory mitigation is necessary.

As detailed in the FEIS (see 2.12.1 “Mitigation Policies and Regulations”), COE guidelines for allowable mitigation projects in combination with FAA guidelines for allowable land uses within 10,000 feet of airports result in preservation of existing wetlands as the best mitigation alternative for the JALP.

State Jurisdiction

The State of Alaska project review process is managed by the Department of Natural Resources (DNR), Office of Project Management and Permitting (OPMP). OPMP coordinates a comprehensive Alaska Coastal Management Program (ACMP) review of JALP during which project issues are identified and resolved, including a compensatory mitigation plan. A successful ACMP process results in a consistency determination that allows permits to be issued.

The Alaska Department of Fish and Game (ADF&G) and the Alaska Department of Natural Resources, Mining Lands and Water (DMLW), have joint management responsibility for the MWSGR as assigned by the enabling State of Alaska statute (AS16.20.034). DMLW is responsible for managing the surface and subsurface estate, while ADF&G has responsibility for developing and implementing the MWSGR Management Plan (Management Plan).

Both AS16.20.034 and the Management Plan allow lands from the refuge to be transferred to the City and Borough of Juneau (CBJ) for the purposes of expanding the airport, but as stated in the Management Plan, only after the following have been demonstrated:

1. that there is significant public need for the expansion which cannot reasonably be met off-refuge or through use of alternative transportation modes and technologies;
2. that the use of refuge lands are avoided or minimized to the maximum extent feasible;

3. that all impacts to the refuge and to refuge resources are fully mitigated through restoration, and/or replacement; and
4. that the airport expansion project will not create a hazardous attraction for waterfowl.

The FEIS successfully demonstrates items 1, 2, and 4. The compensatory mitigation plan detailed herein demonstrates item 3.

Fish Habitat

The JALP will impact fish habitat in the Mendenhall River (by placing fill at the west end of the runway), Duck Creek (by relocating the lower reaches and mouth of the stream), and Jordan Creek (by removing the rock dam at the mouth of the existing Jordan Creek culvert and by extending the inlet and outlet of the culvert).

DNR Office of Habitat Management and Permitting (OHMP) is the permitting authority for projects that impact fish habitat and fish passage. OHMP has authority to review the proposed actions, place restrictions on the various projects to minimize impact on fish habitat and fish passage, and where impacts are unavoidable, to seek compensatory mitigation. For the JALP, as detailed herein, compensatory mitigation includes specific project restrictions and compensatory measures that will be incorporated into the OHMP permit.

NMFS has responsibilities under the Magnusson-Stevens Fisheries Conservation Act to review federal actions that may adversely affect Essential Fish Habitat and provide conservation recommendations that would avoid, reduce, or mitigate for the adverse effects of such actions.

Mitigation Proposal

Overview

JNU is surrounded on three sides by the MWSGR. The JALP will unavoidably impact wetlands and fish habitat both on-airport and in the refuge. Compensatory mitigation is necessary for those unavoidable impacts.

For wetlands currently within the MWSGR, the Management Plan stipulates “that all impacts to the refuge and to refuge resources are fully mitigated through restoration, and/or replacement”. ADF&G and DMLW, therefore, require that impacted wetlands within the MWSGR be replaced with like-kind wetlands within, or contiguous to, the MWSGR.

FAA siting criteria for allowable land uses within 10,000 feet of airports recommend against projects that would create or increase attraction of hazardous wildlife. FAA criteria do not, however, preclude preservation of existing wetlands so long as other conditions are met. FAA has further agreed to allow such sites to be acquired for preservation without imposing special wildlife management stipulations on JNU. FAA has no guidance or jurisdiction regarding mitigation lands acquired outside the 10,000-foot radius.

The ACE has incorporated FAA’s siting criteria into their Regulatory Guidance Letters on compensatory mitigation. As a result, preservation of wetlands within 10,000 feet of JNU becomes the only viable mitigation alternative. From a practical perspective, wetlands throughout Southeast Alaska are coming under increasing pressure and preservation of valuable wetlands emerges as a desirable endeavor.

Wetlands Mitigation

JNU proposes an in-lieu fee arrangement as compensatory mitigation for impacts to wetlands. A September 1998 compensatory mitigation agreement with the COE Juneau Regulatory Field Office (COE agreement) authorizes Southeast Alaska Land Trust (SEAL Trust) to accept in-lieu fees for mitigation projects and defines operational procedures for managing the fees (**Appendix B**). SEAL Trust has a successful track record, having acquired conservation easements for more than 2,800 acres in Southeast Alaska during the past ten years.

