



# ANGOON AIRPORT

Final Environmental Impact Statement  
and Section 4(f) Evaluation

Appendices R–T



SEPTEMBER 2016



Federal Aviation  
Administration





## **APPENDIX R**

### **MARINE MAMMAL BIOLOGICAL ASSESSMENT**

*Note:* The Section 508 amendment of the Rehabilitation Act of 1973 requires that the information in federal documents be accessible to individuals with disabilities. The FAA has made every effort to ensure that the information in the *Draft Angoon Airport Environmental Impact Statement* is accessible. However, this appendix is not fully compliant with Section 508, and readers with disabilities are encouraged to contact Leslie Grey at (907) 271-5453 or [Leslie.Grey@faa.gov](mailto:Leslie.Grey@faa.gov) if they would like access to the information.

---





U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

AAL-614  
Alaskan Region Airports Division  
222 West 7<sup>th</sup> Ave #14  
Anchorage, AK 99513

May 13, 2014

Jon Kurland  
NOAA Fisheries, Assistant Regional Administrator  
Protected Resources Division  
P.O. Box 21668  
Juneau, AK 99802

Re: Section 7 Consultation for Angoon Airport Project

Dear Mr. Kurland,

Enclosed is the biological assessment (BA) for the Angoon Airport Project. The Alaska Department of Transportation and Public Facilities (ADOT&PF) proposes to build a new airport and access road in the community of Angoon on Admiralty Island in Southeast Alaska. The project will include approximately 30 barge trips to Angoon during construction. Because of the potential for ship strikes on marine mammals, this BA is provided as a request for informal consultation with NOAA Fisheries.

This BA address effects to the humpback whale (*Megaptera novaeangliae*) and Steller sea lion (*Eumetopias jubatus*). The Action Area is not located in designated critical habitat for the Steller sea lion. Based on this BA, we have determined that the project may affect but is **not likely to adversely affect** the Steller sea lion and humpback whale. The project will have **no effect** on Steller sea lion critical habitat.

The FAA will likely release the draft environmental impact statement (EIS) in August to evaluate the environmental consequences of the Airport and access road. The BA and your letter of concurrence will be included in the draft EIS.

Please feel free to contact me (271-5453, [leslie.grey@faa.gov](mailto:leslie.grey@faa.gov)) or Leyla Arsan (279-7922 x6350, [larsan@swca.com](mailto:larsan@swca.com)) to discuss the BA or request additional information to comply with this request for informal consultation.

Sincerely,

Leslie Grey  
FAA, Alaska Region Airports Division  
Angoon Airport EIS Project Manager

cc: Kate Savage, NOAA Fisheries  
Amanda Childs, SWCA Environmental Consultants  
Leyla Arsan, SWCA Environmental Consultants

# **BIOLOGICAL ASSESSMENT OF LISTED SPECIES FOR THE ANGOON AIRPORT PROJECT**

Prepared for

**Federal Aviation Administration  
Alaska Department of Transportation and Public Facilities  
Alaskan Region Airports Division  
AAL-614  
222 West 7th Ave #14  
Anchorage, AK 99513  
Leslie Grey  
907-271-5453**

Prepared by

**SWCA Environmental Consultants**  
1205 East International Airport Road, Suite 103  
Anchorage, Alaska 99518  
Contact Person: Leyla Arsan  
Phone Number: 907-279-7922

May 2014

## CONTENTS

|  |          |
|--|----------|
| <b>1. Introduction.....</b>                                    | <b>1</b> |
| <b>2. Description of the Proposed Action .....</b>             | <b>2</b> |
| 2.1. Best Management Practices and Conservation Measures ..... | 2        |
| <b>3. Action Area and Environmental Baseline .....</b>         | <b>3</b> |
| <b>4. Effects Analysis .....</b>                               | <b>6</b> |
| <b>5. Conclusion and Determination.....</b>                    | <b>7</b> |
| <b>6. Literature Cited .....</b>                               | <b>8</b> |

## Figures

|  |   |
|--|---|
| <b>Figure 1.</b> Location of the action area. .... | 4 |
|--|---|

## Tables

|  |   |
|--|---|
| <b>Table 1.</b> Species Considered in this Biological Assessment ..... | 1 |
|--|---|

# 1. INTRODUCTION

The purpose of this biological assessment (BA) is to evaluate the extent to which the proposed Angoon Airport project may affect federally listed and candidate species or their critical habitat. The species considered in this BA are summarized in Table 1. This BA has been prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (ESA) (16 U.S. Code [U.S.C.] 1536 [c]).

**Table 1.** Species Considered in this Biological Assessment

| Common Name  | Federal Status | Designated Critical Habitat | Determination                  |
|--|----------------|-----------------------------|--------------------------------|
| Steller sea lion, Western DPS<br>( <i>Eumetopias jubatus</i> ) | Endangered     | Yes, but not in action area | Not likely to adversely affect |
| Humpback whale<br>( <i>Megaptera novaeangliae</i> )            | Endangered     | No                          | Not likely to adversely affect |

The Alaska Department of Transportation and Public Facilities (DOT&PF) has proposed the construction of a land-based airport and airport access road for the community of Angoon in Southeast Alaska. The community of Angoon is the only permanent settlement on Admiralty Island, a large island located approximately 55 miles from Juneau and 700 miles southeast of Anchorage (Figure 1). Currently, Angoon has no land-based airport, nor roads to any other communities. The only methods of transportation to and from the community are floatplanes, boat, and the Alaska Marine Highway System (ferry). It is the largest Southeast Alaska community without a land-based airport. The purpose of the project is to improve the availability and reliability of transportation services to and from Angoon.

The FAA is the lead federal agency for the project and is preparing a draft environmental impact statement (EIS) to evaluate and disclose to the public the potential social and environmental effects of building and operating the proposed airport, as required by the National Environmental Policy Act (NEPA). From among a range of possible alternatives, the FAA has identified Airport 12a with Access 12a as the preferred alternative which is referred to as the proposed action in this BA.

Because the project will require barging of construction materials in marine waters, it has the potential to affect ESA-listed species that use these waters.

## **2. DESCRIPTION OF THE PROPOSED ACTION**

The proposed action to construct a land-based airport and airport access road for the community of Angoon consists mainly of actions that will occur in upland or terrestrial habitats, except for the barging of construction materials. Terrestrial components of the proposed action will not affect ESA species and are not described here. The BA describes barging of materials, which is the only project action that would occur in marine waters. No in-water construction or facilities are proposed.

An estimated 30 barge trips will be required to complete construction of the Angoon Airport; it is assumed that the project will use a 1,900-ton barge. Typically a barge with this hauling capacity would be 200 feet long with a 43-foot berth (New York State Marine Highway Transportation Company, LLC 2007). Barging will occur over an estimated two construction seasons. A construction season typically occurs from May to October, but due to the mild climate in Angoon, construction could occur year-round depending on weather conditions. Materials will likely travel from Juneau or Seattle in a north-south direction, using Clarence, Sumner, and Chatham Straits, as well as Frederick Sound, as travel corridors.

### **2.1. Best Management Practices and Conservation Measures**

Implementation of the proposed project will include conservation measures and best management practices (BMPs) to reduce or eliminate adverse effects to listed species and critical habitat. Conservation measures and BMPs for the Angoon Airport project include the following:

- 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.
- Materials barges will not be grounded in kelp stands.

### 3. ACTION AREA AND ENVIRONMENTAL BASELINE

Angoon is located on the west side of Admiralty Island, one of the larger islands in Southeast Alaska. The action area consists of the main navigation channels on the west side of Admiralty Island (see Figure 1), including Chatham Strait. Barges will travel to the Angoon ferry dock from the north or south.

There are an estimated 1,489 vessels (of all varieties) traveling north-south in Southeast Alaska annually (2011 data; Nuka Research & Planning Group 2012). Barge speeds in Southeast Alaska range from 5 to 10 knots, with an average speed of 8.5 knots (personal communication, Boyer Towing 2014). The average annual serious injury and mortality (SI/M) rate to humpback whales (*Megaptera novaeangliae*) from ship strikes in Southeast Alaska is 0.8 individuals (Allen and Angliss 2012).

Humpback whale densities in Southeast Alaska waters are high (Dahlheim et al. 2009); these species commonly use the deeper waters where barges would be traveling. Steller sea lions (*Eumetopias jubatus*) from the Western distinct population segment (DPS) may also occur in the action area. Though the boundary for this DPS is defined as populations west of 144°W, individuals frequently cross DPS boundaries and even permanently emigrate to Southeast Alaska (Jemison et al. 2013; National Marine Fisheries Service [NMFS] 2013). These species typically use habitats that are closer to shore and use open water navigation channels less frequently.

The action area does not fall within designated critical habitat for Steller sea lions, which is defined as a 20-nautical-mile buffer around all major haul-outs and rookeries, as well as associated terrestrial, air, and aquatic zones and three large offshore foraging areas (50 Code of Federal Regulations [CFR] 226.202, August 27, 1993). The closest known major rookery is White Sisters, off the west coast of Chichagof Island, which is greater than 20 nautical miles from the action area.

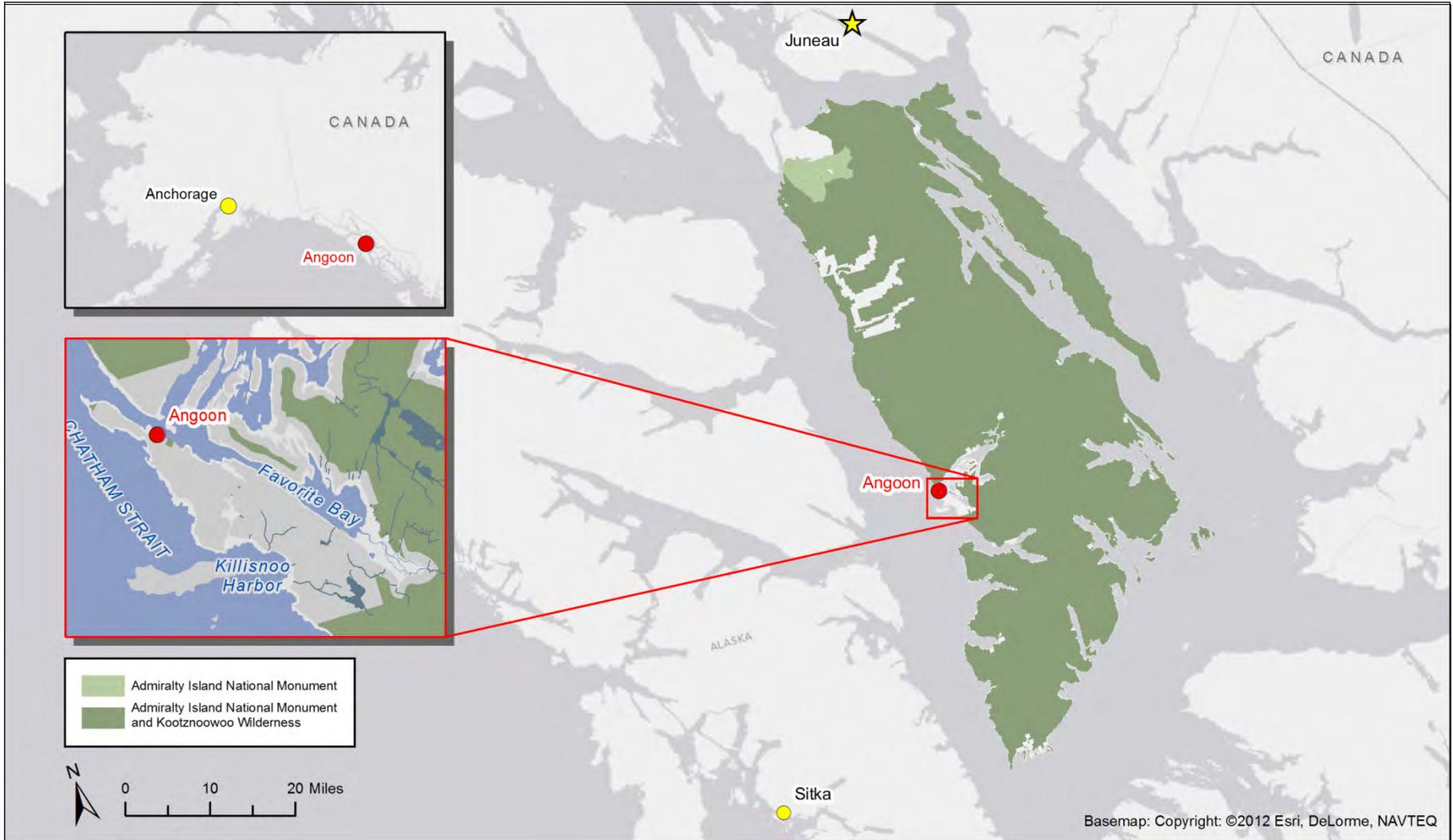


Figure 1. Location of the action area.

This page intentionally blank.

## **4. EFFECTS ANALYSIS**

As mentioned earlier, the Angoon Airport project will require approximately 30 barge trips to Angoon during the estimated two construction seasons, and the temporary increase in barge traffic in the action area will increase the risk of ship strikes on humpback whales. There are an estimated 1,489 vessels (of all varieties) traveling north-south in Southeast Alaska annually (2011 data; Nuka Research & Planning Group 2012). The additional 30 barge trips that will be required for the Angoon Airport project equal approximately 2% of the existing (2011) traffic.

Humpback whales inhabit the same Southeast Alaska waters as the 30 barges that will transport project construction materials and equipment. The average annual SI/M rate to humpback whales from ship strikes in Southeast Alaska is 0.8 individuals (Allen and Angliss 2012). If a 2% increase in existing vessel traffic equals a 2% increase in the average annual mortality rate, then 0.016 additional individuals will be injured or killed as a result of proposed project activities. Because Steller sea lions typically use habitats that are closer to shore and use open water navigation channels less frequently, they are less likely to encounter vessel strikes.

Barge speeds in Southeast Alaska range from 5 to 10 knots, with an average speed of 8.5 knots (personal communication, Boyer Towing 2014), so animals should have sufficient time and space to move out of the vessels' path.

Potential indirect effects from barge fuel leaks will be minimized by using standard BMPs for vessels, such as having an oil spill emergency plan.

## 5. CONCLUSION AND DETERMINATION

The project will result in an approximate 2% increase in existing vessel traffic in Southeast Alaska waters. The proposed action **may affect but is not likely to adversely affect (NLAA) humpback whales and Steller sea lions** for the following reasons:

- A 2% increase in the average annual mortality rate would equate to an additional 0.016 individuals injured or killed. This change in the baseline mortality rate is minor and discountable.
- Project actions and effects will be short term: 30 trips over two construction seasons.
- The average Southeast Alaska vessel speed of 8.5 knots should allow animals sufficient time and space to move out of vessels' path.
- Steller sea lions typically use habitats that are closer to shore and use open water navigation channels less frequently.

The project **will not affect Steller sea lion designated critical habitat** since Steller sea lion designated critical habitat does not occur in the action area.

## 6. LITERATURE CITED

- Allen, B.M., and R.P. Angliss. 2012. Humpback Whale (*Megaptera novaeangliae*). NOAA-TM-AFSC-245. National Oceanic and Atmospheric Administration.
- Boyer Towing. 2014. Barge speed in Southeast Alaska inside waters: average and range. Telephone conversation on January 28, 2014, between Jamie Young, SWCA Environmental Consultants, and Kent Halvorsen, Port Captain, Boyer Towing.
- Dahlheim, Marilyn, Paula A. White, and Janice M. Waite. 2009. Cetaceans of Southeast Alaska: distribution and seasonal occurrence. *Journal of Biogeography* 36:410–426.
- Jemison, L.A., G.W. Pendleton, L.W. Fritz, K.K. Hastings, J.M. Maniscalco, A.W. Trites, and T.S. Gelatt. 2013. Inter-population movements of Steller sea lions in Alaska with implications for population separation. *PLoS ONE*: 8(8) e70167. doi:10.1371/journal.pone.0070167.
- National Marine Fisheries Service (NMFS). 2013. *Occurrence of Western Distinct Population Segment Steller Sea Lions East of 144° W. Longitude*. December 18, 2013. NMFS Alaska Region.
- New York State Marine Highway Transportation Company, LLC. 2007. *A Vision for Commercial Marine Transportation on the Champlain Canal*. Available at: <http://www.hudsoncag.ene.com/files/CAG%203-22-07%20Champlain%20Canal%20Presentation.pdf>. Accessed April 25, 2014.
- Nuka Research and Planning Group. 2012. *Southeast Alaska Vessel Traffic Study*. Seldovia, Alaska: Nuka Research and Planning Group.

-Amanda

From: Leyla Arsan  
Sent: Monday, June 02, 2014 12:12 PM  
To: Kate Savage - NOAA Federal  
Cc: Amanda Childs; Leslie.Grey@faa.gov  
Subject: RE: Angoon Airport BA

Hi Kate,

We do not have info specific to the barge that will be used for the Angoon Airport. However, we can provide some info on typical noise levels for barges.

Barges traveling 13 knots (3 knots faster than those expected for the Angoon Airport) would be expected to have noise levels that range from up to 150 dB re 1  $\mu$ Pa at a distance of <100 m from the source to 100 dB re 1  $\mu$ Pa at a distance of 13-34 km depending on bathymetry and substrate (Li et al. 2011). Sound pressure levels attenuate to non-discernible levels from background noise with distance from the sound source. These modeled SPLs are for Hudson Bay, an area with little vessel traffic that would affect ambient noise levels and audibility of barge noise. Audibility of Angoon vessel noise along the proposed barge route will be limited by ambient noise levels and noise from existing vessel traffic, and thus will be less than the SPLs described above for faster vessels in lesser trafficked areas.

Airborne noise associated with tugboat activity as recorded from the Port of Los Angeles ranged from 81- 84 dBA (average A-weighted noise level At 100 feet) during activities such as wharf demolition, wharf construction with pile driving, rip-rap placement, and dredging (LAHD and USACE 2007).

Both the underwater and airborne sound pressure levels expected from barge traffic are less than the acoustic threshold levels of the onset of PTS (permanent hearing threshold shifts: 230 dBpeak & 198 dB SELcum) and TTS (temporary hearing threshold shifts: 224 dBpeak & 178 dB SELcum) for humpback whales for non-impulsive sound (NOAA 2013).

Feel free to call or email with any further questions or concerns, I'm happy to talk through anything. Also, please cc this group on all ESA consultation emails. I'll be on vacation June 12-17, but this group

Angoon Airport EIS  
Document 0810

mhtml:file://C:\Users\lbjork\AppData\Local\Microsoft\Windows\Temporary Internet Files\... 6/2/2014

can respond in my absence. Thanks Kate.

Literature Cited:

Li, Z., MacGillivray, A., and Wladichuk, J. 2011. Underwater Acoustic Modeling of Tug and Barge Noise for Estimating Effects on Marine Animals. Version 1.0. Technical report prepared for AREVA Resources Canada by JASCO Applied Sciences. Kiggavik Project Environmental Impact Statement, Tier 3 Technical Appendix 7B.

Los Angeles Harbor Department (LAHD) and U.S. Army Corps of Engineers (USACE). 2007. The 23 Berth 136-147 [TraPac] Container Terminal Project Draft EIS/EIR. Appendix N: Noise. Available at: <[http://www.portoflosangeles.org/EIR/TraPac/DEIR/deir\\_trapac.asp](http://www.portoflosangeles.org/EIR/TraPac/DEIR/deir_trapac.asp)>  
[http://www.portoflosangeles.org/EIR/TraPac/DEIR/deir\\_trapac.asp](http://www.portoflosangeles.org/EIR/TraPac/DEIR/deir_trapac.asp). Accessed: 5/30/14

NOAA. 2013. Draft Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammals.

Leyla Arsan

Anchorage Office Manager

Pacific Northwest Aquatic Science Lead

SWCA Environmental Consultants

1205 East International Airport Road, Suite 103, Anchorage, AK 99518

T 907.279.7922 x6350 | C 503.539.6398 | F 907.279.7944

<<http://www.swca.com/>> [www.swca.com](http://www.swca.com/)

From: Kate Savage - NOAA Federal [mailto:kate.savage@noaa.gov]

Sent: Wednesday, May 28, 2014 10:09 AM

To: Leyla Arsan

Subject: Re: Angoon Airport BA

Angoon Airport EIS  
Document 0810

mhtml:file://C:\Users\lbjork\AppData\Local\Microsoft\Windows\Temporary Internet Files\... 6/2/2014

Hi Leyla,

Quick question: do you have any info on the noise signature of the Angoon Airport barge?

Thanks!  
Kate

On Fri, May 9, 2014 at 1:32 PM, Leyla Arsan <larsan@swca.com> wrote:

Hello Kate,

Attached is the Angoon Airport Biological Assessment. We look forward to your review and response to this consultation. If you have any questions or require more information, feel free to call me anytime.

Thank you,

Leyla Arsan  
Anchorage Office Manager  
Pacific Northwest Aquatic Science Lead

SWCA Environmental Consultants

1205 East International Airport Road, Suite 103, Anchorage, AK 99518

T 907.279.7922 x6350 <tel:907.279.7922%20x6350> | C 503.539.6398 | F 907.279.7944

<<http://www.swca.com/>> [www.swca.com](http://www.swca.com/)

Angoon Airport EIS  
Document 0810

mhtml:file://C:\Users\lbjork\AppData\Local\Microsoft\Windows\Temporary Internet Files\... 6/2/2014

--

Kate Savage, DVM

Marine Mammal Specialist

Protected Resources Division

NOAA Fisheries

Juneau, AK.

(907) 586-7312

Angoon Airport EIS  
Document 0810

mhtml:file://C:\Users\lbjork\AppData\Local\Microsoft\Windows\Temporary Internet Files\... 6/2/2014



**UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration**

National Marine Fisheries Service  
P.O. Box 21668  
Juneau, Alaska 99802-1668

July 9, 2014

Leslie Grey  
Angoon Airport EIS Project Manager  
FAA Alaskan Region Airports Division  
AAL-600  
222 West 7<sup>th</sup> Ave. #14  
Anchorage, AK. 99513

Re: Angoon Airport Construction Project, NMFS #AKR-2014-9380

Dear Ms. Grey:

The National Marine Fisheries Service (NMFS) has completed informal consultation under section 7(a)(2) of the Endangered Species Act (ESA) regarding the proposed Angoon Airport Project. The Alaska Department of Transportation and Public Facilities (DOT), as the non-federal designee for the Federal Highway Administration, is proposing to build a new airport and access road in the community of Angoon on Admiralty Island in Southeast Alaska. The DOT determined that this project may affect, but is not likely to adversely affect, the endangered humpback whale (*Megaptera novaengliae*) or the endangered western Distinct Population Segment (DPS) of the Steller sea lion (*Eumetopias jubatus*).

NMFS received your request for written concurrence on May 13, 2014. Based on our analysis of the information provided to us by the DOT, NMFS concurs with your determination that this project is not likely to adversely affect humpback whales or Steller sea lions.

**Description of the Proposed Action**

The project includes the construction of a land-based airport and associated infrastructure. All aspects of the project will occur in terrestrial or upland habitats except for the barging of construction materials. Because the terrestrial components of the project are not expected to affect the marine environment and listed species, only the barging of materials is considered in the consultation.

An estimated total of 30 barge trips, spread throughout two construction seasons, are expected to complete construction of the Angoon airport. While a construction season typically extends from May to October, construction may occur throughout the year pending mild weather. The 1,900 ton barge, approximately 200 feet long, will likely travel from Juneau or Seattle via Clarence, Sumner, and Chatham Straits as well as Frederick Sound to the work site.



### **Description of the Action Area**

The action area is defined in the ESA regulations (50 CFR 402.02) as the area within which all direct and indirect effects of the project will occur. The action area is distinct from and larger than the project footprint because some elements of the project may affect listed species some distance from the project footprint. 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 underwater and out-of-water sounds that might result in impacts to marine mammals (70 FR 1871). The current threshold for continuous noise is 120 dB re 1  $\mu$ Pa RMS.

While the DOT considers the action area as including the main navigation channels on the west side of Admiralty Island including Chatham Strait, for purposes of this consultation NMFS considers the action area to include all waters along the navigational routes between Juneau and Angoon and Seattle and Angoon. Within these routes, the action area includes the physical location of the barges radiating to the 120 dB isopleth for noise emanating from associated tug boats, a radius of approximately 4-6 km.

### **Proposed Mitigation Measures**

DOT proposed the following mitigation measures as part of the action:

- 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 not be grounded in kelp stands.

### **Listed Species**

#### Humpback Whales

Humpback whales are found in all ocean basins worldwide, and typically occur in tropical and subtropical waters during the winter and migrate seasonally to high latitudes during the summer (Allen and Angliss 2013). Populations of these whales were depleted in the nineteenth and twentieth centuries due to commercial exploitation, and numbers in the North Pacific following the cessation of whaling in 1966 have been estimated as low as 1,400 (Gambell 1976) and 1,200 (Johnson and Wolman 1984). Humpback whales are currently found throughout their historic summer feeding range in the North Pacific, 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 (Allen and Angliss 2013). Populations appear to be increasing worldwide and the best current estimate for humpback whale abundance in the North Pacific is 21,063 animals (data from 2006-08), which exceeds some estimates of pre-whaling numbers (Barlow et al. 2011).

Humpback whales are the most common large cetacean in Southeast Alaska. The abundance of humpback whales that forage throughout British Columbia and Southeast Alaska is estimated at between 3,000 and 5,000 individuals with an increasing annual population trend of 4 to 8% (Calambokidis et al. 2008; Barlow et al. 2011). Although migration timing varies among individuals, most whales depart for Hawaii in fall or winter and begin returning to Southeast Alaska in spring, with continued returns through the summer and a peak occurrence in Southeast Alaska during late summer to early fall. However, there are significant overlaps in departures and returns (Baker et al. 1985; Straley 1990). In Southeast Alaska, primary prey species include euphausiids and small schooling fishes such as capelin, Pacific sand lance, walleye pollock, and Pacific herring (Wing and Kreiger 1983; Kreiger and Wing 1984, 1986; Straley 1990).

Within Southeast Alaska, humpback whales are found throughout all major waterways and in a variety of habitats, including open-ocean entrances, open-strait environments, nearshore waters, areas with strong tidal currents, and secluded bays and inlets. Annual concentrations are consistent at several locations primarily around northern southeast Alaska, with lesser historical presence in Sumner and Clarence Strait (Baker et al. 1985; Straley et al. 1995; Dahlheim 2009). These patterns of occurrence likely follow the spatial and temporal changes in types, densities and distribution of prey (Bryant et al. 1981; Baker et al. 1985; Kreiger and Wing 1986; Baker et al. 1992). Both fish and euphausiid densities show significant annual, seasonal, and spatial variations (Wing and Kreiger 1983) and humpbacks adjust their foraging locations to areas of high prey densities.

#### Western DPS Steller Sea Lions

Steller sea lions range throughout the North Pacific Ocean from Japan, east to Alaska, and south to central California (Loughlin et al. 1984). Steller sea lions, the largest of the eared seals (Otariidae), currently have a worldwide population estimated at 126,543-140,432 animals (Allen and Angliss 2012a; Allen and Angliss 2012b). Historical abundance was significantly greater with an estimated worldwide population of 245,000 to 290,000 animals in the late 1970s (1976-1980) (Loughlin et al. 1984).

There are two Steller sea lion populations in Alaska: the endangered western DPS generally occurs west of Cape Suckling; and the eastern DPS (no longer listed under the ESA) generally occurs east of Cape Suckling (144°W). Steller sea lions are not known to migrate annually, but individuals may widely disperse outside of the breeding season (late May to early July) (Allen and Angliss 2013). In Southeast Alaska, most Steller sea lions are considered to be part of the eastern DPS, although some intermingling of animals from the endangered western DPS may occur. NMFS considers waters north of Sumner Strait as the area where animals from the western DPS commonly occur (NMFS 2013). Consequently, waters around Angoon are located in an area of overlap between the two Steller sea lion DPSs (Jemison et al. 2013). We expect a majority of Steller sea lions near the project area to be eastern DPS individuals, but some western DPS individuals may be present as well.

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, and aerial and ground-based pup counts conducted in June and July 2009-2011 (Allen and Angliss 2013). The western DPS declined in abundance by about 70% between the late 1970s and 1990, with evidence that the decline had begun even earlier. 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 (NMFS 2008). Although Steller sea lion abundance continues to decline in the western Aleutians, numbers are thought to be increasing in the eastern part of the western DPS range (DeMaster 2011), closest to Southeast Alaska and the proposed action area.

The foraging strategy of Steller sea lions is strongly influenced by seasonality of both sea lion reproductive activities, which occur on rookeries, and the ephemeral nature of many prey species. Steller sea lions are considered opportunistic foragers and may relocate based upon seasonal prey availability. In Southeast Alaska, the sea lions forage on herring aggregations in winter, spawning fish, including herring and eulachon, in spring, and various other cephalopod and fish species throughout the year, including Atka mackerel, walleye pollock, capelin, Pacific cod, Pacific sandlance, and salmon (Merrick et al., 1997; Pitcher, 1981; Winship and Trites 2003; Sigler et al. 2009; Womble et al. 2009).

Steller sea lions are marine based predators, but rely on terrestrial rookeries and haulouts for activities such as reproduction and predator avoidance. Steller sea lion critical habitat is defined as a terrestrial zone, an aquatic zone, and an air zone that extends 3,000 feet (0.9 km) landward, seaward, and above each major rookery and major haulout. The action area does not include Steller sea lion critical habitat. The closest rookery is on the outer coast of the Alexander Archipelago. While there are a number of haulouts along the barge route, they are not within the action area.

### **Effects of the Action**

For purposes of the ESA, “effects of the action” means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). To concur that an action may affect, but is not likely to adversely affect, listed species, NMFS must find that all of the effects of the proposed action or interrelated or interdependent actions 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.

The potential effects of the proposed action on listed species include ship strike and harm or behavioral alteration due to noise. The probability of ship strike and acoustic disturbance depends upon the type, frequency, speed, and route of the marine transportation as well as the distribution of marine mammals in the area.

### ***Ship Strike***

While Steller sea lions frequent all coastlines along the action area, they are not often found in deep water channels and are therefore extremely unlikely to be struck by vessels. In the NMFS Alaska region stranding records on file since 1995, only three reports mention the possibility of ship strike/trauma as a cause of death of Steller sea lions.

An analysis of the incidence of humpback whale ship strikes in US waters between 1975 and 2002 revealed the most common vessel speed at 13 to 15 knots, followed by 16 to 18 knots and 22 to 24 knots (Jensen and Silber 2003). In Alaskan waters between 1978 and 2011, 49% of reported vessel-whale collisions (n = 75) occurred with vessels speeds greater or equal to 12 knots and 31% at speeds between 1 and 11 knots. The project barge is anticipated to travel at an average speed of 8.5 (range 5 – 10) knots, which should allow humpback whales to move out of the vessel path. The vessel type is also a significant factor in describing ship strikes. In the 89 reports of Alaskan vessel-whale collisions where the vessel type was known, only 3 reports were from cargo ships, including large container ships. No reports specifically concerned a barge collision. The areas with the highest collision densities centered around Point Adolphus in Icy Strait and around North Pass in lower Lynn Canal, both popular whale watching destinations. Chatham Strait was not included as a high risk area. Of the whale vessel collisions reported, 23% resulted in mortality, 5% were reported as alive, and the remaining 72% were of unknown outcome (Neilsen et al. 2012).

Because there is little overlap between Steller sea lions and the deep channels along the proposed barge route, the likelihood of a physical interaction between a project vessel and Steller sea lion is discountable. Because vessel traffic associated with the project will be infrequent, travel will occur at slow speeds, and ship strikes with cargo vessels in southeast Alaska are a rare occurrence, the likelihood of physical impact between a project vessel and humpback whales is also discountable.

### ***Noise***

Possible impacts to marine mammals exposed to loud underwater or in-air noise include mortality (directly from the noise, or indirectly from a reaction to the noise), injury, and disturbance ranging from severe (e.g., abandonment of vital habitat) to mild (e.g., startle response) (Thompson et al. 2013). The significance of potential impacts of noise to marine mammals is dependent on a number of factors including the magnitude of sound pressure levels, species receiving the sound, exposure type (e.g., continuous vs. pulse), duration, site characteristics, species' auditory characteristics, and individual marine mammal characteristics, (e.g., habituation, season, motivation) (Dazey et al. 2012; Ellison et al. 2012).

Steller sea lions rely on their ability to detect sound and communicate underwater for a variety of life functions, including reproduction and predator avoidance. Steller sea lions are categorized in the pinniped functional hearing group which has an estimated auditory bandwidth of 75 Hz to 75 kHz in-water, and 75 Hz to 30 kHz on land (Southall et al. 2007). Studies of Steller sea lion

auditory sensitivities have found that this species detects sounds underwater between 1 to 25 kHz (Kastelein et al. 2005), and in the air between 0.25 to 30 kHz (Mulsow and Reichmuth 2010). While Steller sea lions frequent all coastlines along the action area, they are not often found in deep water channels and are therefore not likely to be exposed to significant barge noise.

As is the case for all large baleen whales, direct information about the hearing abilities of humpback whales is not available. Researchers studying Mysticete auditory apparatus morphology hypothesized that large Mysticetes have acute infrasonic hearing (Ketten 1997). Humpback whales are categorized in the low frequency cetacean functional hearing group (Southall et al. 2007). This group has an estimated auditory bandwidth of 7 Hz to 22 kHz. 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.

Throughout the year, many different vessel types travel throughout the action area, including large and small cruise ships, Alaska Marine Highway ferries, tank and freight barges with tugs, freight ships, tank ships, personal and commercial fishing vessels, and recreational vessels. These vessels traverse the action area thousands of times every year (NUKA 2012). These vessels may generate significant noise. For example, sound levels from ferry vessels in Puget Sound were recorded at 179 dB re 1  $\mu$ Pa at 1 m (Basset 2010). Small boats, including fishing vessels, may generate noise levels between 140 and 180 dB (Hildebrand 2009; Matzner et al. 2010). The projected noise of the project vessel is unknown. The signature of an individual vessel is a function of many variables, including size, shape, speed, load, propulsion system, and bathymetry (Hildebrand 2009). Generally speaking, most (83%) of the acoustic field surrounding large vessels is the result of propeller cavitation, which is when air spaces created by the motion of propellers collapse (NOAA 2004). Relative to other large vessels, tugs with barges typically produce less near-surface sound than other ships due to the recessing of their propellers as protection against grounding. Speed may also be positively correlated with the amplitude of vessel noise (Bartlett and Wilson 2002) and the slow speed of the project barge should result in some noise reduction. Modeling of tug and barge marine transiting operations associated with a Canadian mining project estimated noise levels down to 120 dB at 4 to 6 km (Li et al. 2011). It is possible that whales may exhibit avoidance behavior at these distances from the vessel. However, many large ships navigate through the channels from Juneau and Seattle, including Chatham Strait, and noise production from these vessels may be sufficiently high to result in habituation of whales in the area. A continued increase in whale population may indicate the benign coexistence of vessel traffic and whale presence in Southeast Alaska.

Because marine traffic associated with the project is relatively infrequent, vessels associated with the project are slow moving, the total number of barge trips is small, and associated noise signatures should not result in injury or harm, impacts to humpback whales and Steller sea lions from noise disturbance associated with this project are likely to be insignificant.

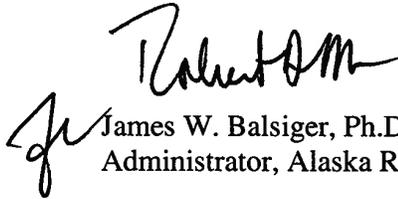
**Conclusion**

Based on this analysis, NMFS concurs with your agency's determination that the planned action may affect, but is not likely to adversely affect, humpback whales or western DPS Steller sea lions.

Reinitiation of consultation is required where discretionary federal involvement or control over the action has been retained or is authorized by law and if (1) take of 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 that was not considered in this concurrence letter, or (4) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16).

Please direct any questions regarding this letter to Kate Savage at [Kate.Savage@noaa.gov](mailto:Kate.Savage@noaa.gov) or (907) 586-7312.

Sincerely,

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

Cc: Leslie Grey, [Leslie.Grey@faa.gov](mailto:Leslie.Grey@faa.gov)  
Amanda Childs, [achilds@swca.com](mailto:achilds@swca.com)  
Leyla Arsan, [larsan@swca.com](mailto:larsan@swca.com)

## LITERATURE CITED

- Allen, B. M., Angliss, R. P., 2013. Alaska marine mammal stock assessments, 2012, NOAA Technical Memorandum NMFS-AFSC-245, Alaska Fisheries Science Center, Seattle, Washington.
- Allen, B. M., Angliss, R. P., 2012a. Stock Assessment Report: Steller sea lion (*Eumetopias jubatus*) Eastern U.S. Stock, 9.
- Allen, B. M., Angliss, R. P., 2012b. Stock Assessment Report: Steller sea lion (*Eumetopias jubatus*) Western U.S. Stock, 13.
- Baker, C.S., L.M. Herman, A. Perry, W.S. Lawton, J.M. Straley and J.H. Straley 1985. Population characteristics and migration of summer and late-season humpback whales (*Megaptera novaeangliae*) in southeastern Alaska. *Marine Mammal Science* 1: 304-323
- Baker, C.S., J.M. Straley and A. Perry. 1992. Population characteristics of individually identified humpback whales in southeastern Alaska: summer and fall 1986. *Fishery Bulletin, U.S.* 90:429 – 437.
- Barlow, J., J. Calambokidis, C.S. Baker, A.M. Burdin, P.J. Clapham, J.K. Ford, C.M. Gabriele, R. LeDuc, D.K. Mattila, T.J. Quinn, L. Rojas-Bracho, J.M. Straley, B.L. Taylor, J. Urban R., P. Wade and D. Weller. 2011. Humpback whale abundance in the North Pacific estimated by photographic capture-recapture with bias correction from simulation studies. *Marine Mammal Science* 27:793-818.
- Bryant, P.J., Nichols, G., Bryant, T.B. and K. Miller. 1981. Krill availability and the distribution of humpback whales in Southeastern Alaska. *Journal of Mammology*, 62(2): 430-432.
- Calambokidis, J., E.A. Falcone, T.J. Quinn, A.M. Burdin, P.J. Clapham, J.K.B. Ford, C.M. Gabriele, R. LeDuc, D. Mattila, L. Rojas-Bracho, J.M. Straley, B.L. Taylor, J. Urban R., D. Weller, B.H. Witteveen, M. Yamaguchi, A. Bendlin, D. Camacho, K. Flynn, A. Havron, J. Huggins and N. Maloney 2008. SPLASH: Structure of populations, levels of abundance and status of humpback whales in the North Pacific. Final Report for US DOC Contract No. AB133F-03-RP-0078. 57 pp.
- Dahlheim, M.E., P.A. White and J.M. Waite. 2009. Cetaceans of Southeast Alaska: distribution and occurrence. *Journal of Biogeography* 36: 410-426.
- Dazey, E., B. McIntosh, S. Brown, and K. M. Dudzinski. 2012. Assessment of underwater anthropogenic noise associated with construction activities in Bechers Bay, Santa Rosa Island, California. *Journal of Environmental Protection* 3:1286-1294.

- DeMaster, D. P., 2011. Results of Steller sea lion surveys in Alaska, June- July 2011. Memorandum to J. Balsiger, K. Brix, L. Ratterman, and D. Seagars, December 5, 2011. Available AFSC, National Marine Mammal Laboratory, NOAA, NMFS 7600 Sand Point Way NE, Seattle WA 98115.
- Ellison, W. T., B. L. Southall, C. W. Clark, and A. S. Frankel. 2012. A new context-based approach to assess marine mammal behavioral responses to anthropogenic sounds. *Conservation Biology* 26:21-28.
- Gambell, R. A. Y., 1976. World whale stocks. *Mammal Review* 6, 41-53.
- Hildebrand, J. 2009. Anthropogenic and natural sources of ambient noise in the ocean. *Marine Ecology Progress Series* 395:5-20.
- Jemison, L.A., G.W. Pendleton, L.W. Fritz, K.K. Hastings, J.M. Maniscalco, A.W. Trites and T.S. Gelatt. 2013. Inter-Population Movements of Steller Sea Lions in Alaska with Implications for Population Separation. *PLOS One* 8, 14 p.
- Jensen, A.S. and G.K. Silber. 2003. Large Whale Ship Strike Database. U.S. Department of Commerce, NOAA Technical Memorandum. NMFS-OPR-25, 37 pp
- Johnson, J. H. and A.A. Wolman, 1984. The humpback whale, *Megaptera novaeangliae*. *Marine Fisheries Review* 46, 30-37.
- Kastelein, R. A., Schie, R. v., Verboom, W. C., Haan, D. d., 2005. Underwater hearing sensitivity of a male and a female Steller sea lion (*Eumetopias jubatus*). *The Journal of the Acoustical Society of America* 118, 1820-1829.
- Ketten, D. R., 1997. Structure and function in whale ears. *Bioacoustics* 8, 103-135.
- Kreiger, K.J. and B.L. Wing. 1984. Hydroacoustic surveys and identification of humpback whale forage in Glacier Bay, Stephens Passage and Frederick Sound, southeastern Alaska, Summer 1983. NMFS Auke Bay Lab., Juneau, 60 p.
- Kreiger, K.J. and B.L. Wing. 1986. Hydroacoustic monitoring of prey to determine humpback whale movements. NOAA Technical Memorandum NMFS F/NWC-66, NMFS Auke Bay Lab., Juneau, 62 pp.
- Li, Z., A. MacGillivray and J. Wladichuk, 2011. Underwater Acoustic Modeling of Tug and Barge Noise for Estimating Effects on Marine Animals. Version 1.0. Technical report prepared for AREVA Resources Canada by JASCO Applied Sciences. Kiggavik Project Environmental Impact Statement, Tier 3 Technical Appendix 7B.
- Loughlin, T.R., Rugh, D.J. and Fiscus, C.J. 1984. Northern sea lion distribution and abundance: 1956-1980. *J. Wild. Manage.* 48:729-740.

- Matzner, S., A. Maxwell, J. Myers, K. Caviggia, J. Elster, M. Foley, M. Jones, G. Ogden, E. Sorenson, L. Zurk, J. Tagestad, A. Stephan, M. Peterson and D. Bradley. Small Vessel Contribution to Underwater Noise. Oceans 2010 MTS/IEEE Seattle. Institute of Electrical and Electronics Engineers (IEEE), Piscataway, NJ.
- Merrick, R. L., Chumbley, M. K., Byrd, G. V., 1997. Diet diversity of Steller sea lions (*Eumetopias jubatus*) and their population decline in Alaska: a potential relationship. Canadian Journal of Fisheries and Aquatic Sciences 54, 1342-1348.
- Mulsow, J., Reichmuth, C., 2010. Psychophysical and electrophysiological aerial audiograms of a Steller sea lion (*Eumetopias jubatus*). The Journal of the Acoustical Society of America 127, 2692-2701.
- Neilson, J.L., C.M. Gabriele, A.S. Jensen, K. Jackson and J.M. Straley. 2012. Summary of Reported Whale-Vessel Collisions in Alaskan Waters. Journal of Marine Biology.
- NMFS (National Marine Fisheries Service), 2013. Occurrence of Western Distinct Population Segment Steller Sea Lions East of 144° W. Longitude.
- NOAA (National Oceanic and Atmospheric Administration), 2004. Shipping Noise and Marine Mammals: A Forum for Science, Management and Technology. Final Report, Arlington Virginia. 40 pp.
- NOAA (National Oceanic and Atmospheric Administration), 2013. Draft Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammals.
- NUKA, 2012. Southeast Alaska Vessel Traffic Study. NUKA Research and Planning Group LLC, Seldovia AK. 21 pp.
- Pitcher, K. W., 1981. Prey of the Steller sea lion, *Eumetopias jubatus*, in the Gulf of Alaska. Fishery Bulletin 79, 467-472.
- Pitcher, K. W., P. F. Olesiuk, R. F. Brown, M. S. Lowry, S. J. Jeffries, J. L. Sease, W. L. Perryman, C. E. Stinchcomb, and L. F. Lowry. 2007. Abundance and distribution of the eastern North Pacific Steller sea lion (*Eumetopias jubatus*) population. Fishery Bulletin 105:102-115.
- Sigler, M.F., D.J. Tollit, J.J. Vollenweider, J.F. Thedinga, D.J. Csepp, J.N. Womble, M.A. Wong, M.J. Rehberg, and A.W. Trites. 2009. Steller sea lion foraging response to seasonal changes in prey availability. Marine Ecology Progress Series 388:243–261.

- Southall, B. L., Bowles, A. E., Ellison, W. T., Finneran, J. J., Gentry, R. L., Greene, C. R., Jr., Kastak, D., Ketten, D. R., Miller, J. H., Nachtigall, P. E., Richardson, W. J., Thomas, J. A., Tyack, P. L., 2007. Marine mammal noise exposure criteria: initial scientific recommendations. *Aquatic Mammals* 33, 411-521.
- Straley, J.M.1990. Fall and Winter Occurrence of Humpback Whales (*Megaptera novaeangliae*) in Southeast Alaska. Report International Whaling Commission (Special Issue 12):319-323.
- Straley, J., Gabriele, C. and C.S. Baker. 1995. Seasonal Characteristics of Humpback Whales (*Megaptera novaeangliae*) in Southeastern Alaska. In Proceedings of the Third Glacier Bay Science Symposium, p 229-237. Edited by D. Engstrom. 1993 National Park Service, Anchorage , AK..
- Thompson, P. M., Hastie, G. D., Nedwell, J., Barham, R., Brookes, K. L., Cordes, L. S., Bailey, H., McLean, N., 2013. Framework for assessing impacts of pile-driving noise from offshore wind farm construction on a harbour seal population. *Environmental Impact Assessment Review* 43, 73-85.
- Wing, B. L., and K. Krieger. 1983. Humpback whale prey studies in southeastern Alaska, summer 1982. Unpubl. rep., 60 p. Auke Bay Laboratory, Northwest and Alaska Fisheries Center, National Marine Fisheries Service, NOAA, P.O. Box 210155, Auke Bay, AK 99821.
- Winship, A.J., and A.W. Trites. 2003. Prey consumption of Steller sea lions (*Eumetopias jubatus*) off Alaska: How much prey do they require? *Fishery Bulletin* 101:147–167.
- Womble, J., M. Sigler, and M. Willson. 2009. Linking seasonal distribution patterns with prey availability on a central-place forager, the Steller sea lion. *Journal of Biogeography* 36: 439–451.