In accordance with the COE agreement, a SEAL Trust advisory committee will evaluate and **recommend** mitigation projects that will be funded by the in-lieu fee arrangement. A JNU representative will have a seat on the SEAL Trust advisory committee (the committee is defined in the COE agreement) to ensure that mitigation selections within the 10,000-foot radius satisfy FAA criteria. Representatives from ADF&G and DMLW will also have seats on the committee to ensure that mitigation lands of at least equivalent FCU value to those lost are acquired in or adjacent to the MWSGR (see 3.8.1 of the FEIS

for a discussion of FCU methodology). Other membership on the SEAL Trust advisory committee will be in accordance with the COE agreement.

The following list defines the geographic priority scheme that will guide the SEAL Trust advisory committee as they evaluate potential mitigation projects (**Appendix C** provides an expanded summary of potential mitigation projects within each geographic area):

Geographic Guidance for Mitigation Projects

- Geographic Area A: Projects within the existing boundary of the MWSGR.
- Geographic Area B: Projects adjacent to the MWSGR.
- Geographic Area C: Projects within the City and Borough of Juneau.
- Geographic Area D: Projects anywhere in the Southeast Alaska region (defined by SEAL Trust as south of Icy bay and north of Dixon Entrance).

JNU proposes a total in-lieu fee of **\$5,304,636** for wetlands mitigation with **\$1,043,275** of the total placed into a dedicated reserve fund to mitigate specifically for direct impacts to the MWSGR. The in-lieu fee will be provided to SEAL Trust in accordance with the terms of the COE agreement and subject to FAA wildlife hazard siting criteria.

Acquisition of replacement refuge land is a necessary element of the mitigation plan that must be accomplished before overall mitigation for the JALP is complete. It is recognized that the following three conditions must be satisfied before replacement land can be acquired and transferred back into the refuge:

1. funds must be available for purchasing acceptable land,
2. owners of appropriate land must be willing to sell the land, and
3. the Alaska Legislature must be willing to designate acquired land as refuge land.

Once permits are issued, JNU will satisfy condition 1 by providing the entire in-lieu fee to SEAL Trust. It then becomes SEAL Trust's obligation, using the dedicated reserve fund, to find willing sellers of appropriate land to satisfy condition 2. There is no deadline for satisfying condition 2. The dedicated reserve fund remains in place until suitable refuge replacement land has been acquired. Condition 3 (transfer of acquired land back into the refuge) must be satisfied by the Alaska Legislature and is, therefore, outside the scope of the mitigation plan.

As mitigation for land taken from the refuge for the JALP, JNU will convey fee-simple title to the State for the FCU equivalent of new wetlands with the intent that they be included in the MWSGR. The reserve fund is specifically dedicated to acquiring land in Geographic Areas A or B, with a goal of fully mitigating for direct unavoidable impacts to the MWSGR lands caused by the JALP. The dollar value of the reserve fund is based on the actual FCU loss within the Refuge, the established dollar value per FCU, and the accepted compensation ratio, all as set forth below. Once total FCU replacement is complete, any funds remaining in the dedicated reserve fund will no longer be restricted to lands in Geographic Areas A or B.

The remaining portion of the in-lieu fee ($\$5,304,636 - \$1,043,275 = \$4,261,361$) will be used by SEAL Trust to acquire lands or carry out mitigation projects after consulting with the SEAL Trust advisory committee and giving notice to the COE as outlined in the COE agreement. The committee will evaluate potential mitigation projects using the above-listed geographic scheme that gives priority to local projects while considering valuable projects throughout the region that represent significant conservation opportunities.

The SEAL Trust advisory committee will also operate under a scheduling guideline that targets full expenditure of the **\$4,261,361** in-lieu fee on completed mitigation projects by the time JALP construction is complete (estimated year of completion of all projects is 2014). The dedicated reserve fund for replacing refuge lands is not constrained by a scheduling guideline.

Table 1 summarizes the proposed methodology for establishing the in-lieu fee. The table is subdivided into three sections, and each section is explained in the following paragraphs.

Section A: Functional Capacity Unit (FCU) Loss: Proposed Actions

For each project, values for impacted wetland acres and lost FCUs are listed. The last two columns quantify impacted wetlands acres and FCU loss only within the current boundaries of the MWSGR. Four projects directly impact the MWSGR: Runway Safety Area (at both ends of the runway), West End Fill, and MALSR.

Values for acreage and FCU loss for the various projects come directly from SWCA's functional assessment of project-related impacts to wetlands and habitat as part of the FEIS development (Appendix A). Impacted wetland acres and FCU loss are totaled for the overall JALP as well as for actions impacting only what is currently the MWSGR. The total number of wetland acres impacted is **72.84** acres, representing **8,708.9** FCU. The overall weighted-average value of wetland function is calculated from those values to be **119.6** FCU/acre (**8,708.9** FCU divided by **72.84** acres).

For the purposes of the Mitigation Plan, all wetlands impacted by the various projects are assumed to have a functional value of **119.6 FCU/acre**.