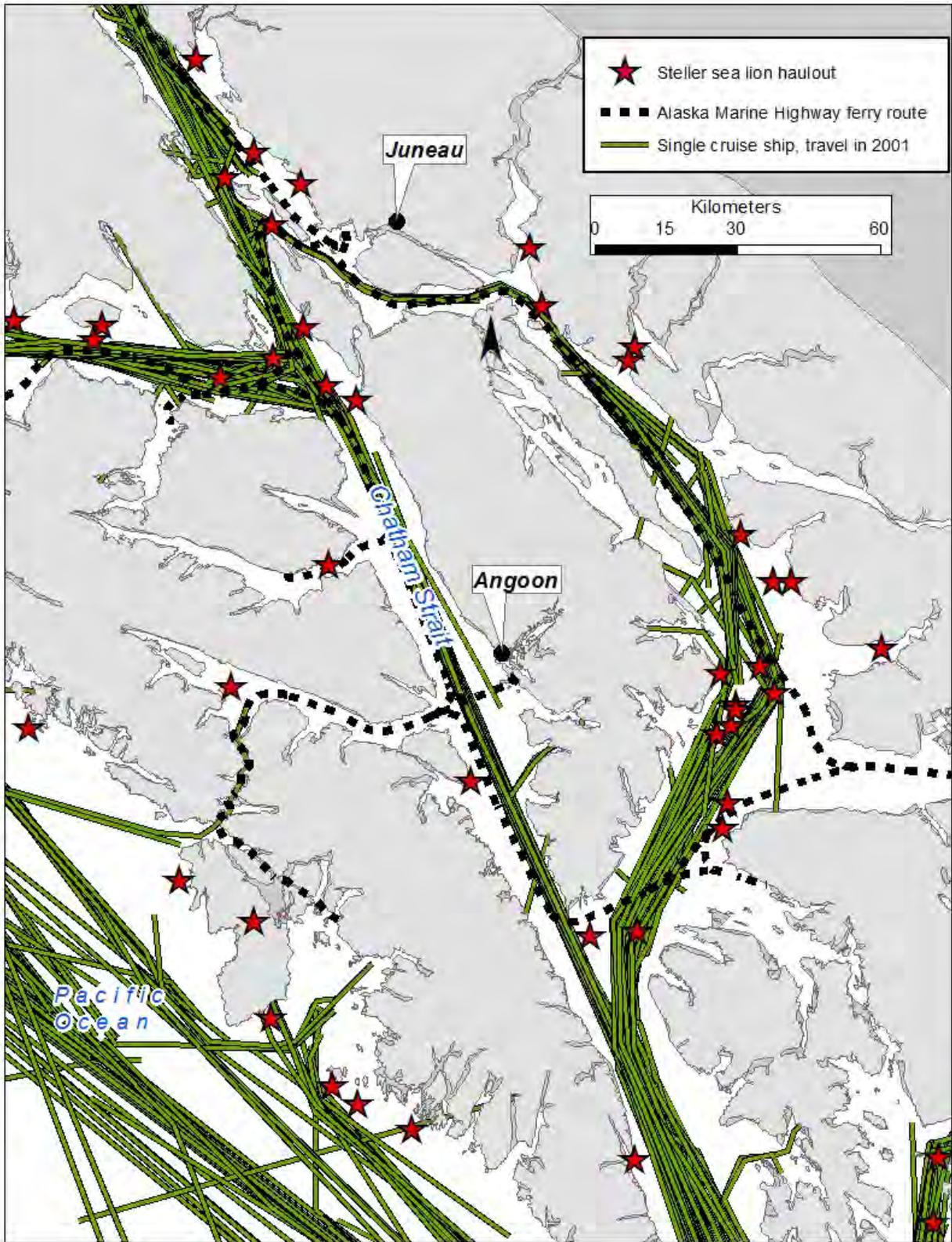


Figure 1. Marine navigational channels leading to project area and sample of vessel traffic in the area.





## **APPENDIX S**

### **WETLAND DELINEATION REPORT**

*Note:* The Section 508 amendment of the Rehabilitation Act of 1973 requires that the information in federal documents be accessible to individuals with disabilities. The FAA has made every effort to ensure that the information in the *Draft Angoon Airport Environmental Impact Statement* is accessible. However, this appendix is not fully compliant with Section 508, and readers with disabilities are encouraged to contact Leslie Grey at (907) 271-5453 or [Leslie.Grey@faa.gov](mailto:Leslie.Grey@faa.gov) if they would like access to the information.

---





U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

AAL-614  
Alaskan Region Airports Division  
222 West 7<sup>th</sup> Ave #14  
Anchorage, AK 99513

January 8, 2014

Randy Vigil  
Juneau Regulatory Field Office  
U.S. Army Corps of Engineers  
8800 Glacier Highway, Suite 106  
Juneau, AK 99801-8079

RE: Wetland and Waters Delineation for the Angoon Airport Environmental Impact Statement Preliminary Jurisdictional Determination Report (JDR)  
T51S, R68E, Sections 5, 6, and 8; Copper River Meridian (C.R.M.), Southeast Alaska  
Site centroid = 57.4722°N; -134.5468°W; Study Area = 163.54 acres  
Directions to Site: From the Angoon float plane dock, travel southeast on Killisnoo Road (NF-7430). Take the first gravel road to the left. Travel approximately 0.5 miles to the project site, located to the south of the gravel road.

Dear Randy:

Please find attached the preliminary JDR for the Angoon Airport Environmental Impact Statement located in Sections 5, 6, and 8 of T51S, R68E, C.R.M., on Admiralty Island in the Hoonah-Angoon Borough. This report was prepared by SWCA Environmental Consultants (SWCA) under the direction of the Federal Aviation Administration (FAA) and under contract with the Alaska Department of Transportation and Public Facilities (DOT&PF) to determine the extent of likely jurisdictional wetlands and waters in the 163.54-acre study area located in southeast Alaska, on the Sitka B-2 Alaska U.S. Geological Survey quadrangle. The study area consists of lands owned by private individuals, the City of Angoon, and Kootznoowoo, Inc. The purpose of this preliminary JDR is to define the extent of likely jurisdictional wetlands and waters in the study area for a wetland permit application for the proposed Angoon Airport.

The study area contains palustrine forested needle-leaved evergreen saturated organic (PFO4Bg), palustrine scrub-shrub needle-leaved/deciduous and broad-leaved deciduous saturated organic (PSS4/1Bg), and palustrine emergent persistent saturated organic (PEM1Bg) wetlands. In total, 128.43 acres of potentially jurisdictional wetlands were delineated in the study area. Two potentially jurisdictional perennial waters, totaling 1.31 acres, were also delineated in the study area. The wetland and waters delineation was conducted by Wetland Scientists Stacey Reed and Taya MacLean of SWCA from August 19 through August 22, 2013, and from September 14 through September 16, 2013.

The FAA will provide written land owner permission when necessary if you would like to conduct a site visit. Please let me know if you have any questions concerning the attached report, and whether you would like to schedule a site visit.

Sincerely,

Leslie Grey  
FAA Alaskan Region Airports Division

Angoon Airport EIS Project Manager

Attachment

cc: A. Childs (SWCA)  
V. Skageberg (ADOT&PF)



**WETLAND AND WATERS DELINEATION  
PRELIMINARY JURISDICTIONAL DETERMINATION REPORT  
ANGOON AIRPORT ENVIRONMENTAL IMPACT STATEMENT  
ADMIRALTY ISLAND, T51S, R68E, SECTIONS 5, 6, AND 8,  
COPPER RIVER MERIDIAN, ALASKA**

*Prepared for*  
**Federal Aviation Administration  
Alaska Department of Transportation and Public Facilities**

*Prepared by*  
**SWCA Environmental Consultants**

**January 2014**



**Wetland and Waters Delineation  
Preliminary Jurisdictional Determination Report  
Angoon, Admiralty Island, T51S, R68E, Sections 5, 6, and 8  
Copper River Meridian, Alaska**

Prepared for

**Federal Aviation Administration  
Alaska Department of Transportation and Public Facilities**

Prepared by

**SWCA Environmental Consultants**

1220 SW Morrison Street, Suite 700  
Portland, OR 97205  
503-224-0333, fax 503-224-1851

January 8, 2013



## Contents

|       |  |    |
|-------|--|----|
| 1.0   | Introduction and Study Area.....   | 1  |
| 2.0   | Landscape Setting, Land Use, and Background Mapping .....  | 1  |
| 3.0   | Site Alterations.....  | 2  |
| 4.0   | Precipitation Data and Analysis.....   | 2  |
| 5.0   | Wetland Delineation Methods .....  | 5  |
| 6.0   | Mapping Methods.....   | 6  |
| 7.0   | Description of All Wetlands, Non-Wetlands, and Waters .....  | 7  |
| 7.1   | Wetlands .....   | 7  |
| 7.1.1 | Palustrine Forested Needle-leaved Evergreen Saturated Organic (PFO4Bg).....                                  | 8  |
| 7.1.2 | Palustrine Scrub-Shrub Needle-leaved Evergreen and Broad-leaved Deciduous Saturated Organic (PSS4/1Bg) ..... | 8  |
| 7.1.3 | Palustrine Emergent Persistent Saturated Organic (PEM1Bg).....   | 9  |
| 7.2   | Non-Wetlands (Uplands).....  | 9  |
| 7.3   | Waters.....  | 10 |
| 8.0   | Results and Conclusions.....   | 10 |
| 9.0   | List of Preparers.....   | 11 |
| 10.0  | Literature Cited.....  | 12 |

## Tables

|   |    |
|---|----|
| Table 1. Observed Precipitation Data at NWS Juneau Airport Station.....         | 3  |
| Table 2. GHCN-Recorded Precipitation Prior to August Fieldwork (in inches)..... | 4  |
| Table 3. GHCN-Recorded Precipitation Prior to September Fieldwork.....          | 4  |
| Table 4. Summary of Habitat Types.....  | 11 |

## Appendices

|   |                                |
|---|--------------------------------|
| Appendix A. Maps .....                            | A-Error! Bookmark not defined. |
| Appendix B. Precipitation Data .....              | B-Error! Bookmark not defined. |
| Appendix C. Wetland Determination Data Forms..... | C-Error! Bookmark not defined. |
| Appendix D. Ground-Level Site Photographs.....    | D-Error! Bookmark not defined. |
| Appendix E. Vegetation Tables .....               | E-Error! Bookmark not defined. |

## 1.0 INTRODUCTION AND STUDY AREA

The purpose of this wetland and waters preliminary jurisdictional determination report (JDR) is to define the extent of likely jurisdictional wetlands and waters in the project area for the proposed Angoon Airport located near the town of Angoon on Admiralty Island in the Hoonah-Angoon Borough of Southeast Alaska (Appendix A, Figure 1). The proposed land-based airport would be a small, commercial airport and include a 3,300-foot-long paved runway and paved access road.

The following construction activities would occur if an airport was constructed:

- Vegetation removal related to the airport and road (clearing for construction or for visibility)
- Terrain disturbance related to the airport and road (includes cutting and filling of soil, and ripping and blasting of shallow bedrock to level the ground)
- Terrain disturbance from potential extraction of construction materials such as gravel, soil, and rock from on-island materials sources
- Pavement related to the airport and road (creating smooth surfaces for airplanes and vehicles)
- Tree felling (cleared trees are left where they fall) related to certain aviation easements (creating visually open areas for flight approach and takeoff)
- Rerouting or culverting of streams (to continue water flow that otherwise would be impeded by newly filled areas)

The wetland and waters delineation fieldwork was conducted by SWCA Environmental Consultants from August 19 through August 22, 2013, and from September 14 through September 16, 2013. The total study area for the wetland and waters delineation is approximately 163.54 acres and includes private, City of Angoon, and Kootznoowoo, Inc. lands (Appendix A, Figure 2). The study area included all areas where airport construction actions are proposed to fill wetlands, including terrain disturbance, pavement, and rerouting or culverting of streams. In addition, the study area was extended into vegetation removal areas for the purposes of allowing for potential changes to alignment during the environmental impact statement review process.

This report has been prepared in accordance with the U.S. Army Corps of Engineers (USACE) Alaska District Special Public Notice 2010-45 dated January 29, 2010. This wetland delineation was conducted in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Alaska Region (Version 2.0)* (USACE 2007) and the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987).

Wetlands in the study area were classified using the U.S. Fish and Wildlife Service (USFWS) National Wetlands and Deepwater Habitats Classification System (Cowardin et al. 1979).

## 2.0 LANDSCAPE SETTING, LAND USE, AND BACKGROUND MAPPING

The study area is located on the western side of Admiralty Island, southwest of Favorite Bay and immediately north of Killisnoo Harbor of the Chatham Strait. Auk'Tah Lake is south of the study area. No saltwater resources are present in the study area, only freshwater wetlands and streams. The topography of the study area slopes down to the south, with drainage toward Killisnoo Harbor. According to the contours generated by R&M Engineering (2006) for the *Angoon Airport Master Plan* (DOT&PF 2007), the northern portion of the study area is approximately 180 feet above sea level, sloping down to approximately 25 feet above sea level in the southern portion of the study area (Appendix A, Figure 5).

The adjacent land use is undeveloped forest. There are two small recreation cabins along the Killisnoo Harbor shoreline immediately south of the study area, and one home is present immediately north of the study area. The City of Angoon water reservoir is located upslope, approximately 100 feet to the east of the study area at the end of an existing gravel road.

Palustrine forested needle-leaved evergreen wetlands with a saturated water regime (PFO4B) and palustrine scrub-shrub needle-leaved evergreen and emergent persistent wetlands with a saturated water regime (PSS4/EM1B) are mapped throughout the majority of the study area on the National Wetlands Inventory (NWI) map (Appendix A, Figure 3; USFWS 2013).

To date, a soil survey map has not yet been created for the study area.

### 3.0 SITE ALTERATIONS

The study area is undeveloped and consists of a mix of undisturbed, high-quality mature closed canopy forest, shrubby areas, and open fens. No roads or culverts are present in the study area. A dirt all-terrain vehicle (ATV) trail extends north-south through the eastern portion of the study area. No footpaths were observed in the study area. No pollutants or other environmental hazards appear to exist on the study area.

Anecdotal evidence and observations of spring board notches indicate historical timber harvest occurred in the area, but no confirmed records could be located to ascertain the level of that harvest (Johnson 2013; SWCA Environmental Consultants 2012). It is possible that undocumented historical logging affected hydrologic patterns on the peninsula. Only larger diameter Sitka spruce (*Picea sitchensis*) trees were observed in the southern portion of the study area. Other portions of the study area contained a less mature forest canopy.

### 4.0 PRECIPITATION DATA AND ANALYSIS

There are no dependable weather stations for Angoon. The study area is located approximately 60 miles southwest of Juneau and approximately 41 miles northeast of Sitka. According to the Western Regional Climate Center (WRCC), the Angoon area has a generally mild maritime climate, with an average of approximately 42 inches of annual rainfall (WRCC 2010). The National Weather Service (NWS) reports an annual average rainfall of approximately 54 inches at the Juneau Airport station (NWS 2013). Table 1 below lists the recorded rainfall at the NWS Juneau Airport station for each field day and the two weeks prior to each field day. Weather observed during the field visits from August 19 through 22, 2013, was dry and generally clear or slightly overcast throughout the day (even though rainfall was recorded at the Juneau Airport station). Weather during the September 14 and 15, 2013, site visits was dry and sunny, with unusually high temperatures reaching the low 60 degrees. Periods of heavy rain were received during the September 16, 2013, field day.

According to the National Oceanic and Atmospheric Administration's (NOAA's) Global Historical Climatology Network (GHCN), the Southeast Alaska region experienced a drier than normal 2013 summer. However, if rainfall at the Juneau International Airport weather station is used as a proxy for determining whether rainfall in Angoon was within the normal range due to their similar annual rainfall, it suggests that although weather conditions were generally drier than normal in Southeast Alaska, weather conditions may have been within the normal range in the study area. Tables 2 and 3 below show the rainfall recorded at GHCN stations located in the vicinity of Angoon for 90 days prior, two weeks prior, and one week prior to fieldwork. The location for each station listed in Tables 2 and 3 is included below for reference in proximity to Angoon and the study area.

**Table 1. Observed Precipitation Data at NWS Juneau Airport Station**

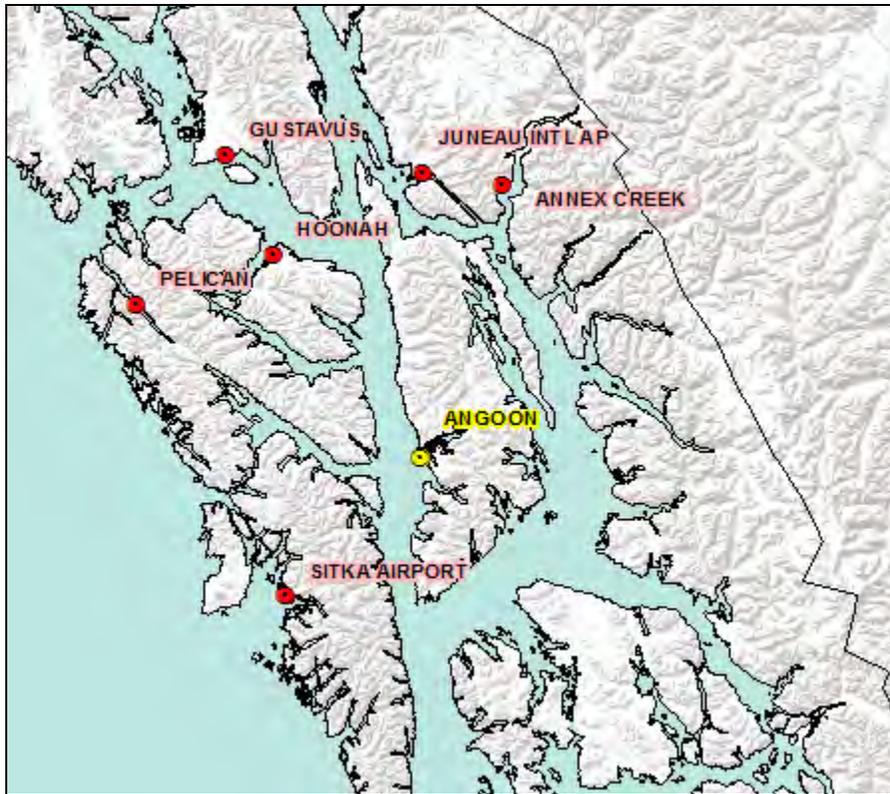
| <b>Site Visit</b>  | <b>Precipitation Received<br/>Day Of Site Visit<br/>(inches)</b> | <b>Precipitation Received 2<br/>Weeks Prior to Site Visit<br/>(inches)</b> |
|--------------------|--|--|
| August 19, 2013    | 0.11   | 2.40   |
| August 20, 2013    | 0.11   | 2.34   |
| August 21, 2013    | 0.07   | 2.45   |
| August 22, 2013    | Trace  | 2.52   |
| September 14, 2013 | 0  | 4.66   |
| September 15, 2013 | 0.10   | 3.65   |
| September 16, 2013 | 0.17   | 2.45   |

**Table 2. GHCN-Recorded Precipitation Prior to August Fieldwork (in inches)**

|                     | 90 Days Prior to August 2013 Fieldwork |             |                 | 14 Days Prior to August 2013 Fieldwork |             |                 | Week of Fieldwork (8/19–8/22) |             |                 |
|---------------------|--|-------------|-----------------|--|-------------|-----------------|-------------------------------|-------------|-----------------|
|                     | Measured Rain                          | Normal Rain | Surplus/Deficit | Measured Rain                          | Normal Rain | Surplus/Deficit | Measured Rain                 | Normal Rain | Surplus/Deficit |
| Annex Creek         | 17.82                                  | 17.81       | 1.18            | 3.32                                   | 5.57        | -1.97           | 0.84                          | 1.37        | -0.53           |
| Gustavus            | 9.23                                   | 11.87       | -2.50           | 2.25                                   | 3.01        | -0.76           | 0.13                          | 0.71        | -0.58           |
| Hoonah              | 8.00                                   | 10.05       | -2.05           | 1.70                                   | 2.29        | -0.59           | 0.63                          | 0.60        | 0.03            |
| Juneau Intl Airport | 12.35                                  | 12.42       | -0.07           | 3.24                                   | 3.30        | -0.06           | 0.29                          | 0.77        | -0.48           |
| Pelican             | 14.09                                  | 19.63       | -5.23           | 2.37                                   | 5.76        | -3.39           | 0.62                          | 1.45        | -0.83           |
| Sitka Airport       | 10.17                                  | 12.24       | -2.07           | 2.33                                   | 3.86        | -1.53           | 0.00                          | 0.95        | -0.95           |

**Table 3. GHCN-Recorded Precipitation Prior to September Fieldwork**

|                     | 90 Days Prior to September 2013 Fieldwork |             |                 | 14 Days Prior to September 2013 Fieldwork |             |                 | Week of Fieldwork (9/14–9/15) |             |                 |
|---------------------|---|-------------|-----------------|---|-------------|-----------------|-------------------------------|-------------|-----------------|
|                     | Measured Rain                             | Normal Rain | Surplus/Deficit | Measured Rain                             | Normal Rain | Surplus/Deficit | Measured Rain                 | Normal Rain | Surplus/Deficit |
| Annex Creek         | N/A                                       | 25.34       | N/A             | N/A                                       | 7.71        | N/A             | 0.27                          | 1.74        | -1.47           |
| Gustavus            | 10.45                                     | 13.74       | -3.29           | 3.59                                      | 3.09        | 0.50            | 0.12                          | 0.78        | -0.66           |
| Hoonah              | 8.68                                      | 12.66       | -3.98           | 1.82                                      | 3.08        | -1.26           | 0.09                          | 0.78        | -0.69           |
| Juneau Intl Airport | 14.03                                     | 15.46       | -1.43           | 4.66                                      | 3.73        | 0.93            | 0.27                          | 0.89        | -0.62           |
| Pelican             | 20.78                                     | 26.75       | -5.97           | 9.37                                      | 7.86        | 1.51            | 0.12                          | 2.02        | -1.90           |
| Sitka Airport       | 12.15                                     | 16.98       | -4.83           | 3.56                                      | 4.90        | -1.34           | 0.52                          | 1.18        | -0.66           |



Locations of GHCN stations.

According to the GHCN station data, weather conditions prior to the August 2013 site visits at every station in the vicinity of Angoon were below normal for that time of year. This suggests that the Angoon area was drier than normal. This was evident during the August 2013 fieldwork. The number of obligate wetland and facultative wetland vegetation species observed in the forested wetland communities was minimal. The water table at wetland plots was sometimes observed below 12 inches. Due to landscape position and the presence of hydric histosol soils, the water table would be expected to be near the surface or within 12 inches of the soil surface during the earlier portion of the growing season. Since the region had experienced drier-than-normal rainfall over the summer, wetland hydrology indicator C2 Dry-Season Water Table was used to document a water table observed between 12 and 40 inches in organic soils as meeting the wetland hydrology criterion.

According to the Regional Supplement (USACE 2007), the median beginning and ending dates of the growing season for Ecoregion No. 120, Coastal Western Hemlock–Sitka Spruce Forests, is April 29 through September 28. The site visits were conducted during the appropriate ecoregion growing season. Chapter 5 of the Regional Supplement states that the Southeast Alaska region typically lacks a significant dry period.

Precipitation data for the above tables are included for reference in Appendix B.

## 5.0 WETLAND DELINEATION METHODS

The wetland delineation fieldwork was conducted by Stacey Reed and Taya MacLean from August 19 through August 22, 2013, and from September 14 through September 16, 2013.

The study area was walked, and soils, vegetation, and indicators of hydrology were recorded on Alaska Regional Supplement Wetland Determination Data Forms at 56 sample plot locations (note that plots 17, 18, and 41 were not located in the study area and are not included in this report) to document representative site conditions. Paired plots documented wetland and adjacent upland transitional communities. Completed wetland determination data forms are included in Appendix C. The typical plot radius to document vegetation was 5 feet for herbaceous vegetation, 10 feet for scrub-shrub vegetation, and 30 feet for trees. Soil test pits were dug to a depth of 12 to 16 inches, or to bedrock refusal, to determine if hydric soil conditions were present. Soil probes were used to document the soil profiles below 16 inches. Several unrecorded sample plots were dug to verify hydric soil and wetland hydrology indicators throughout the study area to assist with the delineation of wetland boundaries.

Plants were identified to species using the following references: Douglas et al. 1998a, 1998b, 1999a, 1999b, 2000, 2001a, 2001b, 2002; Hitchcock et al. 1973; Hulten 1968; Klinkenberg 2013; Pojar and MacKinnon 2004; Schofield 1992; and Wilson et al. 2008.

The National Wetland Plant List (NWPL) for the Alaska Region (Lichvar 2013) was referenced in this delineation as required by the USACE. The wetland determination data forms in Appendix C and the table of vegetation observed in the study area in Appendix E use the nomenclature and the wetland indicator status of the NWPL Alaska Region list.

Soils were described with standardized color chips (X-Rite 2000) of hue, value, and chroma and by texture (sand, silt, clay, loam, muck, and peat) (Schoeneberger et al. 2002). Field indicators of hydric soils were recorded according to the indicators described in U.S. Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) 2005 and 2010.

Wetlands were classified according to Cowardin and hydrogeomorphic method (HGM) classification (Brinson 1993; Cowardin et al. 1979).

Photographs were taken at each of the plots, and representative site photographs and a photo location map are included in Appendix D. A list of vegetation (vascular plants) observed in the study area during the August and September 2013 site visits is included in Appendix E.

Potentially jurisdictional drainages with a continuous, well-defined bed and bank were walked, and drainage widths and ordinary high water mark indicators were recorded and photo-documented.

## 6.0 MAPPING METHODS

The GPS location data for the wetland boundaries, water centerlines, and sample plots locations were collected using a Trimble GeoExplorer XT mapping-grade GPS unit. Accuracy for all GPS-surveyed features is estimated at 1 meter or less based on the manufacturer's reported tolerance for the instrument and the post-processing report. Digitized mapping and cartography were completed in ArcGIS 10. The results are shown on a 2004 aerial photograph (Appendix A, Figures 4, 4a, and 4b) and on the 2006 Angoon Airport Master Plan contour base (Appendix A, Figures 5). The contours were not professionally land surveyed, and the accuracy of the contours is variable throughout the study area. Therefore, the wetland boundaries do not coincide with the contours in all areas. Wetland boundary points were collected in the field at representative locations using a Trimble GPS. Aerial photograph signatures for wetland/upland boundaries were field-verified to assist with mapping of wetland boundaries in geographic information system (GIS). Final wetland boundary mapping was completed in the office by hand digitizing using representative wetland boundaries mapped in the field along with field-verified vegetation signatures on high-resolution aerial photographs. Wetland boundaries and plot locations were not physically flagged in the field.

The boundaries of wetland Cowardin classifications (forested, scrub-shrub, emergent) were mapped by hand, based on aerial photograph interpretation and field-verification.

## 7.0 DESCRIPTION OF ALL WETLANDS, NON-WETLANDS, AND WATERS

### 7.1 Wetlands

Three different palustrine (freshwater) wetland vegetation classification communities were mapped within the study area, consisting of palustrine forested needle-leaved evergreen saturated organic (PFO4Bg); palustrine scrub-shrub needle-leaved/deciduous and broad-leaved deciduous saturated organic (PSS4/1Bg); and palustrine emergent persistent saturated organic (PEM1Bg). A total of approximately 128.43 acres of potentially jurisdictional wetlands were delineated. The delineation documented slightly greater upland in the study area and more interspersed polygons of palustrine scrub-shrub and emergent-dominated communities than the NWI map.

The wetland boundaries in the study area were determined by a change in the land form from lower elevation concave wetlands (depressions within hummocks, hill slope benches, and broad concave depressions on hill slope crests) to a convex land form in uplands. A change in the vegetation community generally coincided with a change in land form from a hydrophytic-dominated understory in wetlands to a non-hydrophytic-dominated understory in uplands. Upland communities contained a closed forested canopy dominated by larger diameter Western hemlock (*Tsuga heterophylla*) and Sitka spruce and had a less diverse understory compared to the adjacent wetland areas. Uplands lacked hydric soil and hydrology indicators during the August and September site visits.

Most wetland communities were dominated by a hydrophytic vegetation community with hydric histosol soils and wetland hydrology indicators. However, a few wetland plots did not pass the hydrophytic vegetation dominance or prevalence index tests. The shrub stratum at these plots were dominated by FACU (facultative upland) communities (rusty menziesia [*Menziesia ferruginea*], Oregon crabapple [*Malus fusca*], salmonberry [*Rubus spectabilis*], and devils-club [*Oplopanax horridus*]). These FACU shrubs appeared to be shallowly rooted and growing on slightly elevated hummocks. Oregon crabapple was only observed in wetlands and behaved as a hydrophyte throughout the study area. Rusty menziesia was observed in both wetland and upland areas, and devils-club seemed to favor wetland transitional areas over upland areas. Plots that did not meet the dominance test or prevalence index for hydrophytic vegetation indicators contained saturated hydric histosol soils and primary hydrology indicators; therefore, the problematic hydrophytic vegetation indicator was checked on the data sheets for these plots according to the problematic vegetation procedures in Chapter 5 of the Regional Supplement.

A wetland/upland mosaic was observed in the south-central portion of the study area (in the vicinity of Plots 28, 50, 51, 52, and 55). Small, isolated (not continuous), steeply sloped (>25% slope) upland ridges were observed in this area that were surrounded by forested wetland (Photo 1, Appendix D). These upland ridges were not delineated because they were small, steep, and surrounded by wetland. The small uplands represented at most approximately 5% of the south-central study area, with 95% of this area being forested wetland.

Several intermittent groundwater seeps were observed within the delineated wetlands. These groundwater seep areas were not delineated separately as waters because they lacked a continuous, defined bed and bank and were sparsely vegetated (Photo 2, Appendix D). Therefore, these areas do not meet the definition of waters of the U.S. and were included in the delineated wetland areas.

### **7.1.1 PALUSTRINE FORESTED NEEDLE-LEAVED EVERGREEN SATURATED ORGANIC (PFO4Bg)**

Representative Plots: 6, 10, 11, 14, 21, 23, 25, 27, 28, 30, 32, 33, 34, 35, 39, 42, 44, 47, 49, 50, 51, 52, 54, 55

Approximately 58.79 acres of palustrine forested needle-leaved evergreen (coniferous) wetlands with a saturated water regime and organic soils (PFO4Bg) were mapped within the study area. Wetland forested conditions appeared to extend outside the study area to the north, northwest, south, and east. Forested wetlands contained greater than 30% canopy dominated by Western hemlock with Sitka spruce as co-dominants (Photo 3, Appendix D). The typical understory within the forested wetlands consisted of oval-leaf blueberry (*Vaccinium ovalifolium*), rusty menziesia, devils-club, American skunkcabbage (*Lysichiton americanus*), lady fern (*Athyrium cyclosorum*), and fern-leaf goldthread (*Coptis asplenifolia*) (Photo 4, Appendix D). Lesser amounts of strawberry-leaf raspberry (*Rubus pedatus*) and bunchberry dogwood (*Cornus canadensis*) were observed in the palustrine forested understory communities. Buttressed Sitka spruce tree bases were common in the palustrine forested wetland areas.

Soils documented in forested wetlands were typically thick layers of saturated organic histosols (dominated by sapric rather than fibric soil material). The soil profile at most of the forested wetland plots contained greater than 16 inches of thick muck underlain by bedrock or gravels/coarse sands (Photo 5, Appendix D).

Wetland hydrology indicators consisted of surface soil saturation, and a water table within 12 inches of the soil surface was generally observed during the site visits in late August and in early September. A water table between 12 and 40 inches was observed at some of the forested wetland plots. These plots had soils that were saturated at or near the surface and met the C2 Dry-Season Water Table wetland hydrology indicator. Shallow ponding (an average of approximately 6 inches deep) was observed within micro-topographic depressions scattered throughout the forested wetland communities (Photo 6, Appendix D). Small areas of groundwater seeps and rivulets with a vegetated organic substrate were observed flowing southerly through the forested wetlands. These wetland drainages lacked continuous bed and bank, were sparsely vegetated with American skunkcabbage, had iron deposits consisting of an orange gel (Photo 7, Appendix D), and did not meet the definition of a water of the U.S.

The primary hydrology input for the forested wetlands consisted of groundwater discharging from the upslope land surface and direct precipitation. Forested wetlands belong to the slope HGM classification (Brinson 1993; NRCS 2008). Forested wetlands are connected to and drain downslope to the main perennial drainage delineated on the site.

### **7.1.2 PALUSTRINE SCRUB-SHRUB NEEDLE-LEAVED EVERGREEN AND BROAD-LEAVED DECIDUOUS SATURATED ORGANIC (PSS4/1Bg)**

Representative Plots: 2, 5, 9, 12, 13, 15, 18, 22, 24, 27, 35, 45, 56.

Approximately 66.66 acres of palustrine scrub-shrub needle-leaved evergreen and broad-leaved deciduous wetlands with a saturated water regime and organic soils (PSS4Bg) were mapped within the study area. Scrub-shrub wetland communities had less than 30% tree canopy cover; the majority of the scrub-shrub wetlands were broad-leaved deciduous. The broad-leaved deciduous scrub-shrub wetlands were dominated by dense thickets of Oregon crabapple, Sitka alder (*Alnus viridis*), and blueberry, with lesser amounts of devils-club, rusty menziesia, and squashberry *Viburnum edule*) (Photo 8, Appendix D). Skunkcabbage and lady fern were dominant in the herbaceous stratum of the broad-leaved deciduous communities. Scattered smaller/stunted Western hemlock and Sitka spruce trees were observed in the broad-leaved deciduous scrub-shrub communities. The Western hemlock and Sitka spruce tree canopy within the scrub-shrub communities was very open. The scrub-shrub needle-leaved evergreen communities occupied small areas in the lowest elevation areas in the north and western portions of the study area. The needle-leaved evergreen scrub-shrub areas

contained stunted Western hemlock and shore pine (*Pinus contorta*) tree growth with an open sedge-dominated understory (Photo 9, Appendix D). Many dead trees were observed in the scrub-shrub needle-leaved communities (Photo 10, Appendix D).

Soils documented in the needle-leaved evergreen areas contained a deep profile of saturated peat. Soils in the broad-leaved deciduous community contained deep saturated sapist organic (muck and mucky peat) layers. The groundwater table in the scrub-shrub communities was observed at the soil surface or within 12 inches of the soil surface during the August and September 2013 site visits. Many shallow, scattered micro-depressions within the scrub-shrub communities were ponded, with approximately 2- to 4-inch-deep pools during the August and September 2013 site visits.

Scrub-shrub communities are located in topographic depressions that intercept groundwater discharge from adjacent higher elevational uplands and forested wetlands. The scrub-shrub communities in the southeast portion of the study area lacked defined outlet channels. Scrub-shrub wetlands belong to the slope HGM classification.

### **7.1.3 PALUSTRINE EMERGENT PERSISTENT SATURATED ORGANIC (PEM1Bg)**

Representative Plots: 1, 40

Approximately 2.98 acres of palustrine emergent persistent fens (graminoid fen) with a saturated water regime and organic soils (PEM1Bg) were mapped in the study area. The emergent communities were characterized as smaller depressional areas surrounded by scrub-shrub communities. Emergent fens were dominated by stunted shore pine trees with water and yellow sedge (*Carex aquatilis* and *C. flava*), scentbottle (*Piperia dilatata*), cloudberry (*Rubus chamaemorus*), sticky tofieldia (*Triantha glutinosa*), buck-bean (*Menyanthes trifoliata*), tall cotton-grass (*Eriophorum angustifolium*), and tufted leafless-bulrush (*Trichophorum caespitosum*) (Photo 11, Appendix D).

Soils in fens contained thick layers of saturated organic peats (fibrous histosols; Photo 12, Appendix D). The water table was generally at the surface or within 12 inches of the soil surface. Small, scattered pools of shallow ponding (an average of 2 inches deep; maximum 4 inches deep) were observed within the emergent communities. Soils in the fens had a sulfidic odor.

Emergent fens in the study area are located on broad concave hill slope benches and belong to the slope HGM classification. Drainage from the fens located in the northern portion of the study area discharges through a perennial stream.

## **7.2 Non-Wetlands (Uplands)**

Representative Plots: 3, 4, 7, 8, 16, 19, 20, 26, 29, 31, 36, 37, 38, 43, 46, 48, 53

Approximately 33.80 acres of upland forest were delineated in the study area. The uplands were dominated by a mature Western hemlock and Sitka spruce closed canopy and contained a less diverse herbaceous understory than the adjacent forested wetlands. The dominant upland shrub community generally consisted of red huckleberry (*Vaccinium parvifolium*), rusty menziesia, and oval-leaf blueberry. The dominant understory consisted of bunchberry dogwood, queen's cup (*Clintonia uniflora*), heart-leaf twayblade (*Neottia cordata*), and mosses (Photo 13, Appendix D). Some upland plots were dominated by a facultative-dominated vegetation community, mainly due to the presence of a Western hemlock canopy with dense oval-leaf blueberry thickets in the understory. While these plots met the dominance test for hydrophytic vegetation, they lacked wetland hydrology and hydric soil indicators, and were determined to be upland.

Upland soils consisted of poorly decomposed, non-saturated folist organic soils (containing herbaceous matter, roots, and wood; Photo 14, Appendix D). The upland organic layers were not as decomposed as the saturated mucks and mucky peat soil profiles documented in wetlands. The upland folistic layers were shallow (less than 16 inches deep) and generally underlain by bedrock. Uplands were located on convex hill slope, a land form that does not support the concentration of water. Upland soils lacked saturation and primary and secondary wetland hydrology indicators. Upland conditions appeared to extend to the north, south, and east of the study area.

### **7.3 Waters**

Approximately 1.31 acres of potentially jurisdictional waters were delineated in the study area.

The main drainage within the study area consists of a perennial drainage that originates in a fen located immediately off-site to the northwest. The drainage flows southerly through the study area through forest, scrub-shrub, and emergent wetland vegetation communities. The channel flows off-site to the south of the study area. The upstream portion of the channel bed was the narrowest, flowing through the fen and scrub-shrub wetland within a 1-foot -wide channel bed and 1.5-foot-tall banks (Photo 15, Appendix D). The dominant channel bed substrate in the upstream portions of the channel was muck. Downstream, the channel developed a broader bed (an average of between 6 and 8 feet wide) with an average of 2-foot-tall banks (Photo 16, Appendix D). The dominant substrate in the downstream portions of the channel was gravelly sandy loam with pockets of small cobbles (Photo 17, Appendix D). Continuous flow of a minimum 6-inch depth was observed throughout the channel during the September 14, 2013, site visit. Deeper pools contained flow up to 2 feet deep. Unvegetated lateral coarse sand bars and an abundance of large woody debris were also observed in the downstream portions of the channel bed.

The headwaters for a second potentially jurisdictional perennial water was delineated in the southwest portion of the study area. This tributary originates from a groundwater seep within palustrine forested wetland and develops a defined 3-foot-wide channel bed with 1-foot-tall banks (Photo 18, Appendix D). The dominant substrate was gravelly sandy loam. Approximately 4-inch-deep continuous flow was present in the channel during the September 14, 2013, site visit. The channel flows off-site to the south of the study area.

The ordinary high water marks for the delineated drainages coincided with the top of the stream banks. A change in the soil texture generally occurred just above the stream banks from gravelly sandy loam and cobbles in the channel bed to organic histosols in the adjacent wetland. The ordinary high water marks were also defined by the transition from the unvegetated channel bed to the adjacent vegetated wetland community. No fish were observed in any portion of the streams during the August or September 2013 site visits. The streams are riverine upper perennial unconsolidated bottom drainages with a permanent water regime (R3UBH). No gradient measurements were taken of the streams.

Streams delineated in the study area are not mapped in the Alaska Department of Fish and Game (ADF&G) *Catalog of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes* (Johnson and Blanche 2012). The streams are not mapped on the Sitka B-2 U.S. Geological Survey (USGS) map (USGS 2013).

## **8.0 RESULTS AND CONCLUSIONS**

A total of approximately 128.43 acres of potentially jurisdictional wetlands and 1.31 acres of potentially jurisdictional waters were delineated in the study area (Table 4).

Wetland conditions extend off-site to the south of the study area and are located immediately adjacent to Killisnoo Harbor (a tidally influenced traditional navigable water of the U.S.). Based on aerial photography, an

upland ridge may be present along the shoreline, separating the estuarine community from the palustrine wetlands. However, the perennial drainages delineated in the study area are non-navigable, perennial, relatively permanent waters that are directly adjacent to and drain wetlands in the study area. The drainages flow southerly and potentially flow directly into the harbor. Therefore, due to the potential hydrologic connection to Killisnoo Harbor, wetlands and drainages delineated in the study area may be determined to be jurisdictional by the Alaska District USACE.

Table 4 summarizes the acreages of wetlands, waters, and uplands delineated in the study area. Wetland vegetation types, Cowardin classification, HGM classification, representative sample plots, and the photo number for representative photographs are also summarized according to habitat type.

**Table 4. Summary of Habitat Types**

| Habitat Type                        | Cowardin Class | HGM Classification | Sample Plots  | Representative Photos | On-Site Acreage |
|-------------------------------------|----------------|--------------------|---|-----------------------|-----------------|
| Forest                              | PFO4Bg         | Slope              | 6, 10, 11, 14, 21, 23, 25, 27, 28, 30, 32, 33, 34, 35, 39, 42, 44, 47, 49, 50, 51, 52, 54, 55 | 2, 3, 4, 5, 6, 7      | 58.79           |
| Scrub-shrub                         | PSS4/PSS1Bg    | Slope              | 2, 5, 9, 12, 13, 15, 18, 22, 24, 27, 35, 45, 56   | 8, 9, 10              | 66.66           |
| Emergent                            | PEM1Bg         | Slope              | 1, 40   | 11, 12                | 2.98            |
| <b>Total Wetland = 128.43 acres</b> |                |                    |   |                       |                 |
| Unnamed main central drainage       | R3SB1          | None               | None  | 15, 16, 17, 18        | 1.29            |
| Unnamed western drainage            | R3SB1          | None               | None  | --                    | 0.02            |
| <b>Total Waters = 1.31 acres</b>    |                |                    |   |                       |                 |
| Non-wetland                         | Upland         | N/A                | 3, 4, 7, 8, 16, 19, 29, 31, 34, 36, 38, 41  | 13, 14                | 32.56           |
| <b>Total Upland = 33.80 acres</b>   |                |                    |   |                       |                 |

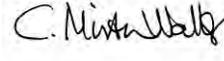
## 9.0 LIST OF PREPARERS



Stacey Reed  
Wetland Scientist  
Fieldwork and Report Preparation



Stacy Benjamin  
Senior Ecologist  
Report QA/QC



C. Mirth Walker, PWS, CWD  
Senior Wetland Scientist  
Data QA/QC



## 10.0 LITERATURE CITED

- Alaska Department of Transportation and Public Facilities. 2007. *Angoon Airport Master Plan*. Available at: [www.angoonairports.com](http://www.angoonairports.com). Accessed October 25, 2013.
- Brinson, M.M. 1993. *A Hydrogeomorphic Classification for Wetlands*. Technical Report WRP-DE-4. Vicksburg, Mississippi: U.S. Army Corps of Engineers Engineer Waterways Experiment Station.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79/31. U.S. Fish and Wildlife Service.
- Douglas, G.W., G.B. Straley, D.V. Meidinger, and J. Pojar (editors). 1998a. *Illustrated Flora of British Columbia, Volume 1: Gymnosperms and Dicotyledons (Aceraceae through Asteraceae)*. Victoria, British Columbia: British Columbia Ministry of Environment, Lands and Parks, and Ministry of Forests.
- Douglas, G.W., G.B. Straley, D.V. Meidinger, and J. Pojar (editors). 1998b. *Illustrated Flora of British Columbia, Volume 2: Dicotyledons (Balsaminaceae through Cuscutaceae)*. Victoria, British Columbia: British Columbia Ministry of Environment, Lands and Parks, and Ministry of Forests.
- Douglas, G.W., D.V. Meidinger, and J. Pojar (editors). 1999a. *Illustrated Flora of British Columbia, Volume 3: Dicotyledons (Diapensiaceae through Onagraceae)*. Victoria, British Columbia: British Columbia Ministry of Environment, Lands and Parks, and Ministry of Forests.
- Douglas, G.W., D.V. Meidinger, and J. Pojar (editors). 1999b. *Illustrated Flora of British Columbia, Volume 4: Dicotyledons (Orobanchaceae through Rubiaceae)*. Victoria, British Columbia: British Columbia Ministry of Environment, Lands and Parks, and Ministry of Forests.
- Douglas, G.W., D.V. Meidinger, and J. Pojar (editors). 2000. *Illustrated Flora of British Columbia, Volume 5: Dicotyledons (Salicaceae through Zygophyllaceae) and Pteridophytes*. Victoria, British Columbia: British Columbia Ministry of Environment, Lands and Parks, and Ministry of Forests.
- Douglas, G.W., D.V. Meidinger, and J. Pojar (editors). 2001a. *Illustrated Flora of British Columbia, Volume 6: Monocotyledons (Acoraceae through Najadaceae)*. Victoria, British Columbia: British Columbia Ministry of Environment, Lands and Parks, and Ministry of Forests.
- Douglas, G.W., D.V. Meidinger, and J. Pojar (editors). 2001b. *Illustrated Flora of British Columbia, Volume 7: Monocotyledons (Orchidaceae through Zosteraceae)*. Victoria, British Columbia: British Columbia Ministry of Sustainable Resource Management and Ministry of Forests.
- Douglas, G.W., D.V. Meidinger, and J. Pojar (editors). 2002. *Illustrated Flora of British Columbia, Volume 8: General Summary, Maps and Keys*. Victoria, British Columbia: British Columbia Ministry of Sustainable Resource Management and Ministry of Forests.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1*. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station.
- Hitchcock, C.L. and A. Cronquist. 1973. *Flora of the Pacific Northwest: An Illustrated Manual*. Seattle, Washington: University of Washington Press.

- Hulten, E. 1968. *Flora of Alaska and Neighboring Territories: A Manual of the Vascular Plants*. Stanford, California: Stanford University Press.
- Johnson, A. 2013. Discussion about past timber harvest in vicinity of proposed location of Airport 12a. Personal communication between Alvin Johnson, Angoon resident, and Stacey Reed, Wetland Scientist, SWCA Environmental Consultants, September 15, 2013.
- Johnson, J., and P. Blanche. 2012. *Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes – Southeastern Region*. Special Publication No. 12-07. Anchorage: Alaska Department of Fish and Game.
- Klinkenberg, Brian (editor). 2013. E-Flora BC: Electronic Atlas of the Flora of British Columbia. Lab for Advanced Spatial Analysis, Department of Geography, University of British Columbia, Vancouver. Available at: <http://www.geog.ubc.ca/biodiversity/eflora/index.shtml>. Accessed August–September 2013.
- Lichvar, R.W. 2013. National Wetland Plant List, Website Version 3.1. Available at: <http://rsgisias.crrel.usace.army.mil/NWPL/>. Accessed September 2013.
- National Weather Service (NWS). 2013. Juneau, Alaska climate data. Available at: <http://www.nws.noaa.gov/climate/index.php?wfo=pajk>. Accessed August 16, September 23, and September 25, 2013.
- Natural Resources Conservation Service (NRCS). 2008. *Hydrogeomorphic Wetland Classification System: An Overview and Modification to Better Meet the Needs of the Natural Resources Conservation Services*. Technical Note No. 190-8-76. Washington, D.C.: Natural Resources Conservation Service.
- Pojar, J., and A. MacKinnon. 2004. *Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia and Alaska*. Auburn, Washington: Lone Pine Publishing.
- R&M Engineering. 2006. Topographic data generated at five-foot contour intervals from stereo-pair aerial photographs taken April 2001. Prepared for the Angoon Airport Master Plan (2007). Juneau, Alaska: R&M Engineering.
- Schoeneberger, P.J., D.A. Wysocki, E.C. Benham, and W.D. Broderson (editors). 2002. *Field Book for Describing and Sampling Soils, Version 2.0*. Lincoln, Nebraska: U.S. Department of Agriculture Natural Resources Conservation Service, National Soil Survey Center.
- Schofield, W.B. 1992. *Some Common Mosses of British Columbia*. 2nd ed. Royal British Columbia Museum, Victoria, Canada.
- SWCA Environmental Consultants. 2012. *Cultural Resources Existing Conditions Technical Report for Angoon Airport Environmental Impact Statement*. Prepared for Federal Aviation Administration and Alaska Department of Transportation and Public Facilities. Salt Lake City, Utah: SWCA.
- U.S. Army Corps of Engineers (USACE). 2007. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0)*. ERDC/EL TR-07-24. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center.

- . 2010. *Consultant-Supplied Jurisdictional Determination Reports*. Alaska District Special Public Notice 2010-45 dated January 29, 2010. Corps of Engineers Regulatory Program. Anchorage: USACE, Alaska District.
- U.S. Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS). 2005. *Field Indicators of Hydric Soils in Alaska, A User Guide*. Compiled by J.P. Moore, edited by P. Taber. Available at: <ftp://ftp-fc.sc.egov.usda.gov/AK/soils/AKFieldIndicators.pdf>. Accessed October 2013.
- . 2010. *Field Indicators of Hydric Soils in the United States, Version 7.0*. Edited by L.M. Vasilas, G.W. Hurt, and C.V. Noble. Available at: [ftp://ftp-fc.sc.egov.usda.gov/NSSC/Hydric\\_Soils/FieldIndicators\\_v7.pdf](ftp://ftp-fc.sc.egov.usda.gov/NSSC/Hydric_Soils/FieldIndicators_v7.pdf). Accessed October 2013.
- U.S. Geological Survey (USGS). 2013. Sitka B-2 1:63,360 topographic quadrangle. Reston, Virginia: USGS.
- U.S. Fish and Wildlife Service (USFWS). 2013. National Wetlands Inventory map. Available at: <http://www.fws.gov/wetlands/Data/State-Downloads.html>.
- Western Regional Climate Center (WRCC). 2010. Period of record monthly climate summary: 9/1/1949 to 2/28/2011. Available at: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ak0310>. Accessed October 23, 2013.
- Wilson, B.L., R. Brainerd, D. Lytjen, B. Newhouse, and N. Otting. 2008. *Field Guide to the Sedges of the Pacific Northwest*. Corvallis: Oregon State University Press.
- X-Rite. 2000. Year 2000 revised washable edition, Munsell soil color charts. Grand Rapids, Michigan: X-Rite.

## Appendices

- A. Maps
- B. Precipitation Data
- C. Wetland Determination Data Sheets
- D. Ground-Level Site Photographs
- E. List of Vegetation Observed On-site

*Please see accompanying PDF for all appendices*



APPENDIX A. MAPS

A-1

*This Page Intentionally Left Blank*

A-2

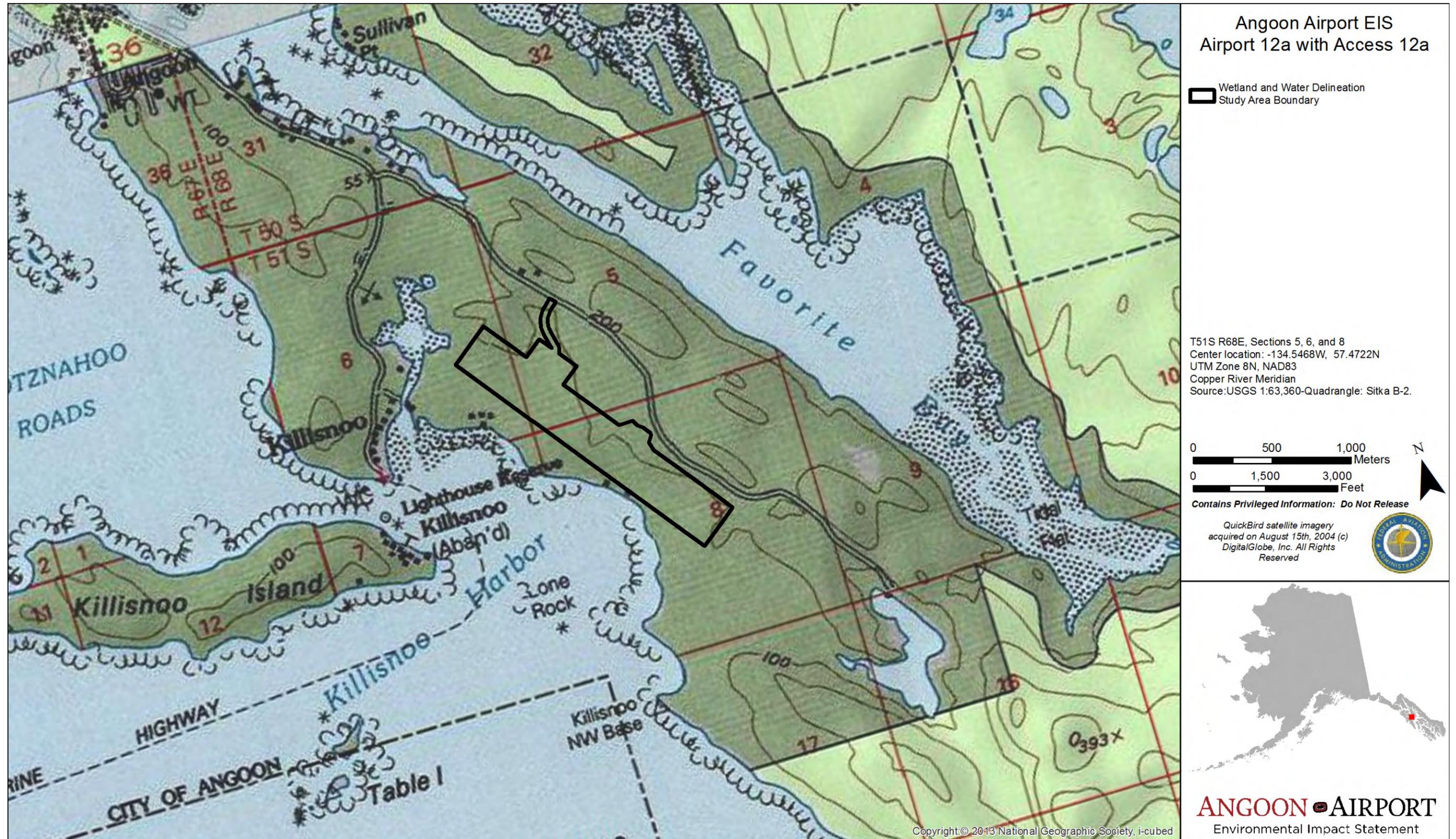


Figure 1. Site location map.

*This Page Intentionally Left Blank*

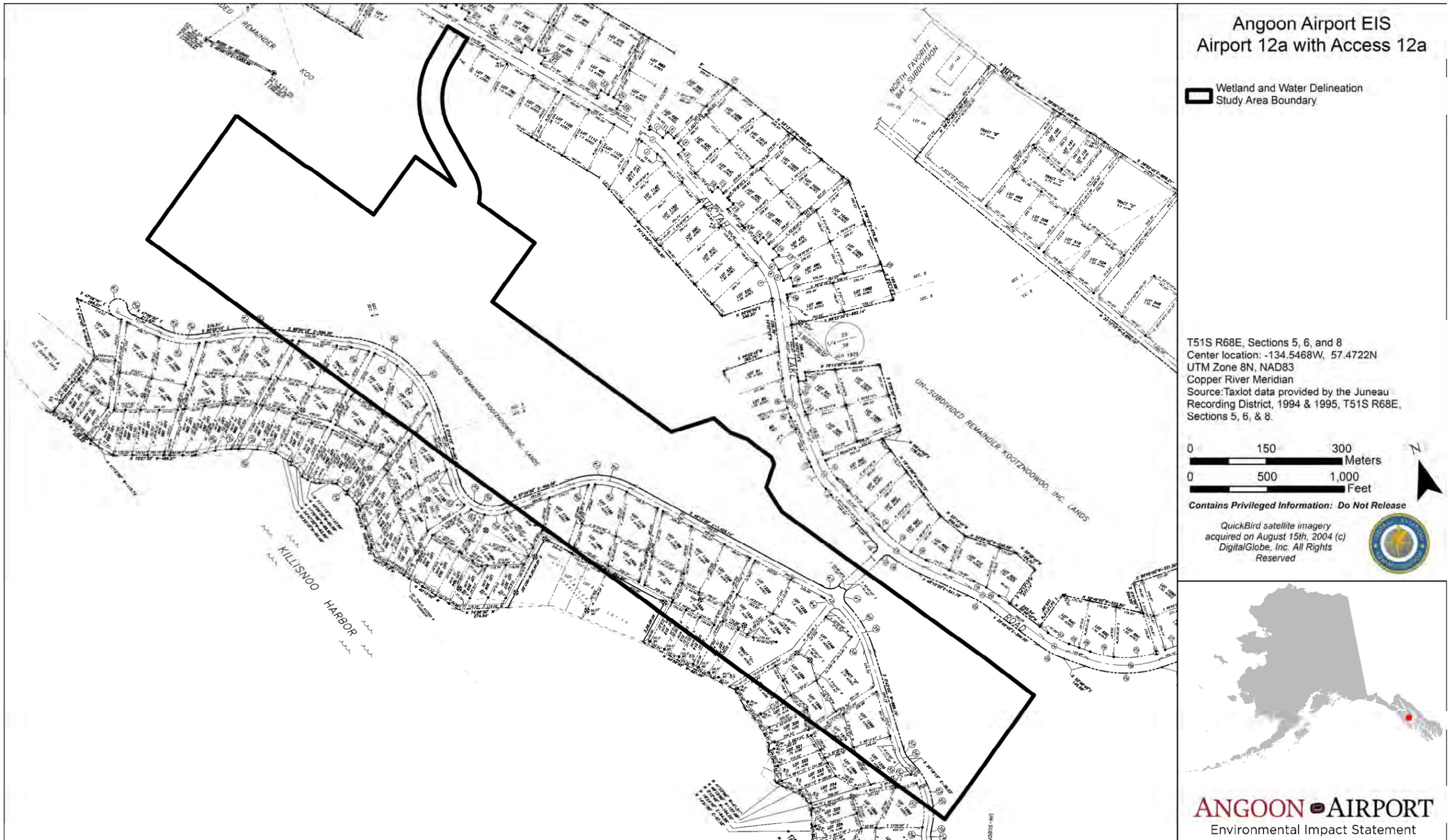


Figure 2. Parcel map.

*This Page Intentionally Left Blank*

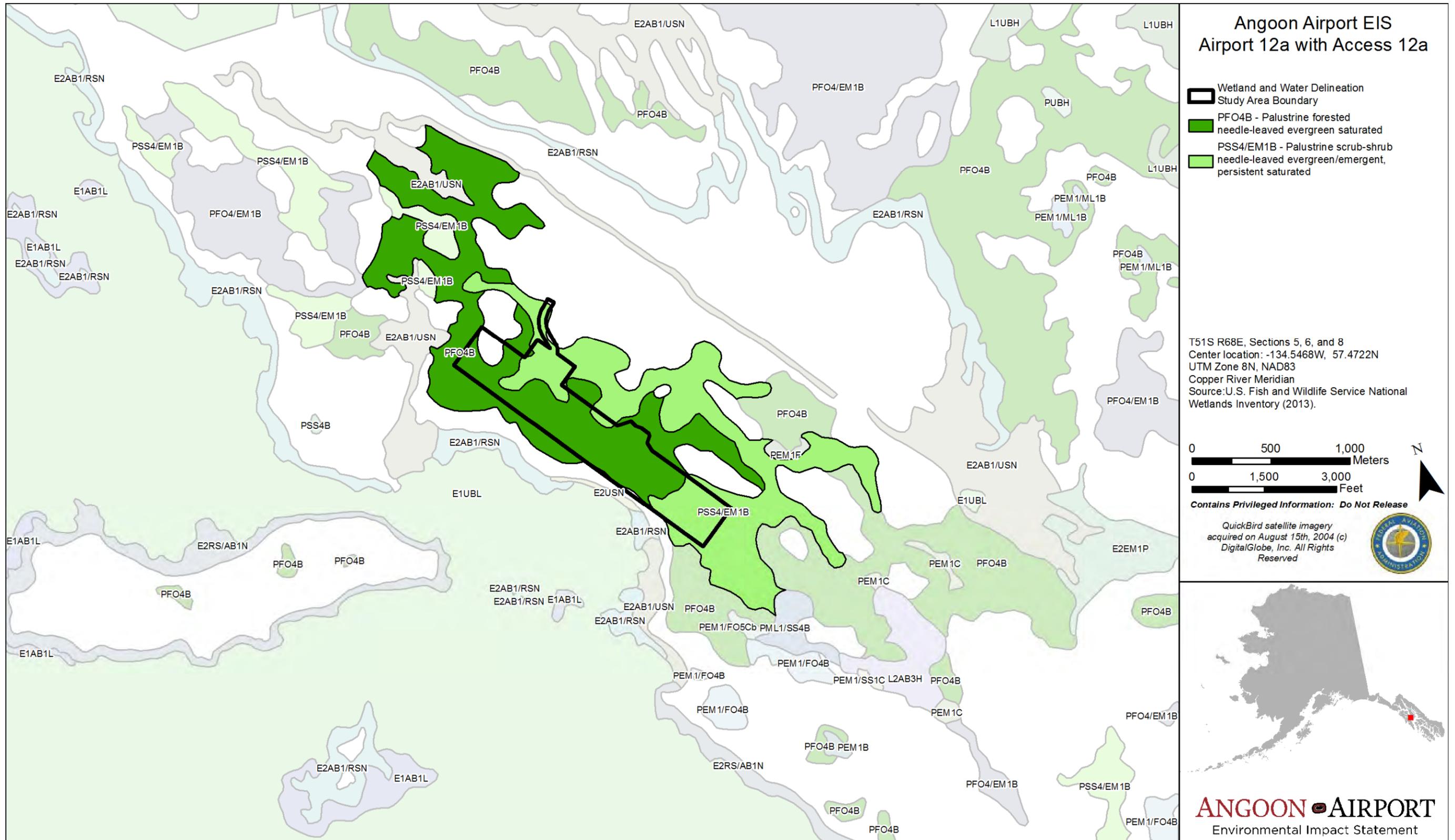


Figure 3. National Wetlands Inventory map.

*This Page Intentionally Left Blank*



Figure 4. 2004 aerial wetland and waters delineation map.

*This Page Intentionally Left Blank*



Figure 4a. Enlargement of NW wetland and waters delineation map.

*This Page Intentionally Left Blank*



Figure 4b. Enlargement of SE wetland and waters delineation map.

*This Page Intentionally Left Blank*

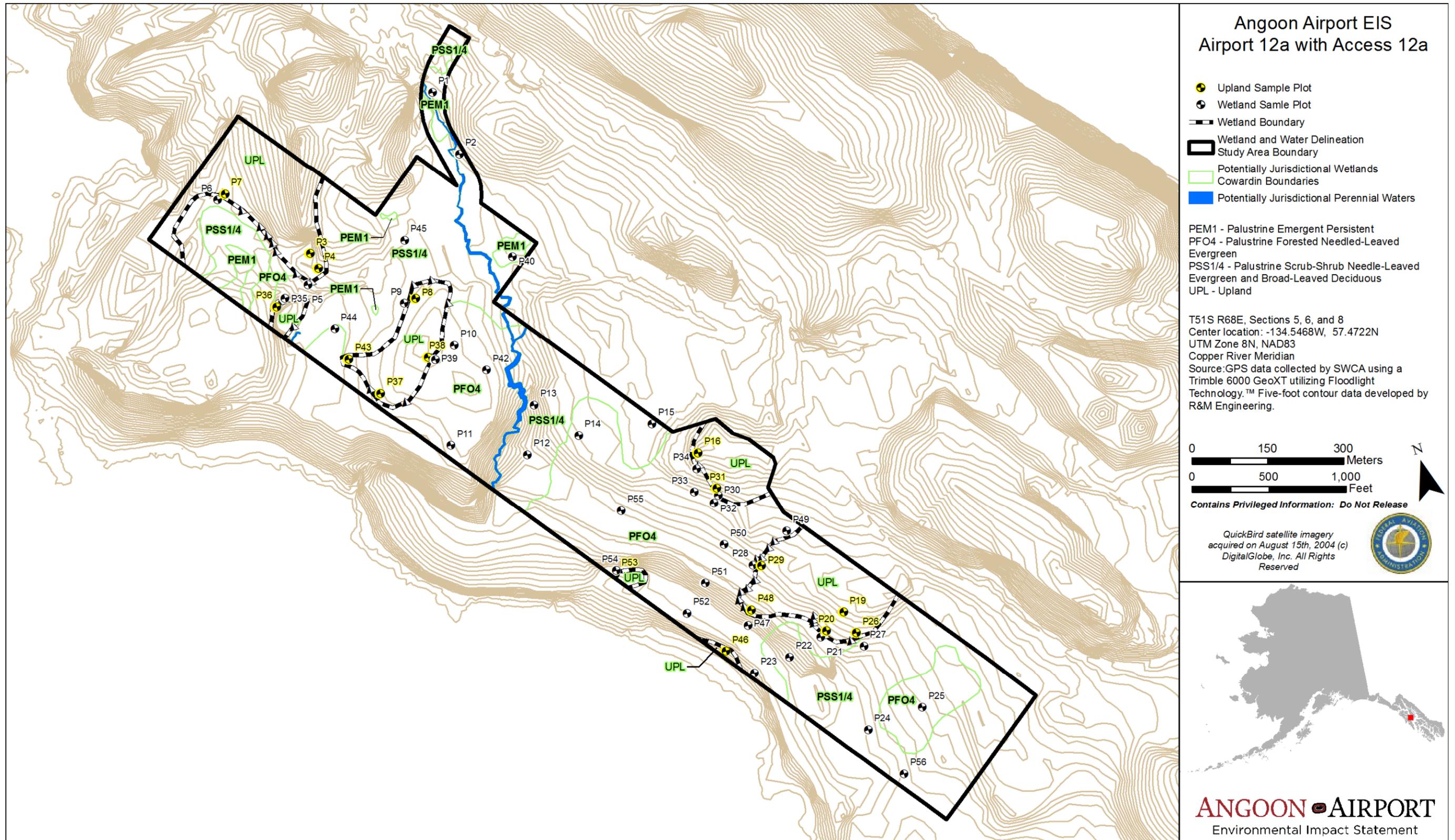


Figure 5. 2006 contour wetland and waters delineation map.

*This Page Intentionally Left Blank*

APPENDIX B. PRECIPITATION DATA

B-1

*This Page Intentionally Left Blank*

B-2

# ANGOON, ALASKA (500310)

## Period of Record Monthly Climate Summary

Period of Record : 9/ 1/1949 to 2/28/2011

|                                   | Jan  | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  | Annual |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| Average Max. Temperature (F)      | 31.9 | 36.8 | 40.9 | 47.1 | 53.4 | 58.8 | 62.0 | 61.5 | 56.6 | 48.4 | 39.9 | 34.3 | 47.6   |
| Average Min. Temperature (F)      | 23.5 | 27.1 | 29.7 | 33.9 | 39.8 | 45.6 | 49.8 | 49.8 | 45.2 | 39.1 | 32.3 | 27.3 | 36.9   |
| Average Total Precipitation (in.) | 3.39 | 2.70 | 2.42 | 2.21 | 1.92 | 1.90 | 2.26 | 3.76 | 4.89 | 7.71 | 4.79 | 4.04 | 42.00  |
| Average Total SnowFall (in.)      | 16.6 | 12.7 | 8.1  | 2.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.3  | 6.0  | 15.4 | 61.2   |
| Average Snow Depth (in.)          | 7    | 8    | 4    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 4    | 2      |

Percent of possible observations for period of record.

Max. Temp.: 81% Min. Temp.: 80.9% Precipitation: 83.7% Snowfall: 85.2% Snow Depth: 85.3%

Check [Station Metadata](#) or [Metadata graphics](#) for more detail about data completeness.

Western Regional Climate Center, [wrcc@dri.edu](mailto:wrcc@dri.edu)

**These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.**

### Climatological Report (Daily)

000  
CDAK47 PAJK 201127  
CLIJNU  
AKZ025-202300-  
CLIMATE REPORT  
NATIONAL WEATHER SERVICE JUNEAU, AK  
325 AM AKDT TUE AUG 20 2013

.....  
...THE JUNEAU CLIMATE SUMMARY FOR AUGUST 19 2013...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1943 TO 2013

| WEATHER ITEM | OBSERVED VALUE | TIME (LST) | RECORD VALUE | YEAR | NORMAL VALUE | DEPARTURE FROM NORMAL | LAST YEAR |
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|

.....  
TEMPERATURE (F)

YESTERDAY

|         |    |        |    |      |    |    |    |
|---------|----|--------|----|------|----|----|----|
| MAXIMUM | 60 | 336 PM | 80 | 1977 | 63 | -3 | 66 |
| MINIMUM | 49 | 420 AM | 34 | 1947 | 49 | 0  | 44 |
| AVERAGE | 55 |        |    |      | 56 | -1 | 55 |

PRECIPITATION (IN)

|               |       |  |      |      |       |       |       |
|---------------|-------|--|------|------|-------|-------|-------|
| YESTERDAY     | 0.11  |  | 1.50 | 1991 | 0.18  | -0.07 | 0.00  |
| MONTH TO DATE | 3.06  |  |      |      | 3.18  | -0.12 | 4.23  |
| SINCE JUN 1   | 10.70 |  |      |      | 11.02 | -0.32 | 16.29 |
| SINCE JAN 1   | 39.07 |  |      |      | 30.62 | 8.45  | 36.03 |

DEGREE DAYS

HEATING

|               |     |  |  |  |     |      |     |
|---------------|-----|--|--|--|-----|------|-----|
| YESTERDAY     | 10  |  |  |  | 9   | 1    | 10  |
| MONTH TO DATE | 98  |  |  |  | 156 | -58  | 179 |
| SINCE JUN 1   | 534 |  |  |  | 722 | -188 | 879 |
| SINCE JUL 1   | 320 |  |  |  | 407 | -87  | 485 |

COOLING

|               |   |   |   |   |
|---------------|---|---|---|---|
| YESTERDAY     | 0 | 0 | 0 | 0 |
| MONTH TO DATE | 0 | 0 | 0 | 0 |
| SINCE JUN 1   | 9 | 2 | 7 | 1 |
| SINCE JAN 1   | 9 | 2 | 7 | 1 |

## WIND (MPH)

|                    |     |                        |          |
|--------------------|-----|------------------------|----------|
| HIGHEST WIND SPEED | 13  | HIGHEST WIND DIRECTION | SE (130) |
| HIGHEST GUST SPEED | 16  | HIGHEST GUST DIRECTION | E (90)   |
| AVERAGE WIND SPEED | 5.4 |                        |          |

## SKY COVER

POSSIBLE SUNSHINE MM  
AVERAGE SKY COVER 1.0

## WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
LIGHT RAIN  
FOG

## RELATIVE HUMIDITY (PERCENT)

|         |    |         |
|---------|----|---------|
| HIGHEST | 93 | 1200 AM |
| LOWEST  | 72 | 1200 PM |
| AVERAGE | 83 |         |

## THE JUNEAU CLIMATE NORMALS FOR TODAY

|                         | NORMAL | RECORD | YEAR |
|-------------------------|--------|--------|------|
| MAXIMUM TEMPERATURE (F) | 62     | 83     | 1977 |
| MINIMUM TEMPERATURE (F) | 49     | 39     | 1973 |

## SUNRISE AND SUNSET

|                     |         |             |        |             |
|---------------------|---------|-------------|--------|-------------|
| AUGUST 20 2013..... | SUNRISE | 532 AM AKDT | SUNSET | 830 PM AKDT |
| AUGUST 21 2013..... | SUNRISE | 534 AM AKDT | SUNSET | 827 PM AKDT |

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

---

&&

-----  
AMOUNT OF DAYLIGHT TODAY (HOUR:MIN) .....14:58  
GAIN/LOSS SINCE YESTERDAY (HOUR:MIN:SEC) ....-0:04:53

The U.S. Naval Observatory (USNO) computes astronomical data. Therefore, the NWS does not record, certify, or authenticate astronomical data. Computed times of sunrise, sunset, moonrise, moonset; and twilight, moon phases and other astronomical data are available from USNO's Astronomical Applications Department (<http://www.usno.navy.mil>). See <http://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center/litigation> for information on using these data for legal purposes.

**These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.**

### Climatological Report (Daily)

000  
CDAK47 PAJK 211129  
CLIJNU  
AKZ025-212300-  
CLIMATE REPORT  
NATIONAL WEATHER SERVICE JUNEAU, AK  
326 AM AKDT WED AUG 21 2013

.....  
...THE JUNEAU CLIMATE SUMMARY FOR AUGUST 20 2013...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1943 TO 2013

| WEATHER ITEM | OBSERVED VALUE | TIME (LST) | RECORD VALUE | YEAR | NORMAL VALUE | DEPARTURE FROM NORMAL | LAST YEAR |
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|

.....  
TEMPERATURE (F)

YESTERDAY

|         |    |        |    |      |    |    |    |
|---------|----|--------|----|------|----|----|----|
| MAXIMUM | 57 | 414 PM | 83 | 1977 | 62 | -5 | 68 |
| MINIMUM | 52 | 407 AM | 39 | 1973 | 49 | 3  | 50 |
| AVERAGE | 55 |        |    |      | 55 | 0  | 59 |

PRECIPITATION (IN)

|               |       |  |      |      |       |       |       |
|---------------|-------|--|------|------|-------|-------|-------|
| YESTERDAY     | 0.11  |  | 1.38 | 2011 | 0.20  | -0.09 | 0.00  |
| MONTH TO DATE | 3.17  |  |      |      | 3.38  | -0.21 | 4.23  |
| SINCE JUN 1   | 10.81 |  |      |      | 11.22 | -0.41 | 16.29 |
| SINCE JAN 1   | 39.18 |  |      |      | 30.82 | 8.36  | 36.03 |

DEGREE DAYS

HEATING

|               |     |  |  |  |     |      |     |
|---------------|-----|--|--|--|-----|------|-----|
| YESTERDAY     | 10  |  |  |  | 10  | 0    | 6   |
| MONTH TO DATE | 108 |  |  |  | 166 | -58  | 185 |
| SINCE JUN 1   | 544 |  |  |  | 732 | -188 | 885 |
| SINCE JUL 1   | 330 |  |  |  | 417 | -87  | 491 |

COOLING

|               |   |   |   |   |
|---------------|---|---|---|---|
| YESTERDAY     | 0 | 0 | 0 | 0 |
| MONTH TO DATE | 0 | 0 | 0 | 0 |
| SINCE JUN 1   | 9 | 2 | 7 | 1 |
| SINCE JAN 1   | 9 | 2 | 7 | 1 |

## WIND (MPH)

|                    |     |                        |         |
|--------------------|-----|------------------------|---------|
| HIGHEST WIND SPEED | 15  | HIGHEST WIND DIRECTION | E (100) |
| HIGHEST GUST SPEED | 18  | HIGHEST GUST DIRECTION | E (100) |
| AVERAGE WIND SPEED | 7.5 |                        |         |

## SKY COVER

POSSIBLE SUNSHINE MM  
AVERAGE SKY COVER 1.0

## WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
LIGHT RAIN  
FOG

## RELATIVE HUMIDITY (PERCENT)

|         |     |        |
|---------|-----|--------|
| HIGHEST | 100 | 400 AM |
| LOWEST  | 80  | 200 PM |
| AVERAGE | 90  |        |

## THE JUNEAU CLIMATE NORMALS FOR TODAY

|                         | NORMAL | RECORD | YEAR |
|-------------------------|--------|--------|------|
| MAXIMUM TEMPERATURE (F) | 62     | 78     | 1977 |
| MINIMUM TEMPERATURE (F) | 48     | 38     | 1960 |

## SUNRISE AND SUNSET

|                     |         |             |        |             |
|---------------------|---------|-------------|--------|-------------|
| AUGUST 21 2013..... | SUNRISE | 534 AM AKDT | SUNSET | 827 PM AKDT |
| AUGUST 22 2013..... | SUNRISE | 536 AM AKDT | SUNSET | 824 PM AKDT |

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

---

&&

-----  
AMOUNT OF DAYLIGHT TODAY (HOUR:MIN) .....14:53  
GAIN/LOSS SINCE YESTERDAY (HOUR:MIN:SEC) ....-0:04:54

The U.S. Naval Observatory (USNO) computes astronomical data. Therefore, the NWS does not record, certify, or authenticate astronomical data. Computed times of sunrise, sunset, moonrise, moonset; and twilight, moon phases and other astronomical data are available from USNO's Astronomical Applications Department (<http://www.usno.navy.mil>). See <http://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center/litigation> for information on using these data for legal purposes.

**These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.**

### Climatological Report (Daily)

000  
CDAK47 PAJK 221127  
CLIJNU  
AKZ025-222300-  
CLIMATE REPORT  
NATIONAL WEATHER SERVICE JUNEAU, AK  
325 AM AKDT THU AUG 22 2013

.....  
...THE JUNEAU CLIMATE SUMMARY FOR AUGUST 21 2013...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1943 TO 2013

| WEATHER ITEM | OBSERVED VALUE | TIME (LST) | RECORD VALUE | YEAR | NORMAL VALUE | DEPARTURE FROM NORMAL | LAST YEAR |
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|

.....  
TEMPERATURE (F)

YESTERDAY

|         |    |        |    |      |    |    |    |
|---------|----|--------|----|------|----|----|----|
| MAXIMUM | 59 | 539 PM | 78 | 1977 | 62 | -3 | 58 |
| MINIMUM | 51 | 343 AM | 38 | 1960 | 48 | 3  | 52 |
| AVERAGE | 55 |        |    |      | 55 | 0  | 55 |

PRECIPITATION (IN)

|               |       |  |      |      |       |       |       |
|---------------|-------|--|------|------|-------|-------|-------|
| YESTERDAY     | 0.07  |  | 1.37 | 2000 | 0.19  | -0.12 | T     |
| MONTH TO DATE | 3.24  |  |      |      | 3.57  | -0.33 | 4.23  |
| SINCE JUN 1   | 10.88 |  |      |      | 11.41 | -0.53 | 16.29 |
| SINCE JAN 1   | 39.25 |  |      |      | 31.01 | 8.24  | 36.03 |

DEGREE DAYS

HEATING

|               |     |  |  |  |     |      |     |
|---------------|-----|--|--|--|-----|------|-----|
| YESTERDAY     | 10  |  |  |  | 10  | 0    | 10  |
| MONTH TO DATE | 118 |  |  |  | 176 | -58  | 195 |
| SINCE JUN 1   | 554 |  |  |  | 742 | -188 | 895 |
| SINCE JUL 1   | 340 |  |  |  | 427 | -87  | 501 |

COOLING

|               |   |   |   |   |
|---------------|---|---|---|---|
| YESTERDAY     | 0 | 0 | 0 | 0 |
| MONTH TO DATE | 0 | 0 | 0 | 0 |
| SINCE JUN 1   | 9 | 2 | 7 | 1 |
| SINCE JAN 1   | 9 | 2 | 7 | 1 |

## WIND (MPH)

|                    |     |                        |         |
|--------------------|-----|------------------------|---------|
| HIGHEST WIND SPEED | 14  | HIGHEST WIND DIRECTION | E (90)  |
| HIGHEST GUST SPEED | 17  | HIGHEST GUST DIRECTION | E (110) |
| AVERAGE WIND SPEED | 7.9 |                        |         |

## SKY COVER

|                   |     |
|-------------------|-----|
| POSSIBLE SUNSHINE | MM  |
| AVERAGE SKY COVER | 1.0 |

## WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
 LIGHT RAIN  
 FOG

## RELATIVE HUMIDITY (PERCENT)

|         |     |        |
|---------|-----|--------|
| HIGHEST | 100 | 200 AM |
| LOWEST  | 77  | 200 PM |
| AVERAGE | 89  |        |

## THE JUNEAU CLIMATE NORMALS FOR TODAY

|                         | NORMAL | RECORD | YEAR |
|-------------------------|--------|--------|------|
| MAXIMUM TEMPERATURE (F) | 62     | 79     | 1979 |
| MINIMUM TEMPERATURE (F) | 48     | 38     | 1954 |

## SUNRISE AND SUNSET

|                     |         |             |        |             |
|---------------------|---------|-------------|--------|-------------|
| AUGUST 22 2013..... | SUNRISE | 536 AM AKDT | SUNSET | 824 PM AKDT |
| AUGUST 23 2013..... | SUNRISE | 538 AM AKDT | SUNSET | 822 PM AKDT |

- INDICATES NEGATIVE NUMBERS.  
 R INDICATES RECORD WAS SET OR TIED.  
 MM INDICATES DATA IS MISSING.  
 T INDICATES TRACE AMOUNT.

---

&&

-----  
AMOUNT OF DAYLIGHT TODAY (HOUR:MIN) .....14:48  
GAIN/LOSS SINCE YESTERDAY (HOUR:MIN:SEC) ....-0:04:54

The U.S. Naval Observatory (USNO) computes astronomical data. Therefore, the NWS does not record, certify, or authenticate astronomical data. Computed times of sunrise, sunset, moonrise, moonset; and twilight, moon phases and other astronomical data are available from USNO's Astronomical Applications Department (<http://www.usno.navy.mil>). See <http://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center/litigation> for information on using these data for legal purposes.

**These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.**

### Climatological Report (Daily)

000  
 CDAK47 PAJK 161152  
 CLIJNU  
 AKZ025-162300-  
 CLIMATE REPORT  
 NATIONAL WEATHER SERVICE JUNEAU, AK  
 350 AM AKDT MON SEP 16 2013

.....

...THE JUNEAU CLIMATE SUMMARY FOR SEPTEMBER 15 2013...

CLIMATE NORMAL PERIOD 1981 TO 2010  
 CLIMATE RECORD PERIOD 1943 TO 2013

| WEATHER ITEM | OBSERVED VALUE | TIME (LST) | RECORD VALUE | YEAR | NORMAL VALUE | DEPARTURE FROM NORMAL | LAST YEAR |
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|

.....  
 TEMPERATURE (F)

YESTERDAY

|         |    |        |    |      |    |    |    |
|---------|----|--------|----|------|----|----|----|
| MAXIMUM | 64 | 416 PM | 72 | 2010 | 56 | 8  | 50 |
| MINIMUM | 39 | 456 AM | 30 | 2006 | 45 | -6 | 47 |
| AVERAGE | 52 |        |    |      | 50 | 2  | 49 |

PRECIPITATION (IN)

|               |       |  |      |      |       |       |       |
|---------------|-------|--|------|------|-------|-------|-------|
| YESTERDAY     | 0.10  |  | 0.90 | 1992 | 0.29  | -0.19 | 0.13  |
| MONTH TO DATE | 3.75  |  |      |      | 4.08  | -0.33 | 7.09  |
| SINCE SEP 1   | 3.75  |  |      |      | 4.08  | -0.33 | 7.09  |
| SINCE JAN 1   | 44.66 |  |      |      | 37.25 | 7.41  | 46.48 |

DEGREE DAYS

HEATING

|               |     |  |  |  |     |      |     |
|---------------|-----|--|--|--|-----|------|-----|
| YESTERDAY     | 13  |  |  |  | 15  | -2   | 16  |
| MONTH TO DATE | 143 |  |  |  | 202 | -59  | 217 |
| SINCE SEP 1   | 143 |  |  |  | 202 | -59  | 217 |
| SINCE JUL 1   | 578 |  |  |  | 737 | -159 | 840 |

COOLING

|               |   |   |   |   |
|---------------|---|---|---|---|
| YESTERDAY     | 0 | 0 | 0 | 0 |
| MONTH TO DATE | 0 | 0 | 0 | 0 |
| SINCE SEP 1   | 0 | 0 | 0 | 0 |
| SINCE JAN 1   | 9 | 2 | 7 | 1 |

.....

WIND (MPH)

|                    |     |                        |        |
|--------------------|-----|------------------------|--------|
| HIGHEST WIND SPEED | 16  | HIGHEST WIND DIRECTION | E (70) |
| HIGHEST GUST SPEED | 21  | HIGHEST GUST DIRECTION | E (80) |
| AVERAGE WIND SPEED | 4.3 |                        |        |

SKY COVER

POSSIBLE SUNSHINE MM  
 AVERAGE SKY COVER 0.8

WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
 LIGHT RAIN  
 FOG  
 FOG W/VISIBILITY <= 1/4 MILE

RELATIVE HUMIDITY (PERCENT)

|         |     |        |
|---------|-----|--------|
| HIGHEST | 100 | 200 AM |
| LOWEST  | 48  | 200 PM |
| AVERAGE | 74  |        |

.....

THE JUNEAU CLIMATE NORMALS FOR TODAY

|                         | NORMAL | RECORD | YEAR |
|-------------------------|--------|--------|------|
| MAXIMUM TEMPERATURE (F) | 56     | 70     | 2010 |
| MINIMUM TEMPERATURE (F) | 44     | 29     | 1969 |

SUNRISE AND SUNSET

|                        |         |             |        |             |
|------------------------|---------|-------------|--------|-------------|
| SEPTEMBER 16 2013..... | SUNRISE | 631 AM AKDT | SUNSET | 714 PM AKDT |
| SEPTEMBER 17 2013..... | SUNRISE | 633 AM AKDT | SUNSET | 711 PM AKDT |

- INDICATES NEGATIVE NUMBERS.  
 R INDICATES RECORD WAS SET OR TIED.  
 MM INDICATES DATA IS MISSING.  
 T INDICATES TRACE AMOUNT.

&amp;&amp;

-----  
AMOUNT OF DAYLIGHT TODAY (HOUR:MIN) .....12:43  
GAIN/LOSS SINCE YESTERDAY (HOUR:MIN:SEC) ....-0:05:02

The U.S. Naval Observatory (USNO) computes astronomical data. Therefore, the NWS does not record, certify, or authenticate astronomical data. Computed times of sunrise, sunset, moonrise, moonset; and twilight, moon phases and other astronomical data are available from USNO's Astronomical Applications Department (<http://www.usno.navy.mil>). See <http://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center/litigation> for information on using these data for legal purposes.

**These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.**

### Climatological Report (Daily)

000  
CDAK47 PAJK 171134  
CLIJNU  
AKZ025-172300-  
CLIMATE REPORT  
NATIONAL WEATHER SERVICE JUNEAU, AK  
332 AM AKDT TUE SEP 17 2013

.....

...THE JUNEAU CLIMATE SUMMARY FOR SEPTEMBER 16 2013...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1943 TO 2013

| WEATHER ITEM | OBSERVED VALUE | TIME (LST) | RECORD VALUE | YEAR | NORMAL VALUE | DEPARTURE FROM NORMAL | LAST YEAR |
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|
|--------------|----------------|------------|--------------|------|--------------|-----------------------|-----------|

.....  
TEMPERATURE (F)

YESTERDAY

|         |    |         |    |      |    |   |    |
|---------|----|---------|----|------|----|---|----|
| MAXIMUM | 58 | 1202 PM | 70 | 2010 | 56 | 2 | 53 |
| MINIMUM | 50 | 1159 PM | 29 | 1969 | 44 | 6 | 47 |
| AVERAGE | 54 |         |    |      | 50 | 4 | 50 |

PRECIPITATION (IN)

|               |       |  |      |      |       |       |       |
|---------------|-------|--|------|------|-------|-------|-------|
| YESTERDAY     | 0.17  |  | 1.51 | 2000 | 0.30  | -0.13 | 0.10  |
| MONTH TO DATE | 3.92  |  |      |      | 4.38  | -0.46 | 7.19  |
| SINCE SEP 1   | 3.92  |  |      |      | 4.38  | -0.46 | 7.19  |
| SINCE JAN 1   | 44.83 |  |      |      | 37.55 | 7.28  | 46.58 |

DEGREE DAYS

HEATING

|               |     |  |  |  |     |      |     |
|---------------|-----|--|--|--|-----|------|-----|
| YESTERDAY     | 11  |  |  |  | 15  | -4   | 15  |
| MONTH TO DATE | 154 |  |  |  | 217 | -63  | 232 |
| SINCE SEP 1   | 154 |  |  |  | 217 | -63  | 232 |
| SINCE JUL 1   | 589 |  |  |  | 752 | -163 | 855 |

COOLING

|               |   |   |   |   |
|---------------|---|---|---|---|
| YESTERDAY     | 0 | 0 | 0 | 0 |
| MONTH TO DATE | 0 | 0 | 0 | 0 |
| SINCE SEP 1   | 0 | 0 | 0 | 0 |
| SINCE JAN 1   | 9 | 2 | 7 | 1 |

WIND (MPH)

|                    |      |                        |          |
|--------------------|------|------------------------|----------|
| HIGHEST WIND SPEED | 23   | HIGHEST WIND DIRECTION | SE (120) |
| HIGHEST GUST SPEED | 28   | HIGHEST GUST DIRECTION | SE (120) |
| AVERAGE WIND SPEED | 13.2 |                        |          |

SKY COVER

POSSIBLE SUNSHINE MM  
 AVERAGE SKY COVER 0.9

WEATHER CONDITIONS

THE FOLLOWING WEATHER WAS RECORDED YESTERDAY.  
 LIGHT RAIN  
 FOG

RELATIVE HUMIDITY (PERCENT)

|         |     |        |
|---------|-----|--------|
| HIGHEST | 100 | 700 AM |
| LOWEST  | 71  | 500 PM |
| AVERAGE | 86  |        |

THE JUNEAU CLIMATE NORMALS FOR TODAY

|                         | NORMAL | RECORD | YEAR |
|-------------------------|--------|--------|------|
| MAXIMUM TEMPERATURE (F) | 55     | 70     | 1995 |
| MINIMUM TEMPERATURE (F) | 44     | 31     | 1973 |

SUNRISE AND SUNSET

|                        |         |             |        |             |
|------------------------|---------|-------------|--------|-------------|
| SEPTEMBER 17 2013..... | SUNRISE | 633 AM AKDT | SUNSET | 711 PM AKDT |
| SEPTEMBER 18 2013..... | SUNRISE | 635 AM AKDT | SUNSET | 708 PM AKDT |

- INDICATES NEGATIVE NUMBERS.
- R INDICATES RECORD WAS SET OR TIED.
- MM INDICATES DATA IS MISSING.
- T INDICATES TRACE AMOUNT.

&amp;&amp;

-----  
AMOUNT OF DAYLIGHT TODAY (HOUR:MIN) .....12:38  
GAIN/LOSS SINCE YESTERDAY (HOUR:MIN:SEC) ....-0:05:02

The U.S. Naval Observatory (USNO) computes astronomical data. Therefore, the NWS does not record, certify, or authenticate astronomical data. Computed times of sunrise, sunset, moonrise, moonset; and twilight, moon phases and other astronomical data are available from USNO's Astronomical Applications Department (<http://www.usno.navy.mil>). See <http://www.usno.navy.mil/USNO/astronomical-applications/astronomical-information-center/litigation> for information on using these data for legal purposes.

**These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.**

### Climatological Report (Monthly)

000

CXAK57 PAJK 011427

CLMAJK

CLIMATE REPORT

NATIONAL WEATHER SERVICE JUNEAU, AK

630 AM AKDT SAT JUN 1 2013

.....

...THE JUNEAU CLIMATE SUMMARY FOR THE MONTH OF MAY 2013...

CLIMATE NORMAL PERIOD 1981 TO 2010

CLIMATE RECORD PERIOD 1943 TO 2013

| WEATHER | OBSERVED<br>VALUE | DATE (S) | NORMAL<br>VALUE | DEPART<br>FROM<br>NORMAL | LAST YEAR`S<br>VALUE | DATE (S) |
|---------|-------------------|----------|-----------------|--------------------------|----------------------|----------|
|---------|-------------------|----------|-----------------|--------------------------|----------------------|----------|

.....

TEMPERATURE (F)

RECORD

|                |      |            |      |      |      |       |
|----------------|------|------------|------|------|------|-------|
| HIGH           | 82   | 05/27/1947 |      |      |      |       |
| LOW            | 25   | 05/01/1972 |      |      |      |       |
|                |      | 05/11/1965 |      |      |      |       |
|                |      | 05/02/1956 |      |      |      |       |
| HIGHEST        | 73   | 05/28      | 70   | 3    | 59   | 05/24 |
| LOWEST         | 30   | 05/20      | 32   | -2   | 35   | 05/15 |
|                |      | 05/07      |      |      |      |       |
| AVG. MAXIMUM   | 56.1 |            | 56.6 | -0.5 | 48.9 |       |
| AVG. MINIMUM   | 39.8 |            | 40.6 | -0.8 | 40.5 |       |
| MEAN           | 48.0 |            | 48.6 | -0.6 | 44.7 |       |
| DAYS MAX >= 90 | 0    |            | 0.0  | 0.0  | 0    |       |
| DAYS MAX <= 32 | 0    |            | 0.0  | 0.0  | 0    |       |
| DAYS MIN <= 32 | 4    |            | 1.6  | 2.4  | 0    |       |
| DAYS MIN <= 0  | 0    |            | 0.0  | 0.0  | 0    |       |

PRECIPITATION (INCHES)

RECORD

|             |      |      |      |      |      |  |
|-------------|------|------|------|------|------|--|
| MAXIMUM     | 9.20 | 1992 |      |      |      |  |
| MINIMUM     | 0.84 | 2004 |      |      |      |  |
| TOTALS      | 5.33 |      | 3.40 | 1.93 | 5.73 |  |
| DAILY AVG.  | 0.17 |      | 0.11 | 0.06 | 0.18 |  |
| DAYS >= .01 | 18   |      | 16.3 | 1.7  | 26   |  |
| DAYS >= .10 | 12   |      | 9.3  | 2.7  | 16   |  |

|              |      |                |     |                |
|--------------|------|----------------|-----|----------------|
| DAYS >= .50  | 4    | 1.6            | 2.4 | 3              |
| DAYS >= 1.00 | 1    | 0.3            | 0.7 | 0              |
| GREATEST     |      |                |     |                |
| 24 HR. TOTAL | 1.10 | 05/31 TO 05/31 |     | 05/07 TO 05/08 |

## SNOWFALL (INCHES)

## RECORDS

|                |      |                          |      |                |
|----------------|------|--------------------------|------|----------------|
| TOTAL          | 1.2  | 1964                     |      |                |
| 24 HR TOTAL    | 0.7  | 05/02/1945 TO 05/03/1945 |      |                |
| SNOW DEPTH     | 0    | 05/31/2002               |      |                |
| TOTALS         | T    |                          | 0.0  | 0.0            |
| SINCE 7/1      | 83.8 |                          | 86.7 | -2.9           |
| SNOWDEPTH AVG. | 0    |                          | MM   | MM             |
| DAYS >= TRACE  | 1    |                          | 0.0  | 1.0            |
| DAYS >= 1.0    | 0    |                          | 0.0  | 0.0            |
| GREATEST       |      |                          |      |                |
| SNOW DEPTH     | 0    | MM                       |      | 0              |
| 24 HR TOTAL    | T    | 05/19 TO 05/19           |      | 05/15 TO 05/15 |

## /DEGREE\_DAYS

|               |      |      |     |      |
|---------------|------|------|-----|------|
| HEATING TOTAL | 519  | 508  | 11  | 619  |
| SINCE 7/1     | 8536 | 8036 | 500 | 8184 |
| COOLING TOTAL | 0    | 0    | 0   | 0    |
| SINCE 1/1     | 0    | 0    | 0   | 0    |

## FREEZE DATES

## RECORD

|          |            |       |
|----------|------------|-------|
| EARLIEST | 08/24/1969 |       |
| LATEST   | 06/13/1965 |       |
| EARLIEST |            | 09/30 |
| LATEST   |            | 05/12 |

## WIND (MPH)

|                                |        |            |
|--------------------------------|--------|------------|
| AVERAGE WIND SPEED             | 8.2    |            |
| RESULTANT WIND SPEED/DIRECTION | 3/135  |            |
| HIGHEST WIND SPEED/DIRECTION   | 39/120 | DATE 05/01 |
| HIGHEST GUST SPEED/DIRECTION   | 50/120 | DATE 05/01 |

## SKY COVER

|                             |      |
|-----------------------------|------|
| POSSIBLE SUNSHINE (PERCENT) | MM   |
| AVERAGE SKY COVER           | 0.70 |
| NUMBER OF DAYS FAIR         | 6    |
| NUMBER OF DAYS PC           | 6    |
| NUMBER OF DAYS CLOUDY       | 19   |

|                      |    |
|----------------------|----|
| AVERAGE RH (PERCENT) | 76 |
|----------------------|----|

## WEATHER CONDITIONS. NUMBER OF DAYS WITH

|              |   |              |   |
|--------------|---|--------------|---|
| THUNDERSTORM | 0 | MIXED PRECIP | 1 |
| HEAVY RAIN   | 0 | RAIN         | 6 |

|                  |    |                       |   |
|------------------|----|-----------------------|---|
| LIGHT RAIN       | 20 | FREEZING RAIN         | 0 |
| LT FREEZING RAIN | 0  | HAIL                  | 1 |
| HEAVY SNOW       | 0  | SNOW                  | 1 |
| LIGHT SNOW       | 1  | SLEET                 | 1 |
| FOG              | 17 | FOG W/VIS <= 1/4 MILE | 2 |
| HAZE             | 0  |                       |   |

- INDICATES NEGATIVE NUMBERS.  
 R INDICATES RECORD WAS SET OR TIED.  
 MM INDICATES DATA IS MISSING.  
 T INDICATES TRACE AMOUNT.