Section B: Market Value for Wetlands within Refuge (Horan & Company Study)

Horan & Company of Sitka prepared an Updated Market Value Study for Wetlands within the Mendenhall Wetlands State Game Refuge (completed in November 2005). Accreted wetlands in three areas contiguous to the MWSGR were evaluated: Sunny Point, North Douglas, and Engineer's Cutoff. Recent property transactions within each area that had accreted wetlands associated with them were identified and evaluated. Based on information developed during the study, Horan & Company established a price range for hypothetical accreted wetlands in each study area. Working with the range of values developed by Horan, an average cost/acre is calculated for each of the three study areas, and then the three average values are averaged. In this way, a typical hypothetical value of \$30,000/acre is developed for accreted wetlands contiguous to the MWSGR.

For the purposes of the Mitigation Plan, all wetlands impacted by the various projects are assumed to have a monetary value of **\$30,000/acre**, regardless of whether acquisition is fee simple or conservation easement.

Section C: Proposed \$ Value for FCU Loss

Using \$30,000/acre and 119.6 FCU/acre (as described in the previous two paragraphs), a representative \$/FCU value is calculated. For the purposes of the Mitigation Plan, all wetlands impacted by the various projects are assumed to have a \$/FCU value of **\$251/FCU**.

The **\$251/FCU** value is then multiplied by the 8,708.9 total net FCU loss caused by the JALP, to arrive at a *net* value of **\$2,185,200** for FCU loss. Similar logic applied to impacts in only the MSWGR result in a net figure for those impacts of **\$429,768**.

The net value for FCU loss is then adjusted by a compensation ratio 2:1. The 2:1 ratio was negotiated and agreed to during previous ACMP meetings attended by representatives from FAA, EPA, NMFS, USFWS, DNR, ADF&G, and JNU. Thus, for the purposes of the Mitigation Plan, a compensation ratio of **2:1** is established.

The net value for FCU loss is then adjusted by a factor of 2 to **\$4,370,400** (2 x **\$2,185,200**), to accommodate the proposed 2:1 compensation ratio. For impacted MWSGR lands, the adjusted value is **\$859,537** (2 x **\$429,768**).

Since SEAL Trust will be managing the mitigation effort, their direct project costs of **\$830,224** (developed in Table 2) and 2% administrative costs (as allowed in the existing SEAL Trust/COE agreement) of **\$104,012** are added to the adjusted Value for FCU loss to arrive at the **Total Proposed \$5,304,636 Value for wetlands impact (\$1,043,275 for MWSGR impacts only)**.

TABLE 1
JUNEAU INTERNATIONAL AIRPORT LARGE PROJECT
PROPOSED METHODOLOGY
FOR CALCULATING COMPENSATION FOR WETLANDS IMPACT
WEIGHTED AVERAGE FCU VALUE, AVERAGE \$/ACRE

FUNCTIONAL CAPACITY UNIT (FCU) LOSS: PROPOSED ACTIONS				
Project	Total Impacts		Refuge Impacts	
	Acres	FCU	Acres	FCU
RSA west end (Refuge)	2.70	338.4	2.70	338.4
RSA west end (on-airport)	0.36	44.9		
RSA east end (on-airport)	18.60	2,369.7		
RSA east end (Refuge)	2.06	259.7	2.06	259.7
SREF	2.52	282.9		
NE Development	17.36	1,974.4		
NW Development	1.30	128.7		
Fuel Farm Access Road	0.05	4.8		
West-End Fill (Refuge)	8.88	1,114.7	8.88	1114.7
West-End Fill (on-airport)	2.22	263.7		
Float Plane Pond	16.67	1,913.0		
Jordan Creek Dam	0.00	0.0		
ASOS	0.12	14.0		
Totals	72.84	8,708.9	13.64	1712.8
Overall Weighted Average FCU / acre:		119.6		

MARKET VALUE FOR WETLANDS WITHIN REFUGE (HORAN & COMPANY STUDY)			
Study Site	Hypothetical Site Value Range (2005)		
	\$/acre (low)	\$/acre (high)	\$/acre (average)
A: Sunny Point	\$30,000	\$40,000	\$35,000
B: North Douglas	\$20,000	\$44,000	\$32,000
C: Engineer's Cutoff	\$16,000	\$30,000	\$23,000
		2005 \$ / acre	\$30,000
		2005-2007 adjustment	1.0
		2007 \$ / acre	\$30,000

PROPOSED \$ VALUE FOR FCU LOSS		
	Overall JALP	Refuge Only
\$/FCU: (2007 \$ / acre) / (overall weighted average FCU / acre):	\$251	\$251
Net \$ Value for FCU loss: (total FCU net loss) x \$/FCU:	\$2,185,200	\$429,768
Compensation ratio:	2 :1	
Adjusted \$ Value for FCU loss:	\$4,370,400	\$859,537
SEAL Trust Costs (see Table 2):	\$830,224	\$163,282
Subtotal:	\$5,200,624	\$1,022,819
2 % allowance for admin costs:	\$104,012	\$20,456
Total Proposed \$ Value:	\$5,304,636	\$1,043,275