&&

...WET AND COOL START TO MAY GIVES WAY TO SUMMERLIKE WEATHER LATER IN THE MONTH...

THE MONTH OF MAY FEATURED A WIDE RANGE OF WEATHER CONDITIONS IN JUNEAU. WARM AND SUNNY CONDITIONS OCCURRED BETWEEN THE 5TH AND 9TH AND DURING THE LAST 10 DAYS OF THE MONTH. CONDITIONS WERE COOLER AND WETTER THAN NORMAL IN BETWEEN THESE DRY SPELLS. THIS RESULTED IN WHAT TURNED OUT TO BE A GENERALLY NEAR NORMAL MAY IN TERMS OF TEMPERATURE. MOST OF THE PRECIPITATION FELL DURING THE FIRST FEW DAYS OF THE MONTH...THE MIDDLE OF THE MONTH...AND THE LAST COUPLE DAYS OF MAY. EASTERLY OFFSHORE FLOW WAS THE PREDOMINANT WEATHER PATTERN IN THE LATTER HALF OF THE MONTH. HOWEVER...THE HEAVIEST 24 HOUR RAINFALL EVENT OCCURRED ON THE LAST DAY OF THE MONTH AS A WEATHER SYSTEM MOVED EAST INTO THE AREA FROM CANADA. THE SYSTEM DROPPED 1.10 INCHES OF RAIN AT THE AIRPORT. THIS BROKE THE DAILY RAINFALL RECORD OF 0.91 INCHES SET IN 1948. THE TOTAL PRECIPITATION FOR THE MONTH ENDED AT 5.33 INCHES...WHICH WAS 1.93 INCHES ABOVE NORMAL. THIS WAS ALL IN THE FORM OF RAIN EXCEPT FOR ICE PELLETS THAT MIXED IN WITH RAIN SHOWERS ON THE 19TH.

THE STRONGEST WIND REPORTED AT THE AIRPORT WAS 50 MPH ON THE 1ST OF THE MONTH. THE JUNEAU FEDERAL BUILDING ALSO RECEIVED ITS STRONGEST WIND OF THE MONTH ON THIS DAY AS A 48 MPH GUST WAS REPORTED AROUND MIDDAY. A STRONG FRONT MOVING ACROSS SOUTHEAST ALASKA CREATED THESE STRONG WINDS.

**These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.**

### Climatological Report (Monthly)

000  
CXAK57 PAJK 011241  
CLMAJK

CLIMATE REPORT  
NATIONAL WEATHER SERVICE JUNEAU, AK  
302 AM AKDT MON JUL 1 2013

.....

...THE JUNEAU CLIMATE SUMMARY FOR THE MONTH OF JUNE 2013...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1943 TO 2013

| WEATHER | OBSERVED<br>VALUE | DATE (S) | NORMAL<br>VALUE | DEPART<br>FROM<br>NORMAL | LAST YEAR`S<br>VALUE | DATE (S) |
|---------|-------------------|----------|-----------------|--------------------------|----------------------|----------|
|---------|-------------------|----------|-----------------|--------------------------|----------------------|----------|

.....  
TEMPERATURE (F)

RECORD

|                |      |            |      |     |      |       |
|----------------|------|------------|------|-----|------|-------|
| HIGH           | 86   | 06/13/1969 |      |     |      |       |
| LOW            | 31   | 06/03/1971 |      |     |      |       |
|                |      | 06/13/1965 |      |     |      |       |
|                |      | 06/07/1955 |      |     |      |       |
| HIGHEST        | 85   | 06/16      | 77   | 8   | 82   | 06/23 |
| LOWEST         | 37   | 06/03      | 38   | -1  | 41   | 06/10 |
|                |      |            |      |     |      | 06/05 |
|                |      |            |      |     |      | 06/03 |
| AVG. MAXIMUM   | 67.4 |            | 62.2 | 5.2 | 57.5 |       |
| AVG. MINIMUM   | 47.9 |            | 46.9 | 1.0 | 45.8 |       |
| MEAN           | 57.7 |            | 54.6 | 3.1 | 51.7 |       |
| DAYS MAX >= 90 | 0    |            | 0.0  | 0.0 | 0    |       |
| DAYS MAX <= 32 | 0    |            | 0.0  | 0.0 | 0    |       |
| DAYS MIN <= 32 | 0    |            | 0.0  | 0.0 | 0    |       |
| DAYS MIN <= 0  | 0    |            | 0.0  | 0.0 | 0    |       |

PRECIPITATION (INCHES)

RECORD

|            |      |      |      |       |      |  |
|------------|------|------|------|-------|------|--|
| MAXIMUM    | 6.69 | 2012 |      |       |      |  |
| MINIMUM    | 1.08 | 1946 |      |       |      |  |
| TOTALS     | 3.19 |      | 3.24 | -0.05 | 6.69 |  |
| DAILY AVG. | 0.11 |      | 0.11 | 0.00  | 0.22 |  |

|              |      |                |      |                |
|--------------|------|----------------|------|----------------|
| DAYS >= .01  | 17   | 15.8           | 1.2  | 24             |
| DAYS >= .10  | 6    | 8.0            | -2.0 | 15             |
| DAYS >= .50  | 2    | 2.0            | 0.0  | 5              |
| DAYS >= 1.00 | 0    | 0.2            | -0.2 | 1              |
| GREATEST     |      |                |      |                |
| 24 HR. TOTAL | 0.85 | 06/05 TO 06/05 | 1.85 | 06/29 TO 06/30 |

## SNOWFALL (INCHES)

## RECORDS

|                |      |    |      |      |
|----------------|------|----|------|------|
| TOTAL          | 0.0  | MM |      |      |
| 24 HR TOTAL    | 0.0  | MM |      |      |
| SNOW DEPTH     | 0    | MM |      |      |
| TOTALS         | 0.0  |    | 0.0  | 0.0  |
| SINCE 7/1      | 83.8 |    | 86.7 | -2.9 |
| SNOWDEPTH AVG. | 0    |    | MM   | MM   |
| DAYS >= TRACE  | 0    |    | 0.0  | 0.0  |
| DAYS >= 1.0    | 0    |    | 0.0  | 0.0  |
| GREATEST       |      |    |      |      |
| SNOW DEPTH     | 0    | MM |      | 0    |
| 24 HR TOTAL    | 0.0  | MM |      | 0.0  |

## DEGREE DAYS

|               |      |      |      |      |
|---------------|------|------|------|------|
| HEATING TOTAL | 214  | 315  | -101 | 394  |
| SINCE 7/1     | 8750 | 8351 | 399  | 8578 |
| COOLING TOTAL | 7    | 1    | 6    | 1    |
| SINCE 1/1     | 7    | 1    | 6    | 1    |

## FREEZE DATES

## RECORD

|          |            |       |
|----------|------------|-------|
| EARLIEST | 08/24/1969 |       |
| LATEST   | 06/13/1965 |       |
| EARLIEST | 10/01      | 09/30 |
| LATEST   | 05/21      | 05/12 |

## WIND (MPH)

|                                |        |            |
|--------------------------------|--------|------------|
| AVERAGE WIND SPEED             | 6.1    |            |
| RESULTANT WIND SPEED/DIRECTION | 2/210  |            |
| HIGHEST WIND SPEED/DIRECTION   | 25/130 | DATE 06/26 |
| HIGHEST GUST SPEED/DIRECTION   | 36/320 | DATE 06/17 |

## SKY COVER

|                             |      |
|-----------------------------|------|
| POSSIBLE SUNSHINE (PERCENT) | MM   |
| AVERAGE SKY COVER           | 0.80 |
| NUMBER OF DAYS FAIR         | 0    |
| NUMBER OF DAYS PC           | 13   |
| NUMBER OF DAYS CLOUDY       | 16   |

|                      |    |
|----------------------|----|
| AVERAGE RH (PERCENT) | 73 |
|----------------------|----|

WEATHER CONDITIONS. NUMBER OF DAYS WITH

|                  |    |                       |   |
|------------------|----|-----------------------|---|
| THUNDERSTORM     | 0  | MIXED PRECIP          | 0 |
| HEAVY RAIN       | 1  | RAIN                  | 6 |
| LIGHT RAIN       | 19 | FREEZING RAIN         | 0 |
| LT FREEZING RAIN | 0  | HAIL                  | 0 |
| HEAVY SNOW       | 0  | SNOW                  | 0 |
| LIGHT SNOW       | 0  | SLEET                 | 0 |
| FOG              | 12 | FOG W/VIS <= 1/4 MILE | 2 |
| HAZE             | 0  |                       |   |

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

---

...NEAR RECORD WARMTH AND THREE THUNDERSTORM DAYS IN JUNE...

JUNE 2013 WAS THE SECOND WARMEST JUNE SINCE 1943. THE MONTHLY AVERAGE TEMPERATURE WAS 57.9 DEGREES...WHICH WAS JUST 0.1 DEGREE SHY OF THE ALL-TIME RECORD HIGH MONTHLY AVERAGE TEMPERATURE OF 58.0 DEGREES SET BACK IN 2004. NONETHELESS...THE MONTHLY AVERAGE TEMPERATURE THIS JUNE WAS ABOUT 3.3 DEGREES WARMER THAN NORMAL. THE DAILY HIGH TEMPERATURE RECORDS WERE BROKEN ON THE 15TH AND THE 16TH...WHEN TEMPERATURE ROSE TO 83 AND 85 DEGREES ON THOSE DAYS...RESPECTIVELY. THERE WERE 2 DAYS THIS MONTH WHEN HIGH TEMPERATURES SOARED ABOVE 80 DEGREES. THERE WERE 9 DAYS WHEN HIGH TEMPERATURES ROSE TO THE 70S. THE WARMEST DAY OF THE MONTH WAS ON THE 16TH...WITH A HIGH TEMPERATURE OF 85 DEGREES. THE COLDEST DAY OF THE MONTH WAS ON THE 3RD...WITH A LOW TEMPERATURE OF 37 DEGREES.

THERE WERE THREE THUNDERSTORM DAYS...AND THEY OCCURRED ON THE 17TH...24TH...AND 25TH...RESPECTIVELY. THE PRECIPITATION FOR THE MONTH ENDED AT 3.19 INCHES...WHICH WAS NEAR NORMAL.

THE THUNDERSTORM ON THE 17TH ALSO BROUGHT STRONG WIND GUSTS TO THE JUNEAU AREA. THE STRONGEST WIND GUST AT THE AIRPORT WAS 36 MPH FROM THE NORTHWEST...AND THIS OCCURRED ON THE 17TH. THE STRONGEST WIND GUST AT THE DOUGLAS BOAT HARBOR WAS 36 MPH FROM THE NORTHEAST...AND THIS ALSO OCCURRED ON THE 17TH.

---

RCL

**These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.**

### Climatological Report (Monthly)

000  
CXAK57 PAJK 011206  
CLMAJK

CLIMATE REPORT  
NATIONAL WEATHER SERVICE JUNEAU, AK  
354 AM AKDT THU AUG 1 2013

.....  
...THE JUNEAU CLIMATE SUMMARY FOR THE MONTH OF JULY 2013...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1943 TO 2013

| WEATHER | OBSERVED<br>VALUE | DATE (S) | NORMAL<br>VALUE | DEPART<br>FROM<br>NORMAL | LAST YEAR`S<br>VALUE | DATE (S) |
|---------|-------------------|----------|-----------------|--------------------------|----------------------|----------|
|---------|-------------------|----------|-----------------|--------------------------|----------------------|----------|

.....  
TEMPERATURE (F)

RECORD

|                |      |            |      |     |      |       |
|----------------|------|------------|------|-----|------|-------|
| HIGH           | 90   | 07/07/1975 |      |     |      |       |
| LOW            | 36   | 07/08/1950 |      |     |      |       |
| HIGHEST        | 81   | 07/29      | 78   | 3   | 76   | 07/26 |
| LOWEST         | 41   | 07/14      | 43   | -2  | 38   | 07/12 |
| AVG. MAXIMUM   | 64.9 |            | 63.9 | 1.0 | 61.3 |       |
| AVG. MINIMUM   | 50.4 |            | 50.0 | 0.4 | 48.5 |       |
| MEAN           | 57.7 |            | 56.9 | 0.8 | 54.9 |       |
| DAYS MAX >= 90 | 0    |            | 0.0  | 0.0 | 0    |       |
| DAYS MAX <= 32 | 0    |            | 0.0  | 0.0 | 0    |       |
| DAYS MIN <= 32 | 0    |            | 0.0  | 0.0 | 0    |       |
| DAYS MIN <= 0  | 0    |            | 0.0  | 0.0 | 0    |       |

PRECIPITATION (INCHES)

RECORD

|              |       |                |      |       |                |  |
|--------------|-------|----------------|------|-------|----------------|--|
| MAXIMUM      | 10.36 | 1997           |      |       |                |  |
| MINIMUM      | 1.15  | 1972           |      |       |                |  |
| TOTALS       | 4.45  |                | 4.60 | -0.15 | 5.37           |  |
| DAILY AVG.   | 0.14  |                | 0.15 | -0.01 | 0.17           |  |
| DAYS >= .01  | 16    |                | 17.7 | -1.7  | 18             |  |
| DAYS >= .10  | 10    |                | 10.9 | -0.9  | 10             |  |
| DAYS >= .50  | 3     |                | 2.9  | 0.1   | 3              |  |
| DAYS >= 1.00 | 1     |                | 0.6  | 0.4   | 1              |  |
| GREATEST     |       |                |      |       |                |  |
| 24 HR. TOTAL | 1.36  | 07/08 TO 07/08 |      |       | 07/09 TO 07/10 |  |

## SNOWFALL (INCHES)

## RECORDS

|                |     |      |                |     |                |
|----------------|-----|------|----------------|-----|----------------|
| TOTAL          | 0.0 | 2002 |                |     |                |
| 24 HR TOTAL    | 0.0 | MM   |                |     |                |
| SNOW DEPTH     | 0   | MM   |                |     |                |
| TOTALS         | 0.0 |      | 0.0            | 0.0 | 0.0            |
| SINCE 7/1      | 0.0 |      | 0.0            | 0.0 | 0.0            |
| SNOWDEPTH AVG. | 0   |      | MM             | MM  | 0              |
| DAYS >= TRACE  | 0   |      | 0.0            | 0.0 | 0              |
| DAYS >= 1.0    | 0   |      | 0.0            | 0.0 | 0              |
| GREATEST       |     |      |                |     |                |
| SNOW DEPTH     | 0   | MM   |                |     | 0 MM           |
| 24 HR TOTAL    | 0.0 |      | 07/31 TO 07/31 |     | 07/31 TO 07/31 |

## DEGREE\_DAYS

|               |     |  |     |     |     |
|---------------|-----|--|-----|-----|-----|
| HEATING TOTAL | 222 |  | 251 | -29 | 306 |
| SINCE 7/1     | 222 |  | 251 | -29 | 306 |
| COOLING TOTAL | 2   |  | 1   | 1   | 0   |
| SINCE 1/1     | 9   |  | 2   | 7   | 1   |

## FREEZE DATES

## RECORD

|          |            |       |  |
|----------|------------|-------|--|
| EARLIEST | 08/24/1969 |       |  |
| LATEST   | 06/13/1965 |       |  |
| EARLIEST |            | 09/30 |  |
| LATEST   |            | 05/12 |  |

## WIND (MPH)

|                                |        |      |       |
|--------------------------------|--------|------|-------|
| AVERAGE WIND SPEED             | 6.1    |      |       |
| RESULTANT WIND SPEED/DIRECTION | 2/118  |      |       |
| HIGHEST WIND SPEED/DIRECTION   | 24/130 | DATE | 07/08 |
| HIGHEST GUST SPEED/DIRECTION   | 32/110 | DATE | 07/07 |

## SKY COVER

|                             |      |
|-----------------------------|------|
| POSSIBLE SUNSHINE (PERCENT) | MM   |
| AVERAGE SKY COVER           | 0.80 |
| NUMBER OF DAYS FAIR         | 2    |
| NUMBER OF DAYS PC           | 6    |
| NUMBER OF DAYS CLOUDY       | 23   |

|                      |    |
|----------------------|----|
| AVERAGE RH (PERCENT) | 81 |
|----------------------|----|

## WEATHER CONDITIONS. NUMBER OF DAYS WITH

|                  |    |                       |   |
|------------------|----|-----------------------|---|
| THUNDERSTORM     | 0  | MIXED PRECIP          | 0 |
| HEAVY RAIN       | 3  | RAIN                  | 6 |
| LIGHT RAIN       | 18 | FREEZING RAIN         | 0 |
| LT FREEZING RAIN | 0  | HAIL                  | 0 |
| HEAVY SNOW       | 0  | SNOW                  | 0 |
| LIGHT SNOW       | 0  | SLEET                 | 0 |
| FOG              | 13 | FOG W/VIS <= 1/4 MILE | 0 |

HAZE 0

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

&&

...JULY WAS PRETTY NORMAL FOR TEMPERATURES AND PRECIPITATION...

THE MONTH OF JULY HELD VERY FEW SURPRISES IN CLIMATE DATA. EVEN WITH 7 DAYS OF TEMPERATURES OVER 70 DEGREES AND ONLY 7 DAYS OF HIGH TEMPERATURES LESS THAN 60 DEGREES THE AVERAGE TEMPERATURE FOR THE MONTH WAS STILL ONLY 57.7 DEGREES. THIS IS ONLY 0.8 DEGREES ABOVE NORMAL FOR THE MONTH. HIGH TEMPERATURES AVERAGED 63.9 DEGREES WITH LOWS AVERAGING 49.9 DEGREES. BOTH OF THESE AVERAGES ARE JUST SLIGHTLY ABOVE NORMAL AT PLUS 1 DEGREE AND PLUS 0.5 DEGREES RESPECTIVELY. THE MAXIMUM TEMPERATURE FOR THE MONTH WAS 81 DEGREES OCCURRING ON THE 29TH WITH A MINIMUM OF 41 DEGREES OCCURRING ON THE 14TH. LOW TEMPERATURES WERE AT OR ABOVE 50 DEGREES ON ALL BUT 8 DAYS. THERE WAS ONLY ONE TEMPERATURE RECORD BROKEN DURING JULY WITH A NEW HIGH MINIMUM TEMPERATURE OF 51 DEGREES ON THE 19TH.

THE PRECIPITATION TOTAL FOR JULY WAS 4.45 INCHES WHICH IS 0.15 INCHES BELOW AVERAGE FOR THE MONTH. THERE WERE 12 DAYS IN JULY WITH NO PRECIPITATION RECORDED. THERE WERE THUNDERSTORMS REPORTED ON THE 13TH WHICH IS FAIRLY RARE FOR JUNEAU. THE GREATEST 24 HOUR RAINFALL HAPPENED ON THE 8TH WITH 1.36 INCHES RECORDED.

THE WINDS AVERAGED 6.1 MPH IN JULY WITH A PREDOMINATE EAST TO SOUTHEAST DIRECTION OCCURRING ON 19 DAYS. SOUTHWEST WINDS OCCURRED ON 9 DAYS. THE MAXIMUM WIND SPEED OCCURRED ON JULY 7TH WITH A SOUTHEAST WIND OF 32 MPH. THE MAXIMUM WIND SPEED REPORTED AT THE FEDERAL BUILDING IN DOWNTOWN JUNEAU WAS ON THE 9TH WITH A SOUTHEAST WIND OF 36 MPH.

---

**These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.**

### Climatological Report (Monthly)

000  
CXAK57 PAJK 011515  
CLMAJK

CLIMATE REPORT  
NATIONAL WEATHER SERVICE JUNEAU, AK  
715 AM AKDT SUN SEP 1 2013

.....

...THE JUNEAU CLIMATE SUMMARY FOR THE MONTH OF AUGUST 2013...

CLIMATE NORMAL PERIOD 1981 TO 2010  
CLIMATE RECORD PERIOD 1943 TO 2013

| WEATHER | OBSERVED<br>VALUE | DATE (S) | NORMAL<br>VALUE | DEPART<br>FROM<br>NORMAL | LAST YEAR`S<br>VALUE | DATE (S) |
|---------|-------------------|----------|-----------------|--------------------------|----------------------|----------|
|---------|-------------------|----------|-----------------|--------------------------|----------------------|----------|

.....  
TEMPERATURE (F)

RECORD

|                |      |            |      |     |      |       |
|----------------|------|------------|------|-----|------|-------|
| HIGH           | 84   | 08/16/2004 |      |     |      |       |
|                |      | 08/10/2004 |      |     |      |       |
| LOW            | 27   | 08/25/1948 |      |     |      |       |
| HIGHEST        | 78   | 08/12      | 76   | 2   | 72   | 08/14 |
| LOWEST         | 43   | 08/29      | 40   | 3   | 38   | 08/30 |
| AVG. MAXIMUM   | 65.4 |            | 62.7 | 2.7 | 61.1 |       |
| AVG. MINIMUM   | 50.4 |            | 49.0 | 1.4 | 48.1 |       |
| MEAN           | 57.9 |            | 55.9 | 2.0 | 54.6 |       |
| DAYS MAX >= 90 | 0    |            | 0.0  | 0.0 | 0    |       |
| DAYS MAX <= 32 | 0    |            | 0.0  | 0.0 | 0    |       |
| DAYS MIN <= 32 | 0    |            | 0.0  | 0.0 | 0    |       |
| DAYS MIN <= 0  | 0    |            | 0.0  | 0.0 | 0    |       |

PRECIPITATION (INCHES)

RECORD

|              |       |                |      |       |                |  |
|--------------|-------|----------------|------|-------|----------------|--|
| MAXIMUM      | 11.02 | 2006           |      |       |                |  |
| MINIMUM      | 0.56  | 1979           |      |       |                |  |
| TOTALS       | 4.90  |                | 5.73 | -0.83 | 7.59           |  |
| DAILY AVG.   | 0.16  |                | 0.18 | -0.02 | 0.24           |  |
| DAYS >= .01  | 15    |                | 19.1 | -4.1  | 16             |  |
| DAYS >= .10  | 12    |                | 12.5 | -0.5  | 14             |  |
| DAYS >= .50  | 3     |                | 3.8  | -0.8  | 6              |  |
| DAYS >= 1.00 | 2     |                | 1.0  | 1.0   | 2              |  |
| GREATEST     |       |                |      |       |                |  |
| 24 HR. TOTAL | 1.26  | 08/17 TO 08/18 |      |       | 08/27 TO 08/28 |  |

## SNOWFALL (INCHES)

## RECORDS

|                |     |                |     |                |
|----------------|-----|----------------|-----|----------------|
| TOTAL          | 0.0 |                |     |                |
| 24 HR TOTAL    | 0.0 |                |     |                |
| SNOW DEPTH     | 0   |                |     |                |
| TOTALS         | 0.0 | 0.0            | 0.0 | 0.0            |
| SINCE 7/1      | 0.0 | 0.0            | 0.0 | 0.0            |
| SNOWDEPTH AVG. | 0   | 0.0            | 0.0 | 0              |
| DAYS >= TRACE  | 0   | 0.0            | 0.0 | 0              |
| DAYS >= 1.0    | 0   | 0.0            | 0.0 | 0              |
| GREATEST       |     |                |     |                |
| SNOW DEPTH     | 0   |                |     | 0              |
| 24 HR TOTAL    | 0.0 | 08/31 TO 08/31 |     | 08/31 TO 08/31 |

## DEGREE\_DAYS

|               |     |     |      |     |
|---------------|-----|-----|------|-----|
| HEATING TOTAL | 213 | 284 | -71  | 317 |
| SINCE 7/1     | 435 | 535 | -100 | 623 |
| COOLING TOTAL | 0   | 0   | 0    | 0   |
| SINCE 1/1     | 9   | 2   | 7    | 1   |

## FREEZE DATES

## RECORD

|          |            |       |
|----------|------------|-------|
| EARLIEST | 08/24/1969 |       |
| LATEST   | 06/13/1965 |       |
| EARLIEST |            | 09/30 |
| LATEST   |            | 05/12 |

.....

## WIND (MPH)

|                                |        |      |       |
|--------------------------------|--------|------|-------|
| AVERAGE WIND SPEED             | 6.4    |      |       |
| RESULTANT WIND SPEED/DIRECTION | 2/106  |      |       |
| HIGHEST WIND SPEED/DIRECTION   | 21/120 | DATE | 08/18 |
| HIGHEST GUST SPEED/DIRECTION   | 28/070 | DATE | 08/31 |

## SKY COVER

|                             |      |
|-----------------------------|------|
| POSSIBLE SUNSHINE (PERCENT) | MM   |
| AVERAGE SKY COVER           | 0.80 |
| NUMBER OF DAYS FAIR         | 5    |
| NUMBER OF DAYS PC           | 7    |
| NUMBER OF DAYS CLOUDY       | 19   |

|                      |    |
|----------------------|----|
| AVERAGE RH (PERCENT) | 82 |
|----------------------|----|

## WEATHER CONDITIONS. NUMBER OF DAYS WITH

|                  |    |                       |   |
|------------------|----|-----------------------|---|
| THUNDERSTORM     | 0  | MIXED PRECIP          | 0 |
| HEAVY RAIN       | 1  | RAIN                  | 8 |
| LIGHT RAIN       | 17 | FREEZING RAIN         | 0 |
| LT FREEZING RAIN | 0  | HAIL                  | 0 |
| HEAVY SNOW       | 0  | SNOW                  | 0 |
| LIGHT SNOW       | 0  | SLEET                 | 0 |
| FOG              | 22 | FOG W/VIS <= 1/4 MILE | 0 |
| HAZE             | 0  |                       |   |

- INDICATES NEGATIVE NUMBERS.  
R INDICATES RECORD WAS SET OR TIED.  
MM INDICATES DATA IS MISSING.  
T INDICATES TRACE AMOUNT.

&&

...AUGUST WAS WARMER AND DRIER THAN NORMAL...

TEMPERATURES WERE MILD DURING THE MONTH OF AUGUST WITH 17 DAYS REACHING ABOVE NORMAL VALUES OF 64 DEGREES OR WARMER...TEN OF THOSE DAYS REACHED 70 DEGREES OR MORE. RANKING THIS AUGUST THE 8TH WARMEST AVERAGE TEMPERATURE ON RECORD. WARMEST DAY WAS ON THE 12TH WITH THE MERCURY TOPPING OUT AT 78 DEGREES.

RAIN FELL 17 OF THE 31 DAYS OF THE MONTH...15 DAYS BEING MEASURABLE. THE 18TH AND 31ST MEASURED OVER AN INCH OF RAINFALL. THE HIGHEST AMOUNT WAS ON THE 18TH WITH 1.18 INCHES...WHICH BROKE THE RECORD OF 0.94 INCHES PREVIOUS SET IN 1970. RECORD BREAKING RAIN WAS ALSO MEASURED AT THE FORECAST OFFICE ON THE 18TH WITH 2.73 INCHES FALLING INTO THE BUCKET. DESPITE RAINING OVER HALF THE MONTH AND HAVING RECORD RAINFALL...THE MONTHLY TOTAL WAS .83 INCHES BELOW NORMAL. RANKING THIS AUGUST THE 42ND DRIEST ON RECORD.

WINDS AVERAGED 6 MPH FOR THE MONTH. ONLY THREE DAYS AVERAGED OVER 10 MPH THESE OCCURRED ON THE 17TH...18TH AND 31ST. WINDS WERE PREDOMINATELY OUT OF THE EAST TO SOUTHEAST. THE LIGHTER WIND DAYS WERE MOSTLY OUT OF THE SOUTHWEST AT 5 MPH OR LESS. THE PEAK WIND RECORDED AT THE JUNEAU AIRPORT WAS ON THE 31ST WITH 28 MPH OUT OF THE EAST.

---

KV

[Explanation of the Preliminary Monthly Climate Data \(F6\) Product](#)

These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC - <http://www.ncdc.noaa.gov>.

**WFO Monthly/Daily Climate Data**

000

CXAK56 PAJK 251245

CF6AJN

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: JUNEAU  
 MONTH: SEPTEMBER  
 YEAR: 2013  
 LATITUDE: 58 22 N  
 LONGITUDE: 134 35 W

| TEMPERATURE IN F: |      |      |     |     | :PCPN: |     |      | SNOW: | WIND |       | :SUNSHINE: |      |     | SKY  | :PK WND |    |           |     |     |
|-------------------|------|------|-----|-----|--------|-----|------|-------|------|-------|------------|------|-----|------|---------|----|-----------|-----|-----|
| 1                 | 2    | 3    | 4   | 5   | 6A     | 6B  | 7    | 8     | 9    | 10    | 11         | 12   | 13  | 14   | 15      | 16 | 17        | 18  |     |
| DY                | MAX  | MIN  | AVG | DEP | HDD    | CDD | WTR  | SNW   | DPTH | SPD   | SPD        | DIR  | MIN | PSBL | S-S     | WX | SPD       | DR  |     |
|                   |      |      |     |     |        |     |      |       | 12Z  | AVG   | MX         | 2MIN |     |      |         |    |           |     |     |
| 1                 | 57   | 54   | 56  | 3   | 9      | 0   | 1.30 | 0.0   | 0    | 9.1   | 15         | 80   | M   | M    | 10      | 1  | 19        | 80  |     |
| 2                 | 69   | 51   | 60  | 7   | 5      | 0   | 0.00 | 0.0   | 0    | 3.1   | 10         | 270  | M   | M    | 8       | 1  | 13        | 270 |     |
| 3                 | 67   | 49   | 58  | 6   | 7      | 0   | 0.04 | 0.0   | 0    | 4.1   | 14         | 70   | M   | M    | 9       | 12 | 17        | 100 |     |
| 4                 | 56   | 53   | 55  | 3   | 10     | 0   | 0.74 | 0.0   | 0    | 17.3  | 28         | 120  | M   | M    | 10      | 1  | 37        | 120 |     |
| 5                 | 60   | 53   | 57  | 5   | 8      | 0   | 0.04 | 0.0   | 0    | 7.8   | 13         | 100  | M   | M    | 10      | 1  | 18        | 60  |     |
| 6                 | 60   | 52   | 56  | 4   | 9      | 0   | 0.10 | 0.0   | 0    | 10.1  | 21         | 90   | M   | M    | 10      | 1  | 23        | 90  |     |
| 7                 | 63   | 56   | 60  | 8   | 5      | 0   | 0.74 | 0.0   | 0    | 16.4  | 31         | 100  | M   | M    | 10      | 1  | 40        | 100 |     |
| 8                 | 61   | 49   | 55  | 3   | 10     | 0   | 0.33 | M     | 0    | 7.6   | 32         | 120  | M   | M    | 10      | 1  | 39        | 120 |     |
| 9                 | 62   | 46   | 54  | 3   | 11     | 0   | 0.00 | 0.0   | 0    | 3.6   | 10         | 70   | M   | M    | 8       | 1  | 13        | 70  |     |
| 10                | 56   | 43   | 50  | -1  | 15     | 0   | 0.30 | 0.0   | 0    | 3.8   | 15         | 100  | M   | M    | 9       | 12 | 19        | 90  |     |
| 11                | 64   | 51   | 58  | 7   | 7      | 0   | T    | 0.0   | 0    | 8.9   | 21         | 100  | M   | M    | 9       |    | 26        | 90  |     |
| 12                | 62   | 50   | 56  | 5   | 9      | 0   | 0.06 | 0.0   | 0    | 3.9   | 10         | 240  | M   | M    | 8       | 12 | 14        | 270 |     |
| 13                | 61   | 42   | 52  | 2   | 13     | 0   | T    | 0.0   | 0    | 4.1   | 12         | 230  | M   | M    | 8       | 1  | 14        | 240 |     |
| 14                | 61   | 44   | 53  | 3   | 12     | 0   | 0.00 | 0.0   | 0    | 2.4   | 10         | 240  | M   | M    | 7       | 1  | 12        | 240 |     |
| 15                | 64   | 39   | 52  | 2   | 13     | 0   | 0.10 | 0.0   | 0    | 4.3   | 16         | 70   | M   | M    | 8       | 12 | 21        | 80  |     |
| 16                | 58   | 50   | 54  | 4   | 11     | 0   | 0.17 | 0.0   | 0    | 13.2  | 23         | 120  | M   | M    | 9       | 1  | 28        | 120 |     |
| 17                | 53   | 49   | 51  | 1   | 14     | 0   | 0.35 | 0.0   | 0    | 13.5  | 21         | 110  | M   | M    | 8       | 1  | 25        | 110 |     |
| 18                | 53   | 48   | 51  | 1   | 14     | 0   | 0.17 | 0.0   | 0    | 10.2  | 18         | 130  | M   | M    | 10      |    | 24        | 130 |     |
| 19                | 50   | 46   | 48  | -1  | 17     | 0   | 0.91 | 0.0   | 0    | 1.9   | 9          | 250  | M   | M    | 10      | 1  | 10        | 260 |     |
| 20                | 56   | 48   | 52  | 3   | 13     | 0   | 1.05 | 0.0   | 0    | 13.9  | 31         | 120  | M   | M    | 10      | 1  | 39        | 120 |     |
| 21                | 51   | 47   | 49  | 0   | 16     | 0   | 0.42 | 0.0   | 0    | 15.7  | 29         | 110  | M   | M    | 10      | 1  | 34        | 110 |     |
| 22                | 53   | 45   | 49  | 0   | 16     | 0   | 0.10 | 0.0   | 0    | 10.2  | 21         | 130  | M   | M    | 10      | 1  | 27        | 130 |     |
| 23                | 56   | 46   | 51  | 2   | 14     | 0   | T    | 0.0   | 0    | 14.6  | 26         | 130  | M   | M    | 9       |    | 34        | 120 |     |
| 24                | 55   | 37   | 46  | -2  | 19     | 0   | 0.00 | 0.0   | 0    | 3.6   | 12         | 100  | M   | M    | 5       | 1  | 13        | 100 |     |
| SM                | 1408 | 1148 |     |     | 277    | 0   | 6.92 |       | 0.0  | 203.3 |            |      | M   |      | 215     |    |           |     |     |
| AV                | 58.7 | 47.8 |     |     |        |     |      |       |      | 8.5   | FASTST     |      | M   | M    | 9       |    | MAX (MPH) |     |     |
|                   |      |      |     |     |        |     |      |       |      | MISC  | ---->      | #    | 32  | 120  |         |    | #         | 40  | 100 |

## NOTES:

# LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: JUNEAU  
 MONTH: SEPTEMBER  
 YEAR: 2013  
 LATITUDE: 58 22 N  
 LONGITUDE: 134 35 W

| [TEMPERATURE DATA]    | [PRECIPITATION DATA]     | SYMBOLS USED IN COLUMN 16                            |
|-----------------------|--------------------------|--|
| AVERAGE MONTHLY: 53.2 | TOTAL FOR MONTH: 6.92    | 1 = FOG OR MIST                                      |
| DPTR FM NORMAL: 2.6   | DPTR FM NORMAL: 0.11     | 2 = FOG REDUCING VISIBILITY<br>TO 1/4 MILE OR LESS   |
| HIGHEST: 69 ON 2      | GRTST 24HR 1.74 ON 31- 1 | 3 = THUNDER  |
| LOWEST: 37 ON 24      | SNOW, ICE PELLETS, HAIL  | 4 = ICE PELLETS                                      |
|                       | TOTAL MONTH: 0.0 INCH    | 5 = HAIL   |
|                       | GRTST 24HR 0.0           | 6 = FREEZING RAIN OR DRIZZLE                         |
|                       | GRTST DEPTH: 0           | 7 = DUSTSTORM OR SANDSTORM:<br>VSBY 1/2 MILE OR LESS |
|                       |                          | 8 = SMOKE OR HAZE                                    |
| [NO. OF DAYS WITH]    | [WEATHER - DAYS WITH]    | 9 = BLOWING SNOW                                     |
| MAX 32 OR BELOW: 0    | 0.01 INCH OR MORE: 17    | X = TORNADO  |
| MAX 90 OR ABOVE: 0    | 0.10 INCH OR MORE: 14    |  |
| MIN 32 OR BELOW: 0    | 0.50 INCH OR MORE: 5     |  |
| MIN 0 OR BELOW: 0     | 1.00 INCH OR MORE: 2     |  |
| [HDD (BASE 65) ]      |                          |  |
| TOTAL THIS MO. 277    | CLEAR (SCALE 0-3) 0      |  |
| DPTR FM NORMAL -67    | PTCLDY (SCALE 4-7) 6     |  |
| TOTAL FM JUL 1 712    | CLOUDY (SCALE 8-10) 18   |  |
| DPTR FM NORMAL -167   |                          |  |
| [CDD (BASE 65) ]      |                          |  |
| TOTAL THIS MO. 0      |                          |  |
| DPTR FM NORMAL 0      | [PRESSURE DATA]          |  |
| TOTAL FM JAN 1 9      | HIGHEST SLP M ON M       |  |
| DPTR FM NORMAL 7      | LOWEST SLP 28.95 ON 22   |  |

[REMARKS]

| 90-Days Prior to Fieldwork |             |                 | 14-Days Prior to Fieldwork |             |                 | Week of       |        |
|----------------------------|-------------|-----------------|----------------------------|-------------|-----------------|---------------|--------|
| Measured Rain              | Normal Rain | Surplus/Defecit | Measured Rain              | Normal Rain | Surplus/Defecit | Measured Rain | Normal |
| 17.82                      | 17.81       | 1.18            | 3.32                       | 5.57        | -1.97           | 0.84          |        |
| 9.23                       | 11.87       | -2.50           | 2.25                       | 3.01        | -0.76           | 0.13          |        |
| 8.00                       | 10.05       | -2.05           | 1.70                       | 2.29        | -0.59           | 0.63          |        |
| 12.35                      | 12.42       | -0.07           | 3.24                       | 3.30        | -0.06           | 0.29          |        |
| 14.09                      | 19.63       | -5.23           | 2.37                       | 5.76        | -3.39           | 0.62          |        |
| 10.17                      | 12.24       | -2.07           | 2.33                       | 3.86        | -1.53           | 0.00          |        |



*This Page Intentionally Left Blank*

APPENDIX C. WETLAND DETERMINATION DATA FORMS

C-1

*This Page Intentionally Left Blank*

C-2

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access 12 Borough/City: Hoonah Angoon Sampling Date: 8/19/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P1  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): depression w/ hummocks  
 Local relief (concave, convex, none): concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.479153 Long: -134.548296 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: (on-site) PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum                          | Absolute % Cover   | Dominant Species?         | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>11</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>11</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)  |   |
|---------------------------------------|--------------------|---------------------------|------------------|--|---|
| 1. <u>Pinus contorta</u>              | <u>4%</u>          | <u>Yes</u>                | <u>FAC</u>       |  |   |
| 2. <u>Tsuga mertensiana</u>           | <u>2%</u>          | <u>Yes</u>                | <u>FAC</u>       |  |   |
| 3. _____                              | _____              | _____                     | _____            |  |   |
| 4. _____                              | _____              | _____                     | _____            |  |   |
| Total Cover:                          | <u>6%</u>          |                           |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>63</u> x 1 = <u>63</u><br>FACW species <u>31</u> x 2 = <u>62</u><br>FAC species <u>20</u> x 3 = <u>60</u><br>FACU species <u>0</u> x 4 = <u>0</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>114</u> (A) <u>185</u> (B)<br>Prevalence Index = B/A = <u>1.62</u> |   |
| 50% of total cover:                   | <u>3%</u>          | 20% of total cover:       | <u>1%</u>        |  |   |
| Sapling/Shrub Stratum                 |                    |                           |                  |  |   |
| 1. <u>Vaccinium oxycoccos</u>         | <u>5%</u>          | <u>Yes</u>                | <u>OBL</u>       | Hydrophytic Vegetation Indicators:<br><u>X</u> Dominance Test is >50%<br>Prevalence Index is ≤ 3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.      |   |
| 2. <u>Rhododendron groenlandicum</u>  | <u>5%</u>          | <u>Yes</u>                | <u>FAC</u>       |  |   |
| 3. <u>Pinus contorta</u>              | <u>3%</u>          | <u>Yes</u>                | <u>FAC</u>       |  |   |
| 4. <u>Tsuga heterophylla</u>          | <u>1%</u>          | <u>No</u>                 | <u>FAC</u>       |  |   |
| 5. _____                              | _____              | _____                     | _____            |  |   |
| 6. _____                              | _____              | _____                     | _____            |  |   |
| Total Cover:                          | <u>14%</u>         |                           |                  |  |   |
| 50% of total cover:                   | <u>7%</u>          | 20% of total cover:       | <u>3%</u>        |  |   |
| Herb Stratum                          |                    |                           |                  |  |   |
| 1. <u>Carex aquatilis</u>             | <u>20%</u>         | <u>Yes</u>                | <u>OBL</u>       |  | Hydrophytic Vegetation Present? Yes <u>X</u> No _____ |
| 2. <u>Piperia dilatata</u>            | <u>20%</u>         | <u>Yes</u>                | <u>FACW</u>      |  |   |
| 3. <u>Triantha glutinosa</u>          | <u>10%</u>         | <u>Yes</u>                | <u>FACW</u>      |  |   |
| 4. <u>Menyanthes trifoliata</u>       | <u>10%</u>         | <u>Yes</u>                | <u>OBL</u>       |  |   |
| 5. <u>Carex flava</u>                 | <u>10%</u>         | <u>Yes</u>                | <u>OBL</u>       |  |   |
| 6. <u>Trichophorum caespitosum</u>    | <u>10%</u>         | <u>Yes</u>                | <u>OBL</u>       |  |   |
| 7. <u>Eriophorum angustifolium</u>    | <u>8%</u>          | <u>No</u>                 | <u>OBL</u>       |  |   |
| 8. <u>Coptis trifolia</u>             | <u>3%</u>          | <u>No</u>                 | <u>FAC</u>       |  |   |
| 9. <u>Calamagrostis canadensis</u>    | <u>2%</u>          | <u>No</u>                 | <u>FAC</u>       |  |   |
| 10. <u>Equisetum variegatum</u>       | <u>1%</u>          | <u>No</u>                 | <u>FACW</u>      |  |   |
| Total Cover:                          | <u>94%</u>         |                           |                  |  |   |
| 50% of total cover:                   | <u>47%</u>         | 20% of total cover:       | <u>19%</u>       |  |   |
| Plot size (radius, or length x width) | <u>5 ft radius</u> | % Bare Ground             | <u>1%</u>        |  |   |
| % Cover of Wetland Bryophytes         | <u>5</u>           | Total Cover of Bryophytes | <u>5%</u>        |  |   |
| (Where applicable)                    |                    |                           |                  |  |   |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P1**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-29+             | 10YR 2/1      | 100 |                |   |                   |                  | peat    |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)   | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|  |  |
|--|--|
| <b>Wetland Hydrology Indicators:</b>                               | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b>        |  |
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|  | <input type="checkbox"/> FAC-Neutral Test (D5)                         |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |
| <input type="checkbox"/> Marl Deposits (B15)                       |  |
| <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)     |  |
| <input type="checkbox"/> Dry-Season Water Table (C2)               |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> X | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> X No <input type="checkbox"/>   |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> X No <input type="checkbox"/>    |   |
| (includes capillary fringe)  |   |
| Depth (inches): _____  |   |
| Depth (inches): <u>8</u>   |   |
| Depth (inches): <u>Surface</u>   |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Scattered shallow ponding to surface in depressionas around hummocks. Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access 12 Borough/City: Hoonah Angoon Sampling Date: 8/19/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P2  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Bottomlands w/hummocks  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.477963 Long: -134.548037 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area<br/>within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                   | Indicator Status | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)  |
|--|------------------|-------------------------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>30%</u>       | <u>Yes</u>                          | <u>FAC</u>       |  |
| 2. _____   | _____            | _____                               | _____            |  |
| 3. _____   | _____            | _____                               | _____            |  |
| 4. _____   | _____            | _____                               | _____            |  |
| Total Cover: <u>30%</u>                                  |                  |                                     |                  |  |
| 50% of total cover: <u>15%</u>                           |                  | 20% of total cover: <u>6%</u>       |                  |  |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?                   | Indicator Status | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>52</u> x 1 = <u>52</u><br>FACW species <u>5</u> x 2 = <u>10</u><br>FAC species <u>57</u> x 3 = <u>171</u><br>FACU species <u>62</u> x 4 = <u>248</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>176</u> (A) <u>481</u> (B)<br>Prevalence Index = B/A = <u>2.73</u>   |
| 1. <u>Malus fusca</u>                                    | <u>20%</u>       | <u>Yes</u>                          | <u>FACU</u>      |  |
| 2. <u>Menziesia ferruginea</u>                           | <u>15%</u>       | <u>Yes</u>                          | <u>FACU</u>      |  |
| 3. <u>Oplopanax horridus</u>                             | <u>5%</u>        | <u>No</u>                           | <u>FACU</u>      |  |
| 4. <u>Vaccinium alaskaense</u>                           | <u>5%</u>        | <u>No</u>                           | <u>FAC</u>       |  |
| 5. <u>Vaccinium oxycoccos</u>                            | <u>3%</u>        | <u>No</u>                           | <u>OBL</u>       |  |
| 6. <u>Viburnum edule</u>                                 | <u>2%</u>        | <u>No</u>                           | <u>FACU</u>      |  |
| Total Cover: <u>50%</u>                                  |                  |                                     |                  |  |
| 50% of total cover: <u>25%</u>                           |                  | 20% of total cover: <u>10%</u>      |                  |  |
| Herb Stratum   | Absolute % Cover | Dominant Species?                   | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>X Dominance Test is >50%<br>_____ Prevalence Index is ≤3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>2</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Lysichiton americanus</u>                          | <u>25%</u>       | <u>Yes</u>                          | <u>OBL</u>       |  |
| 2. <u>Carex aquatilis</u>                                | <u>20%</u>       | <u>Yes</u>                          | <u>OBL</u>       |  |
| 3. <u>Cornus canadensis</u>                              | <u>15%</u>       | <u>No</u>                           | <u>FACU</u>      |  |
| 4. <u>Coptis asplenifolia</u>                            | <u>15%</u>       | <u>No</u>                           | <u>FAC</u>       |  |
| 5. <u>Heracleum maximum</u>                              | <u>5%</u>        | <u>No</u>                           | <u>FACU</u>      |  |
| 6. <u>Sanguisorba canadensis</u>                         | <u>5%</u>        | <u>No</u>                           | <u>FACW</u>      |  |
| 7. <u>Symphotrichum subspicatum</u>                      | <u>5%</u>        | <u>No</u>                           | <u>FAC</u>       |  |
| 8. <u>Podagrostis aequivalvis</u>                        | <u>3%</u>        | <u>No</u>                           | <u>OBL</u>       |  |
| 9. <u>Equisetum arvense</u>                              | <u>2%</u>        | <u>No</u>                           | <u>FAC</u>       |  |
| 10. <u>Comarum palustre</u>                              | <u>1%</u>        | <u>No</u>                           | <u>OBL</u>       |  |
| Total Cover: <u>96%</u>                                  |                  |                                     |                  |  |
| 50% of total cover: <u>48%</u>                           |                  | 20% of total cover: <u>19%</u>      |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>0%</u>             |                  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>4%</u> |                  |  |
| (Where applicable)                                       |                  |                                     |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P2**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |            |         |
|---|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   | Type <sup>1</sup> | Loc <sup>2</sup> | Texture    | Remarks |
|   | Color (moist) | %   | Color (moist)  | % |                   |                  |            |         |
| 0-20+   | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                     | Indicators for Problematic Hydric Soils <sup>3</sup> :                           |
|---|--|
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |  |
|--|--|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____ |
|--|--|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1)<br><input checked="" type="checkbox"/> High Water Table (A2)<br><input checked="" type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks)   |   |

|  |   |
|--|---|
| <b>Field Observations:</b><br>Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>8</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>Surface</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No _____ |
|--|---|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access 12 Borough/City: Hoonah Angoon Sampling Date: 8/19/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P3  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.477043 Long: -134.553700 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>6</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)   |
|--|------------------|---------------------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>                             | <u>15%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. _____   | _____            | _____                           | _____            | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>53</u> x 3 = <u>159</u><br>FACU species <u>53</u> x 4 = <u>212</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>106</u> (A) <u>371</u> (B)<br>Prevalence Index = B/A = <u>3.50</u> |
| 3. _____   | _____            | _____                           | _____            |   |
| 4. _____   | _____            | _____                           | _____            | <b>Hydrophytic Vegetation Indicators:</b><br>Dominance Test is >50%<br>Prevalence Index is ≤3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.                |
| Total Cover: <u>15%</u>                                  | _____            | _____                           | _____            |   |
| 50% of total cover: <u>8%</u>                            | _____            | 20% of total cover: <u>3%</u>   | _____            |   |
| <b>Sapling/Shrub Stratum</b>                             |                  |                                 |                  | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>  |
| 1. <u>Vaccinium alaskaense</u>                           | <u>35%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. <u>Menziesia ferruginea</u>                           | <u>35%</u>       | <u>Yes</u>                      | <u>FACU</u>      | <b>Hydrophytic Vegetation</b><br>Present? Yes _____ No <u>X</u>   |
| 3. <u>Vaccinium parvifolium</u>                          | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      |   |
| 4. _____   | _____            | _____                           | _____            |   |
| 5. _____   | _____            | _____                           | _____            |   |
| 6. _____   | _____            | _____                           | _____            |   |
| Total Cover: <u>75%</u>                                  | _____            | _____                           | _____            |   |
| 50% of total cover: <u>38%</u>                           | _____            | 20% of total cover: <u>15%</u>  | _____            |   |
| <b>Herb Stratum</b>                                      |                  |                                 |                  |   |
| 1. <u>Cornus canadensis</u>                              | <u>10%</u>       | <u>Yes</u>                      | <u>FACU</u>      |   |
| 2. <u>Rubus pedatus</u>                                  | <u>3%</u>        | <u>Yes</u>                      | <u>FAC</u>       |   |
| 3. <u>Streptopus amplexifolius</u>                       | <u>3%</u>        | <u>Yes</u>                      | <u>FACU</u>      |   |
| 4. _____   | _____            | _____                           | _____            |   |
| 5. _____   | _____            | _____                           | _____            |   |
| 6. _____   | _____            | _____                           | _____            |   |
| 7. _____   | _____            | _____                           | _____            |   |
| 8. _____   | _____            | _____                           | _____            |   |
| 9. _____   | _____            | _____                           | _____            |   |
| 10. _____  | _____            | _____                           | _____            |   |
| Total Cover: <u>16%</u>                                  | _____            | _____                           | _____            |   |
| 50% of total cover: <u>8%</u>                            | _____            | 20% of total cover: <u>3%</u>   | _____            |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> | _____            | % Bare Ground <u>84%</u>        | _____            |   |
| % Cover of Wetland Bryophytes _____                      | _____            | Total Cover of Bryophytes _____ | _____            |   |
| (Where applicable)                                       |                  |                                 |                  |   |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |          |         |
|---|---------------|-----|----------------|---|-------------------|----------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   | Texture  | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> |          |         |
| 0-14  |               | 100 |                |   |                   | organics |         |
| 14-15   | 2.5Y 3/1      | 100 |                |   |                   | muck     |         |
| 15-17   | 2.5Y 4/1      | 100 |                |   |                   | si       |         |
| 17-18   | 2.5Y 3/1      | 100 |                |   |                   | muck     |         |
| 18-24   | 7.5YR 4/6     | 100 |                |   |                   | l        |         |
|   |               |     |                |   |                   |          |         |
|   |               |     |                |   |                   |          |         |
|   |               |     |                |   |                   |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                            | Indicators for Problematic Hydric Soils <sup>3</sup> :                           |
|--|--|
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)  | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)        |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |  |
|--|--|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes _____      No <b>X</b> _____ |
|--|--|

Remarks:      s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
 Non-hydric spodosol

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |   |
|---|---|
| <b>Field Observations:</b><br>Surface Water Present?      Yes _____      No <b>X</b> _____      Depth (inches): _____<br>Water Table Present?      Yes _____      No <b>X</b> _____      Depth (inches): <u>&gt;24</u><br>Saturation Present?      Yes _____      No <b>X</b> _____      Depth (inches): <u>&gt;24</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes _____      No <b>X</b> _____ |
|---|---|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar      QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access 12 Borough/City: Hoonah Angoon Sampling Date: 8/19/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P4  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillside  
 Local relief (concave, convex, none): Convex Slope (%): <3  
 Subregion: Southeast Alaska Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |             |  |           |             |
|---------------------------------|--------------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____    | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____    | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____    | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>4</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)  |
|--|------------------|--------------------------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>15%</u>       | <u>Yes</u>                           | <u>FAC</u>       |  |
| 2. _____   | _____            | _____                                | _____            | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>71</u> x 3 = <u>213</u><br>FACU species <u>53</u> x 4 = <u>212</u><br>UPL species <u>5</u> x 5 = <u>25</u><br>Column Totals: <u>129</u> (A) <u>450</u> (B)<br>Prevalence Index = B/A = <u>3.49</u> |
| 3. _____   | _____            | _____                                | _____            |  |
| 4. _____   | _____            | _____                                | _____            |  |
| Total Cover: <u>15%</u>                                  |                  |                                      |                  |  |
| 50% of total cover: <u>8%</u>                            |                  | 20% of total cover: <u>3%</u>        |                  |  |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?                    | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>X Dominance Test is >50%<br>_____ Prevalence Index is ≤3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>2</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 1. <u>Oplopanax horridus</u>                             | <u>25%</u>       | <u>Yes</u>                           | <u>FACU</u>      |  |
| 2. <u>Vaccinium alaskaense</u>                           | <u>15%</u>       | <u>Yes</u>                           | <u>FAC</u>       | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.<br><br><b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  |
| 3. <u>Menziesia ferruginea</u>                           | <u>5%</u>        | <u>No</u>                            | <u>FACU</u>      |  |
| 4. <u>Rubus spectabilis</u>                              | <u>5%</u>        | <u>No</u>                            | <u>FACU</u>      |  |
| 5. <u>Rubus parviflorus</u>                              | <u>5%</u>        | <u>No</u>                            | <u>FACU</u>      |  |
| 6. _____   | _____            | _____                                | _____            |  |
| Total Cover: <u>55%</u>                                  |                  |                                      |                  |  |
| 50% of total cover: <u>28%</u>                           |                  | 20% of total cover: <u>11%</u>       |                  |  |
| Herb Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status |  |
| 1. <u>Athyrium cyclosorum</u>                            | <u>40%</u>       | <u>Yes</u>                           | <u>FAC</u>       |  |
| 2. <u>Gymnocarpium dryopteris</u>                        | <u>5%</u>        | <u>No</u>                            | <u>FACU</u>      |  |
| 3. <u>Streptopus amplexifolius</u>                       | <u>5%</u>        | <u>No</u>                            | <u>FACU</u>      |  |
| 4. <u>Prenanthes alata</u>                               | <u>5%</u>        | <u>No</u>                            | <u>NOL</u>       |  |
| 5. <u>Cornus canadensis</u>                              | <u>3%</u>        | <u>No</u>                            | <u>FACU</u>      |  |
| 6. <u>Coptis asplenifolia</u>                            | <u>1%</u>        | <u>No</u>                            | <u>FAC</u>       |  |
| 7. _____   | _____            | _____                                | _____            |  |
| 8. _____   | _____            | _____                                | _____            |  |
| 9. _____   | _____            | _____                                | _____            |  |
| 10. _____  | _____            | _____                                | _____            |  |
| Total Cover: <u>59%</u>                                  |                  |                                      |                  |  |
| 50% of total cover: <u>30%</u>                           |                  | 20% of total cover: <u>12%</u>       |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>0%</u>              |                  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>42%</u> |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P4**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |          |         |
|---|---------------|-----|----------------|---|-------------------|----------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   | Texture  | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> |          |         |
| 0-26  | 7.5YR 3/4     | 100 |                |   |                   | organics |         |
|   |               |     |                |   |                   |          |         |
|   |               |     |                |   |                   |          |         |
|   |               |     |                |   |                   |          |         |
|   |               |     |                |   |                   |          |         |
|   |               |     |                |   |                   |          |         |
|   |               |     |                |   |                   |          |         |
|   |               |     |                |   |                   |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                            | Indicators for Problematic Hydric Soils <sup>3</sup> :                           |
|--|--|
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)  | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)        |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>bedrock</u><br>Depth (inches): <u>26</u> | <b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
 Poorly decomposed organics (folist).

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |  |
|---|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;26</u><br>Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;26</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:    Entered by: sar    QC by: cmw  
 Slightly moist at 26 inches, but no saturation or water table.

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access 12 Borough/City: Hoonah Angoon Sampling Date: 8/19/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P5  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.476522 Long: -134.554067 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>6</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)   |
|--|------------------|---------------------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>15%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 2. <u>Picea sitchensis</u>                               | <u>5%</u>        | <u>Yes</u>                      | <u>FACU</u>      |  |
| 3. _____   | _____            | _____                           | _____            |  |
| 4. _____   | _____            | _____                           | _____            |  |
| Total Cover: <u>20%</u>                                  |                  |                                 |                  |  |
| 50% of total cover: <u>10%</u>                           |                  | 20% of total cover: <u>4%</u>   |                  |  |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>Dominance Test is >50%<br>Prevalence Index is ≤3.0 <sup>1</sup><br>Morphological Adaptations <sup>2</sup> (Provide supporting data in Remarks or on a separate sheet)<br>X Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Malus fusca</u>                                    | <u>20%</u>       | <u>Yes</u>                      | <u>FACU</u>      |  |
| 2. <u>Menziesia ferruginea</u>                           | <u>10%</u>       | <u>Yes</u>                      | <u>FACU</u>      | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____   |
| 3. <u>Oplopanax horridus</u>                             | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      |  |
| 4. <u>Viburnum edule</u>                                 | <u>2%</u>        | <u>No</u>                       | <u>FACU</u>      |  |
| 5. _____   | _____            | _____                           | _____            |  |
| 6. _____   | _____            | _____                           | _____            |  |
| Total Cover: <u>37%</u>                                  |                  |                                 |                  |  |
| 50% of total cover: <u>19%</u>                           |                  | 20% of total cover: <u>7%</u>   |                  |  |
| Herb Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status |  |
| 1. <u>Athyrium cyclosum</u>                              | <u>20%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 2. <u>Lysichiton americanus</u>                          | <u>20%</u>       | <u>Yes</u>                      | <u>OBL</u>       |  |
| 3. <u>Cornus canadensis</u>                              | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      |  |
| 4. <u>Rubus pedatus</u>                                  | <u>5%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 5. <u>Coptis asplenifolia</u>                            | <u>5%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 6. <u>Tiarella trifoliata</u>                            | <u>3%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 7. <u>Streptopus amplexifolius</u>                       | <u>2%</u>        | <u>No</u>                       | <u>FACU</u>      |  |
| 8. <u>Galium triflorum</u>                               | <u>1%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 9. _____   | _____            | _____                           | _____            |  |
| 10. _____  | _____            | _____                           | _____            |  |
| Total Cover: <u>61%</u>                                  |                  |                                 |                  |  |
| 50% of total cover: <u>31%</u>                           |                  | 20% of total cover: <u>12%</u>  |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>39%</u>        |                  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ |                  |  |
| (Where applicable)                                       |                  |                                 |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

Menziesia ferruginea and other shrub species appear to be growing on slightly elevated hummocks. Direct hydrology observed during the dry season.

**SOIL**

Sampling Point: **P5**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture    | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |            |         |
| 0-24+             | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                     | Indicators for Problematic Hydric Soils <sup>3</sup> :                           |
|---|--|
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |  |
|--|--|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____ |
|--|--|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
 No bedrock.

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1)<br><input checked="" type="checkbox"/> High Water Table (A2)<br><input checked="" type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks)   |   |

|  |   |
|--|---|
| <b>Field Observations:</b><br>Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>7</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>Surface</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No _____ |
|--|---|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/19/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P6  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.478430 Long: -134.556114 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>7</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>43%</u> (A/B)   |
|--|------------------|---------------------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>                             | <u>35%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. _____   | _____            | _____                           | _____            | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>5</u> x 1 = <u>5</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>90</u> x 3 = <u>270</u><br>FACU species <u>75</u> x 4 = <u>300</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>170</u> (A) <u>575</u> (B)<br>Prevalence Index = B/A = <u>3.38</u> |
| 3. _____   | _____            | _____                           | _____            |   |
| 4. _____   | _____            | _____                           | _____            |   |
| Total Cover: <u>35%</u>                                  | _____            | _____                           | _____            |   |
| 50% of total cover: <u>18%</u>                           | _____            | 20% of total cover: <u>7%</u>   | _____            |   |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>Dominance Test is >50%<br>Prevalence Index is ≤3.0 <sup>1</sup><br>Morphological Adaptations <sup>2</sup> (Provide supporting data in Remarks or on a separate sheet)<br><u>X</u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.       |
| 1. <u>Vaccinium ovalifolium</u>                          | <u>25%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. <u>Menziesia ferruginea</u>                           | <u>25%</u>       | <u>Yes</u>                      | <u>FACU</u>      | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  |
| 3. <u>Oplopanax horridus</u>                             | <u>20%</u>       | <u>Yes</u>                      | <u>FACU</u>      |   |
| 4. <u>Rubus spectabilis</u>                              | <u>10%</u>       | <u>No</u>                       | <u>FACU</u>      |   |
| 5. _____   | _____            | _____                           | _____            |   |
| 6. _____   | _____            | _____                           | _____            |   |
| Total Cover: <u>80%</u>                                  | _____            | _____                           | _____            |   |
| 50% of total cover: <u>40%</u>                           | _____            | 20% of total cover: <u>16%</u>  | _____            |   |
| Herb Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status |   |
| 1. <u>Maianthemum dilatatum</u>                          | <u>20%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. <u>Gymnocarpium dryopteris</u>                        | <u>10%</u>       | <u>Yes</u>                      | <u>FACU</u>      |   |
| 3. <u>Cornus canadensis</u>                              | <u>10%</u>       | <u>Yes</u>                      | <u>FACU</u>      |   |
| 4. <u>Rubus pedatus</u>                                  | <u>5%</u>        | <u>No</u>                       | <u>FAC</u>       |   |
| 5. <u>Tiarella trifoliata</u>                            | <u>5%</u>        | <u>No</u>                       | <u>FAC</u>       |   |
| 6. <u>Equisetum fluviatile</u>                           | <u>5%</u>        | <u>No</u>                       | <u>OBL</u>       |   |
| 7. _____   | _____            | _____                           | _____            |   |
| 8. _____   | _____            | _____                           | _____            |   |
| 9. _____   | _____            | _____                           | _____            |   |
| 10. _____  | _____            | _____                           | _____            |   |
| Total Cover: <u>55%</u>                                  | _____            | _____                           | _____            |   |
| 50% of total cover: <u>28%</u>                           | _____            | 20% of total cover: <u>11%</u>  | _____            |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> | _____            | % Bare Ground <u>45%</u>        | _____            |   |
| % Cover of Wetland Bryophytes _____                      | _____            | Total Cover of Bryophytes _____ | _____            |   |
| (Where applicable)                                       | _____            | _____                           | _____            |   |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw  
Menziesia ferruginea and other shrub species appear to be growing on slightly elevated hummocks. Direct hydrology observed during the dry season.

**SOIL**

Sampling Point: **P6**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |         |         |
|---|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   | Type <sup>1</sup> | Loc <sup>2</sup> | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % |                   |                  |         |         |
| 0-24+   | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                     | Indicators for Problematic Hydric Soils <sup>3</sup> :                           |
|---|--|
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |  |
|--|--|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____ |
|--|--|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |   |
|---|---|
| <b>Field Observations:</b><br>Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>15</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>Surface</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No _____ |
|---|---|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access 12 Borough/City: Hoonah Angoon Sampling Date: 8/19/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P7  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillside  
 Local relief (concave, convex, none): Convex Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.478497 Long: -134.555820 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |             |  |           |             |
|---------------------------------|--------------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____    | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____    | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____    | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  |
|--|------------------|---------------------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>                             | <u>35%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. <u>Picea sitchensis</u>                               | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      |   |
| 3. _____   | _____            | _____                           | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)  |
| 4. _____   | _____            | _____                           | _____            |   |
| Total Cover: <u>40%</u>                                  |                  | 20% of total cover: <u>8%</u>   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____   |
| 50% of total cover: <u>20%</u>                           |                  | 20% of total cover: _____       |                  |   |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?               | Indicator Status | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>100</u> x 3 = <u>300</u><br>FACU species <u>40</u> x 4 = <u>160</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>140</u> (A) <u>460</u> (B)<br>Prevalence Index = B/A = <u>3.29</u>  |
| 1. <u>Vaccinium ovalifolium</u>                          | <u>35%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. <u>Oplopanax horridus</u>                             | <u>15%</u>       | <u>Yes</u>                      | <u>FACU</u>      |   |
| 3. <u>Rubus spectabilis</u>                              | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      |   |
| 4. _____   | _____            | _____                           | _____            | Hydrophytic Vegetation Indicators:<br><u>X</u> Dominance Test is >50%<br>Prevalence Index is ≤ 3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 5. _____   | _____            | _____                           | _____            |   |
| 6. _____   | _____            | _____                           | _____            | Hydrophytic Vegetation Present? Yes <u>X</u> No _____   |
| 7. _____   | _____            | _____                           | _____            |   |
| 8. _____   | _____            | _____                           | _____            | Remarks: _____ Entered by: <u>sar</u> QC by: <u>cmw</u>   |
| 9. _____   | _____            | _____                           | _____            |   |
| 10. _____  | _____            | _____                           | _____            |   |
| Total Cover: <u>55%</u>                                  |                  | 20% of total cover: <u>11%</u>  |                  |   |
| 50% of total cover: <u>28%</u>                           |                  | 20% of total cover: _____       |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>55%</u>        |                  |   |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ |                  |   |
| (Where applicable)                                       |                  |                                 |                  |   |

**SOIL**

Sampling Point: **P7**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   | Type <sup>1</sup> | Loc <sup>2</sup> | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % |                   |                  |          |         |
| 0-27+             | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |  |  |  |
|--|--|--|--|
| <b>Hydric Soil Indicators:</b>                     |  | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |  |
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>  | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |  |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)  | <input type="checkbox"/> Other (Explain in Remarks)                              |  |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue  |  |  |
| <input type="checkbox"/> Thick Dark Surface (A12)  |  |  |  |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. |  |  |
| <input type="checkbox"/> Alaska Redox (A14)        | <sup>4</sup> Give details of color change in Remarks   |  |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |  |  |  |

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> |   |
| Type: _____                            |   |
| Depth (inches): _____                  |   |
|  | <b>Hydric Soil Present?    Yes _____    No <u>X</u></b> |

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
 Poorly decomposed throughout. Folist.

**HYDROLOGY**

|  |  |  |  |
|--|--|--|--|
| <b>Wetland Hydrology Indicators:</b>                 |  | <b>Secondary Indicators (2 or more required)</b>                       |  |
| Primary Indicators (any one indicator is sufficient) |  |  |  |
| <input type="checkbox"/> Surface Water (A1)          | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Water-Stained Leaves (B9)                     |  |
| <input type="checkbox"/> High Water Table (A2)       | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   | <input type="checkbox"/> Drainage Patterns (B10)                       |  |
| <input type="checkbox"/> Saturation (A3)             | <input type="checkbox"/> Marl Deposits (B15)                       | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |  |
| <input type="checkbox"/> Water Marks (B1)            | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |  |
| <input type="checkbox"/> Sediment Deposits (B2)      | <input type="checkbox"/> Dry-Season Water Table (C2)               | <input type="checkbox"/> Salt Deposits (C5)                            |  |
| <input type="checkbox"/> Drift Deposits (B3)         | <input type="checkbox"/> Other (Explain in Remarks)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)     |  | <input type="checkbox"/> Geomorphic Position (D2)                      |  |
| <input type="checkbox"/> Iron Deposits (B5)          |  | <input type="checkbox"/> Shallow Aquitard (D3)                         |  |
| <input type="checkbox"/> Surface Soil Cracks (B6)    |  | <input type="checkbox"/> Microtopographic Relief (D4)                  |  |
|  |  | <input type="checkbox"/> FAC-Neutral Test (D5)                         |  |

|                                    |                       |                 |               |  |  |
|------------------------------------|-----------------------|-----------------|---------------|--|--|
| <b>Field Observations:</b>         |                       |                 |               | <b>Wetland Hydrology Present?</b><br>Yes _____ No <u>X</u> |  |
| Surface Water Present?             | Yes _____ No <u>X</u> | Depth (inches): | _____         |  |  |
| Water Table Present?               | Yes _____ No <u>X</u> | Depth (inches): | <u>&gt;27</u> |  |  |
| Saturation Present?                | Yes _____ No <u>X</u> | Depth (inches): | <u>&gt;27</u> |  |  |
| <i>(includes capillary fringe)</i> |                       |                 |               |  |  |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw  
 Dry throughout.

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P8  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillside  
 Local relief (concave, convex, none): Convex Slope (%): 15-20  
 Subregion: Southeast Alaska Lat: 57.475742 Long: -134.550786 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)  |
|--|------------------|--------------------------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>                             | <u>55%</u>       | <u>Yes</u>                           | <u>FAC</u>       |   |
| 2. _____   | _____            | _____                                | _____            |   |
| 3. _____   | _____            | _____                                | _____            |   |
| 4. _____   | _____            | _____                                | _____            |   |
| Total Cover: <u>55%</u>                                  |                  |                                      |                  |   |
| 50% of total cover: <u>28%</u>                           |                  | 20% of total cover: <u>11%</u>       |                  |   |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?                    | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>_____ Dominance Test is >50%<br>_____ Prevalence Index is ≤ 3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Vaccinium parvifolium</u>                          | <u>30%</u>       | <u>Yes</u>                           | <u>FACU</u>      |   |
| 2. <u>Menziesia ferruginea</u>                           | <u>25%</u>       | <u>Yes</u>                           | <u>FACU</u>      |   |
| 3. <u>Vaccinium alaskaense</u>                           | <u>25%</u>       | <u>Yes</u>                           | <u>FAC</u>       |   |
| 4. _____   | _____            | _____                                | _____            |   |
| 5. _____   | _____            | _____                                | _____            |   |
| 6. _____   | _____            | _____                                | _____            |   |
| Total Cover: <u>80%</u>                                  |                  |                                      |                  |   |
| 50% of total cover: <u>40%</u>                           |                  | 20% of total cover: <u>16%</u>       |                  |   |
| Herb Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | <b>Hydrophytic Vegetation Present?</b><br>Yes _____ No <u>X</u>   |
| 1. <u>Cornus canadensis</u>                              | <u>10%</u>       | <u>Yes</u>                           | <u>FACU</u>      |   |
| 2. _____   | _____            | _____                                | _____            |   |
| 3. _____   | _____            | _____                                | _____            |   |
| 4. _____   | _____            | _____                                | _____            |   |
| 5. _____   | _____            | _____                                | _____            |   |
| 6. _____   | _____            | _____                                | _____            |   |
| 7. _____   | _____            | _____                                | _____            |   |
| 8. _____   | _____            | _____                                | _____            |   |
| 9. _____   | _____            | _____                                | _____            |   |
| 10. _____  | _____            | _____                                | _____            |   |
| Total Cover: <u>10%</u>                                  |                  |                                      |                  |   |
| 50% of total cover: <u>5%</u>                            |                  | 20% of total cover: <u>2%</u>        |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>15%</u>             |                  |   |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>75%</u> |                  |   |
| (Where applicable)                                       |                  |                                      |                  |   |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P8**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture       | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |               |         |
| 0-20              | 10YR 3/1      | 100 |                |   |                   |                  | organics      |         |
| 20-25             | 7.5YR 3/4     | 100 |                |   |                   |                  | organics-wood |         |
|                   |               |     |                |   |                   |                  |               |         |
|                   |               |     |                |   |                   |                  |               |         |
|                   |               |     |                |   |                   |                  |               |         |
|                   |               |     |                |   |                   |                  |               |         |
|                   |               |     |                |   |                   |                  |               |         |
|                   |               |     |                |   |                   |                  |               |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

Histosol or Histel (A1)

Histic Epipedon (A2)

Hydrogen Sulfide (A4)

Thick Dark Surface (A12)

Alaska Gleyed (A13)

Alaska Redox (A14)

Alaska Gleyed Pores (A15)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

Alaska Color Change (TA4<sup>4</sup>)

Alaska Alpine Swales (TA5)

Alaska Redox With 2.5Y Hue

Alaska Gleyed Without Hue 5Y or Redder Underlying Layer

Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No **X** \_\_\_\_\_

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

**Wetland Hydrology Indicators:**

**Primary Indicators (any one indicator is sufficient)**

Surface Water (A1)

High Water Table (A2)

Saturation (A3)

Water Marks (B1)

Sediment Deposits (B2)

Drift Deposits (B3)

Algal Mat or Crust (B4)

Iron Deposits (B5)

Surface Soil Cracks (B6)

**Secondary Indicators (2 or more required)**

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)

Marl Deposits (B15)

Hydrogen Sulfide Odor (C1)

Dry-Season Water Table (C2)

Other (Explain in Remarks)

Water-Stained Leaves (B9)

Drainage Patterns (B10)

Oxidized Rhizospheres along Living Roots (C3)

Presence of Reduced Iron (C4)

Salt Deposits (C5)

Stunted or Stressed Plants (D1)

Geomorphic Position (D2)

Shallow Aquitard (D3)

Microtopographic Relief (D4)

FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No **X** \_\_\_\_\_ Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No **X** \_\_\_\_\_ Depth (inches): >25

Saturation Present? Yes \_\_\_\_\_ No **X** \_\_\_\_\_ Depth (inches): >25

(includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No **X** \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Dry throughout

Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P9  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.475716 Long: -134.551213 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status                     | <b>Dominance Test worksheet:</b>   |                               |
|--|------------------|-------------------|--------------------------------------|--|-------------------------------|
| 1. <u>Tsuga heterophylla</u>                             | <u>20%</u>       | <u>Yes</u>        | <u>FAC</u>                           | Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)                                |                               |
| 2. <u>Picea sitchensis</u>                               | <u>5%</u>        | <u>Yes</u>        | <u>FACU</u>                          | Total Number of Dominant Species Across All Strata: <u>7</u> (B)                                   |                               |
| 3. _____   | _____            | _____             | _____                                | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57%</u> (A/B)                           |                               |
| 4. _____   | _____            | _____             | _____                                | <b>Prevalence Index worksheet:</b>   |                               |
| Total Cover: <u>25%</u>                                  |                  |                   |                                      | Total % Cover of: _____ Multiply by: _____   |                               |
| 50% of total cover: <u>13%</u>                           |                  |                   | 20% of total cover: <u>5%</u>        | OBL species  | <u>23</u> x 1 = <u>23</u>     |
| <b>Sapling/Shrub Stratum</b>                             |                  |                   |                                      | FACW species   | <u>0</u> x 2 = <u>0</u>       |
| 1. <u>Vaccinium ovalifolium</u>                          | <u>25%</u>       | <u>Yes</u>        | <u>FAC</u>                           | FAC species  | <u>80</u> x 3 = <u>240</u>    |
| 2. <u>Vaccinium alaskaense</u>                           | <u>25%</u>       | <u>Yes</u>        | <u>FAC</u>                           | FACU species   | <u>53</u> x 4 = <u>212</u>    |
| 3. <u>Menziesia ferruginea</u>                           | <u>20%</u>       | <u>Yes</u>        | <u>FACU</u>                          | UPL species  | <u>0</u> x 5 = <u>0</u>       |
| 4. <u>Vaccinium parvifolium</u>                          | <u>15%</u>       | <u>No</u>         | <u>FACU</u>                          | Column Totals:   | <u>156</u> (A) <u>475</u> (B) |
| 5. _____   | _____            | _____             | _____                                | Prevalence Index = B/A = <u>3.04</u>   |                               |
| 6. _____   | _____            | _____             | _____                                | <b>Hydrophytic Vegetation Indicators:</b>  |                               |
| Total Cover: <u>85%</u>                                  |                  |                   |                                      | X Dominance Test is >50%   |                               |
| 50% of total cover: <u>43%</u>                           |                  |                   | 20% of total cover: <u>17%</u>       | Prevalence Index is ≤ 3.0 <sup>1</sup>   |                               |
| <b>Herb Stratum</b>                                      |                  |                   |                                      | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |                               |
| 1. <u>Lysichiton americanus</u>                          | <u>20%</u>       | <u>Yes</u>        | <u>OBL</u>                           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |                               |
| 2. <u>Streptopus amplexifolius</u>                       | <u>8%</u>        | <u>Yes</u>        | <u>FACU</u>                          | _____  |                               |
| 3. <u>Cornus canadensis</u>                              | <u>5%</u>        | <u>No</u>         | <u>FACU</u>                          | _____  |                               |
| 4. <u>Rubus pedatus</u>                                  | <u>5%</u>        | <u>No</u>         | <u>FAC</u>                           | _____  |                               |
| 5. <u>Athyrium cyclosorum</u>                            | <u>5%</u>        | <u>No</u>         | <u>FAC</u>                           | _____  |                               |
| 6. <u>Equisetum fluviatile</u>                           | <u>3%</u>        | <u>No</u>         | <u>OBL</u>                           | _____  |                               |
| 7. _____   | _____            | _____             | _____                                | _____  |                               |
| 8. _____   | _____            | _____             | _____                                | _____  |                               |
| 9. _____   | _____            | _____             | _____                                | _____  |                               |
| 10. _____  | _____            | _____             | _____                                | _____  |                               |
| Total Cover: <u>46%</u>                                  |                  |                   |                                      | <b>Hydrophytic Vegetation Present?</b>   |                               |
| 50% of total cover: <u>23%</u>                           |                  |                   | 20% of total cover: <u>9%</u>        | Yes <u>X</u> No _____  |                               |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  |                   | % Bare Ground <u>9%</u>              | _____  |                               |
| % Cover of Wetland Bryophytes _____                      |                  |                   | Total Cover of Bryophytes <u>45%</u> | _____  |                               |
| (Where applicable)                                       |                  |                   |                                      | _____  |                               |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P9**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture    | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |            |         |
| 0-20+             | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|  |  |
|--|--|
| <b>Wetland Hydrology Indicators:</b>                               | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b>        |  |
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Microtopographic Relief (D4)                  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> FAC-Neutral Test (D5)                         |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |
| <input type="checkbox"/> Marl Deposits (B15)                       |  |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                |  |
| <input type="checkbox"/> Dry-Season Water Table (C2)               |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 10      |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): Surface  |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P10  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Old stream terrace  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.474742 Long: -134.550029 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:   |                  |
|--|------------------|-------------------|------------------|---|------------------|
| 1. <u>Tsuga heterophylla</u>                             | <u>65%</u>       | <u>Yes</u>        | <u>FAC</u>       | Number of Dominant Species That Are OBL, FACW, or FAC:  | <u>4</u> (A)     |
| 2. _____   | _____            | _____             | _____            | Total Number of Dominant Species Across All Strata:   | <u>5</u> (B)     |
| 3. _____   | _____            | _____             | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC:   | <u>80%</u> (A/B) |
| 4. _____   | _____            | _____             | _____            | <b>Prevalence Index worksheet:</b>  |                  |
| Total Cover: <u>65%</u>                                  |                  |                   |                  | Total % Cover of: _____ Multiply by: _____  |                  |
| 50% of total cover: <u>33%</u>                           |                  |                   |                  | OBL species <u>10</u> x 1 = <u>10</u>   |                  |
| 20% of total cover: <u>13%</u>                           |                  |                   |                  | FACW species <u>0</u> x 2 = <u>0</u>  |                  |
| Sapling/Shrub Stratum                                    |                  |                   |                  | FAC species <u>102</u> x 3 = <u>306</u>   |                  |
| 1. <u>Menziesia ferruginea</u>                           | <u>35%</u>       | <u>Yes</u>        | <u>FACU</u>      | FACU species <u>71</u> x 4 = <u>284</u>   |                  |
| 2. <u>Vaccinium ovalifolium</u>                          | <u>20%</u>       | <u>Yes</u>        | <u>FAC</u>       | UPL species <u>0</u> x 5 = <u>0</u>   |                  |
| 3. <u>Rubus spectabilis</u>                              | <u>10%</u>       | <u>No</u>         | <u>FACU</u>      | Column Totals: <u>183</u> (A) <u>600</u> (B)  |                  |
| 4. <u>Vaccinium parvifolium</u>                          | <u>10%</u>       | <u>No</u>         | <u>FACU</u>      | Prevalence Index = B/A = <u>3.28</u>  |                  |
| 5. <u>Oplopanax horridus</u>                             | <u>5%</u>        | <u>No</u>         | <u>FACU</u>      | <b>Hydrophytic Vegetation Indicators:</b>   |                  |
| 6. _____   | _____            | _____             | _____            | <u>X</u> Dominance Test is >50%   |                  |
| Total Cover: <u>80%</u>                                  |                  |                   |                  | <u>_____</u> Prevalence Index is ≤ 3.0 <sup>1</sup>   |                  |
| 50% of total cover: <u>40%</u>                           |                  |                   |                  | <u>_____</u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |                  |
| 20% of total cover: <u>16%</u>                           |                  |                   |                  | <u>_____</u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |                  |
| Herb Stratum   |                  |                   |                  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.                                   |                  |
| 1. <u>Lysichiton americanus</u>                          | <u>10%</u>       | <u>Yes</u>        | <u>OBL</u>       | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  |                  |
| 2. <u>Athyrium cyclosorum</u>                            | <u>10%</u>       | <u>Yes</u>        | <u>FAC</u>       |   |                  |
| 3. <u>Cornus canadensis</u>                              | <u>5%</u>        | <u>No</u>         | <u>FACU</u>      |   |                  |
| 4. <u>Coptis aspleniifolia</u>                           | <u>3%</u>        | <u>No</u>         | <u>FAC</u>       |   |                  |
| 5. <u>Streptopus amplexifolius</u>                       | <u>3%</u>        | <u>No</u>         | <u>FACU</u>      |   |                  |
| 6. <u>Gymnocarpium dryopteris</u>                        | <u>3%</u>        | <u>No</u>         | <u>FACU</u>      |   |                  |
| 7. <u>Tiarella trifoliata</u>                            | <u>2%</u>        | <u>No</u>         | <u>FAC</u>       |   |                  |
| 8. <u>Rubus pedatus</u>                                  | <u>2%</u>        | <u>No</u>         | <u>FAC</u>       |   |                  |
| 9. _____   | _____            | _____             | _____            |   |                  |
| 10. _____  | _____            | _____             | _____            |   |                  |
| Total Cover: <u>38%</u>                                  |                  |                   |                  |   |                  |
| 50% of total cover: <u>19%</u>                           |                  |                   |                  |   |                  |
| 20% of total cover: <u>8%</u>                            |                  |                   |                  |   |                  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  |                   |                  | % Bare Ground <u>62%</u>  |                  |
| % Cover of Wetland Bryophytes _____                      |                  |                   |                  | Total Cover of Bryophytes _____   |                  |
| (Where applicable)                                       |                  |                   |                  |   |                  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw



**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P11  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Depression  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.473058 Long: -134.551087 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  |
|---|------------------|-------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>                                  | <u>50%</u>       | <u>Yes</u>        | <u>FAC</u>       |   |
| 2. _____  | _____            | _____             | _____            |   |
| 3. _____  | _____            | _____             | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)  |
| 4. _____  | _____            | _____             | _____            |   |
| Total Cover: <u>50%</u>                                       |                  |                   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____   |
| 50% of total cover: <u>25%</u> 20% of total cover: <u>10%</u> |                  |                   |                  |   |
| Sapling/Shrub Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>110</u> x 3 = <u>330</u><br>FACU species <u>11</u> x 4 = <u>44</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>121</u> (A) <u>374</u> (B)<br>Prevalence Index = B/A = <u>3.09</u> |
| 1. <u>Vaccinium ovalifolium</u>                               | <u>60%</u>       | <u>Yes</u>        | <u>FAC</u>       |   |
| 2. <u>Menziesia ferruginea</u>                                | <u>5%</u>        | <u>No</u>         | <u>FACU</u>      |   |
| 3. _____  | _____            | _____             | _____            | Hydrophytic Vegetation Indicators:<br>X Dominance Test is >50%<br>Prevalence Index is ≤ 3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                     |
| 4. _____  | _____            | _____             | _____            |   |
| 5. _____  | _____            | _____             | _____            | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.   |
| 6. _____  | _____            | _____             | _____            |   |
| Total Cover: <u>65%</u>                                       |                  |                   |                  | Hydrophytic Vegetation Present? Yes <u>X</u> No _____   |
| 50% of total cover: <u>33%</u> 20% of total cover: <u>13%</u> |                  |                   |                  |   |
| Herb Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>0%</u><br>% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes <u>94%</u><br>(Where applicable)  |
| 1. <u>Cornus canadensis</u>                                   | <u>5%</u>        | <u>Yes</u>        | <u>FACU</u>      |   |
| 2. <u>Neottia cordata</u>                                     | <u>1%</u>        | <u>No</u>         | <u>FACU</u>      |   |
| 3. _____  | _____            | _____             | _____            |   |
| 4. _____  | _____            | _____             | _____            |   |
| 5. _____  | _____            | _____             | _____            |   |
| 6. _____  | _____            | _____             | _____            |   |
| 7. _____  | _____            | _____             | _____            |   |
| 8. _____  | _____            | _____             | _____            |   |
| 9. _____  | _____            | _____             | _____            |   |
| 10. _____   | _____            | _____             | _____            |   |
| Total Cover: <u>6%</u>  |                  |                   |                  |   |
| 50% of total cover: <u>3%</u> 20% of total cover: <u>1%</u>   |                  |                   |                  |   |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P11**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-20              | 7.5YR 2.5/2   | 100 |                |   |                   |                  | peat    |         |
| 20-22+            | 10G 3/1       | 100 |                |   |                   |                  | sacl    |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4 <sup>4</sup> )                 |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
Slight sulfur odor

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____                               | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 21                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): Surface<br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P12  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.472506 Long: -134.548761 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)   |
|--|------------------|---------------------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>20%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 2. _____   | _____            | _____                           | _____            |  |
| 3. _____   | _____            | _____                           | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)   |
| 4. _____   | _____            | _____                           | _____            |  |
| Total Cover: <u>20%</u>                                  |                  |                                 |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____  |
| 50% of total cover: <u>10%</u>                           |                  | 20% of total cover: <u>4%</u>   |                  |  |
| Sapling/Shrub Stratum                                    |                  |                                 |                  |  |
| 1. <u>Tsuga heterophylla</u>                             | <u>35%</u>       | <u>Yes</u>                      | <u>FAC</u>       | OBL species <u>30</u> x 1 = <u>30</u>  |
| 2. <u>Picea sitchensis</u>                               | <u>35%</u>       | <u>Yes</u>                      | <u>FACU</u>      |  |
| 3. <u>Vaccinium ovalifolium</u>                          | <u>10%</u>       | <u>No</u>                       | <u>FAC</u>       | FAC species <u>100</u> x 3 = <u>300</u>  |
| 4. <u>Oplopanax horridus</u>                             | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      | FACU species <u>48</u> x 4 = <u>192</u>  |
| 5. <u>Menziesia ferruginea</u>                           | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      | UPL species <u>0</u> x 5 = <u>0</u>  |
| 6. _____   | _____            | _____                           | _____            | Column Totals: <u>178</u> (A) <u>522</u> (B)   |
| Total Cover: <u>90%</u>                                  |                  |                                 |                  | Prevalence Index = B/A = <u>2.93</u>   |
| 50% of total cover: <u>45%</u>                           |                  | 20% of total cover: <u>18%</u>  |                  | <b>Hydrophytic Vegetation Indicators:</b><br>X Dominance Test is >50%<br>_____ Prevalence Index is ≤ 3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) |
| Herb Stratum   |                  |                                 |                  |  |
| 1. <u>Athyrium cyclosorum</u>                            | <u>30%</u>       | <u>Yes</u>                      | <u>FAC</u>       | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  |
| 2. <u>Lysichiton americanus</u>                          | <u>30%</u>       | <u>Yes</u>                      | <u>OBL</u>       |  |
| 3. <u>Tiarella trifoliata</u>                            | <u>3%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 4. <u>Gymnocarpium dryopteris</u>                        | <u>2%</u>        | <u>No</u>                       | <u>FACU</u>      |  |
| 5. <u>Coptis aspleniifolia</u>                           | <u>2%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 6. <u>Streptopus amplexifolius</u>                       | <u>1%</u>        | <u>No</u>                       | <u>FACU</u>      |  |
| 7. _____   | _____            | _____                           | _____            |  |
| 8. _____   | _____            | _____                           | _____            |  |
| 9. _____   | _____            | _____                           | _____            |  |
| 10. _____  | _____            | _____                           | _____            |  |
| Total Cover: <u>68%</u>                                  |                  |                                 |                  | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____   |
| 50% of total cover: <u>34%</u>                           |                  | 20% of total cover: <u>14%</u>  |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>32%</u>        |                  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ |                  |  |
| (Where applicable)                                       |                  |                                 |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P12**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-24+             | 10YR 2/1      | 100 |                |   |                   |                  | peat    |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)   | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input checked="" type="checkbox"/> Surface Water (A1)      | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)   | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u>                                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>                               |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P13  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Slightly convex Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.473314 Long: -134.548071 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)   |
|--|------------------|--------------------------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>15%</u>       | <u>Yes</u>                           | <u>FAC</u>       |  |
| 2. _____   | _____            | _____                                | _____            |  |
| 3. _____   | _____            | _____                                | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>38%</u> (A/B)   |
| 4. _____   | _____            | _____                                | _____            |  |
| Total Cover: <u>15%</u>                                  |                  |                                      |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____  |
| 50% of total cover: <u>8%</u>                            |                  | 20% of total cover: <u>3%</u>        |                  |  |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?                    | Indicator Status | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>53</u> x 3 = <u>159</u><br>FACU species <u>52</u> x 4 = <u>208</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>105</u> (A) <u>367</u> (B)<br>Prevalence Index = B/A = <u>3.50</u>  |
| 1. <u>Vaccinium alaskaense</u>                           | <u>35%</u>       | <u>Yes</u>                           | <u>FAC</u>       |  |
| 2. <u>Rubus spectabilis</u>                              | <u>15%</u>       | <u>Yes</u>                           | <u>FACU</u>      |  |
| 3. <u>Menziesia ferruginea</u>                           | <u>15%</u>       | <u>Yes</u>                           | <u>FACU</u>      |  |
| 4. <u>Oplopanax horridus</u>                             | <u>15%</u>       | <u>Yes</u>                           | <u>FACU</u>      |  |
| 5. _____   | _____            | _____                                | _____            |  |
| 6. _____   | _____            | _____                                | _____            |  |
| Total Cover: <u>80%</u>                                  |                  |                                      |                  | Hydrophytic Vegetation Indicators:<br>Dominance Test is >50%<br>Prevalence Index is ≤3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br><u>X</u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 50% of total cover: <u>40%</u>                           |                  | 20% of total cover: <u>16%</u>       |                  |  |
| Herb Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | Hydrophytic Vegetation Present? Yes <u>X</u> No _____  |
| 1. <u>Cornus canadensis</u>                              | <u>5%</u>        | <u>Yes</u>                           | <u>FACU</u>      |  |
| 2. <u>Rubus pedatus</u>                                  | <u>3%</u>        | <u>Yes</u>                           | <u>FAC</u>       |  |
| 3. <u>Streptopus amplexifolius</u>                       | <u>2%</u>        | <u>Yes</u>                           | <u>FACU</u>      |  |
| 4. _____   | _____            | _____                                | _____            |  |
| 5. _____   | _____            | _____                                | _____            |  |
| 6. _____   | _____            | _____                                | _____            |  |
| 7. _____   | _____            | _____                                | _____            |  |
| 8. _____   | _____            | _____                                | _____            |  |
| 9. _____   | _____            | _____                                | _____            |  |
| 10. _____  | _____            | _____                                | _____            |  |
| Total Cover: <u>10%</u>                                  |                  |                                      |                  |  |
| 50% of total cover: <u>5%</u>                            |                  | 20% of total cover: <u>2%</u>        |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>0%</u>              |                  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>90%</u> |                  |  |
| (Where applicable)                                       |                  |                                      |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw  
 Shrubs appear to be growing on slightly elevated hummocks. Direct hydrology observed during dry season.

**SOIL**

Sampling Point: **P13**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture    | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |            |         |
| 0-24              | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
| 24-26             | 10YR 3/3      |     |                |   |                   |                  | cosa       | cobbles |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                                       |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                                   |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue   |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Other (Explain in Remarks)   |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, |
| <input type="checkbox"/> Alaska Redox (A14)                 | and an appropriate landscape position must be present unless disturbed or problematic.            |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          | <sup>4</sup> Give details of color change in Remarks  |

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
Shovel refusal at 26" bgs due to parent material.