TABLE 2
SEAL Trust Direct Project Costs
for
Acquiring Mitigation Lands and/or Easements
for
Juneau International Airport Large Project

SEAL TRUST COSTS-OVERALL JALP					
Assumptions:	Number of actions	19.00			
	Cost per action	\$230,000	x 19		
	Staff hours per action	120	\$230,000		
			\$4,370,400		
Item	Description	Quantity	Unit	Unit Price	Cost
Staff time	Negotiations, management	2280	hour	\$42	\$95,769
Survey	Boundary as-built	19	each	\$7,000	\$133,012
Phase 1 Report	Environmental Assessment	19	each	\$3,500	\$66,506
Baseline Report		19	each	\$1,000	\$19,002
Closing costs	Closing and title insurance	19	all	\$1,352	\$25,690
Appraisals	easy parcels	10	each	\$600	\$5,701
	medium difficulty parcels	8	each	\$5,000	\$38,003
	difficult parcel	2	each	\$15,000	\$28,503
Legal review		19	each	\$3,000	\$57,005
Conservation Stewardship	endowment	19	each	\$19,000	\$361,033
SEAL TRUST COSTS-OVERALL JALP:					\$830,224

SEAL TRUST COSTS-REFUGE ONLY					
Assumptions:	Number of actions	3.7			
	Cost per action	\$230,000	x 3.7		
	Staff hours per action	120	\$230,000		
			\$859,537		
Item	Description	Quantity	Unit	Unit Price	Cost
Staff time	Negotiations, management	448	hour	\$42	\$18,835
Survey	Boundary as-built	3.7	each	\$7,000	\$26,160
Phase 1 Report	Environmental Assessment	3.7	each	\$3,500	\$13,080
Baseline Report		3.7	each	\$1,000	\$3,737
Closing costs	Closing and title insurance	3.7	all	\$1,352	\$5,053
Appraisals	easy parcels	1.9	each	\$600	\$1,121
	medium difficulty parcels	1.5	each	\$5,000	\$7,474
	difficult parcel	0	each	\$15,000	\$5,606
Legal review		3.7	each	\$3,000	\$11,211
Conservation Stewardship	endowment	3.7	each	\$19,000	\$71,005
SEAL TRUST COSTS-REFUGE ONLY:					\$163,282

Fish Habitat

OHMP has reviewed and commented on the proposed projects that will impact the Mendenhall River, Duck Creek, and Jordan Creek. Based on discussions between OHMP and JNU, the following restrictions and compensatory measures are proposed:

Mendenhall River

Work below the mean high water and/or the high tide line of the Mendenhall River shall be conducted between November 1 and February 28, a period that corresponds with low water and avoids adult and juvenile salmon migrations.

Duck Creek

1. There will be no date restriction for in-water work in Duck Creek.
2. Construction documents will require the construction contractor to develop a Storm Water Pollution Prevention Plan (SWPPP) plan that complies with EPA Construction General Permit (CGP) requirements as well as with existing Duck Creek TMDLs (total maximum daily load) and JNU's SWPPP.
3. All bank cuts, slope, fills, and other exposed earthwork shall be stabilized and revegetated to prevent erosion during construction and after project completion. The applicant agrees to coordinate with OHMP to ensure the final specifications for revegetating stream banks are acceptable.
4. Storm water pumped from the excavation site shall not be directly discharged into marine or fresh waters, or wetlands, nor shall such discharge cause erosion or sedimentation therein.
5. Construction documents will require the construction contractor to develop a storm water management plan that complies with existing Duck Creek TMDL (total maximum daily load) and JNU's SWPPP.
6. Equipment associated with project construction shall not be refueled nor construction-related petroleum products stored within 100 feet of the ordinary high water mark of Duck Creek.
7. JNU will provide monitoring of the stream relocation for up to five years after construction is complete. Monitoring will begin immediately after construction is complete and will include documentation of streambed characteristics, channel morphology, stream discharge, ground water levels, effectiveness of fish passage, and vegetative success of the constructed floodplain and riparian areas. The estimated budget for this item is **\$100,000**.

Jordan Creek

1. Work below the ordinary high water mark of Jordan Creek will be conducted between June 15 and March 15.
2. Construction documents will require the construction contractor to develop a SWPPP that complies with EPA CGP requirements as well as with the existing Jordan Creek TMDL and JNU's SWPPP.
3. The proposed extensions to the existing Jordan Creek culvert shall be designed to optimize fish passage, given the constraints of the existing distance and available

elevation change at the site. The design for the extensions will take into consideration the eventual replacement of the entire Jordan Creek culvert (see below) and shall be designed to optimize fish passage for the extensions now, as well as when the replacement culvert is installed. The design process shall use guidelines set forth in the Memorandum of Agreement between ADF&G and ADOT for the Design and Permitting and Construction of Culverts for Fish Passage, dated 8/03/01.