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____                                      | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>24</u>                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P14  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Slightly convex Slope (%): 3-5  
 Subregion: Southeast Alaska Lat: 57.472568 Long: -134.546962 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)   |
|--|------------------|---------------------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>65%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 2. _____   | _____            | _____                           | _____            |  |
| 3. _____   | _____            | _____                           | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>63%</u> (A/B)   |
| 4. _____   | _____            | _____                           | _____            |  |
| Total Cover: <u>65%</u>                                  |                  |                                 |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____  |
| 50% of total cover: <u>33%</u>                           |                  | 20% of total cover: <u>13%</u>  |                  |  |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?               | Indicator Status | OBL species <u>10</u> x 1 = <u>10</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>116</u> x 3 = <u>348</u><br>FACU species <u>70</u> x 4 = <u>280</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>196</u> (A) <u>638</u> (B)<br>Prevalence Index = B/A = <u>3.26</u> |
| 1. <u>Oplopanax horridus</u>                             | <u>25%</u>       | <u>Yes</u>                      | <u>FACU</u>      |  |
| 2. <u>Vaccinium alaskaense</u>                           | <u>25%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 3. <u>Menziesia ferruginea</u>                           | <u>25%</u>       | <u>Yes</u>                      | <u>FACU</u>      |  |
| 4. <u>Rubus spectabilis</u>                              | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      |  |
| 5. _____   | _____            | _____                           | _____            |  |
| 6. _____   | _____            | _____                           | _____            |  |
| Total Cover: <u>80%</u>                                  |                  |                                 |                  | Hydrophytic Vegetation Indicators:<br><u>X</u> Dominance Test is >50%<br>Prevalence Index is ≤ 3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                 |
| 50% of total cover: <u>40%</u>                           |                  | 20% of total cover: <u>16%</u>  |                  |  |
| Herb Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  |
| 1. <u>Lysichiton americanus</u>                          | <u>10%</u>       | <u>Yes</u>                      | <u>OBL</u>       |  |
| 2. <u>Athyrium cyclosorum</u>                            | <u>10%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 3. <u>Coptis aspleniifolia</u>                           | <u>10%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 4. <u>Cornus canadensis</u>                              | <u>10%</u>       | <u>Yes</u>                      | <u>FACU</u>      |  |
| 5. <u>Streptopus amplexifolius</u>                       | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      |  |
| 6. <u>Rubus pedatus</u>                                  | <u>5%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 7. <u>Tiarella trifoliata</u>                            | <u>1%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 8. _____   | _____            | _____                           | _____            |  |
| 9. _____   | _____            | _____                           | _____            |  |
| 10. _____  | _____            | _____                           | _____            |  |
| Total Cover: <u>51%</u>                                  |                  |                                 |                  | Hydrophytic Vegetation Present? Yes <u>X</u> No _____  |
| 50% of total cover: <u>26%</u>                           |                  | 20% of total cover: <u>10%</u>  |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground _____             |                  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ |                  |  |
| (Where applicable)                                       |                  |                                 |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P14**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture    | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |            |         |
| 0-24+             | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____                               | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 14                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): Surface<br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P15  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.472384 Long: -134.544529 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum                    | Absolute % Cover               | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)   |
|---------------------------------|--------------------------------|-------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>    | <u>10%</u>                     | <u>Yes</u>        | <u>FAC</u>       |  |
| 2. _____                        | _____                          | _____             | _____            |  |
| 3. _____                        | _____                          | _____             | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)   |
| 4. _____                        | _____                          | _____             | _____            |  |
| Total Cover: <u>10%</u>         |                                |                   |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____   |
| 50% of total cover: <u>5%</u>   | 20% of total cover: <u>2%</u>  |                   |                  |  |
| Sapling/Shrub Stratum           | Absolute % Cover               | Dominant Species? | Indicator Status | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>73</u> x 3 = <u>219</u><br>FACU species <u>21</u> x 4 = <u>84</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>94</u> (A) <u>303</u> (B)<br>Prevalence Index = B/A = <u>3.22</u>  |
| 1. <u>Vaccinium ovalifolium</u> | <u>50%</u>                     | <u>Yes</u>        | <u>FAC</u>       |  |
| 2. <u>Tsuga heterophylla</u>    | <u>5%</u>                      | <u>No</u>         | <u>FAC</u>       |  |
| 3. <u>Menziesia ferruginea</u>  | <u>5%</u>                      | <u>No</u>         | <u>FACU</u>      |  |
| 4. <u>Vaccinium parvifolium</u> | <u>5%</u>                      | <u>No</u>         | <u>FACU</u>      |  |
| 5. <u>Vaccinium vitis-idaea</u> | <u>3%</u>                      | <u>No</u>         | <u>FAC</u>       |  |
| 6. _____                        | _____                          | _____             | _____            |  |
| Total Cover: <u>68%</u>         |                                |                   |                  | Hydrophytic Vegetation Indicators:<br>X Dominance Test is >50%<br>Prevalence Index is ≤ 3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 50% of total cover: <u>34%</u>  | 20% of total cover: <u>14%</u> |                   |                  |  |
| Herb Stratum                    | Absolute % Cover               | Dominant Species? | Indicator Status | Hydrophytic Vegetation Present? Yes <u>X</u> No _____  |
| 1. <u>Cornus canadensis</u>     | <u>10%</u>                     | <u>Yes</u>        | <u>FACU</u>      |  |
| 2. <u>Rubus pedatus</u>         | <u>5%</u>                      | <u>Yes</u>        | <u>FAC</u>       |  |
| 3. <u>Orthilia secunda</u>      | <u>1%</u>                      | <u>No</u>         | <u>FACU</u>      |  |
| 4. _____                        | _____                          | _____             | _____            |  |
| 5. _____                        | _____                          | _____             | _____            |  |
| 6. _____                        | _____                          | _____             | _____            |  |
| 7. _____                        | _____                          | _____             | _____            |  |
| 8. _____                        | _____                          | _____             | _____            |  |
| 9. _____                        | _____                          | _____             | _____            |  |
| 10. _____                       | _____                          | _____             | _____            |  |
| Total Cover: <u>16%</u>         |                                |                   |                  | Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>84%</u><br>% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____<br>(Where applicable)   |
| 50% of total cover: <u>8%</u>   | 20% of total cover: <u>3%</u>  |                   |                  |  |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P15**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture    | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |            |         |
| 0-15              | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
| 15-17             | 10YR 4/2      | 100 |                |   |                   |                  | grsicl     |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |  |
|--|--|
| <b>Hydric Soil Indicators:</b>                           | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input type="checkbox"/> Histosol or Histel (A1)         | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input checked="" type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)           | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)        | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)             | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)              |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)       |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): <u>17</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>                          | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>15</u>                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P16  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillside  
 Local relief (concave, convex, none): Convex Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.471658 Long: -134.543350 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  |
|---|------------------|-------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>  | <u>80%</u>       | <u>Yes</u>        | <u>FAC</u>       |   |
| 2. _____  | _____            | _____             | _____            |   |
| 3. _____  | _____            | _____             | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)  |
| 4. _____  | _____            | _____             | _____            |   |
| Total Cover: <u>80%</u>   |                  |                   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____   |
| 50% of total cover: <u>40%</u> 20% of total cover: <u>16%</u>                                 |                  |                   |                  |   |
| Sapling/Shrub Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>102</u> x 3 = <u>306</u><br>FACU species <u>50</u> x 4 = <u>200</u><br>UPL species <u>20</u> x 5 = <u>100</u><br>Column Totals: <u>172</u> (A) <u>606</u> (B)<br>Prevalence Index = B/A = <u>3.52</u> |
| 1. <u>Oplopanax horridus</u>  | <u>20%</u>       | <u>Yes</u>        | <u>FACU</u>      |   |
| 2. <u>Vaccinium parvifolium</u>   | <u>10%</u>       | <u>Yes</u>        | <u>FACU</u>      | Hydrophytic Vegetation Indicators:<br>Dominance Test is >50%<br>Prevalence Index is ≤3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                            |
| 3. <u>Vaccinium ovalifolium</u>   | <u>5%</u>        | <u>No</u>         | <u>FAC</u>       |   |
| 4. <u>Tsuga heterophylla</u>  | <u>2%</u>        | <u>No</u>         | <u>FAC</u>       | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.   |
| 5. _____  | _____            | _____             | _____            |   |
| 6. _____  | _____            | _____             | _____            | Hydrophytic Vegetation Present? Yes _____ No <u>X</u>   |
| 7. _____  | _____            | _____             | _____            |   |
| 8. _____  | _____            | _____             | _____            | Remarks: _____ Entered by: <u>sar</u> QC by: <u>cmw</u>   |
| 9. _____  | _____            | _____             | _____            |   |
| 10. _____   | _____            | _____             | _____            |   |
| Total Cover: <u>37%</u>   |                  |                   |                  |   |
| 50% of total cover: <u>19%</u> 20% of total cover: <u>7%</u>                                  |                  |                   |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>40%</u>             |                  |                   |                  |   |
| % Cover of Wetland Bryophytes _____ Total Cover of Bryophytes <u>5%</u><br>(Where applicable) |                  |                   |                  |   |

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P16**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-12              | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 12-18             | 10YR 2/1      | 100 |                |   |                   |                  | muck     |         |
| 18-30             | 10YR 2/1      | 100 |                |   |                   |                  | muck     |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |  |
|--|--|
| <b>Hydric Soil Indicators:</b>                     | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)  | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)        |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |                             |
|--|-----------------------------|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b> |
| Type: _____                            | Yes _____ No <b>X</b>       |
| Depth (inches): _____                  |                             |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
 Folist soil - no water table.

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <u>Primary Indicators (any one indicator is sufficient)</u> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |                                   |
|--|-----------------------------------|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b> |
| Surface Water Present? Yes _____ No <b>X</b> Depth (inches): _____                           | Yes _____ No <b>X</b>             |
| Water Table Present? Yes _____ No <b>X</b> Depth (inches): >30                               |                                   |
| Saturation Present? Yes _____ No <b>X</b> Depth (inches): >30<br>(includes capillary fringe) |                                   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P17  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillside  
 Local relief (concave, convex, none): Slightly convex Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.463827 Long: -134.529413 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: NOT IN STUDY AREA

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)   |
|---|------------------|-------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>  | <u>85%</u>       | <u>Yes</u>        | <u>FAC</u>       |  |
| 2. _____  | _____            | _____             | _____            |  |
| 3. _____  | _____            | _____             | _____            |  |
| 4. _____  | _____            | _____             | _____            |  |
| Total Cover: <u>85%</u><br>50% of total cover: <u>43%</u> 20% of total cover: <u>17%</u>  |                  |                   |                  |  |
| Sapling/Shrub Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>_____ Dominance Test is >50%<br>_____ Prevalence Index is ≤3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Menziesia ferruginea</u>  | <u>5%</u>        | <u>Yes</u>        | <u>FACU</u>      |  |
| 2. <u>Vaccinium ovalifolium</u>   | <u>5%</u>        | <u>Yes</u>        | <u>FAC</u>       |  |
| 3. _____  | _____            | _____             | _____            |  |
| 4. _____  | _____            | _____             | _____            |  |
| 5. _____  | _____            | _____             | _____            |  |
| 6. _____  | _____            | _____             | _____            |  |
| Total Cover: <u>10%</u><br>50% of total cover: <u>5%</u> 20% of total cover: <u>2%</u>  |                  |                   |                  |  |
| Herb Stratum  | Absolute % Cover | Dominant Species? | Indicator Status |  |
| 1. <u>Cornus canadensis</u>   | <u>2%</u>        | <u>Yes</u>        | <u>FACU</u>      |  |
| 2. <u>Streptopus amplexifolius</u>  | <u>1%</u>        | <u>Yes</u>        | <u>FACU</u>      |  |
| 3. _____  | _____            | _____             | _____            |  |
| 4. _____  | _____            | _____             | _____            |  |
| 5. _____  | _____            | _____             | _____            |  |
| 6. _____  | _____            | _____             | _____            |  |
| 7. _____  | _____            | _____             | _____            |  |
| 8. _____  | _____            | _____             | _____            |  |
| 9. _____  | _____            | _____             | _____            |  |
| 10. _____   | _____            | _____             | _____            |  |
| Total Cover: <u>3%</u><br>50% of total cover: <u>2%</u> 20% of total cover: <u>1%</u><br>Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>97%</u><br>% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____<br>(Where applicable) |                  |                   |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P17**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-12              | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 12-13             | 10YR 4/1      | 100 |                |   |                   |                  | scl      | gravels |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |   |
|--|---|
| <b>Hydric Soil Indicators:</b>                     | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)  | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)        | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Depth (inches): <u>13</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <u>Primary Indicators (any one indicator is sufficient)</u> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)       |
| <input type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Marl Deposits (B15)                           |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                    |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Dry-Season Water Table (C2)                   |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
|   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
|   | <input type="checkbox"/> Salt Deposits (C5)                            |
|   | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
|   | <input type="checkbox"/> Geomorphic Position (D2)                      |
|   | <input type="checkbox"/> Shallow Aquitard (D3)                         |
|   | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>                         | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;12</u>                               |   |
| Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;12</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Slightly moist throughout. Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12A with Access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/20/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P18  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): 3-5  
 Subregion: Southeast Alaska Lat: 57.464302 Long: -134.529371 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area<br/>within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: NOT IN STUDY AREA

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status                | <b>Dominance Test worksheet:</b>   |  |
|--|------------------|-------------------|---------------------------------|--|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>15%</u>       | <u>Yes</u>        | <u>FAC</u>                      | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                                |  |
| 2. _____   | _____            | _____             | _____                           | Total Number of Dominant Species Across All Strata: <u>5</u> (B)                                   |  |
| 3. _____   | _____            | _____             | _____                           | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)                           |  |
| 4. _____   | _____            | _____             | _____                           | <b>Prevalence Index worksheet:</b>   |  |
| Total Cover: <u>15%</u>                                  |                  |                   |                                 | Total % Cover of: _____ Multiply by: _____   |  |
| 50% of total cover: <u>8%</u>                            |                  |                   | 20% of total cover: <u>3%</u>   | OBL species <u>0</u> x 1 = <u>0</u>  |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                   |                                 | FACW species <u>0</u> x 2 = <u>0</u>   |  |
| 1. <u>Vaccinium ovalifolium</u>                          | <u>35%</u>       | <u>Yes</u>        | <u>FAC</u>                      | FAC species <u>58</u> x 3 = <u>174</u>   |  |
| 2. <u>Menziesia ferruginea</u>                           | <u>10%</u>       | <u>Yes</u>        | <u>FACU</u>                     | FACU species <u>22</u> x 4 = <u>88</u>   |  |
| 3. <u>Vaccinium parvifolium</u>                          | <u>5%</u>        | <u>No</u>         | <u>FACU</u>                     | UPL species <u>0</u> x 5 = <u>0</u>  |  |
| 4. <u>Picea sitchensis</u>                               | <u>1%</u>        | <u>No</u>         | <u>FACU</u>                     | Column Totals: <u>80</u> (A) <u>262</u> (B)  |  |
| 5. _____   | _____            | _____             | _____                           | Prevalence Index = B/A = <u>3.28</u>   |  |
| 6. _____   | _____            | _____             | _____                           | <b>Hydrophytic Vegetation Indicators:</b>  |  |
| Total Cover: <u>51%</u>                                  |                  |                   |                                 | X Dominance Test is >50%   |  |
| 50% of total cover: <u>26%</u>                           |                  |                   | 20% of total cover: <u>10%</u>  | Prevalence Index is ≤ 3.0 <sup>1</sup>   |  |
| <b>Herb Stratum</b>                                      |                  |                   |                                 | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 1. <u>Cornus canadensis</u>                              | <u>5%</u>        | <u>Yes</u>        | <u>FACU</u>                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 2. <u>Rubus pedatus</u>                                  | <u>5%</u>        | <u>Yes</u>        | <u>FAC</u>                      | Indicators of hydric soil and wetland hydrology must be present.                                   |  |
| 3. <u>Maianthemum dilatatum</u>                          | <u>2%</u>        | <u>No</u>         | <u>FAC</u>                      |  |  |
| 4. <u>Neottia cordata</u>                                | <u>1%</u>        | <u>No</u>         | <u>FACU</u>                     |  |  |
| 5. <u>Veratrum viride</u>                                | <u>1%</u>        | <u>No</u>         | <u>FAC</u>                      |  |  |
| 6. _____   | _____            | _____             | _____                           |  |  |
| 7. _____   | _____            | _____             | _____                           |  |  |
| 8. _____   | _____            | _____             | _____                           |  |  |
| 9. _____   | _____            | _____             | _____                           |  |  |
| 10. _____  | _____            | _____             | _____                           |  |  |
| Total Cover: <u>14%</u>                                  |                  |                   |                                 | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____                                       |  |
| 50% of total cover: <u>7%</u>                            |                  |                   | 20% of total cover: <u>3%</u>   |  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  |                   | % Bare Ground <u>86%</u>        |  |  |
| % Cover of Wetland Bryophytes _____                      |                  |                   | Total Cover of Bryophytes _____ |  |  |
| (Where applicable)                                       |                  |                   |                                 |  |  |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P18**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-10              | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 10-27             | 10YR 2/1      | 100 |                |   |                   |                  | muck     |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): <u>27</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|  |  |
|--|--|
| <b>Wetland Hydrology Indicators:</b>                               | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b>        |  |
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|  | <input type="checkbox"/> FAC-Neutral Test (D5)                         |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |
| <input type="checkbox"/> Marl Deposits (B15)                       |  |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                |  |
| <input checked="" type="checkbox"/> Dry-Season Water Table (C2)    |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>                    </u>           | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>26</u>                               |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>13</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P19  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 5  
 Subregion: Southeast Alaska Lat: 57.468198 Long: -134.540279 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  |
|--|------------------|--------------------------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>                             | <u>50%</u>       | <u>Yes</u>                           | <u>FAC</u>       |   |
| 2. <u>Picea sitchensis</u>                               | <u>20%</u>       | <u>Yes</u>                           | <u>FACU</u>      |   |
| 3. _____   | _____            | _____                                | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>43%</u> (A/B)  |
| 4. _____   | _____            | _____                                | _____            |   |
| Total Cover: <u>70%</u>                                  |                  |                                      |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____   |
| 50% of total cover: <u>35%</u>                           |                  | 20% of total cover: <u>14%</u>       |                  |   |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?                    | Indicator Status | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>92</u> x 3 = <u>276</u><br>FACU species <u>75</u> x 4 = <u>300</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>167</u> (A) <u>576</u> (B)<br>Prevalence Index = B/A = <u>3.45</u> |
| 1. <u>Vaccinium ovalifolium</u>                          | <u>35%</u>       | <u>Yes</u>                           | <u>FAC</u>       |   |
| 2. <u>Vaccinium parvifolium</u>                          | <u>25%</u>       | <u>Yes</u>                           | <u>FACU</u>      |   |
| 3. <u>Menziesia ferruginea</u>                           | <u>15%</u>       | <u>Yes</u>                           | <u>FACU</u>      |   |
| 4. <u>Tsuga heterophylla</u>                             | <u>2%</u>        | <u>No</u>                            | <u>FAC</u>       |   |
| 5. _____   | _____            | _____                                | _____            |   |
| 6. _____   | _____            | _____                                | _____            |   |
| Total Cover: <u>77%</u>                                  |                  |                                      |                  | Hydrophytic Vegetation Indicators:<br>____ Dominance Test is >50%<br>____ Prevalence Index is ≤3.0 <sup>1</sup><br>____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)    |
| 50% of total cover: <u>39%</u>                           |                  | 20% of total cover: <u>15%</u>       |                  |   |
| Herb Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.   |
| 1. <u>Cornus canadensis</u>                              | <u>15%</u>       | <u>Yes</u>                           | <u>FACU</u>      |   |
| 2. <u>Coptis aspleniifolia</u>                           | <u>5%</u>        | <u>Yes</u>                           | <u>FAC</u>       |   |
| 3. _____   | _____            | _____                                | _____            |   |
| 4. _____   | _____            | _____                                | _____            |   |
| 5. _____   | _____            | _____                                | _____            |   |
| 6. _____   | _____            | _____                                | _____            |   |
| 7. _____   | _____            | _____                                | _____            |   |
| 8. _____   | _____            | _____                                | _____            |   |
| 9. _____   | _____            | _____                                | _____            |   |
| 10. _____  | _____            | _____                                | _____            |   |
| Total Cover: <u>20%</u>                                  |                  |                                      |                  | Hydrophytic Vegetation Present? Yes _____ No <u>X</u>   |
| 50% of total cover: <u>10%</u>                           |                  | 20% of total cover: <u>4%</u>        |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>5%</u>              |                  |   |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>75%</u> |                  |   |
| (Where applicable)                                       |                  |                                      |                  |   |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P19**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |          |         |
|---|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-13  | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |   |
|---|--|---|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol or Histel (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Alaska Gleyed (A13)<br><input type="checkbox"/> Alaska Redox (A14)<br><input type="checkbox"/> Alaska Gleyed Pores (A15) | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b><br><input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup><br><input type="checkbox"/> Alaska Alpine Swales (TA5)<br><input type="checkbox"/> Alaska Redox With 2.5Y Hue<br><br><sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.<br><sup>4</sup> Give details of color change in Remarks | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer<br><input type="checkbox"/> Other (Explain in Remarks) |
|---|--|---|

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Bedrock</u><br>Depth (inches): <u>13</u> | <b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|  |  |   |
|--|--|---|
| <b>Wetland Hydrology Indicators:</b><br><u>Primary Indicators (any one indicator is sufficient)</u><br><input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks) | <u>Secondary Indicators (2 or more required)</u><br><input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |
|--|--|---|

|   |  |
|---|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u><br>Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;13</u><br>Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;13</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P20  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Slightly convex Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.467970 Long: -134.540999 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  |
|--|------------------|-------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>   | <u>45%</u>       | <u>Yes</u>        | <u>FAC</u>       |   |
| 2. <u>Picea sitchensis</u>   | <u>20%</u>       | <u>Yes</u>        | <u>FACU</u>      |   |
| 3. _____   | _____            | _____             | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)  |
| 4. _____   | _____            | _____             | _____            |   |
| Total Cover: <u>65%</u>  |                  |                   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____   |
| 50% of total cover: <u>33%</u> 20% of total cover: <u>13%</u>                                  |                  |                   |                  |   |
| Sapling/Shrub Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>90</u> x 3 = <u>270</u><br>FACU species <u>57</u> x 4 = <u>228</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>147</u> (A) <u>498</u> (B)<br>Prevalence Index = B/A = <u>3.39</u>   |
| 1. <u>Vaccinium ovalifolium</u>  | <u>40%</u>       | <u>Yes</u>        | <u>FAC</u>       |   |
| 2. <u>Menziesia ferruginea</u>   | <u>10%</u>       | <u>No</u>         | <u>FACU</u>      |   |
| 3. <u>Vaccinium parvifolium</u>  | <u>10%</u>       | <u>No</u>         | <u>FACU</u>      |   |
| 4. <u>Rubus spectabilis</u>  | <u>2%</u>        | <u>No</u>         | <u>FACU</u>      |   |
| 5. _____   | _____            | _____             | _____            |   |
| 6. _____   | _____            | _____             | _____            |   |
| Total Cover: <u>62%</u>  |                  |                   |                  | Hydrophytic Vegetation Indicators:<br>Dominance Test is >50%<br>Prevalence Index is ≤3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 50% of total cover: <u>31%</u> 20% of total cover: <u>12%</u>                                  |                  |                   |                  |   |
| Herb Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | Hydrophytic Vegetation Present? Yes _____ No <u>X</u>   |
| 1. <u>Cornus canadensis</u>  | <u>10%</u>       | <u>Yes</u>        | <u>FACU</u>      |   |
| 2. <u>Rubus pedatus</u>  | <u>5%</u>        | <u>Yes</u>        | <u>FAC</u>       |   |
| 3. <u>Neottia cordata</u>  | <u>5%</u>        | <u>Yes</u>        | <u>FACU</u>      |   |
| 4. _____   | _____            | _____             | _____            |   |
| 5. _____   | _____            | _____             | _____            |   |
| 6. _____   | _____            | _____             | _____            |   |
| 7. _____   | _____            | _____             | _____            |   |
| 8. _____   | _____            | _____             | _____            |   |
| 9. _____   | _____            | _____             | _____            |   |
| 10. _____  | _____            | _____             | _____            |   |
| Total Cover: <u>20%</u>  |                  |                   |                  |   |
| 50% of total cover: <u>10%</u> 20% of total cover: <u>4%</u>                                   |                  |                   |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>50%</u>              |                  |                   |                  |   |
| % Cover of Wetland Bryophytes _____ Total Cover of Bryophytes <u>30%</u><br>(Where applicable) |                  |                   |                  |   |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P20**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-21              | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 21-26             | 10YR 3/2      | 100 |                |   |                   |                  | grsal    |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |   |
|--|---|
| <b>Hydric Soil Indicators:</b>                     | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)  | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)        | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Depth (inches): <u>26</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <u>Primary Indicators (any one indicator is sufficient)</u> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>                         | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;26</u>                               |   |
| Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;26</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Mineral soils moist at bedrock. Organic layer poorly decomposed and dry. Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P21  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.467892 Long: -134.541245 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                   | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  |
|--|------------------|-------------------------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>                             | <u>60%</u>       | <u>Yes</u>                          | <u>FAC</u>       |   |
| 2. <u>Picea sitchensis</u>                               | <u>15%</u>       | <u>Yes</u>                          | <u>FACU</u>      |   |
| 3. _____   | _____            | _____                               | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)  |
| 4. _____   | _____            | _____                               | _____            |   |
| Total Cover: <u>75%</u>                                  |                  |                                     |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____   |
| 50% of total cover: <u>38%</u>                           |                  | 20% of total cover: <u>15%</u>      |                  |   |
| Sapling/Shrub Stratum                                    |                  |                                     |                  | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>103</u> x 3 = <u>309</u><br>FACU species <u>75</u> x 4 = <u>300</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>178</u> (A) <u>609</u> (B)<br>Prevalence Index = B/A = <u>3.42</u>  |
| 1. <u>Vaccinium ovalifolium</u>                          | <u>25%</u>       | <u>Yes</u>                          | <u>FAC</u>       |   |
| 2. <u>Menziesia ferruginea</u>                           | <u>20%</u>       | <u>Yes</u>                          | <u>FACU</u>      |   |
| 3. <u>Oplopanax horridus</u>                             | <u>20%</u>       | <u>Yes</u>                          | <u>FACU</u>      |   |
| 4. <u>Rubus spectabilis</u>                              | <u>10%</u>       | <u>No</u>                           | <u>FACU</u>      |   |
| 5. _____   | _____            | _____                               | _____            |   |
| 6. _____   | _____            | _____                               | _____            |   |
| Total Cover: <u>75%</u>                                  |                  |                                     |                  | Hydrophytic Vegetation Indicators:<br>____ Dominance Test is >50%<br>____ Prevalence Index is ≤ 3.0 <sup>1</sup><br>____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br><u>X</u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) |
| 50% of total cover: <u>38%</u>                           |                  | 20% of total cover: <u>15%</u>      |                  |   |
| Herb Stratum   |                  |                                     |                  | ____ <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  |
| 1. <u>Coptis aspleniifolia</u>                           | <u>5%</u>        | <u>Yes</u>                          | <u>FAC</u>       |   |
| 2. <u>Gymnocarpium dryopteris</u>                        | <u>5%</u>        | <u>Yes</u>                          | <u>FACU</u>      |   |
| 3. <u>Maianthemum dilatatum</u>                          | <u>5%</u>        | <u>Yes</u>                          | <u>FAC</u>       |   |
| 4. <u>Rubus pedatus</u>                                  | <u>3%</u>        | <u>No</u>                           | <u>FAC</u>       |   |
| 5. <u>Cornus canadensis</u>                              | <u>3%</u>        | <u>No</u>                           | <u>FACU</u>      |   |
| 6. <u>Athyrium cyclosorum</u>                            | <u>3%</u>        | <u>No</u>                           | <u>FAC</u>       |   |
| 7. <u>Tiarella trifoliata</u>                            | <u>2%</u>        | <u>No</u>                           | <u>FAC</u>       |   |
| 8. <u>Streptopus amplexifolius</u>                       | <u>2%</u>        | <u>No</u>                           | <u>FACU</u>      |   |
| 9. _____   | _____            | _____                               | _____            |   |
| 10. _____  | _____            | _____                               | _____            |   |
| Total Cover: <u>28%</u>                                  |                  |                                     |                  | Hydrophytic Vegetation Present? Yes <u>X</u> No _____   |
| 50% of total cover: <u>14%</u>                           |                  | 20% of total cover: <u>6%</u>       |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>72%</u>            |                  |   |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>0%</u> |                  |   |
| (Where applicable)                                       |                  |                                     |                  |   |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw  
 Shrubs appear to be growing on slightly elevated hummock. Direct hydrology observed during the dry season.

**SOIL**

Sampling Point: **P21**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-8               | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 8-20              | 10YR 2/1      | 100 |                |   |                   |                  | muck     |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): <u>20</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>                    | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>18</u>                              |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P22  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.467710 Long: -134.542424 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status                     | <b>Dominance Test worksheet:</b>   |  |
|--|------------------|-------------------|--------------------------------------|--|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>5%</u>        | <u>Yes</u>        | <u>FAC</u>                           | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                                |  |
| 2. _____   | _____            | _____             | _____                                | Total Number of Dominant Species Across All Strata: <u>4</u> (B)                                   |  |
| 3. _____   | _____            | _____             | _____                                | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)                           |  |
| 4. _____   | _____            | _____             | _____                                |  |  |
| Total Cover: <u>5%</u>                                   |                  |                   |                                      | <b>Prevalence Index worksheet:</b>   |  |
| 50% of total cover: <u>3%</u>                            |                  |                   | 20% of total cover: <u>1%</u>        | Total % Cover of: _____ Multiply by: _____   |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                   |                                      | OBL species <u>65</u> x 1 = <u>65</u>  |  |
| 1. <u>Malus fusca</u>                                    | <u>30%</u>       | <u>Yes</u>        | <u>FACU</u>                          | FACW species <u>0</u> x 2 = <u>0</u>   |  |
| 2. <u>Alnus viridis</u>                                  | <u>20%</u>       | <u>Yes</u>        | <u>FAC</u>                           | FAC species <u>47</u> x 3 = <u>141</u>   |  |
| 3. <u>Rubus spectabilis</u>                              | <u>5%</u>        | <u>No</u>         | <u>FACU</u>                          | FACU species <u>41</u> x 4 = <u>164</u>  |  |
| 4. <u>Oplopanax horridus</u>                             | <u>2%</u>        | <u>No</u>         | <u>FACU</u>                          | UPL species <u>0</u> x 5 = <u>0</u>  |  |
| 5. _____   | _____            | _____             | _____                                | Column Totals: <u>153</u> (A) <u>370</u> (B)   |  |
| 6. _____   | _____            | _____             | _____                                | Prevalence Index = B/A = <u>2.42</u>   |  |
| Total Cover: <u>57%</u>                                  |                  |                   |                                      | <b>Hydrophytic Vegetation Indicators:</b>  |  |
| 50% of total cover: <u>29%</u>                           |                  |                   | 20% of total cover: <u>11%</u>       | X Dominance Test is >50%   |  |
| <b>Herb Stratum</b>                                      |                  |                   |                                      | Prevalence Index is ≤ 3.0 <sup>1</sup>   |  |
| 1. <u>Lysichiton americanus</u>                          | <u>65%</u>       | <u>Yes</u>        | <u>OBL</u>                           | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 2. <u>Athyrium cyclosorum</u>                            | <u>15%</u>       | <u>No</u>         | <u>FAC</u>                           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 3. <u>Coptis aspleniifolia</u>                           | <u>2%</u>        | <u>No</u>         | <u>FAC</u>                           |  |  |
| 4. <u>Gymnocarpium dryopteris</u>                        | <u>2%</u>        | <u>No</u>         | <u>FACU</u>                          |  |  |
| 5. <u>Rubus pedatus</u>                                  | <u>2%</u>        | <u>No</u>         | <u>FAC</u>                           |  |  |
| 6. <u>Maianthemum dilatatum</u>                          | <u>2%</u>        | <u>No</u>         | <u>FAC</u>                           |  |  |
| 7. <u>Streptopus amplexifolius</u>                       | <u>2%</u>        | <u>No</u>         | <u>FACU</u>                          |  |  |
| 8. <u>Tiarella trifoliata</u>                            | <u>1%</u>        | <u>No</u>         | <u>FAC</u>                           |  |  |
| 9. _____   | _____            | _____             | _____                                |  |  |
| 10. _____  | _____            | _____             | _____                                |  |  |
| Total Cover: <u>91%</u>                                  |                  |                   |                                      |  |  |
| 50% of total cover: <u>46%</u>                           |                  |                   | 20% of total cover: <u>18%</u>       |  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  |                   | % Bare Ground <u>0%</u>              |  |  |
| % Cover of Wetland Bryophytes _____                      |                  |                   | Total Cover of Bryophytes <u>10%</u> |  |  |
| (Where applicable)                                       |                  |                   |                                      |  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P22**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-24+             | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|  |  |
|--|--|
| <b>Wetland Hydrology Indicators:</b>                               | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b>        |  |
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Microtopographic Relief (D4)                  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> FAC-Neutral Test (D5)                         |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |
| <input type="checkbox"/> Marl Deposits (B15)                       |  |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                |  |
| <input type="checkbox"/> Dry-Season Water Table (C2)               |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____                                      | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>5</u>                                     |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>Surface</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Scattered 1/4-inch deep ponding in adjacent depression near plot. Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P23  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.467622 Long: -134.543682 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status                | Dominance Test worksheet:  |  |
|--|------------------|-------------------|---------------------------------|--|--|
| 1. <u>Picea sitchensis</u>                               | <u>35%</u>       | <u>Yes</u>        | <u>FACU</u>                     | Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)                                |  |
| 2. <u>Tsuga heterophylla</u>                             | <u>20%</u>       | <u>Yes</u>        | <u>FAC</u>                      | Total Number of Dominant Species Across All Strata: <u>7</u> (B)                                   |  |
| 3. _____   | _____            | _____             | _____                           | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57%</u> (A/B)                           |  |
| 4. _____   | _____            | _____             | _____                           | Prevalence Index worksheet:  |  |
| Total Cover: <u>55%</u>                                  |                  |                   |                                 | Total % Cover of: _____ Multiply by: _____   |  |
| 50% of total cover: <u>28%</u>                           |                  |                   | 20% of total cover: <u>11%</u>  | OBL species <u>10</u> x 1 = <u>10</u>  |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                   |                                 | FACW species <u>0</u> x 2 = <u>0</u>   |  |
| 1. <u>Oplopanax horridus</u>                             | <u>20%</u>       | <u>Yes</u>        | <u>FACU</u>                     | FAC species <u>64</u> x 3 = <u>192</u>   |  |
| 2. <u>Menziesia ferruginea</u>                           | <u>15%</u>       | <u>Yes</u>        | <u>FACU</u>                     | FACU species <u>73</u> x 4 = <u>292</u>  |  |
| 3. <u>Vaccinium alaskaense</u>                           | <u>15%</u>       | <u>Yes</u>        | <u>FAC</u>                      | UPL species <u>0</u> x 5 = <u>0</u>  |  |
| 4. <u>Tsuga heterophylla</u>                             | <u>5%</u>        | <u>No</u>         | <u>FAC</u>                      | Column Totals: <u>147</u> (A) <u>494</u> (B)   |  |
| 5. _____   | _____            | _____             | _____                           | Prevalence Index = B/A = <u>3.36</u>   |  |
| 6. _____   | _____            | _____             | _____                           | <b>Hydrophytic Vegetation Indicators:</b>  |  |
| Total Cover: <u>55%</u>                                  |                  |                   |                                 | <u>X</u> Dominance Test is >50%  |  |
| 50% of total cover: <u>28%</u>                           |                  |                   | 20% of total cover: <u>11%</u>  | Prevalence Index is ≤ 3.0 <sup>1</sup>   |  |
| <b>Herb Stratum</b>                                      |                  |                   |                                 | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 1. <u>Athyrium cyclosorum</u>                            | <u>15%</u>       | <u>Yes</u>        | <u>FAC</u>                      | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 2. <u>Lysichiton americanus</u>                          | <u>10%</u>       | <u>Yes</u>        | <u>OBL</u>                      | Indicators of hydric soil and wetland hydrology must be present.                                   |  |
| 3. <u>Maianthemum dilatatum</u>                          | <u>5%</u>        | <u>No</u>         | <u>FAC</u>                      |  |  |
| 4. <u>Gymnocarpium dryopteris</u>                        | <u>3%</u>        | <u>No</u>         | <u>FACU</u>                     |  |  |
| 5. <u>Tiarella trifoliata</u>                            | <u>2%</u>        | <u>No</u>         | <u>FAC</u>                      |  |  |
| 6. <u>Rubus pedatus</u>                                  | <u>2%</u>        | <u>No</u>         | <u>FAC</u>                      |  |  |
| 7. _____   | _____            | _____             | _____                           |  |  |
| 8. _____   | _____            | _____             | _____                           |  |  |
| 9. _____   | _____            | _____             | _____                           |  |  |
| 10. _____  | _____            | _____             | _____                           |  |  |
| Total Cover: <u>37%</u>                                  |                  |                   |                                 | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____                                       |  |
| 50% of total cover: <u>19%</u>                           |                  |                   | 20% of total cover: <u>7%</u>   |  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  |                   | % Bare Ground <u>63%</u>        |  |  |
| % Cover of Wetland Bryophytes _____                      |                  |                   | Total Cover of Bryophytes _____ |  |  |
| (Where applicable)                                       |                  |                   |                                 |  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P23**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-16              | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
| 16-19             | 10YR 3/2      | 60  |                |   |                   |                  | cosa    |         |
|                   | mixed sand    | 40  |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): <u>19</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)   | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>                    </u>                | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u>                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P24  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.466069 Long: -134.540629 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>10</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>70%</u> (A/B)   |
|--|------------------|---------------------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>                             | <u>15%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. _____   | _____            | _____                           | _____            |   |
| 3. _____   | _____            | _____                           | _____            |   |
| 4. _____   | _____            | _____                           | _____            |   |
| Total Cover: <u>15%</u>                                  |                  |                                 |                  |   |
| 50% of total cover: <u>8%</u>                            |                  | 20% of total cover: <u>3%</u>   |                  |   |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>X Dominance Test is >50%<br>_____ Prevalence Index is ≤ 3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Alnus viridis</u>                                  | <u>20%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. <u>Menziesia ferruginea</u>                           | <u>15%</u>       | <u>Yes</u>                      | <u>FACU</u>      |   |
| 3. <u>Rubus spectabilis</u>                              | <u>15%</u>       | <u>Yes</u>                      | <u>FACU</u>      |   |
| 4. <u>Vaccinium ovalifolium</u>                          | <u>15%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 5. <u>Oplopanax horridus</u>                             | <u>10%</u>       | <u>No</u>                       | <u>FACU</u>      |   |
| 6. <u>Tsuga heterophylla</u>                             | <u>5%</u>        | <u>No</u>                       | <u>FAC</u>       |   |
| Total Cover: <u>80%</u>                                  |                  |                                 |                  |   |
| 50% of total cover: <u>40%</u>                           |                  | 20% of total cover: <u>16%</u>  |                  |   |
| Herb Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  |
| 1. <u>Athyrium cyclosorum</u>                            | <u>15%</u>       | <u>Yes</u>                      | <u>FAC</u>       |   |
| 2. <u>Veratrum viride</u>                                | <u>5%</u>        | <u>Yes</u>                      | <u>FAC</u>       |   |
| 3. <u>Lysichiton americanus</u>                          | <u>5%</u>        | <u>Yes</u>                      | <u>OBL</u>       |   |
| 4. <u>Streptopus amplexifolius</u>                       | <u>5%</u>        | <u>Yes</u>                      | <u>FACU</u>      |   |
| 5. <u>Maianthemum dilatatum</u>                          | <u>5%</u>        | <u>Yes</u>                      | <u>FAC</u>       |   |
| 6. <u>Cornus canadensis</u>                              | <u>3%</u>        | <u>No</u>                       | <u>FACU</u>      |   |
| 7. <u>Coptis aspleniifolia</u>                           | <u>3%</u>        | <u>No</u>                       | <u>FAC</u>       |   |
| 8. <u>Rubus pedatus</u>                                  | <u>1%</u>        | <u>No</u>                       | <u>FAC</u>       |   |
| 9. _____   | _____            | _____                           | _____            |   |
| 10. _____  | _____            | _____                           | _____            |   |
| Total Cover: <u>42%</u>                                  |                  |                                 |                  |   |
| 50% of total cover: <u>21%</u>                           |                  | 20% of total cover: <u>8%</u>   |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>58%</u>        |                  |   |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ |                  |   |
| (Where applicable)                                       |                  |                                 |                  |   |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

Also 5% Picea sitchensis in shrub layer.

**SOIL**

Sampling Point: **P24**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |                |               |
|---|---------------|-----|----------------|---|-------------------|------------------|----------------|---------------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture        | Remarks       |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |                |               |
| 0-5   | 7.5YR 3/4     | 100 |                |   |                   |                  | organics /duff |               |
| 5-20  | 10YR 2/1      | 100 |                |   |                   |                  | muck           |               |
| 20-34   | 10YR 4/1      | 100 |                |   |                   |                  | saci           | small cobbles |
|   |               |     |                |   |                   |                  |                |               |
|   |               |     |                |   |                   |                  |                |               |
|   |               |     |                |   |                   |                  |                |               |
|   |               |     |                |   |                   |                  |                |               |
|   |               |     |                |   |                   |                  |                |               |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                     | Indicators for Problematic Hydric Soils <sup>3</sup> :                           |
|---|--|
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Bedrock</u><br>Depth (inches): <u>34</u> | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|---|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:                               | Secondary Indicators (2 or more required)                              |
|---|--|
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>16</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|--|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

|          |  |
|----------|--|
| Remarks: | Entered by: <u>sar</u> QC by: <u>cmw</u> |
|----------|--|

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P25  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Concave Slope (%): 5  
 Subregion: Southeast Alaska Lat: 57.466171 Long: -134.538708 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status                | Dominance Test worksheet:  |  |
|--|------------------|-------------------|---------------------------------|--|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>20%</u>       | <u>Yes</u>        | <u>FAC</u>                      | Number of Dominant Species   |  |
| 2. <u>Picea sitchensis</u>                               | <u>20%</u>       | <u>Yes</u>        | <u>FACU</u>                     | That Are OBL, FACW, or FAC: <u>4</u> (A)   |  |
| 3. _____   | _____            | _____             | _____                           | Total Number of Dominant Species Across All Strata: <u>6</u> (B)                                   |  |
| 4. _____   | _____            | _____             | _____                           | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)                           |  |
| Total Cover: <u>40%</u>                                  |                  |                   |                                 | <b>Prevalence Index worksheet:</b>   |  |
| 50% of total cover: <u>20%</u>                           |                  |                   | 20% of total cover: <u>8%</u>   | Total % Cover of: _____ Multiply by: _____   |  |
| Sapling/Shrub Stratum                                    |                  |                   |                                 | OBL species <u>20</u> x 1 = <u>20</u>  |  |
| 1. <u>Vaccinium alaskaense</u>                           | <u>25%</u>       | <u>Yes</u>        | <u>FAC</u>                      | FACW species <u>0</u> x 2 = <u>0</u>   |  |
| 2. <u>Menziesia ferruginea</u>                           | <u>25%</u>       | <u>Yes</u>        | <u>FACU</u>                     | FAC species <u>72</u> x 3 = <u>216</u>   |  |
| 3. <u>Oplopanax horridus</u>                             | <u>10%</u>       | <u>No</u>         | <u>FACU</u>                     | FACU species <u>63</u> x 4 = <u>252</u>  |  |
| 4. <u>Tsuga heterophylla</u>                             | <u>5%</u>        | <u>No</u>         | <u>FAC</u>                      | UPL species <u>0</u> x 5 = <u>0</u>  |  |
| 5. <u>Rubus spectabilis</u>                              | <u>5%</u>        | <u>No</u>         | <u>FACU</u>                     | Column Totals: <u>155</u> (A) <u>488</u> (B)   |  |
| 6. _____   | _____            | _____             | _____                           | Prevalence Index = B/A = <u>3.15</u>   |  |
| Total Cover: <u>70%</u>                                  |                  |                   |                                 | <b>Hydrophytic Vegetation Indicators:</b>  |  |
| 50% of total cover: <u>35%</u>                           |                  |                   | 20% of total cover: <u>14%</u>  | X Dominance Test is >50%   |  |
| Herb Stratum   |                  |                   |                                 | Prevalence Index is ≤ 3.0 <sup>1</sup>   |  |
| 1. <u>Lysichiton americanus</u>                          | <u>20%</u>       | <u>Yes</u>        | <u>OBL</u>                      | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 2. <u>Athyrium cyclosorum</u>                            | <u>10%</u>       | <u>Yes</u>        | <u>FAC</u>                      | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 3. <u>Coptis aspleniifolia</u>                           | <u>5%</u>        | <u>No</u>         | <u>FAC</u>                      | Indicators of hydric soil and wetland hydrology must be present.                                   |  |
| 4. <u>Tiarella trifoliata</u>                            | <u>5%</u>        | <u>No</u>         | <u>FAC</u>                      |  |  |
| 5. <u>Maianthemum dilatatum</u>                          | <u>2%</u>        | <u>No</u>         | <u>FAC</u>                      |  |  |
| 6. <u>Streptopus amplexifolius</u>                       | <u>2%</u>        | <u>No</u>         | <u>FACU</u>                     |  |  |
| 7. <u>Luzula multiflora</u>                              | <u>1%</u>        | <u>No</u>         | <u>FACU</u>                     |  |  |
| 8. _____   | _____            | _____             | _____                           |  |  |
| 9. _____   | _____            | _____             | _____                           |  |  |
| 10. _____  | _____            | _____             | _____                           |  |  |
| Total Cover: <u>45%</u>                                  |                  |                   |                                 | <b>Hydrophytic Vegetation Present?</b>   |  |
| 50% of total cover: <u>23%</u>                           |                  |                   | 20% of total cover: <u>9%</u>   | Yes <u>X</u> No _____  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  |                   | % Bare Ground <u>55%</u>        |  |  |
| % Cover of Wetland Bryophytes _____                      |                  |                   | Total Cover of Bryophytes _____ |  |  |
| (Where applicable)                                       |                  |                   |                                 |  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P25**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture    | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |            |         |
| 0-20              | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)   | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____                               | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): 11                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): Surface<br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/21/2013

Applicant/Owner: ADOT&PF Sampling Point: P26

Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope

Local relief (concave, convex, none): Convex Slope (%): 15

Subregion: Southeast Alaska Lat: 57.467780 Long: -134.540069 Datum: NAD 1983

Soil Map Unit Name: \_\_\_\_\_ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|  |                         |                          |                         | <b>Dominance Test worksheet:</b>   |                |                  |
|--|-------------------------|--------------------------|-------------------------|--|----------------|------------------|
| <u>Tree Stratum</u>                                      | <u>Absolute % Cover</u> | <u>Dominant Species?</u> | <u>Indicator Status</u> | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                                |                |                  |
| 1. <u>Tsuga heterophylla</u>                             | <u>45%</u>              | <u>Yes</u>               | <u>FAC</u>              | Total Number of Dominant Species Across All Strata: <u>8</u> (B)                                   |                |                  |
| 2. <u>Picea sitchensis</u>                               | <u>30%</u>              | <u>Yes</u>               | <u>FACU</u>             | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>38%</u> (A/B)                           |                |                  |
| 3. _____   | _____                   | _____                    | _____                   | <b>Prevalence Index worksheet:</b>   |                |                  |
| 4. _____   | _____                   | _____                    | _____                   | Total % Cover of: _____ Multiply by: _____   |                |                  |
| Total Cover: <u>75%</u>                                  |                         |                          |                         | OBL species  | <u>0</u>       | x 1 = <u>0</u>   |
| 50% of total cover: <u>38%</u>                           |                         |                          |                         | FACW species   | <u>0</u>       | x 2 = <u>0</u>   |
| 20% of total cover: <u>15%</u>                           |                         |                          |                         | FAC species  | <u>57</u>      | x 3 = <u>171</u> |
| <u>Sapling/Shrub Stratum</u>                             |                         |                          |                         | FACU species   | <u>48</u>      | x 4 = <u>192</u> |
| 1. <u>Menziesia ferruginea</u>                           | <u>10%</u>              | <u>Yes</u>               | <u>FACU</u>             | UPL species  | <u>0</u>       | x 5 = <u>0</u>   |
| 2. <u>Vaccinium ovalifolium</u>                          | <u>10%</u>              | <u>Yes</u>               | <u>FAC</u>              | Column Totals:   | <u>105</u> (A) | <u>363</u> (B)   |
| 3. <u>Oplopanax horridus</u>                             | <u>5%</u>               | <u>Yes</u>               | <u>FACU</u>             | Prevalence Index = B/A = <u>3.46</u>   |                |                  |
| 4. _____   | _____                   | _____                    | _____                   | <b>Hydrophytic Vegetation Indicators:</b>  |                |                  |
| 5. _____   | _____                   | _____                    | _____                   | Dominance Test is >50%   |                |                  |
| 6. _____   | _____                   | _____                    | _____                   | Prevalence Index is ≤3.0 <sup>1</sup>  |                |                  |
| 7. _____   | _____                   | _____                    | _____                   | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |                |                  |
| 8. _____   | _____                   | _____                    | _____                   | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |                |                  |
| 9. _____   | _____                   | _____                    | _____                   | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.                      |                |                  |
| 10. _____  | _____                   | _____                    | _____                   | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>                                       |                |                  |
| Total Cover: <u>25%</u>                                  |                         |                          |                         |  |                |                  |
| 50% of total cover: <u>13%</u>                           |                         |                          |                         |  |                |                  |
| 20% of total cover: <u>5%</u>                            |                         |                          |                         |  |                |                  |
| <u>Herb Stratum</u>                                      |                         |                          |                         |  |                |                  |
| 1. <u>Rubus pedatus</u>                                  | <u>2%</u>               | <u>Yes</u>               | <u>FAC</u>              |  |                |                  |
| 2. <u>Cornus canadensis</u>                              | <u>2%</u>               | <u>Yes</u>               | <u>FACU</u>             |  |                |                  |
| 3. <u>Streptopus amplexifolius</u>                       | <u>1%</u>               | <u>Yes</u>               | <u>FACU</u>             |  |                |                  |
| 4. _____   | _____                   | _____                    | _____                   |  |                |                  |
| 5. _____   | _____                   | _____                    | _____                   |  |                |                  |
| 6. _____   | _____                   | _____                    | _____                   |  |                |                  |
| 7. _____   | _____                   | _____                    | _____                   |  |                |                  |
| 8. _____   | _____                   | _____                    | _____                   |  |                |                  |
| 9. _____   | _____                   | _____                    | _____                   |  |                |                  |
| 10. _____  | _____                   | _____                    | _____                   |  |                |                  |
| Total Cover: <u>5%</u>                                   |                         |                          |                         |  |                |                  |
| 50% of total cover: <u>3%</u>                            |                         |                          |                         |  |                |                  |
| 20% of total cover: <u>1%</u>                            |                         |                          |                         |  |                |                  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                         |                          |                         | % Bare Ground <u>95%</u>   |                |                  |
| % Cover of Wetland Bryophytes _____                      |                         |                          |                         | Total Cover of Bryophytes _____  |                |                  |
| (Where applicable)                                       |                         |                          |                         |  |                |                  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P26**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |         |         |
|---|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-18  | 7.5YR 3/4     | 100 |                |   |                   |                  | organic |         |
| 18-20   | 10YR 3/3      | 100 |                |   |                   |                  | scl     |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                            | Indicators for Problematic Hydric Soils <sup>3</sup> :                           |
|--|--|
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)  | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)        |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Bedrock</u><br>Depth (inches): <u>20</u> | <b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:                                      | Secondary Indicators (2 or more required)                              |
|--|--|
| <u>Primary Indicators (any one indicator is sufficient)</u>        |  |
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|  | <input type="checkbox"/> FAC-Neutral Test (D5)                         |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |
| <input type="checkbox"/> Marl Deposits (B15)                       |  |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                |  |
| <input type="checkbox"/> Dry-Season Water Table (C2)               |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

|   |  |
|---|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u><br>Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;20</u><br>Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;20</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P27  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillside bench  
 Local relief (concave, convex, none): Concave Slope (%): 5-10  
 Subregion: Southeast Alaska Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>7</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71%</u> (A/B)   |
|--|------------------|---------------------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>20%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 2. <u>Picea sitchensis</u>                               | <u>5%</u>        | <u>Yes</u>                      | <u>FACU</u>      |  |
| 3. _____   | _____            | _____                           | _____            |  |
| 4. _____   | _____            | _____                           | _____            |  |
| Total Cover: <u>25%</u>                                  |                  |                                 |                  |  |
| 50% of total cover: <u>13%</u>                           |                  | 20% of total cover: <u>5%</u>   |                  |  |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>X Dominance Test is >50%<br>_____ Prevalence Index is ≤ 3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) |
| 1. <u>Rubus spectabilis</u>                              | <u>20%</u>       | <u>Yes</u>                      | <u>FACU</u>      |  |
| 2. <u>Alnus viridis</u>                                  | <u>20%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 3. <u>Vaccinium ovalifolium</u>                          | <u>10%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 4. _____   | _____            | _____                           | _____            |  |
| 5. _____   | _____            | _____                           | _____            |  |
| 6. _____   | _____            | _____                           | _____            |  |
| Total Cover: <u>50%</u>                                  |                  |                                 |                  |  |
| 50% of total cover: <u>25%</u>                           |                  | 20% of total cover: <u>10%</u>  |                  |  |
| Herb Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status |  |
| 1. <u>Athyrium cyclosorum</u>                            | <u>15%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 2. <u>Lysichiton americanus</u>                          | <u>5%</u>        | <u>Yes</u>                      | <u>OBL</u>       |  |
| 3. <u>Cornus canadensis</u>                              | <u>2%</u>        | <u>No</u>                       | <u>FACU</u>      |  |
| 4. <u>Maianthemum dilatatum</u>                          | <u>2%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 5. <u>Rubus pedatus</u>                                  | <u>1%</u>        | <u>No</u>                       | <u>FAC</u>       |  |
| 6. _____   | _____            | _____                           | _____            |  |
| 7. _____   | _____            | _____                           | _____            |  |
| 8. _____   | _____            | _____                           | _____            |  |
| 9. _____   | _____            | _____                           | _____            |  |
| 10. _____  | _____            | _____                           | _____            |  |
| Total Cover: <u>25%</u>                                  |                  |                                 |                  |  |
| 50% of total cover: <u>13%</u>                           |                  | 20% of total cover: <u>5%</u>   |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>75%</u>        |                  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ |                  |  |
| (Where applicable)                                       |                  |                                 |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P27**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-25+             | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____                               | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): 13                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): Surface<br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P28  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Concave Slope (%): 15-20  
 Subregion: Southeast Alaska Lat: 57.469463 Long: -134.542699 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?         | Indicator Status               | <b>Dominance Test worksheet:</b>   |                               |
|--|------------------|---------------------------|--------------------------------|--|-------------------------------|
| 1. <u>Picea sitchensis</u>                               | <u>50%</u>       | <u>Yes</u>                | <u>FACU</u>                    | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                                |                               |
| 2. <u>Tsuga heterophylla</u>                             | <u>20%</u>       | <u>Yes</u>                | <u>FAC</u>                     | Total Number of Dominant Species Across All Strata: <u>5</u> (B)                                   |                               |
| 3. _____   | _____            | _____                     | _____                          | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)                           |                               |
| 4. _____   | _____            | _____                     | _____                          | <b>Prevalence Index worksheet:</b>   |                               |
| Total Cover: <u>70%</u>                                  |                  |                           |                                | Total % Cover of: _____ Multiply by: _____   |                               |
| 50% of total cover: <u>35%</u>                           |                  |                           | 20% of total cover: <u>14%</u> | OBL species  | <u>10</u> x 1 = <u>10</u>     |
| <b>Sapling/Shrub Stratum</b>                             |                  |                           |                                | FACW species   | <u>0</u> x 2 = <u>0</u>       |
| 1. <u>Oplopanax horridus</u>                             | <u>40%</u>       | <u>Yes</u>                | <u>FACU</u>                    | FAC species  | <u>60</u> x 3 = <u>180</u>    |
| 2. <u>Vaccinium ovalifolium</u>                          | <u>10%</u>       | <u>No</u>                 | <u>FAC</u>                     | FACU species   | <u>100</u> x 4 = <u>400</u>   |
| 3. <u>Menziesia ferruginea</u>                           | <u>5%</u>        | <u>No</u>                 | <u>FACU</u>                    | UPL species  | <u>0</u> x 5 = <u>0</u>       |
| 4. <u>Tsuga heterophylla</u>                             | <u>5%</u>        | <u>No</u>                 | <u>FAC</u>                     | Column Totals:   | <u>170</u> (A) <u>590</u> (B) |
| 5. _____   | _____            | _____                     | _____                          | Prevalence Index = B/A = <u>3.47</u>   |                               |
| 6. _____   | _____            | _____                     | _____                          | <b>Hydrophytic Vegetation Indicators:</b>  |                               |
| Total Cover: <u>60%</u>                                  |                  |                           |                                | X Dominance Test is >50%   |                               |
| 50% of total cover: <u>30%</u>                           |                  |                           | 20% of total cover: <u>12%</u> | Prevalence Index is ≤ 3.0 <sup>1</sup>   |                               |
| <b>Herb Stratum</b>                                      |                  |                           |                                | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |                               |
| 1. <u>Athyrium cyclosorum</u>                            | <u>15%</u>       | <u>Yes</u>                | <u>FAC</u>                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |                               |
| 2. <u>Lysichiton americanus</u>                          | <u>10%</u>       | <u>Yes</u>                | <u>OBL</u>                     | _____  |                               |
| 3. <u>Rubus pedatus</u>                                  | <u>5%</u>        | <u>No</u>                 | <u>FAC</u>                     | _____  |                               |
| 4. <u>Tiarella trifoliata</u>                            | <u>3%</u>        | <u>No</u>                 | <u>FAC</u>                     | _____  |                               |
| 5. <u>Gymnocarpium dryopteris</u>                        | <u>3%</u>        | <u>No</u>                 | <u>FACU</u>                    | _____  |                               |
| 6. <u>Streptopus amplexifolius</u>                       | <u>2%</u>        | <u>No</u>                 | <u>FACU</u>                    | _____  |                               |
| 7. <u>Maianthemum dilatatum</u>                          | <u>2%</u>        | <u>No</u>                 | <u>FAC</u>                     | _____  |                               |
| 8. _____   | _____            | _____                     | _____                          | _____  |                               |
| 9. _____   | _____            | _____                     | _____                          | _____  |                               |
| 10. _____  | _____            | _____                     | _____                          | _____  |                               |
| Total Cover: <u>40%</u>                                  |                  |                           |                                | <b>Hydrophytic Vegetation Present?</b>   |                               |
| 50% of total cover: <u>20%</u>                           |                  |                           | 20% of total cover: <u>8%</u>  | Yes <u>X</u> No _____  |                               |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground             | <u>60%</u>                     | _____  |                               |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes | _____                          | _____  |                               |
| (Where applicable)                                       |                  |                           |                                | _____  |                               |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P28**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-29              | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): <u>29</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)   | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____                                      | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u>                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P29  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 25  
 Subregion: Southeast Alaska Lat: 57.469410 Long: -134.542421 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>6</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)   |
|--|------------------|-------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>   | <u>35%</u>       | <u>Yes</u>        | <u>FAC</u>       |  |
| 2. <u>Picea sitchensis</u>   | <u>35%</u>       | <u>Yes</u>        | <u>FACU</u>      |  |
| 3. _____   | _____            | _____             | _____            |  |
| 4. _____   | _____            | _____             | _____            |  |
| Total Cover: <u>70%</u><br>50% of total cover: <u>35%</u> 20% of total cover: <u>14%</u>   |                  |                   |                  |  |
| Sapling/Shrub Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>_____ Dominance Test is >50%<br>_____ Prevalence Index is ≤3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Menziesia ferruginea</u>   | <u>25%</u>       | <u>Yes</u>        | <u>FACU</u>      |  |
| 2. <u>Vaccinium ovalifolium</u>  | <u>25%</u>       | <u>Yes</u>        | <u>FAC</u>       |  |
| 3. _____   | _____            | _____             | _____            |  |
| 4. _____   | _____            | _____             | _____            |  |
| 5. _____   | _____            | _____             | _____            |  |
| 6. _____   | _____            | _____             | _____            |  |
| Total Cover: <u>50%</u><br>50% of total cover: <u>25%</u> 20% of total cover: <u>10%</u>   |                  |                   |                  |  |
| Herb Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>   |
| 1. <u>Cornus canadensis</u>  | <u>5%</u>        | <u>Yes</u>        | <u>FACU</u>      |  |
| 2. <u>Rubus pedatus</u>  | <u>5%</u>        | <u>Yes</u>        | <u>FAC</u>       |  |
| 3. _____   | _____            | _____             | _____            |  |
| 4. _____   | _____            | _____             | _____            |  |
| 5. _____   | _____            | _____             | _____            |  |
| 6. _____   | _____            | _____             | _____            |  |
| 7. _____   | _____            | _____             | _____            |  |
| 8. _____   | _____            | _____             | _____            |  |
| 9. _____   | _____            | _____             | _____            |  |
| 10. _____  | _____            | _____             | _____            |  |
| Total Cover: <u>10%</u><br>50% of total cover: <u>5%</u> 20% of total cover: <u>2%</u><br>Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>90%</u><br>% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____<br>(Where applicable) |                  |                   |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P29**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-18              | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |  |
|--|--|
| <b>Hydric Soil Indicators:</b>                     | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)  | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)        |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Depth (inches): <u>18</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|  |  |
|--|--|
| <b>Wetland Hydrology Indicators:</b>                               | <b>Secondary Indicators (2 or more required)</b>                       |
| <u>Primary Indicators (any one indicator is sufficient)</u>        |  |
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Microtopographic Relief (D4)                  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> FAC-Neutral Test (D5)                         |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |
| <input type="checkbox"/> Marl Deposits (B15)                       |  |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                |  |
| <input type="checkbox"/> Dry-Season Water Table (C2)               |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>                         | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;18</u>                               |   |
| Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;18</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P30  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope bench  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.470831 Long: -134.543127 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area<br/>within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)   |
|---|------------------|-------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                                  | <u>45%</u>       | <u>Yes</u>        | <u>FAC</u>       |  |
| 2. <u>Picea sitchensis</u>                                    | <u>10%</u>       | <u>No</u>         | <u>FACU</u>      |  |
| 3. _____  | _____            | _____             | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)   |
| 4. _____  | _____            | _____             | _____            |  |
| Total Cover: <u>55%</u>                                       |                  |                   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____  |
| 50% of total cover: <u>28%</u> 20% of total cover: <u>11%</u> |                  |                   |                  |  |
| Sapling/Shrub Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>80</u> x 3 = <u>240</u><br>FACU species <u>42</u> x 4 = <u>168</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>122</u> (A) <u>408</u> (B)<br>Prevalence Index = B/A = <u>3.34</u>  |
| 1. <u>Menziesia ferruginea</u>                                | <u>25%</u>       | <u>Yes</u>        | <u>FACU</u>      |  |
| 2. <u>Vaccinium ovalifolium</u>                               | <u>25%</u>       | <u>Yes</u>        | <u>FAC</u>       | Hydrophytic Vegetation Indicators:<br>X Dominance Test is >50%<br>Prevalence Index is ≤ 3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 3. <u>Tsuga heterophylla</u>                                  | <u>5%</u>        | <u>No</u>         | <u>FAC</u>       |  |
| 4. <u>Rubus spectabilis</u>                                   | <u>2%</u>        | <u>No</u>         | <u>FACU</u>      | Hydrophytic Vegetation Present? Yes <u>X</u> No _____  |
| 5. _____  | _____            | _____             | _____            |  |
| 6. _____  | _____            | _____             | _____            | Remarks: _____ Entered by: <u>sar</u> QC by: <u>cmw</u>  |
| 7. _____  | _____            | _____             | _____            |  |
| Total Cover: <u>57%</u>                                       |                  |                   |                  | Hydrophytic Vegetation Present? Yes <u>X</u> No _____  |
| 50% of total cover: <u>29%</u> 20% of total cover: <u>11%</u> |                  |                   |                  |  |
| Herb Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>90%</u><br>% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____<br>(Where applicable)   |
| 1. <u>Rubus pedatus</u>                                       | <u>5%</u>        | <u>Yes</u>        | <u>FAC</u>       |  |
| 2. <u>Cornus canadensis</u>                                   | <u>5%</u>        | <u>Yes</u>        | <u>FACU</u>      | Remarks: _____ Entered by: <u>sar</u> QC by: <u>cmw</u>  |
| 3. _____  | _____            | _____             | _____            |  |
| 4. _____  | _____            | _____             | _____            | Total Cover: <u>10%</u>  |
| 5. _____  | _____            | _____             | _____            |  |
| 6. _____  | _____            | _____             | _____            | 50% of total cover: <u>5%</u> 20% of total cover: <u>2%</u>  |
| 7. _____  | _____            | _____             | _____            |  |
| 8. _____  | _____            | _____             | _____            | Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>90%</u><br>% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____<br>(Where applicable)   |
| 9. _____  | _____            | _____             | _____            |  |
| 10. _____   | _____            | _____             | _____            | Remarks: _____ Entered by: <u>sar</u> QC by: <u>cmw</u>  |
| Total Cover: <u>10%</u>                                       |                  |                   |                  |  |
| 50% of total cover: <u>5%</u> 20% of total cover: <u>2%</u>   |                  |                   |                  |  |

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P30**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture    | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |            |         |
| 0-17              | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |
|                   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): <u>17</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input checked="" type="checkbox"/> Geomorphic Position (D2)           |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input checked="" type="checkbox"/> Microtopographic Relief (D4)       |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>                     | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u>                                |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>16</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Organics were very moist throughout. Concave flark depression / bench on hillside. Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P31  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 3-5  
 Subregion: Southeast Alaska Lat: 57.470956 Long: -134.543097 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>6</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>17%</u> (A/B)   |
|---|------------------|-------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>  | <u>40%</u>       | <u>Yes</u>        | <u>FAC</u>       |  |
| 2. <u>Picea sitchensis</u>  | <u>10%</u>       | <u>Yes</u>        | <u>FACU</u>      |  |
| 3. _____  | _____            | _____             | _____            |  |
| 4. _____  | _____            | _____             | _____            |  |
| Total Cover: <u>50%</u><br>50% of total cover: <u>25%</u> 20% of total cover: <u>10%</u>  |                  |                   |                  |  |
| Sapling/Shrub Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>Dominance Test is >50%<br>Prevalence Index is ≤3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Menziesia ferruginea</u>  | <u>20%</u>       | <u>Yes</u>        | <u>FACU</u>      |  |
| 2. <u>Vaccinium parvifolium</u>   | <u>15%</u>       | <u>Yes</u>        | <u>FACU</u>      |  |
| 3. <u>Vaccinium ovalifolium</u>   | <u>10%</u>       | <u>No</u>         | <u>FAC</u>       |  |
| 4. <u>Oplopanax horridus</u>  | <u>10%</u>       | <u>No</u>         | <u>FACU</u>      |  |
| 5. <u>Rubus spectabilis</u>   | <u>5%</u>        | <u>No</u>         | <u>FACU</u>      |  |
| 6. _____  | _____            | _____             | _____            |  |
| Total Cover: <u>60%</u><br>50% of total cover: <u>30%</u> 20% of total cover: <u>12%</u>  |                  |                   |                  |  |
| Herb Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>   |
| 1. <u>Clintonia uniflora</u>  | <u>10%</u>       | <u>Yes</u>        | <u>NOL</u>       |  |
| 2. <u>Cornus canadensis</u>   | <u>5%</u>        | <u>Yes</u>        | <u>FACU</u>      |  |
| 3. <u>Rubus pedatus</u>   | <u>3%</u>        | <u>No</u>         | <u>FAC</u>       |  |
| 4. <u>Coptis asplenifolia</u>   | <u>3%</u>        | <u>No</u>         | <u>FAC</u>       |  |
| 5. <u>Neottia cordata</u>   | <u>2%</u>        | <u>No</u>         | <u>FACU</u>      |  |
| 6. <u>Streptopus amplexifolius</u>  | <u>2%</u>        | <u>No</u>         | <u>FACU</u>      |  |
| 7. _____  | _____            | _____             | _____            |  |
| 8. _____  | _____            | _____             | _____            |  |
| 9. _____  | _____            | _____             | _____            |  |
| 10. _____   | _____            | _____             | _____            |  |
| Total Cover: <u>25%</u><br>50% of total cover: <u>13%</u> 20% of total cover: <u>5%</u><br>Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>75%</u><br>% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____<br>(Where applicable) |                  |                   |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P31**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-15              | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 15-21             | 10YR 2/1      | 100 |                |   |                   |                  | muck     |         |
| 21-25             | 10YR 3/2      | 100 |                |   |                   |                  | saci     |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

Histosol or Histel (A1)

Histic Epipedon (A2)

Hydrogen Sulfide (A4)

Thick Dark Surface (A12)

Alaska Gleyed (A13)

Alaska Redox (A14)

Alaska Gleyed Pores (A15)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

Alaska Color Change (TA4<sup>4</sup>)

Alaska Alpine Swales (TA5)

Alaska Redox With 2.5Y Hue

Alaska Gleyed Without Hue 5Y or Redder Underlying Layer

Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

**Restrictive Layer (if present):**

Type: Bedrock

Depth (inches): 25

**Hydric Soil Present?** Yes  No

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (any one indicator is sufficient)

Surface Water (A1)

High Water Table (A2)

Saturation (A3)

Water Marks (B1)

Sediment Deposits (B2)

Drift Deposits (B3)

Algal Mat or Crust (B4)

Iron Deposits (B5)

Surface Soil Cracks (B6)

Secondary Indicators (2 or more required)

Inundation Visible on Aerial Imagery (B7)

Sparsely Vegetated Concave Surface (B8)

Marl Deposits (B15)

Hydrogen Sulfide Odor (C1)

Dry-Season Water Table (C2)

Other (Explain in Remarks)

Water-Stained Leaves (B9)

Drainage Patterns (B10)

Oxidized Rhizospheres along Living Roots (C3)

Presence of Reduced Iron (C4)

Salt Deposits (C5)

Stunted or Stressed Plants (D1)

Geomorphic Position (D2)

Shallow Aquitard (D3)

Microtopographic Relief (D4)

FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches):           

Water Table Present? Yes  No  Depth (inches): >25

Saturation Present? Yes  No  Depth (inches): >25

(includes capillary fringe)

**Wetland Hydrology Present?** Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Mineral soils were moist. Organic layer dry.

Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P32  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): 5  
 Subregion: Southeast Alaska Lat: 57.471008 Long: -134.543853 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?  | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  |
|--|------------------|--|------------------|---|
| 1. <u>Tsuga heterophylla</u>                             | <u>20%</u>       | <u>Yes</u>   | <u>FAC</u>       |   |
| 2. _____   | _____            | _____  | _____            |   |
| 3. _____   | _____            | _____  | _____            |   |
| 4. _____   | _____            | _____  | _____            |   |
| Total Cover: <u>20%</u>                                  |                  | 50% of total cover: <u>10%</u> 20% of total cover: <u>4%</u> |                  | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)  |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?  | Indicator Status |   |
| 1. <u>Oplopanax horridus</u>                             | <u>20%</u>       | <u>Yes</u>   | <u>FACU</u>      | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>15</u> x 1 = <u>15</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>50</u> x 3 = <u>150</u><br>FACU species <u>45</u> x 4 = <u>180</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>110</u> (A) <u>345</u> (B)<br>Prevalence Index = B/A = <u>3.14</u>      |
| 2. <u>Menziesia ferruginea</u>                           | <u>15%</u>       | <u>Yes</u>   | <u>FACU</u>      |   |
| 3. <u>Malus fusca</u>                                    | <u>10%</u>       | <u>Yes</u>   | <u>FACU</u>      |   |
| 4. _____   | _____            | _____  | _____            |   |
| 5. _____   | _____            | _____  | _____            |   |
| 6. _____   | _____            | _____  | _____            |   |
| Total Cover: <u>45%</u>                                  |                  | 50% of total cover: <u>23%</u> 20% of total cover: <u>9%</u> |                  | Hydrophytic Vegetation Indicators:<br>_____ Dominance Test is >50%<br>_____ Prevalence Index is ≤3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>X _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| Herb Stratum   | Absolute % Cover | Dominant Species?  | Indicator Status |   |
| 1. <u>Athyrium cyclosorum</u>                            | <u>20%</u>       | <u>Yes</u>   | <u>FAC</u>       | Hydrophytic Vegetation Present? Yes <u>X</u> No _____   |
| 2. <u>Lysichiton americanus</u>                          | <u>15%</u>       | <u>Yes</u>   | <u>OBL</u>       |   |
| 3. <u>Coptis aspleniifolia</u>                           | <u>5%</u>        | <u>No</u>  | <u>FAC</u>       |   |
| 4. <u>Rubus pedatus</u>                                  | <u>5%</u>        | <u>No</u>  | <u>FAC</u>       |   |
| 5. _____   | _____            | _____  | _____            |   |
| 6. _____   | _____            | _____  | _____            |   |
| 7. _____   | _____            | _____  | _____            |   |
| 8. _____   | _____            | _____  | _____            |   |
| 9. _____   | _____            | _____  | _____            |   |
| 10. _____  | _____            | _____  | _____            |   |
| Total Cover: <u>45%</u>                                  |                  | 50% of total cover: <u>23%</u> 20% of total cover: <u>9%</u> |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>55%</u>                                     |                  |   |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____                              |                  |   |
| (Where applicable)                                       |                  |  |                  |   |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw  
 Shrubs appear to be growing on slightly elevated hummock. Direct hydrology observed during dry season.

**SOIL**

Sampling Point: **P32**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-29+             | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): <u>29</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>                    </u>                | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>15</u>                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P33  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope bench  
 Local relief (concave, convex, none): Concave Slope (%): 15  
 Subregion: Southeast Alaska Lat: 57.471008 Long: -134.543853 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status                | <b>Dominance Test worksheet:</b>   |  |
|--|------------------|-------------------|---------------------------------|--|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>60%</u>       | <u>Yes</u>        | <u>FAC</u>                      | Number of Dominant Species   |  |
| 2. <u>Picea sitchensis</u>                               | <u>15%</u>       | <u>Yes</u>        | <u>FACU</u>                     | That Are OBL, FACW, or FAC: <u>4</u> (A)   |  |
| 3. _____   | _____            | _____             | _____                           | Total Number of Dominant Species Across All Strata: <u>6</u> (B)                                   |  |
| 4. _____   | _____            | _____             | _____                           | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)                           |  |
| Total Cover: <u>75%</u>                                  |                  |                   |                                 | <b>Prevalence Index worksheet:</b>   |  |
| 50% of total cover: <u>38%</u>                           |                  |                   | 20% of total cover: <u>15%</u>  | Total % Cover of: _____ Multiply by: _____   |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                   |                                 | OBL species <u>10</u> x 1 = <u>10</u>  |  |
| 1. <u>Menziesia ferruginea</u>                           | <u>15%</u>       | <u>Yes</u>        | <u>FACU</u>                     | FACW species <u>0</u> x 2 = <u>0</u>   |  |
| 2. <u>Vaccinium ovalifolium</u>                          | <u>15%</u>       | <u>Yes</u>        | <u>FAC</u>                      | FAC species <u>90</u> x 3 = <u>270</u>   |  |
| 3. <u>Oplopanax horridus</u>                             | <u>5%</u>        | <u>No</u>         | <u>FACU</u>                     | FACU species <u>36</u> x 4 = <u>144</u>  |  |
| 4. _____   | _____            | _____             | _____                           | UPL species <u>0</u> x 5 = <u>0</u>  |  |
| 5. _____   | _____            | _____             | _____                           | Column Totals: <u>136</u> (A) <u>424</u> (B)   |  |
| 6. _____   | _____            | _____             | _____                           | Prevalence Index = B/A = <u>3.12</u>   |  |
| Total Cover: <u>35%</u>                                  |                  |                   |                                 | <b>Hydrophytic Vegetation Indicators:</b>  |  |
| 50% of total cover: <u>18%</u>                           |                  |                   | 20% of total cover: <u>7%</u>   | X Dominance Test is >50%   |  |
| <b>Herb Stratum</b>                                      |                  |                   |                                 | Prevalence Index is ≤ 3.0 <sup>1</sup>   |  |
| 1. <u>Athyrium cyclosorum</u>                            | <u>10%</u>       | <u>Yes</u>        | <u>FAC</u>                      | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 2. <u>Lysichiton americanus</u>                          | <u>10%</u>       | <u>Yes</u>        | <u>OBL</u>                      | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 3. <u>Rubus pedatus</u>                                  | <u>3%</u>        | <u>No</u>         | <u>FAC</u>                      |  |  |
| 4. <u>Maianthemum dilatatum</u>                          | <u>2%</u>        | <u>No</u>         | <u>FAC</u>                      |  |  |
| 5. <u>Streptopus amplexifolius</u>                       | <u>1%</u>        | <u>No</u>         | <u>FACU</u>                     |  |  |
| 6. _____   | _____            | _____             | _____                           |  |  |
| 7. _____   | _____            | _____             | _____                           |  |  |
| 8. _____   | _____            | _____             | _____                           |  |  |
| 9. _____   | _____            | _____             | _____                           |  |  |
| 10. _____  | _____            | _____             | _____                           |  |  |
| Total Cover: <u>26%</u>                                  |                  |                   |                                 | <b>Hydrophytic Vegetation Present?</b>   |  |
| 50% of total cover: <u>13%</u>                           |                  |                   | 20% of total cover: <u>5%</u>   | Yes <u>X</u> No _____  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  |                   | % Bare Ground <u>74%</u>        |  |  |
| % Cover of Wetland Bryophytes _____                      |                  |                   | Total Cover of Bryophytes _____ |  |  |
| (Where applicable)                                       |                  |                   |                                 |  |  |

Remarks: \*identifies indicator status is tentative

Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P33**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-23+             | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |
|---|--|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>                      |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____                               | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 13                                    |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): Surface<br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Mineral soils were moist. Organic layer dry. Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/21/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P34  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope bench  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.471392 Long: -134.543547 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum  | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  |
|---|------------------|-------------------|------------------|---|
| 1. <u>Tsuga heterophylla</u>  | <u>50%</u>       | <u>Yes</u>        | <u>FAC</u>       |   |
| 2. <u>Picea sitchensis</u>  | <u>25%</u>       | <u>Yes</u>        | <u>FACU</u>      |   |
| 3. _____  | _____            | _____             | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)  |
| 4. _____  | _____            | _____             | _____            |   |
| Total Cover: <u>75%</u>   |                  |                   |                  | Prevalence Index worksheet:<br>Total % Cover of: _____ Multiply by: _____   |
| 50% of total cover: <u>38%</u> 20% of total cover: <u>15%</u>                             |                  |                   |                  |   |
| Sapling/Shrub Stratum   | Absolute % Cover | Dominant Species? | Indicator Status | OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>80</u> x 3 = <u>240</u><br>FACU species <u>49</u> x 4 = <u>196</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>129</u> (A) <u>436</u> (B)<br>Prevalence Index = B/A = <u>3.38</u> |
| 1. <u>Oplopanax horridus</u>  | <u>20%</u>       | <u>Yes</u>        | <u>FACU</u>      |   |
| 2. <u>Vaccinium ovalifolium</u>   | <u>5%</u>        | <u>Yes</u>        | <u>FAC</u>       | Hydrophytic Vegetation Indicators:<br>X Dominance Test is >50%<br>Prevalence Index is ≤ 3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                     |
| 3. _____  | _____            | _____             | _____            |   |
| 4. _____  | _____            | _____             | _____            | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.   |
| 5. _____  | _____            | _____             | _____            |   |
| 6. _____  | _____            | _____             | _____            | Hydrophytic Vegetation Present? Yes <u>X</u> No _____   |
| 7. _____  | _____            | _____             | _____            |   |
| 8. _____  | _____            | _____             | _____            | Remarks: _____ Entered by: <u>sar</u> QC by: <u>cmw</u>   |
| 9. _____  | _____            | _____             | _____            |   |
| 10. _____   | _____            | _____             | _____            |   |
| Total Cover: <u>25%</u>   |                  |                   |                  |   |
| 50% of total cover: <u>13%</u> 20% of total cover: <u>5%</u>                              |                  |                   |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> % Bare Ground <u>71%</u>         |                  |                   |                  |   |
| % Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____<br>(Where applicable) |                  |                   |                  |   |

Remarks: \_\_\_\_\_ \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P34**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-22              | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
| 22-27             | 10YR 3/3      | 100 |                |   |                   |                  | sal     |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): <u>27</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|  |  |
|--|--|
| <b>Wetland Hydrology Indicators:</b>                               | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b>        |  |
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|  | <input type="checkbox"/> FAC-Neutral Test (D5)                         |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |
| <input type="checkbox"/> Marl Deposits (B15)                       |  |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                |  |
| <input checked="" type="checkbox"/> Dry-Season Water Table (C2)    |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____                                 | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>20</u>                               |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>13</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/22/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P35  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope bench  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.476416 Long: -134.554927 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |
| Remarks: _____                  |              |          |  |              |          |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Dominance Test worksheet:</b>   |  |
|--|------------------|---------------------------------|------------------|--|--|
| 1. <u><i>Tsuga heterophylla</i></u>                      | <u>15%</u>       | <u>Yes</u>                      | <u>FAC</u>       | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                                |  |
| 2. _____   | _____            | _____                           | _____            | Total Number of Dominant Species Across All Strata: <u>4</u> (B)                                   |  |
| 3. _____   | _____            | _____                           | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)                           |  |
| 4. _____   | _____            | _____                           | _____            | <b>Prevalence Index worksheet:</b>   |  |
| Total Cover: <u>15%</u>                                  |                  |                                 |                  | Total % Cover of: _____ Multiply by: _____   |  |
| 50% of total cover: <u>8%</u>                            |                  | 20% of total cover: <u>3%</u>   |                  | OBL species <u>20</u> x 1 = <u>20</u>  |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                                 |                  | FACW species <u>0</u> x 2 = <u>0</u>   |  |
| 1. <u><i>Malus fusca</i></u>                             | <u>15%</u>       | <u>Yes</u>                      | <u>FACU</u>      | FAC species <u>78</u> x 3 = <u>234</u>   |  |
| 2. <u><i>Menziesia ferruginea</i></u>                    | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      | FACU species <u>30</u> x 4 = <u>120</u>  |  |
| 3. <u><i>Tsuga heterophylla</i></u>                      | <u>5%</u>        | <u>No</u>                       | <u>FAC</u>       | UPL species <u>0</u> x 5 = <u>0</u>  |  |
| 4. <u><i>Rubus parviflorus</i></u>                       | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      | Column Totals: <u>128</u> (A) <u>374</u> (B)   |  |
| 5. <u><i>Oplopanax horridus</i></u>                      | <u>3%</u>        | <u>No</u>                       | <u>FACU</u>      | Prevalence Index = B/A = <u>2.92</u>   |  |
| 6. _____   | _____            | _____                           | _____            | <b>Hydrophytic Vegetation Indicators:</b>  |  |
| Total Cover: <u>33%</u>                                  |                  | 20% of total cover: <u>7%</u>   |                  | X Dominance Test is >50%   |  |
| 50% of total cover: <u>17%</u>                           |                  |                                 |                  | Prevalence Index is ≤3.0 <sup>1</sup>  |  |
| <b>Herb Stratum</b>                                      |                  |                                 |                  | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 1. <u><i>Athyrium cyclosorum</i></u>                     | <u>55%</u>       | <u>Yes</u>                      | <u>FAC</u>       | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 2. <u><i>Lysichiton americanus</i></u>                   | <u>20%</u>       | <u>Yes</u>                      | <u>OBL</u>       |  |  |
| 3. <u><i>Tiarella trifoliata</i></u>                     | <u>3%</u>        | <u>No</u>                       | <u>FAC</u>       |  |  |
| 4. <u><i>Streptopus amplexifolius</i></u>                | <u>2%</u>        | <u>No</u>                       | <u>FACU</u>      |  |  |
| 5. _____   | _____            | _____                           | _____            |  |  |
| 6. _____   | _____            | _____                           | _____            |  |  |
| 7. _____   | _____            | _____                           | _____            |  |  |
| 8. _____   | _____            | _____                           | _____            |  |  |
| 9. _____   | _____            | _____                           | _____            |  |  |
| 10. _____  | _____            | _____                           | _____            |  |  |
| Total Cover: <u>80%</u>                                  |                  | 20% of total cover: <u>16%</u>  |                  |  |  |
| 50% of total cover: <u>40%</u>                           |                  |                                 |                  |  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>20%</u>        |                  |  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ |                  |  |  |
| (Where applicable)                                       |                  |                                 |                  | <b>Hydrophytic Vegetation Present? Yes <u>X</u> No _____</b>                                       |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P35**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |         |         |
|---|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   | Loc <sup>2</sup> | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> |                  |         |         |
| 0-29  | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)   | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)     |
| <input checked="" type="checkbox"/> High Water Table (A2)   | <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Marl Deposits (B15)                           |
| <input type="checkbox"/> Water Marks (B1)                   | <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)         |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Dry-Season Water Table (C2)                   |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
|   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
|   | <input type="checkbox"/> Salt Deposits (C5)                            |
|   | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
|   | <input type="checkbox"/> Geomorphic Position (D2)                      |
|   | <input type="checkbox"/> Shallow Aquitard (D3)                         |
|   | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No _____   |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No _____    |   |
| (includes capillary fringe)   |   |
| Depth (inches): _____   |   |
| Depth (inches): <u>10</u>   |   |
| Depth (inches): <u>3</u>  |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/22/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P36  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 5  
 Subregion: Southeast Alaska Lat: 57.476313 Long: -134.555260 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |             |
|---------------------------------|-----------|-------------|--|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> |             |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  | Yes _____   |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  | No <u>X</u> |
| Remarks: _____                  |           |             |  |             |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|  | Absolute % Cover   | Dominant Species?         | Indicator Status |  |  |
|--|--------------------|---------------------------|------------------|--|--|
| <b>Tree Stratum</b>                    |                    |                           |                  |  |  |
| 1. <u><i>Tsuga heterophylla</i></u>    | <u>50%</u>         | <u>Yes</u>                | <u>FAC</u>       | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>7</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>29%</u> (A/B)  |  |
| 2. <u><i>Picea sitchensis</i></u>      | <u>25%</u>         | <u>Yes</u>                | <u>FACU</u>      |  |  |
| 3. _____                               | _____              | _____                     | _____            |  |  |
| 4. _____                               | _____              | _____                     | _____            |  |  |
| Total Cover:                           | <u>75%</u>         |                           |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>56</u> x 3 = <u>168</u><br>FACU species <u>55</u> x 4 = <u>220</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>111</u> (A) <u>388</u> (B)<br>Prevalence Index = B/A = <u>3.50</u>      |  |
| 50% of total cover:                    | <u>38%</u>         | 20% of total cover:       | <u>15%</u>       |  |  |
| <b>Sapling/Shrub Stratum</b>           |                    |                           |                  |  |  |
| 1. <u><i>Menziesia ferruginea</i></u>  | <u>10%</u>         | <u>Yes</u>                | <u>FACU</u>      | <b>Hydrophytic Vegetation Indicators:</b><br>____ Dominance Test is >50%<br>____ Prevalence Index is ≤3.0 <sup>1</sup><br>____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |  |
| 2. <u><i>Vaccinium parvifolium</i></u> | <u>10%</u>         | <u>Yes</u>                | <u>FACU</u>      |  |  |
| 3. <u><i>Vaccinium ovalifolium</i></u> | <u>5%</u>          | <u>Yes</u>                | <u>FAC</u>       |  |  |
| 4. _____                               | _____              | _____                     | _____            |  |  |
| 5. _____                               | _____              | _____                     | _____            |  |  |
| 6. _____                               | _____              | _____                     | _____            |  |  |
| Total Cover:                           | <u>25%</u>         |                           |                  |  |  |
| 50% of total cover:                    | <u>13%</u>         | 20% of total cover:       | <u>5%</u>        |  |  |
| <b>Herb Stratum</b>                    |                    |                           |                  |  |  |
| 1. <u><i>Cornus canadensis</i></u>     | <u>5%</u>          | <u>Yes</u>                | <u>FACU</u>      |  |  |
| 2. <u><i>Neottia cordata</i></u>       | <u>5%</u>          | <u>Yes</u>                | <u>FACU</u>      |  |  |
| 3. <u><i>Maianthemum dilatatum</i></u> | <u>1%</u>          | <u>No</u>                 | <u>FAC</u>       |  |  |
| 4. _____                               | _____              | _____                     | _____            |  |  |
| 5. _____                               | _____              | _____                     | _____            |  |  |
| 6. _____                               | _____              | _____                     | _____            |  |  |
| 7. _____                               | _____              | _____                     | _____            |  |  |
| 8. _____                               | _____              | _____                     | _____            |  |  |
| 9. _____                               | _____              | _____                     | _____            |  |  |
| 10. _____                              | _____              | _____                     | _____            |  |  |
| Total Cover:                           | <u>11%</u>         |                           |                  |  |  |
| 50% of total cover:                    | <u>6%</u>          | 20% of total cover:       | <u>2%</u>        |  |  |
| Plot size (radius, or length x width)  | <u>5 ft radius</u> | % Bare Ground             | <u>89%</u>       |  |  |
| % Cover of Wetland Bryophytes          | _____              | Total Cover of Bryophytes | _____            |  |  |
| (Where applicable)                     | _____              |                           |                  |  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P36**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-20              | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 20-30+            | 10YR 2/1      |     |                |   |                   |                  | muck     |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |   |   |  |
|--|---|---|--|
| <b>Hydric Soil Indicators:</b>                     |   | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |  |
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                                   | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |  |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)   | <input type="checkbox"/> Underlying Layer                       |  |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue   | <input type="checkbox"/> Other (Explain in Remarks)             |  |
| <input type="checkbox"/> Thick Dark Surface (A12)  |   |   |  |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, |   |  |
| <input type="checkbox"/> Alaska Redox (A14)        | and an appropriate landscape position must be present unless disturbed or problematic.            |   |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) | <sup>4</sup> Give details of color change in Remarks  |   |  |

|  |  |
|--|--|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes _____    No <b>X</b> _____ |
|--|--|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
Soils were dry- no water table.