4. When the existing Jordan Creek culvert under the runway reaches the end of its useful life, the applicant agrees to replace it with a culvert that matches the culvert extensions addressed above.
5. As mitigation for unavoidable impacts to fish passage and stream habitat, the applicant agrees to provide one-time, up-front, lump sum funding towards the purchase of manufactured foot bridges that will be part of the "Under Thunder" community trail. Trail Mix proposes to install the bridges over headwater tributaries of Jordan Creek to accommodate fish passage by decreasing stream degradation from unauthorized ATV stream crossings in the area, and improve conditions in the headwaters of Jordan Creek. The applicant agrees to provide one-time funding directly to Trail Mix in the proposed lump sum amount of **\$155,000**. The applicant requires that the bridges not be constructed from wood treated with any type of pentachlorophenol or creosote preservative. Alternative wood treatments such as ACQuat, CCA, or naturally rot resistant wood species such as cedar, including but not limited to native Alaskan Red or Yellow cedar, Ipe, or other species are acceptable and environmentally preferable. According to Western Woods Structures, Inc. (Jamie, 503-692-6900) a change from Penta to ACQuat would not have a cost impact on their proposal to Trail Mix.

Summary

The overall total for the 2007 JALP mitigation package is **\$5,559,636**. Table 3 summarizes the combined Mitigation Proposal including compensatory measures for loss of wetlands as well as for impacts to habitat.

TABLE 3
Combined Summary
Mitigation Package
JNU Proposed Projects

Impacted Element	Description	Amount
Wetlands	Net \$ Value for fcu loss:	\$2,185,200
	Compensation ratio:	2 : 1
	Adjusted \$ Value for fcu loss:	\$4,370,400
	SEAL Trust Costs:	\$830,224
	Subtotal:	\$5,200,624
	2% allowance for admin costs:	\$104,012
	Total Proposed \$ Value (Wetlands):	\$5,304,636
Fish Habitat	Funding for 5-year Duck Creek Monitoring	\$100,000
	Funding for 5 bridges on Under Thunder Trail	\$155,000
	Various restrictions (see text)	\$0
	Proposed Total \$ Value (Habitat):	\$255,000
	COMBINED TOTAL \$ VALUE:	\$5,559,636

APPENDIX A

**FUNCTIONAL ASSESSMENT
PROJECT-RELATED IMPACTS TO WETLANDS AND HABITAT
(DEVELOPED AS PART OF THE FEIS DEVELOPMENT)**

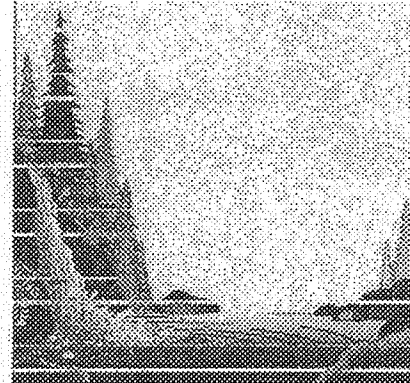
Wetlands Functional Assessment: JALP

Project	Wetland ID	Attachment B - NWI Class	Acres	SDM 407B80 acres in each area	FINAL ENV. SCORE	FUNCTION UNITS	Functional Units Subtotals
<i>RSA west end (Refuge)</i>	WR1	E1UB3	0.17		127.56	21.7	
	WR2	E2USN	0.80		124.93	99.9	
	WR3 (H)	E2EM1 (H)	0.16		123.43	19.7	
	WR3 (L)	E2EM1 (L)	1.57		125.50	197.0	
				2.70			338.4
<i>RSA west end (on-airport)</i>	NW1	E2USN	0.01		110.23	1.1	
	NW2 (H)	E2EM1 (H)	0.04		108.72	4.3	
	NW2 (L)	E2EM1 (L)	0.00		110.79	0.0	
	WR1	E1UB3	0.28		127.56	35.7	
	WR2	E2USN	0.03		124.93	3.7	
	WR3 (H)	E2EM1 (H)	0.00		123.43	0.0	
	WR3 (L)	E2EM1 (L)	0.00		125.50	0.0	
				0.36			44.9
<i>RSA east end (on-airport)</i>	ER1 (H)	E2EM1 (H)	8.50		125.70	1,068.5	
	ER1 (L)	E2EM1 (L)	4.90		127.77	626.1	
	ER2	E2USN	5.20		129.83	675.1	
	JC4 (H)	E2EM1 (H)	0.00		120.80	0.0	
	JC4 (L)	E2EM1 (L)			122.87	0.0	
	JC5	E2USN	0.00		124.93	0.0	
				18.60			2,369.7
<i>RSA east end (Refuge)</i>	ER1 (H)	E2EM1 (H)	1.69		125.70	212.4	
	ER1 (L)	E2EM1 (L)	0.37		127.77	47.3	
				2.06			259.7
<i>SREF</i>	NE1	PEM1	0.91		105.00	95.60	
	NE2 High	E2EM1 (H)	1.61		116.31	187.3	
				2.52			282.9
<i>NE Development</i>	NE1	PEM1	4.01		105.00	421.1	
	NE2 High	E2EM1 (H)	13.28		116.31	1,544.5	
	NE3	E2USN	0.07		124.93	8.7	
				17.36			1,974.4
<i>NW Development</i>	NW2 (H)	E2EM1 (H)	0.40		108.72	43.5	
	NW3	PEM1	0.30		92.36	27.7	
	NW4	PSS1	0.60		95.78	57.5	
				1.30			128.7
<i>Fuel Farm Access Road</i>	NW4	PSS1	0.05		95.78	4.8	
				0.05			4.8
<i>West-End Fill (Refuge)</i>	WR1	E1UB3	0.58		127.56	74.0	
	WR2	E2USN	1.60		124.93	199.9	
	WR3 (H)	E2EM1 (H)	0.00		123.43	0.0	
	WR3 (L)	E2EM1 (L)	6.70		125.50	840.8	
				8.88			1,114.7
<i>West-End Fill (on-airport)</i>	WR3 (H)	E2EM1 (H)	1.29		123.43	159.2	
	WR3 (L)	E2EM1 (L)	0.11		125.50	13.8	
	NW1	E2USN	0.20		110.23	22.0	
	NW2 (H)	E2EM1 (H)	0.04		108.72	4.3	
	NW2 (L)	E2EM1 (L)	0.58		110.79	64.3	
				2.22			263.7
<i>Float Plane Pond</i>	FP1	PEM1	0.52		93.04	48.4	
	FP2	PSS1	0.06		87.33	5.2	
	FP5	PAB3	16.09		115.56	1,859.3	
				16.67			1,913.0
<i>ASOS</i>	NE2 High	E2EM1 (H)	0.12		116.31	14.0	
				0.12			14.0

Totals: 72.84 4,790.46 8,708.7

APPENDIX B

AGREEMENT BETWEEN
THE SOUTHEAST ALASKA LAND TRUST
AND
THE REGULATORY BRANCH
U.S. ARMY CORPS OF ENGINEERS, ALASKA DISTRICT



Agreement Between the Southeast Alaska Land Trust and the Regulatory Branch,

U.S. Army Corps of Engineers, Alaska District

**To Establish a Fee-based Compensatory Mitigation Program Under Section 404
of the Clean Water Act.**

Authority

The Clean Water Act (33 U.S.C. 1344) provides that Section 404 is administered by the Secretary of the Army. The Regulatory Branch of the U.S. Army Corps of Engineers is delegated the authority to carry out this administration.

Background

In situations requiring compensatory mitigation the Regulatory Branch, U.S. Army Corps of Engineers may determine that in-lieu fees paid to wetland trust funds or similar organizations, where such fees contribute to the restoration, creation, replacement, enhancement, or preservation of wetlands or other aquatic habitat, may serve as an appropriate alternative to active mitigation measures by the applicant. The use of this fund for compensatory mitigation may occur only after the relevant activity has complied with Corps regulations and policy regarding wetlands avoidance and minimization.

This is an agreement between the Regulatory Branch U.S. Army Corps of Engineers, Alaska District, (hereinafter "Corps") and the Southeast Alaska Land Trust, (hereinafter "SEALTrust"). The purpose of this agreement is to establish an additional mechanism to compensate for wetland or other aquatic habitat losses caused by Clean Water Act, Section 404 regulated activities in southeast Alaska and to provide greater flexibility to applicants

and violators. The Corps and the SEALTrust agree to follow the procedures set forth below.

Mission of Southeast Alaska Land Trust

The SEALTrust is a private organization organized to protect and conserve natural areas and ecologically significant land for scientific, charitable and educational purposes, and is a "holder" under the terms of Section 34.17 of the Alaska Code. The SEALTrust is a "qualified organization" within the provisions of Section 170(h) of the Internal Revenue Code of 1986, as amended, qualified to acquire and hold conservation easements and meets the requirements of the IRS Code as a Sec. 501(c)(3) exempt organization.

The SEALTrust is governed by a Board of Directors and operates through its Executive Director and staff. Funding comes largely through membership dues and donations from individuals, businesses and foundations. The SEALTrust enters into this agreement by a resolution passed by its Board of Directors.

The SEALTrust mission is to use flexible and creative conservation methods to protect land for its natural, recreational, scenic, historical or productive values. This direct protection usually takes the form of acquisition or donation of conservation easements, or in some cases, ownership. It is a private non-profit environmental organization, which is organized to protect and conserve natural areas and ecologically significant land for scientific, charitable and educational purposes.

Qualification of Land Trusts

Nationally, there are numerous local, regional, multi-state and national land trusts directly protecting land for its natural, recreational, scenic, historical or productive value. For purposes of this agreement, a qualified land trust is one that (1) has been determined to be exempt from federal income under section 501 (c)(3) of the Internal Revenue Code and; (2) includes in its mission and/or letter of intent a statement of purpose addressing the protection of wetlands or other aquatic habitat; (3) agrees to participate in and accept funds for the acquisition, restoration, enhancement or preservation of wetlands, or other aquatic habitat or adjacent important upland habitat areas under the terms of this agreement; (4) agrees to coordinate general objectives of all in-lieu fee funded projects with the Corps for concurrence prior to disbursing funds; and (5) provide a yearly accounting of funds forwarded to it from the in-lieu fee program.

Program Operation

In permit approval and resolution of certain enforcement cases, the Corps may determine that compensatory mitigation is appropriate. In those cases, where traditional compensatory mitigation is difficult to accomplish or not the preferred method, an option to pay an in-lieu fee is appropriate. Where the Corps makes such a finding, the SEALTrust, pursuant to the terms of this agreement, will act as a passive recipient of in-lieu fees, which are contributed at an applicant's or violator's option to satisfy mitigation requirements.

The SEALTrust will play no role in the Corps decision to approve or deny a permit or the Corps decision as to whether mitigation is a necessary condition of any such permit or enforcement action. Where the Corps determines that mitigation in the form of payment of

in-lieu mitigation funds to the SEALTrust may be made, the Corps will contact the SEALTrust regarding the acreage needed for mitigation and the type of habitat to be preserved or replaced. The SEALTrust will then determine the monetary amount needed from the applicant or violator in order to purchase, manage and preserve fee ownership and/or conservation easements in the wetland or other aquatic habitat acreage required by the Corps for mitigation. The Corps will then outline this mitigation option to the applicant or violator. If the applicant or violator chooses this option, they will write a check to SEALTrust in the amount indicated. As an alternative to the above, the Corps may independently negotiate a fee amount with an applicant or violator, and have the applicant or violator pay the fee to the SEALTrust. The SEALTrust will provide written notification to the applicant or violator and the Corps upon receipt of the fee. SEALTrust will inform the applicant that they may not use the name of SEALTrust without specific written authorization.

Fiscal Accountability & Record Keeping

The SEALTrust agrees to place all funds received pursuant to contributions made under this Agreement into a FDIC-insured bank account or instrument separate from other funds of its organization. Interest from this account will remain with the account. Any reasonable costs associated with opening or maintaining the in-lieu mitigation fee program may be utilized from the funds in the account.

The SEALTrust shall provide the Corps with an annual report which shall contain a description of projects funded, the location of the site(s), information as to the sites significance, ownership of the land, the holder of any conservation easements, an accounting of funds, and any additional information which would inform the Corps as to the nature of specific projects. The report will be based on a calendar year and provided to the Corps within ninety (90) days following the end of the calendar year. The accounting shall include direct and indirect costs applied to each project.

Procedure For Selection

The SEALTrust, in consultation with the Corps, shall establish a procedure for selection of wetland or other aquatic habitat projects. It shall take into consideration the various geographical areas within southeast Alaska, watersheds, functions and values, scarcity, educational value, and any information, which would identify ecologically significant wetland or other aquatic habitat areas needing protection. It may consider proximity to parks, refuges and other protected lands as well as isolated areas. The Corps will assist in the selection of projects by delineating the wetlands on a prospective property. A property could contain some uplands as protective buffer to the jurisdictional wetland areas.

The SEALTrust shall establish an advisory committee with representatives from environmental agencies and organizations including the Corps, Environmental Protection Agency, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, and the Alaska Coastal Zone District. This committee shall advise SEALTrust on sites in Southeast Alaska for wetland or other aquatic habitat protection and restoration.

COMMITTEE

Upon selection of a project, the SEALTrust shall inform the Corps in writing of the property selected and shall provide general information regarding the project. The Corps may veto any selection if it does not meet the general mitigation purpose of preservation, restoration, creation, replacement, or enhancement of wetlands or other aquatic habitat. The SEALTrust shall make it possible for the Corps to visit sites selected by ensuring unencumbered access, as necessary.

Costs Associated With Program Administration

It is the intent of the parties to maximize the funds that can be applied directly to the purchase and/or preservation of valuable wetlands or other aquatic habitat. The parties also agree that certain administrative costs are necessary to accomplish this purpose.

The parties agree that funds may be applied to (1) reasonable pre-acquisition expenses so long as the expenses apply directly to the project purpose, including but not limited to appraisals, surveys, title insurance, closing costs, and travel; (2) management and stewardship costs, and (3) those costs that are directly associated with the in-lieu fee project. In addition to the above referenced items, the SEALTrust will charge a 2% fee for administering the program.

Costs Associated With Projects Involving Restoration, Enhancement, Creation

It is recognized that the majority of aquatic habitat projects selected by the SEALTrust shall be preservation through acquisition or establishment of conservation easements. However, in consultation with the Corps, the SEALTrust may implement a project, or a portion of a project, involving restoration, enhancement or creation of wetlands or other aquatic habitat. In those cases, the SEALTrust will monitor all contracts necessary to initiate and finalize projects involving preservation, restoration, enhancement or creation of wetlands or other aquatic habitat.



Allocation of Funds

SEALTrust agrees to allocate funds to a specific identified project at such time as there are adequate funds to meet the costs of a meaningful in-lieu fee project. A project may be broken into phases for purposes of fund allocation. Records shall be retained on each project and shall be cross-referenced with the Corps permit or action number.

Open Communication & Cooperation

Both the Corps and the SEALTrust acknowledge that it is their desire to facilitate the process set forth in this agreement by open communication and cooperation. Both parties agree to exercise their rights and obligations in good faith as contained in this agreement. If at any time the SEALTrust has questions regarding the application of the funds or the selection of a project, the Corps agrees to make itself available to resolve the issue in a timely fashion.

Amendments & Termination

This agreement may be amended in writing by either party or by mutual consent. Amendments require the written approval by both the Corps and the SEALTrust. Either party

giving ninety (90) days written notice to the other party may terminate this agreement. Prior to termination, the SEALTrust shall provide an accounting of funds and shall complete payments on any contracts for projects approved by the Corps and expenses incurred on behalf of the projects. Upon termination, should funds remain in the in-lieu fee account, the Corps shall direct that payment be made from that account to another non-profit organization or governmental entity for the application of funds for the purpose intended.

Points of Contact

The points of contact for all written communications between the parties shall be:

Ralph W. Thompson
Field Office Manager,
U.S. Army Corps of Engineers, Juneau Regulatory Field Office
8801 Glacier Highway, Suite 106B
Juneau, AK 99801

Judy Sherburne
Vice President
Southeast Alaska Land Trust
119 Seward Street, Suite #9
Juneau, AK 99801

Effective Date

This agreement shall become effective when signed by both the SEALTrust and the Corps.

Jeffrey K. Towner
Chief, East Section, Regulatory Branch

Jeffrey K. Towner
SIGNATURE
September 16, 1998
DATE

Judy Sherburne
~~Vice~~ President
Southeast Alaska Land Trust

Judy Sherburne
SIGNATURE
13 Sept 1998
DATE

APPENDIX C

**THE SOUTHEAST ALASKA LAND TRUST
POTENTIAL MITIGATION PROJECTS BY GEOGRAPHIC AREA**

**Juneau Airport Mitigation
 In-Lieu Fees Project Proposals**

Geo Area	Name	Goal	Status	Values	Potential Acreage
A	Mendenhall Peninsula Accretions	Acquire fee simple or conservation easements interests in lands from willing landowners. Replace impacted Refuge resources.	Conservation options discussed at neighborhood meetings. Follow-up contacts pending.	High and low march wetlands, common Refuge boundary, critical habitat	40
A	Sunny Point Accretions	Acquire fee simple or conservation easements interests in lands from willing landowners. Replace impacted Refuge resources.	One owner has conservation commitments in place. Follow-up contacts with neighbors pending,	High and low march wetlands, common Refuge boundary, critical habitat	40
A	North Douglas Accretions and Properties	Acquire fee simple or conservation easements interests in lands from willing landowners. Replace impacted Refuge resources.	Conservation options discussed at neighborhood meetings. Follow-up contacts pending.	High and low march wetlands, common Refuge boundary, critical habitat	15
B	Hendrickson Point Parcel	Acquire fee simple ownership and transfer to the CBJ with conservation easement protections.	Owner has offered SEALTrust option to purchase.	Muskeg wetland with forest fringe, shares common boundary with Refuge, critical wildlife habitat	13.5
C	Strawberry Creek	Acquire fee simple or conservation easements interests in lands from willing landowners.	Conservation options discussed at neighborhood meetings and with some individuals. Follow-up contacts pending.	Fen wetland complex, anadromous rearing stream, wildlife habitat	280

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Priority	Name	Goal	Status	Values	Potential Acreage
C	Pt. Bridget State Park Inholdings	Acquire fee simple or conservation easements interests in lands from willing landowner. Contribute property to park.	Discussions underway.	Coastal forest and beach fringe complex, cultural and historic, habitat connectivity	65
D	Chuck River Properties	Acquire wilderness inholdings for addition to the Chuck River Wilderness.	Conservation partner in final stages of negotiation purchase options with landowner.	Extensive wetlands, highly productive anadromous fishery, wildlife, adjacent to the Chuck River Wilderness	32
D	Chilkoot River Properties	Fee simple acquisition for addition to the Chilkat Bald Eagle Preserve.	Property is for sale. Negotiations pending appraisal.	Extensive riparian wetlands and wildlife use, anadromous channels of the Chilkoot River on-site, adjacent to Eagle Preserve.	160