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b><br><u>Primary Indicators (any one indicator is sufficient)</u> | <u>Secondary Indicators (2 or more required)</u>                       |
| <input type="checkbox"/> Surface Water (A1)   | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)  | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)   | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)  | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)  | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)   | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)   | <input type="checkbox"/> Microtopographic Relief (D4)                  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)                                  | <input type="checkbox"/> FAC-Neutral Test (D5)                         |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)                                    |  |
| <input type="checkbox"/> Marl Deposits (B15)  |  |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1)   |  |
| <input type="checkbox"/> Dry-Season Water Table (C2)  |  |
| <input type="checkbox"/> Other (Explain in Remarks)   |  |

|  |                             |                 |           |   |
|--|-----------------------------|-----------------|-----------|---|
| <b>Field Observations:</b>                         |                             |                 |           | <b>Wetland Hydrology Present?</b><br>Yes _____    No <b>X</b> _____ |
| Surface Water Present?                             | Yes _____ No <b>X</b> _____ | Depth (inches): | _____     |   |
| Water Table Present?                               | Yes _____ No <b>X</b> _____ | Depth (inches): | >30 _____ |   |
| Saturation Present?<br>(includes capillary fringe) | Yes _____ No <b>X</b> _____ | Depth (inches): | >30 _____ |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/22/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P37  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 10  
 Subregion: Southeast Alaska Lat: 57.474302 Long: -134.552812 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)  |
|--|------------------|---------------------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>65%</u>       | <u>Yes</u>                      | <u>FAC</u>       |  |
| 2. <u>Picea sitchensis</u>                               | <u>15%</u>       | <u>No</u>                       | <u>FACU</u>      |  |
| 3. _____   | _____            | _____                           | _____            |  |
| 4. _____   | _____            | _____                           | _____            |  |
| Total Cover: <u>80%</u>                                  |                  |                                 |                  |  |
| 50% of total cover: <u>40%</u>                           |                  | 20% of total cover: <u>16%</u>  |                  |  |
| Sapling/Shrub Stratum                                    |                  |                                 |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>70</u> x 3 = <u>210</u><br>FACU species <u>30</u> x 4 = <u>120</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>100</u> (A) <u>330</u> (B)<br>Prevalence Index = B/A = <u>3.30</u>          |
| 1. <u>Menziesia ferruginea</u>                           | <u>10%</u>       | <u>Yes</u>                      | <u>FACU</u>      |  |
| 2. <u>Vaccinium ovalifolium</u>                          | <u>5%</u>        | <u>Yes</u>                      | <u>FAC</u>       |  |
| 3. _____   | _____            | _____                           | _____            |  |
| 4. _____   | _____            | _____                           | _____            |  |
| 5. _____   | _____            | _____                           | _____            |  |
| 6. _____   | _____            | _____                           | _____            |  |
| Total Cover: <u>15%</u>                                  |                  |                                 |                  |  |
| 50% of total cover: <u>8%</u>                            |                  | 20% of total cover: <u>3%</u>   |                  |  |
| Herb Stratum   |                  |                                 |                  | <b>Hydrophytic Vegetation Indicators:</b><br>_____ Dominance Test is >50%<br>_____ Prevalence Index is ≤3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Moneses uniflora</u>                               | <u>3%</u>        | <u>Yes</u>                      | <u>FACU</u>      |  |
| 2. <u>Cornus canadensis</u>                              | <u>2%</u>        | <u>Yes</u>                      | <u>FACU</u>      |  |
| 3. _____   | _____            | _____                           | _____            |  |
| 4. _____   | _____            | _____                           | _____            |  |
| 5. _____   | _____            | _____                           | _____            |  |
| 6. _____   | _____            | _____                           | _____            |  |
| 7. _____   | _____            | _____                           | _____            |  |
| 8. _____   | _____            | _____                           | _____            |  |
| 9. _____   | _____            | _____                           | _____            |  |
| 10. _____  | _____            | _____                           | _____            |  |
| Total Cover: <u>5%</u>                                   |                  |                                 |                  |  |
| 50% of total cover: <u>3%</u>                            |                  | 20% of total cover: <u>1%</u>   |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground _____             | <u>5%</u>        |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ | <u>90%</u>       |  |
| (Where applicable)                                       |                  |                                 |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P37**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-10              | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 10-11             | 10YR 5/2      |     |                |   |                   |                  | si       |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |   |   |  |
|--|---|---|--|
| <b>Hydric Soil Indicators:</b>                     |   | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |  |
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                                   | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |  |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)   | <input type="checkbox"/> Underlying Layer                       |  |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue   | <input type="checkbox"/> Other (Explain in Remarks)             |  |
| <input type="checkbox"/> Thick Dark Surface (A12)  |   |   |  |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, |   |  |
| <input type="checkbox"/> Alaska Redox (A14)        | and an appropriate landscape position must be present unless disturbed or problematic.            |   |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) | <sup>4</sup> Give details of color change in Remarks  |   |  |

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Dense silt</u><br>Depth (inches): <u>11</u> | <b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|--|---|

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |   |
|---|---|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (any one indicator is sufficient)  | Secondary Indicators (2 or more required)   |
| <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |  |
|---|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;11</u><br>Saturation Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;11</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/22/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P38  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 5  
 Subregion: Southeast Alaska Lat: 57.474672 Long: -134.550964 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> |           |             |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  | Yes _____ | No <u>X</u> |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |
| Remarks: _____                  |           |             |  |           |             |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|  | Absolute % Cover   | Dominant Species?         | Indicator Status |  |
|--|--------------------|---------------------------|------------------|--|
| <b>Tree Stratum</b>                    |                    |                           |                  |  |
| 1. <u><i>Tsuga heterophylla</i></u>    | 65%                | Yes                       | FAC              | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)  |
| 2. <u><i>Picea sitchensis</i></u>      | 15%                | No                        | FACU             |  |
| 3. _____                               | _____              | _____                     | _____            |  |
| 4. _____                               | _____              | _____                     | _____            |  |
| Total Cover:                           | <u>80%</u>         |                           |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>95</u> x 3 = <u>285</u><br>FACU species <u>45</u> x 4 = <u>180</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>140</u> (A) <u>465</u> (B)<br>Prevalence Index = B/A = <u>3.32</u>      |
| 50% of total cover:                    | <u>40%</u>         | 20% of total cover:       | <u>16%</u>       |  |
| <b>Sapling/Shrub Stratum</b>           |                    |                           |                  |  |
| 1. <u><i>Menziesia ferruginea</i></u>  | 25%                | Yes                       | FACU             | <b>Hydrophytic Vegetation Indicators:</b><br>____ Dominance Test is >50%<br>____ Prevalence Index is ≤3.0 <sup>1</sup><br>____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 2. <u><i>Vaccinium ovalifolium</i></u> | 20%                | Yes                       | FAC              |  |
| 3. <u><i>Vaccinium alaskaense</i></u>  | 10%                | No                        | FAC              |  |
| 4. _____                               | _____              | _____                     | _____            |  |
| 5. _____                               | _____              | _____                     | _____            |  |
| 6. _____                               | _____              | _____                     | _____            |  |
| 7. _____                               | _____              | _____                     | _____            |  |
| 8. _____                               | _____              | _____                     | _____            |  |
| 9. _____                               | _____              | _____                     | _____            |  |
| 10. _____                              | _____              | _____                     | _____            |  |
| Total Cover:                           | <u>55%</u>         |                           |                  | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>   |
| 50% of total cover:                    | <u>28%</u>         | 20% of total cover:       | <u>11%</u>       |  |
| <b>Herb Stratum</b>                    |                    |                           |                  |  |
| 1. <u><i>Cornus canadensis</i></u>     | 3%                 | Yes                       | FACU             | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>   |
| 2. <u><i>Neottia cordata</i></u>       | 2%                 | Yes                       | FACU             |  |
| 3. _____                               | _____              | _____                     | _____            |  |
| 4. _____                               | _____              | _____                     | _____            |  |
| 5. _____                               | _____              | _____                     | _____            |  |
| 6. _____                               | _____              | _____                     | _____            |  |
| 7. _____                               | _____              | _____                     | _____            |  |
| 8. _____                               | _____              | _____                     | _____            |  |
| 9. _____                               | _____              | _____                     | _____            |  |
| 10. _____                              | _____              | _____                     | _____            |  |
| Total Cover:                           | <u>5%</u>          |                           |                  | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>   |
| 50% of total cover:                    | <u>3%</u>          | 20% of total cover:       | <u>1%</u>        |  |
| Plot size (radius, or length x width)  | <u>5 ft radius</u> | % Bare Ground             | <u>95%</u>       |  |
| % Cover of Wetland Bryophytes          | _____              | Total Cover of Bryophytes | _____            |  |
| (Where applicable)                     |                    |                           |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P38**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |          |         |
|---|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-24  | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                            | Indicators for Problematic Hydric Soils <sup>3</sup> :          |
|--|---|
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)  |   |
| <input type="checkbox"/> Alaska Gleyed (A13)       |   |
| <input type="checkbox"/> Alaska Redox (A14)        |   |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |   |

Alaska Gleyed Without Hue 5Y or Redder  
 Underlying Layer  
 Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Bedrock</u><br>Depth (inches): <u>24</u> | <b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|---|

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
 Organic soils were dry and poorly decomposed.

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks)  |
|  | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |  |
|---|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;24</u><br>Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;24</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/22/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P39  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toe slope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.474595 Long: -134.550763 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |
| Remarks: _____                  |              |          |  |              |          |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?               | Indicator Status | <b>Dominance Test worksheet:</b>   |  |
|--|------------------|---------------------------------|------------------|--|--|
| 1. <u><i>Tsuga heterophylla</i></u>                      | <u>40%</u>       | <u>Yes</u>                      | <u>FAC</u>       | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                                |  |
| 2. _____   | _____            | _____                           | _____            | Total Number of Dominant Species Across All Strata: <u>4</u> (B)                                   |  |
| 3. _____   | _____            | _____                           | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)                           |  |
| 4. _____   | _____            | _____                           | _____            | <b>Prevalence Index worksheet:</b>   |  |
| Total Cover: <u>40%</u>                                  |                  |                                 |                  | Total % Cover of: _____ Multiply by: _____   |  |
| 50% of total cover: <u>20%</u>                           |                  | 20% of total cover: <u>8%</u>   |                  | OBL species <u>30</u> x 1 = <u>30</u>  |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                                 |                  | FACW species <u>0</u> x 2 = <u>0</u>   |  |
| 1. <u><i>Vaccinium ovalifolium</i></u>                   | <u>25%</u>       | <u>Yes</u>                      | <u>FAC</u>       | FAC species <u>70</u> x 3 = <u>210</u>   |  |
| 2. <u><i>Menziesia ferruginea</i></u>                    | <u>25%</u>       | <u>Yes</u>                      | <u>FACU</u>      | FACU species <u>30</u> x 4 = <u>120</u>  |  |
| 3. _____   | _____            | _____                           | _____            | UPL species <u>0</u> x 5 = <u>0</u>  |  |
| 4. _____   | _____            | _____                           | _____            | Column Totals: <u>130</u> (A) <u>360</u> (B)   |  |
| 5. _____   | _____            | _____                           | _____            | Prevalence Index = B/A = <u>2.77</u>   |  |
| 6. _____   | _____            | _____                           | _____            | <b>Hydrophytic Vegetation Indicators:</b>  |  |
| Total Cover: <u>50%</u>                                  |                  | 20% of total cover: <u>10%</u>  |                  | X Dominance Test is >50%   |  |
| 50% of total cover: <u>25%</u>                           |                  | 20% of total cover: <u>8%</u>   |                  | Prevalence Index is ≤3.0 <sup>1</sup>  |  |
| <b>Herb Stratum</b>                                      |                  |                                 |                  | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 1. <u><i>Lysichiton americanus</i></u>                   | <u>30%</u>       | <u>Yes</u>                      | <u>OBL</u>       | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 2. <u><i>Cornus canadensis</i></u>                       | <u>5%</u>        | <u>No</u>                       | <u>FACU</u>      | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.                      |  |
| 3. <u><i>Rubus pedatus</i></u>                           | <u>5%</u>        | <u>No</u>                       | <u>FAC</u>       |  |  |
| 4. _____   | _____            | _____                           | _____            |  |  |
| 5. _____   | _____            | _____                           | _____            |  |  |
| 6. _____   | _____            | _____                           | _____            |  |  |
| 7. _____   | _____            | _____                           | _____            |  |  |
| 8. _____   | _____            | _____                           | _____            |  |  |
| 9. _____   | _____            | _____                           | _____            |  |  |
| 10. _____  | _____            | _____                           | _____            |  |  |
| Total Cover: <u>40%</u>                                  |                  | 20% of total cover: <u>8%</u>   |                  |  |  |
| 50% of total cover: <u>20%</u>                           |                  | 20% of total cover: <u>8%</u>   |                  |  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>60%</u>        |                  |  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ |                  |  |  |
| (Where applicable)                                       |                  |                                 |                  |  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P39**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |         |         |
|---|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-16  | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
| 16-18   | 10YR 3/2      |     |                |   |                   |                  | sal     | cobbles |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                     | Indicators for Problematic Hydric Soils <sup>3</sup> :          |
|---|---|
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           |   |
| <input type="checkbox"/> Alaska Gleyed (A13)                |   |
| <input type="checkbox"/> Alaska Redox (A14)                 |   |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

Alaska Gleyed Without Hue 5Y or Redder  
 Underlying Layer  
 Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Bedrock</u><br>Depth (inches): <u>18</u> | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|---|---|

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1)<br><input checked="" type="checkbox"/> High Water Table (A2)<br><input checked="" type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks)  |
|  | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|--|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 8/22/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P40  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Terrace  
 Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
 Subregion: Southeast Alaska Lat: 57.475941 Long: -134.547345 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |
| Remarks: _____                  |              |          |  |              |          |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|  | Absolute % Cover | Dominant Species?               | Indicator Status |   |  |
|--|------------------|---------------------------------|------------------|---|--|
| <b>Tree Stratum</b>                                      |                  |                                 |                  |   |  |
| 1. <u>Pinus contorta</u>                                 | <u>10%</u>       | <u>Yes</u>                      | <u>FAC</u>       | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)   |  |
| 2. _____   | _____            | _____                           | _____            |   |  |
| 3. _____   | _____            | _____                           | _____            |   |  |
| 4. _____   | _____            | _____                           | _____            |   |  |
| Total Cover: <u>10%</u>                                  |                  |                                 |                  |   |  |
| 50% of total cover: <u>5%</u>                            |                  | 20% of total cover: <u>2%</u>   |                  |   |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                                 |                  |   |  |
| 1. <u>Malus fusca</u>                                    | <u>3%</u>        | <u>Yes</u>                      | <u>FACU</u>      | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>93</u> x 1 = <u>93</u><br>FACW species <u>5</u> x 2 = <u>10</u><br>FAC species <u>13</u> x 3 = <u>39</u><br>FACU species <u>6</u> x 4 = <u>24</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>117</u> (A) <u>166</u> (B)<br>Prevalence Index = B/A = <u>1.42</u> |  |
| 2. <u>Menziesia ferruginea</u>                           | <u>3%</u>        | <u>Yes</u>                      | <u>FACU</u>      |   |  |
| 3. _____   | _____            | _____                           | _____            |   |  |
| 4. _____   | _____            | _____                           | _____            |   |  |
| 5. _____   | _____            | _____                           | _____            |   |  |
| 6. _____   | _____            | _____                           | _____            |   |  |
| Total Cover: <u>6%</u>                                   |                  |                                 |                  |   |  |
| 50% of total cover: <u>3%</u>                            |                  | 20% of total cover: <u>1%</u>   |                  |   |  |
| <b>Herb Stratum</b>                                      |                  |                                 |                  |   |  |
| 1. <u>Trichophorum caespitosum</u>                       | <u>40%</u>       | <u>Yes</u>                      | <u>OBL</u>       |   |  |
| 2. <u>Carex flava</u>                                    | <u>35%</u>       | <u>Yes</u>                      | <u>OBL</u>       |   |  |
| 3. <u>Menyanthes trifoliata</u>                          | <u>5%</u>        | <u>No</u>                       | <u>OBL</u>       |   |  |
| 4. <u>Eriophorum angustifolium</u>                       | <u>5%</u>        | <u>No</u>                       | <u>OBL</u>       |   |  |
| 5. <u>Triantha glutinosa</u>                             | <u>5%</u>        | <u>No</u>                       | <u>FACW</u>      |   |  |
| 6. <u>Equisetum fluviatile</u>                           | <u>5%</u>        | <u>No</u>                       | <u>OBL</u>       |   |  |
| 7. <u>Carex livida</u>                                   | <u>3%</u>        | <u>No</u>                       | <u>OBL</u>       |   |  |
| 8. <u>Vaccinium vitis-idaea</u>                          | <u>2%</u>        | <u>No</u>                       | <u>FAC</u>       |   |  |
| 9. <u>Coptis trifolia</u>                                | <u>1%</u>        | <u>No</u>                       | <u>FAC</u>       |   |  |
| 10. _____  | _____            | _____                           | _____            |   |  |
| Total Cover: <u>101%</u>                                 |                  |                                 |                  |   |  |
| 50% of total cover: <u>51%</u>                           |                  | 20% of total cover: <u>20%</u>  |                  |   |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>0%</u>         |                  |   |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes _____ |                  |   |  |
| (Where applicable)                                       |                  |                                 |                  |   |  |

**Hydrophytic Vegetation Indicators:**  
 X Dominance Test is >50%  
 Prevalence Index is ≤3.0<sup>1</sup>  
 Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present.

**Hydrophytic Vegetation Present?** Yes X No \_\_\_\_\_

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P40**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-34+             |               | 100 |                |   |                   |                  | peat    |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |
|                   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                     | Indicators for Problematic Hydric Soils <sup>3</sup> :          |
|---|---|
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           |   |
| <input type="checkbox"/> Alaska Gleyed (A13)                |   |
| <input type="checkbox"/> Alaska Redox (A14)                 |   |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

Alaska Gleyed Without Hue 5Y or Redder  
 Underlying Layer  
 Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

|  |  |
|--|--|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____ |
|--|--|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1)<br><input checked="" type="checkbox"/> High Water Table (A2)<br><input checked="" type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks)  |
|  | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |   |
|---|---|
| <b>Field Observations:</b><br>Surface Water Present?    Yes _____    No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>8</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>Surface</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No _____ |
|---|---|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 8/22/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P41  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 20  
 Subregion: Southeast Alaska Lat: 57.462603 Long: -134.527551 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |
| Remarks: NOT IN STUDY AREA      |           |             |  |           |             |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species? | Indicator Status                | Dominance Test worksheet:<br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)   |
|--|------------------|-------------------|---------------------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>70%</u>       | <u>Yes</u>        | <u>FAC</u>                      |  |
| 2. <u>Picea sitchensis</u>                               | <u>10%</u>       | <u>No</u>         | <u>FACU</u>                     |  |
| 3. _____   | _____            | _____             | _____                           |  |
| 4. _____   | _____            | _____             | _____                           |  |
| Total Cover: <u>80%</u>                                  |                  |                   |                                 |  |
| 50% of total cover: <u>40%</u>                           |                  |                   | 20% of total cover: <u>16%</u>  |  |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species? | Indicator Status                | <b>Hydrophytic Vegetation Indicators:</b><br>_____ Dominance Test is >50%<br>_____ Prevalence Index is ≤3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Menziesia ferruginea</u>                           | <u>10%</u>       | <u>Yes</u>        | <u>FACU</u>                     |  |
| 2. <u>Vaccinium ovalifolium</u>                          | <u>10%</u>       | <u>Yes</u>        | <u>FAC</u>                      |  |
| 3. _____   | _____            | _____             | _____                           |  |
| 4. _____   | _____            | _____             | _____                           |  |
| 5. _____   | _____            | _____             | _____                           |  |
| 6. _____   | _____            | _____             | _____                           |  |
| Total Cover: <u>20%</u>                                  |                  |                   |                                 |  |
| 50% of total cover: <u>10%</u>                           |                  |                   | 20% of total cover: <u>4%</u>   |  |
| Herb Stratum   | Absolute % Cover | Dominant Species? | Indicator Status                | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>   |
| 1. <u>Cornus canadensis</u>                              | <u>3%</u>        | <u>Yes</u>        | <u>FACU</u>                     |  |
| 2. <u>Clintonia uniflora</u>                             | <u>2%</u>        | <u>Yes</u>        | <u>NOL</u>                      |  |
| 3. _____   | _____            | _____             | _____                           |  |
| 4. _____   | _____            | _____             | _____                           |  |
| 5. _____   | _____            | _____             | _____                           |  |
| 6. _____   | _____            | _____             | _____                           |  |
| 7. _____   | _____            | _____             | _____                           |  |
| 8. _____   | _____            | _____             | _____                           |  |
| 9. _____   | _____            | _____             | _____                           |  |
| 10. _____  | _____            | _____             | _____                           |  |
| Total Cover: <u>5%</u>                                   |                  |                   |                                 |  |
| 50% of total cover: <u>3%</u>                            |                  |                   | 20% of total cover: <u>1%</u>   |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  |                   | % Bare Ground <u>95%</u>        |  |
| % Cover of Wetland Bryophytes _____                      |                  |                   | Total Cover of Bryophytes _____ |  |
| (Where applicable)                                       |                  |                   |                                 |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P41**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-16              | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 16-18             | 10YR 4/1      | 100 |                |   |                   |                  | grsal    |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                            | Indicators for Problematic Hydric Soils <sup>3</sup> :          |
|--|---|
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)  |   |
| <input type="checkbox"/> Alaska Gleyed (A13)       |   |
| <input type="checkbox"/> Alaska Redox (A14)        |   |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |   |

Alaska Gleyed Without Hue 5Y or Redder  
Underlying Layer  
Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Bedrock</u><br>Depth (inches): <u>18</u> | <b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks)  |
|  | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |  |
|---|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;18</u><br>Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;18</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 9/14/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P42  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Depression between hummock  
 Local relief (concave, convex, none): Slightly convex Slope (%): 3  
 Subregion: Southeast Alaska Lat: 57.474153 Long: -134.549251 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |
| Remarks: _____                  |              |          |  |              |          |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | <b>Dominance Test worksheet:</b>   |  |
|--|------------------|--------------------------------------|------------------|--|--|
| 1. <u>Tsuga heterophylla</u>                             | 55%              | Yes                                  | FAC              | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                                |  |
| 2. <u>Picea sitchensis</u>                               | 10%              | No                                   | FACU             | Total Number of Dominant Species Across All Strata: <u>5</u> (B)                                   |  |
| 3. _____   | _____            | _____                                | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)                           |  |
| 4. _____   | _____            | _____                                | _____            | <b>Prevalence Index worksheet:</b>   |  |
| Total Cover: <u>65%</u>                                  | _____            | _____                                | _____            | Total % Cover of: _____ Multiply by: _____   |  |
| 50% of total cover: <u>33%</u>                           | _____            | 20% of total cover: <u>13%</u>       | _____            | OBL species <u>5</u> x 1 = <u>5</u>  |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                                      |                  | FACW species <u>0</u> x 2 = <u>0</u>   |  |
| 1. <u>Menziesia ferruginea</u>                           | 20%              | Yes                                  | FACU             | FAC species <u>80</u> x 3 = <u>240</u>   |  |
| 2. <u>Vaccinium alaskaense</u>                           | 15%              | Yes                                  | FAC              | FACU species <u>50</u> x 4 = <u>200</u>  |  |
| 3. _____   | _____            | _____                                | _____            | UPL species <u>0</u> x 5 = <u>0</u>  |  |
| 4. _____   | _____            | _____                                | _____            | Column Totals: <u>135</u> (A) <u>445</u> (B)   |  |
| 5. _____   | _____            | _____                                | _____            | Prevalence Index = B/A = <u>3.30</u>   |  |
| 6. _____   | _____            | _____                                | _____            | <b>Hydrophytic Vegetation Indicators:</b>  |  |
| Total Cover: <u>35%</u>                                  | _____            | _____                                | _____            | X Dominance Test is >50%   |  |
| 50% of total cover: <u>18%</u>                           | _____            | 20% of total cover: <u>7%</u>        | _____            | Prevalence Index is ≤3.0 <sup>1</sup>  |  |
| <b>Herb Stratum</b>                                      |                  |                                      |                  | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 1. <u>Cornus canadensis</u>                              | 20%              | Yes                                  | FACU             | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 2. <u>Rubus pedatus</u>                                  | 10%              | Yes                                  | FAC              | _____  |  |
| 3. <u>Lysichiton americanus</u>                          | 5%               | No                                   | OBL              | _____  |  |
| 4. _____   | _____            | _____                                | _____            | _____  |  |
| 5. _____   | _____            | _____                                | _____            | _____  |  |
| 6. _____   | _____            | _____                                | _____            | _____  |  |
| 7. _____   | _____            | _____                                | _____            | _____  |  |
| 8. _____   | _____            | _____                                | _____            | _____  |  |
| 9. _____   | _____            | _____                                | _____            | _____  |  |
| 10. _____  | _____            | _____                                | _____            | _____  |  |
| Total Cover: <u>35%</u>                                  | _____            | _____                                | _____            | _____  |  |
| 50% of total cover: <u>18%</u>                           | _____            | 20% of total cover: <u>7%</u>        | _____            | _____  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> | _____            | % Bare Ground <u>55%</u>             | _____            | _____  |  |
| % Cover of Wetland Bryophytes _____                      | _____            | Total Cover of Bryophytes <u>10%</u> | _____            | _____  |  |
| (Where applicable)                                       | _____            | _____                                | _____            | _____  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw  
Menziesia ferruginea growing on slightly elevated hummock.



**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 9/14/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P43  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Slightly convex Slope (%): 3-5  
 Subregion: Southeast Alaska Lat: 57.475045 Long: -134.553488 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> |           |             |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  | Yes _____ | No <u>X</u> |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |
| Remarks: _____                  |           |             |  |           |             |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|  | Absolute % Cover   | Dominant Species?         | Indicator Status |  |  |
|--|--------------------|---------------------------|------------------|--|--|
| <b>Tree Stratum</b>  |                    |                           |                  |  |  |
| 1. <u>Tsuga heterophylla</u>                                 | <u>40%</u>         | <u>Yes</u>                | <u>FAC</u>       | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>6</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)  |  |
| 2. <u>Picea sitchensis</u>                                   | <u>10%</u>         | <u>Yes</u>                | <u>FACU</u>      |  |  |
| 3. _____   |                    |                           |                  |  |  |
| 4. _____   |                    |                           |                  |  |  |
| Total Cover:   | <u>50%</u>         |                           |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>62</u> x 3 = <u>186</u><br>FACU species <u>35</u> x 4 = <u>140</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>97</u> (A) <u>326</u> (B)<br>Prevalence Index = B/A = <u>3.36</u>       |  |
| 50% of total cover:  | <u>25%</u>         | 20% of total cover:       | <u>10%</u>       |  |  |
| <b>Sapling/Shrub Stratum</b>                                 |                    |                           |                  |  |  |
| 1. <u>Vaccinium alaskaense</u>                               | <u>20%</u>         | <u>Yes</u>                | <u>FAC</u>       | <b>Hydrophytic Vegetation Indicators:</b><br>____ Dominance Test is >50%<br>____ Prevalence Index is ≤3.0 <sup>1</sup><br>____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |  |
| 2. <u>Vaccinium parvifolium</u>                              | <u>15%</u>         | <u>Yes</u>                | <u>FACU</u>      |  |  |
| 3. <u>Menziesia ferruginea</u>                               | <u>5%</u>          | <u>No</u>                 | <u>FACU</u>      |  |  |
| 4. _____   |                    |                           |                  |  |  |
| 5. _____   |                    |                           |                  |  |  |
| 6. _____   |                    |                           |                  |  |  |
| Total Cover:   | <u>40%</u>         |                           |                  |  |  |
| 50% of total cover:  | <u>20%</u>         | 20% of total cover:       | <u>8%</u>        |  |  |
| <b>Herb Stratum</b>  |                    |                           |                  |  |  |
| 1. <u>Cornus canadensis</u>                                  | <u>5%</u>          | <u>Yes</u>                | <u>FACU</u>      |  |  |
| 2. <u>Rubus pedatus</u>                                      | <u>2%</u>          | <u>Yes</u>                | <u>FAC</u>       |  |  |
| 3. _____   |                    |                           |                  |  |  |
| 4. _____   |                    |                           |                  |  |  |
| 5. _____   |                    |                           |                  |  |  |
| 6. _____   |                    |                           |                  |  |  |
| 7. _____   |                    |                           |                  |  |  |
| 8. _____   |                    |                           |                  |  |  |
| 9. _____   |                    |                           |                  |  |  |
| 10. _____  |                    |                           |                  |  |  |
| Total Cover:   | <u>7%</u>          |                           |                  |  |  |
| 50% of total cover:  | <u>4%</u>          | 20% of total cover:       | <u>1%</u>        |  |  |
| Plot size (radius, or length x width)                        | <u>5 ft radius</u> | % Bare Ground             | <u>93%</u>       |  |  |
| % Cover of Wetland Bryophytes (Where applicable)             |                    | Total Cover of Bryophytes | <u>0%</u>        |  |  |
| <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u> |                    |                           |                  |  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P43**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |          |         |
|---|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-11  | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 11-14   | 10YR4/1       | 100 |                |   |                   |                  | grsil    |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |   |
|--|---|
| <b>Hydric Soil Indicators:</b>                     | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)  | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)       | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)        | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: <u>Bedrock</u>                   | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Depth (inches): <u>14</u>              |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input type="checkbox"/> Saturation (A3)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |   |
|--|---|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u>                         | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;14</u>                               |   |
| Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;14</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Very moist below 8 inches. Soils were dry above 8 inches. Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 9/14/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P44  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toeslope  
 Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion: Southeast Alaska Lat: 57.475641 Long: -134.553644 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |
| Remarks: _____                  |              |          |  |              |          |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | <b>Dominance Test worksheet:</b>  |  |
|--|------------------|--------------------------------------|------------------|---|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>35%</u>       | <u>Yes</u>                           | <u>FAC</u>       | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)   |  |
| 2. <u>Picea sitchensis</u>                               | <u>5%</u>        | <u>No</u>                            | <u>FACU</u>      | Total Number of Dominant Species Across All Strata: <u>3</u> (B)  |  |
| 3. _____   | _____            | _____                                | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)                                       |  |
| 4. _____   | _____            | _____                                | _____            | <b>Prevalence Index worksheet:</b>  |  |
| Total Cover: <u>40%</u>                                  |                  |                                      |                  | Total % Cover of: _____ Multiply by: _____  |  |
| 50% of total cover: <u>20%</u>                           |                  | 20% of total cover: <u>8%</u>        |                  | OBL species <u>2</u> x 1 = <u>2</u>   |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                                      |                  | FACW species <u>0</u> x 2 = <u>0</u>  |  |
| 1. <u>Vaccinium ovalifolium</u>                          | <u>35%</u>       | <u>Yes</u>                           | <u>FAC</u>       | FAC species <u>85</u> x 3 = <u>255</u>  |  |
| 2. <u>Menziesia ferruginea</u>                           | <u>5%</u>        | <u>No</u>                            | <u>FACU</u>      | FACU species <u>12</u> x 4 = <u>48</u>  |  |
| 3. _____   | _____            | _____                                | _____            | UPL species <u>0</u> x 5 = <u>0</u>   |  |
| 4. _____   | _____            | _____                                | _____            | Column Totals: <u>99</u> (A) <u>305</u> (B)   |  |
| 5. _____   | _____            | _____                                | _____            | Prevalence Index = B/A = <u>3.08</u>  |  |
| 6. _____   | _____            | _____                                | _____            | <b>Hydrophytic Vegetation Indicators:</b>   |  |
| Total Cover: <u>40%</u>                                  |                  |                                      |                  | <u>X</u> Dominance Test is >50%   |  |
| 50% of total cover: <u>20%</u>                           |                  | 20% of total cover: <u>8%</u>        |                  | <u>_____</u> Prevalence Index is ≤3.0 <sup>1</sup>  |  |
| <b>Herb Stratum</b>                                      |                  |                                      |                  | <u>_____</u> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 1. <u>Rubus pedatus</u>                                  | <u>15%</u>       | <u>Yes</u>                           | <u>FAC</u>       | <u>_____</u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| 2. <u>Cornus canadensis</u>                              | <u>2%</u>        | <u>No</u>                            | <u>FACU</u>      | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.                                   |  |
| 3. <u>Lysichiton americanus</u>                          | <u>2%</u>        | <u>No</u>                            | <u>OBL</u>       |   |  |
| 4. _____   | _____            | _____                                | _____            |   |  |
| 5. _____   | _____            | _____                                | _____            |   |  |
| 6. _____   | _____            | _____                                | _____            |   |  |
| 7. _____   | _____            | _____                                | _____            |   |  |
| 8. _____   | _____            | _____                                | _____            |   |  |
| 9. _____   | _____            | _____                                | _____            |   |  |
| 10. _____  | _____            | _____                                | _____            |   |  |
| Total Cover: <u>19%</u>                                  |                  |                                      |                  |   |  |
| 50% of total cover: <u>10%</u>                           |                  | 20% of total cover: <u>4%</u>        |                  |   |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>0%</u>              |                  |   |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>81%</u> |                  | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  |  |
| (Where applicable)                                       |                  |                                      |                  |   |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P44**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |         |         |
|---|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |         |         |
| 0-19  | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                     | Indicators for Problematic Hydric Soils <sup>3</sup> :          |
|---|---|
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Bedrock</u><br>Depth (inches): <u>19</u> | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|---|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:   | Secondary Indicators (2 or more required)   |
|---|---|
| Primary Indicators (any one indicator is sufficient)<br><input type="checkbox"/> Surface Water (A1)<br><input checked="" type="checkbox"/> High Water Table (A2)<br><input checked="" type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks)  |
|   | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |  |
|---|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|---|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:    Entered by: sar    QC by: cmw  
 Approximately 4 inch deep ponding in wetland near plot.

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 9/14/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P45  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope bench  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.476781 Long: -134.550592 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present?  
 Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |
| Remarks: _____                  |              |          |  |              |          |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|  | Absolute % Cover | Dominant Species?                    | Indicator Status |  |
|--|------------------|--------------------------------------|------------------|--|
| <b>Tree Stratum</b>                                      |                  |                                      |                  |  |
| 1. <u><i>Pinus contorta</i></u>                          | <u>10%</u>       | <u>Yes</u>                           | <u>FAC</u>       | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>7</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71%</u> (A/B)  |
| 2. <u><i>Tsuga heterophylla</i></u>                      | <u>10%</u>       | <u>Yes</u>                           | <u>FAC</u>       |  |
| 3. _____   | _____            | _____                                | _____            |  |
| 4. _____   | _____            | _____                                | _____            |  |
| Total Cover: <u>20%</u>                                  |                  |                                      |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>25</u> x 1 = <u>25</u><br>FACW species <u>15</u> x 2 = <u>30</u><br>FAC species <u>35</u> x 3 = <u>105</u><br>FACU species <u>20</u> x 4 = <u>80</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>95</u> (A) <u>240</u> (B)<br>Prevalence Index = B/A = <u>2.53</u>        |
| 50% of total cover: <u>10%</u>                           |                  | 20% of total cover: <u>4%</u>        |                  |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                                      |                  |  |
| 1. <u><i>Malus fusca</i></u>                             | <u>15%</u>       | <u>Yes</u>                           | <u>FACU</u>      | <b>Hydrophytic Vegetation Indicators:</b><br><u>X</u> Dominance Test is >50%<br>____ Prevalence Index is ≤3.0 <sup>1</sup><br>____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 2. <u><i>Oplopanax horridus</i></u>                      | <u>5%</u>        | <u>Yes</u>                           | <u>FACU</u>      |  |
| 3. _____   | _____            | _____                                | _____            |  |
| 4. _____   | _____            | _____                                | _____            |  |
| 5. _____   | _____            | _____                                | _____            |  |
| 6. _____   | _____            | _____                                | _____            |  |
| Total Cover: <u>20%</u>                                  |                  |                                      |                  | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____   |
| 50% of total cover: <u>10%</u>                           |                  | 20% of total cover: <u>4%</u>        |                  |  |
| <b>Herb Stratum</b>                                      |                  |                                      |                  |  |
| 1. <u><i>Lysichiton americanus</i></u>                   | <u>15%</u>       | <u>Yes</u>                           | <u>OBL</u>       | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____   |
| 2. <u><i>Athyrium cyclosorum</i></u>                     | <u>15%</u>       | <u>Yes</u>                           | <u>FAC</u>       |  |
| 3. <u><i>Carex mertensii</i></u>                         | <u>15%</u>       | <u>Yes</u>                           | <u>FACW</u>      |  |
| 4. <u><i>Menyanthes trifoliata</i></u>                   | <u>5%</u>        | <u>No</u>                            | <u>OBL</u>       |  |
| 5. <u><i>Carex livida</i></u>                            | <u>5%</u>        | <u>No</u>                            | <u>OBL</u>       |  |
| 6. _____   | _____            | _____                                | _____            |  |
| 7. _____   | _____            | _____                                | _____            |  |
| 8. _____   | _____            | _____                                | _____            |  |
| 9. _____   | _____            | _____                                | _____            |  |
| 10. _____  | _____            | _____                                | _____            |  |
| Total Cover: <u>55%</u>                                  |                  |                                      |                  |  |
| 50% of total cover: <u>28%</u>                           |                  | 20% of total cover: <u>11%</u>       |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>0%</u>              |                  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>45%</u> |                  |  |
| (Where applicable)                                       |                  |                                      |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P45**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |            |         |
|---|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture    | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |            |         |
| 0-17  | 7.5YR 3/4     | 100 |                |   |                   |                  | peat       |         |
| 17-25+  | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                     | Indicators for Problematic Hydric Soils <sup>3</sup> :          |
|---|---|
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)   | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           |   |
| <input type="checkbox"/> Alaska Gleyed (A13)                |   |
| <input type="checkbox"/> Alaska Redox (A14)                 |   |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

Alaska Gleyed Without Hue 5Y or Redder  
 Underlying Layer  
 Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|--|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1)<br><input checked="" type="checkbox"/> High Water Table (A2)<br><input checked="" type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks)  |   |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>5</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>Surface</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|--|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:    Entered by: sar    QC by: cmw  
 Approximately 2 inch deep scattered ponding in wetland near plot.

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P46  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope (ridge)  
 Local relief (concave, convex, none): Convex Slope (%): 5-10  
 Subregion: Southeast Alaska Lat: 57.468140 Long: -134.544364 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |
| Remarks: _____                  |           |             |  |           |             |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                   | Indicator Status | <b>Dominance Test worksheet:</b>   |  |
|--|------------------|-------------------------------------|------------------|--|--|
| 1. <u>Picea sitchensis</u>                               | 45%              | Yes                                 | FACU             | Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)                                |  |
| 2. <u>Tsuga heterophylla</u>                             | 15%              | Yes                                 | FAC              | Total Number of Dominant Species Across All Strata: <u>7</u> (B)                                   |  |
| 3. _____   | _____            | _____                               | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>43%</u> (A/B)                           |  |
| 4. _____   | _____            | _____                               | _____            | <b>Prevalence Index worksheet:</b>   |  |
| Total Cover: <u>60%</u>                                  | _____            | _____                               | _____            | Total % Cover of: _____ Multiply by: _____   |  |
| 50% of total cover: <u>30%</u>                           | _____            | _____                               | _____            | OBL species <u>0</u> x 1 = <u>0</u>  |  |
| 20% of total cover: <u>12%</u>                           | _____            | _____                               | _____            | FACW species <u>0</u> x 2 = <u>0</u>   |  |
| <b>Sapling/Shrub Stratum</b>                             |                  |                                     |                  | FAC species <u>50</u> x 3 = <u>150</u>   |  |
| 1. <u>Oplopanax horridus</u>                             | 20%              | Yes                                 | FACU             | FACU species <u>115</u> x 4 = <u>460</u>   |  |
| 2. <u>Vaccinium ovalifolium</u>                          | 10%              | Yes                                 | FAC              | UPL species <u>0</u> x 5 = <u>0</u>  |  |
| 3. <u>Rubus spectabilis</u>                              | 5%               | No                                  | FACU             | Column Totals: <u>165</u> (A) <u>610</u> (B)   |  |
| 4. <u>Menziesia ferruginea</u>                           | 5%               | No                                  | FACU             | Prevalence Index = B/A = <u>3.70</u>   |  |
| 5. _____   | _____            | _____                               | _____            | <b>Hydrophytic Vegetation Indicators:</b>  |  |
| 6. _____   | _____            | _____                               | _____            | Dominance Test is >50%   |  |
| Total Cover: <u>40%</u>                                  | _____            | _____                               | _____            | Prevalence Index is ≤3.0 <sup>1</sup>  |  |
| 50% of total cover: <u>20%</u>                           | _____            | _____                               | _____            | Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) |  |
| 20% of total cover: <u>8%</u>                            | _____            | _____                               | _____            | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |  |
| <b>Herb Stratum</b>                                      |                  |                                     |                  | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.                      |  |
| 1. <u>Cornus canadensis</u>                              | 20%              | Yes                                 | FACU             |  |  |
| 2. <u>Maianthemum dilatatum</u>                          | 20%              | Yes                                 | FAC              |  |  |
| 3. <u>Gymnocarpium dryopteris</u>                        | 15%              | Yes                                 | FACU             |  |  |
| 4. <u>Streptopus amplexifolius</u>                       | 5%               | No                                  | FACU             |  |  |
| 5. <u>Rubus pedatus</u>                                  | 5%               | No                                  | FAC              |  |  |
| 6. _____   | _____            | _____                               | _____            |  |  |
| 7. _____   | _____            | _____                               | _____            |  |  |
| 8. _____   | _____            | _____                               | _____            |  |  |
| 9. _____   | _____            | _____                               | _____            |  |  |
| 10. _____  | _____            | _____                               | _____            |  |  |
| Total Cover: <u>65%</u>                                  | _____            | _____                               | _____            | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>                                       |  |
| 50% of total cover: <u>33%</u>                           | _____            | _____                               | _____            |  |  |
| 20% of total cover: <u>13%</u>                           | _____            | _____                               | _____            |  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> | _____            | % Bare Ground <u>35%</u>            | _____            |  |  |
| % Cover of Wetland Bryophytes _____                      | _____            | Total Cover of Bryophytes <u>0%</u> | _____            |  |  |
| (Where applicable)                                       | _____            | _____                               | _____            |  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P46**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |          |         |
|---|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-18  | 7.5YR3/4      | 100 |                |   |                   |                  | organics |         |
| 18-28   | 10YR 2/1      | 100 |                |   |                   |                  | muck     |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |  |   |
|---|--|---|
| <b>Hydric Soil Indicators:</b><br><input type="checkbox"/> Histosol or Histel (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Alaska Gleyed (A13)<br><input type="checkbox"/> Alaska Redox (A14)<br><input type="checkbox"/> Alaska Gleyed Pores (A15) | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b><br><input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup><br><input type="checkbox"/> Alaska Alpine Swales (TA5)<br><input type="checkbox"/> Alaska Redox With 2.5Y Hue<br><br><sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.<br><sup>4</sup> Give details of color change in Remarks | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer<br><input type="checkbox"/> Other (Explain in Remarks) |
|---|--|---|

|  |  |
|--|--|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes _____    No <b>X</b> _____ |
|--|--|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
 Slightly moist 18-28 inches, but no water table. Surface organics were poorly decomposed folist (wood, roots).

**HYDROLOGY**

|  |  |   |
|--|--|---|
| <b>Wetland Hydrology Indicators:</b><br><u>Primary Indicators (any one indicator is sufficient)</u><br><input type="checkbox"/> Surface Water (A1)<br><input type="checkbox"/> High Water Table (A2)<br><input type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks) | <u>Secondary Indicators (2 or more required)</u><br><input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |
|--|--|---|

|   |   |
|---|---|
| <b>Field Observations:</b><br>Surface Water Present?    Yes _____    No <b>X</b> _____    Depth (inches): _____<br>Water Table Present?    Yes _____    No <b>X</b> _____    Depth (inches): <u>&gt;28</u><br>Saturation Present?    Yes _____    No <b>X</b> _____    Depth (inches): <u>&gt;28</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes _____    No <b>X</b> _____ |
|---|---|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P47  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope bench  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.468462 Long: -134.543430 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |   |
|---------------------------------|--------------|----------|---|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b><br>Yes <u>X</u> No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |   |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |   |
| Remarks: _____                  |              |          |   |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|   | Absolute % Cover   | Dominant Species?         | Indicator Status |  |  |
|---|--------------------|---------------------------|------------------|--|--|
| <b>Tree Stratum</b>                                       |                    |                           |                  |  |  |
| 1. <u>Picea sitchensis</u>                                | <u>20%</u>         | <u>Yes</u>                | <u>FACU</u>      | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)  |  |
| 2. <u>Tsuga heterophylla</u>                              | <u>15%</u>         | <u>Yes</u>                | <u>FAC</u>       |  |  |
| 3. _____  | _____              | _____                     | _____            |  |  |
| 4. _____  | _____              | _____                     | _____            |  |  |
| Total Cover:  | <u>35%</u>         |                           |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>25</u> x 1 = <u>25</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>49</u> x 3 = <u>147</u><br>FACU species <u>45</u> x 4 = <u>180</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>119</u> (A) <u>352</u> (B)<br>Prevalence Index = B/A = <u>2.96</u>    |  |
| 50% of total cover:                                       | <u>18%</u>         | 20% of total cover:       | <u>7%</u>        |  |  |
| <b>Sapling/Shrub Stratum</b>                              |                    |                           |                  |  |  |
| 1. <u>Oplopanax horridus</u>                              | <u>20%</u>         | <u>Yes</u>                | <u>FACU</u>      |  |  |
| 2. <u>Rubus spectabilis</u>                               | <u>5%</u>          | <u>No</u>                 | <u>FACU</u>      |  |  |
| 3. <u>Cornus alba</u>                                     | <u>5%</u>          | <u>No</u>                 | <u>FAC</u>       |  |  |
| 4. _____  | _____              | _____                     | _____            |  |  |
| 5. _____  | _____              | _____                     | _____            |  |  |
| 6. _____  | _____              | _____                     | _____            |  |  |
| Total Cover:  | <u>30%</u>         |                           |                  |  |  |
| 50% of total cover:                                       | <u>15%</u>         | 20% of total cover:       | <u>6%</u>        |  |  |
| <b>Herb Stratum</b>                                       |                    |                           |                  |  |  |
| 1. <u>Lysichiton americanus</u>                           | <u>25%</u>         | <u>Yes</u>                | <u>OBL</u>       | <b>Hydrophytic Vegetation Indicators:</b><br>X Dominance Test is >50%<br>_____ Prevalence Index is ≤3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |  |
| 2. <u>Athyrium cyclosorum</u>                             | <u>15%</u>         | <u>Yes</u>                | <u>FAC</u>       |  |  |
| 3. <u>Rubus pedatus</u>                                   | <u>5%</u>          | <u>No</u>                 | <u>FAC</u>       |  |  |
| 4. <u>Coptis asplenifolia</u>                             | <u>5%</u>          | <u>No</u>                 | <u>FAC</u>       |  |  |
| 5. <u>Tiarella trifoliata</u>                             | <u>2%</u>          | <u>No</u>                 | <u>FAC</u>       |  |  |
| 6. <u>Maianthemum dilatatum</u>                           | <u>2%</u>          | <u>No</u>                 | <u>FAC</u>       |  |  |
| 7. _____  | _____              | _____                     | _____            |  |  |
| 8. _____  | _____              | _____                     | _____            |  |  |
| 9. _____  | _____              | _____                     | _____            |  |  |
| 10. _____   | _____              | _____                     | _____            |  |  |
| Total Cover:  | <u>54%</u>         |                           |                  |  |  |
| 50% of total cover:                                       | <u>27%</u>         | 20% of total cover:       | <u>11%</u>       |  |  |
| Plot size (radius, or length x width)                     | <u>5 ft radius</u> | % Bare Ground             | <u>15%</u>       |  |  |
| % Cover of Wetland Bryophytes                             | _____              | Total Cover of Bryophytes | <u>31%</u>       |  |  |
| (Where applicable)  |                    |                           |                  |  |  |
| Remarks: <u>*identifies indicator status is tentative</u> |                    |                           |                  | Entered by: <u>sar</u> QC by: <u>cmw</u>   |  |

**SOIL**

Sampling Point: **P47**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |  |                   |                  |         |         |
|---|---------------|-----|----------------|---|--|-------------------|------------------|---------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |  | Type <sup>1</sup> | Loc <sup>2</sup> | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % |  |                   |                  |         |         |
| 0-25+   | 10YR 2/1      | 100 |                |   |  |                   |                  | muck    |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|  |  |   |
|--|--|---|
| <b>Hydric Soil Indicators:</b><br><input checked="" type="checkbox"/> Histosol or Histel (A1)<br><input type="checkbox"/> Histic Epipedon (A2)<br><input type="checkbox"/> Hydrogen Sulfide (A4)<br><input type="checkbox"/> Thick Dark Surface (A12)<br><input type="checkbox"/> Alaska Gleyed (A13)<br><input type="checkbox"/> Alaska Redox (A14)<br><input type="checkbox"/> Alaska Gleyed Pores (A15) | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b><br><input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup><br><input type="checkbox"/> Alaska Alpine Swales (TA5)<br><input type="checkbox"/> Alaska Redox With 2.5Y Hue<br><br><sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.<br><sup>4</sup> Give details of color change in Remarks | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer<br><input type="checkbox"/> Other (Explain in Remarks) |
|--|--|---|

|  |  |
|--|--|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No _____ |
|--|--|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |   |
|---|---|
| <b>Wetland Hydrology Indicators:</b><br>Primary Indicators (any one indicator is sufficient)  | Secondary Indicators (2 or more required)   |
| <input type="checkbox"/> Surface Water (A1)<br><input checked="" type="checkbox"/> High Water Table (A2)<br><input checked="" type="checkbox"/> Saturation (A3)<br><input type="checkbox"/> Water Marks (B1)<br><input type="checkbox"/> Sediment Deposits (B2)<br><input type="checkbox"/> Drift Deposits (B3)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Other (Explain in Remarks)  |
|   | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|  |   |
|--|---|
| <b>Field Observations:</b><br>Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>2</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>Surface</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No _____ |
|--|---|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:    Entered by: sar    QC by: cmw  
 Approx. 1/4-1/2" deep ponding in wetland near plot.

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P48  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 3-5  
 Subregion: Southeast Alaska Lat: 57.468707 Long: -134.543164 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |             |  |           |             |
|---------------------------------|--------------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____    | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> | Yes _____ | No <u>X</u> |
| Hydric Soil Present?            | Yes _____    | No <u>X</u> |  |           |             |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____    |  |           |             |

Remarks: \_\_\_\_\_

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>6</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)  |
|--|------------------|--------------------------------------|------------------|--|
| 1. <u>Tsuga heterophylla</u>                             | <u>40%</u>       | <u>Yes</u>                           | <u>FAC</u>       |  |
| 2. <u>Picea sitchensis</u>                               | <u>15%</u>       | <u>Yes</u>                           | <u>FACU</u>      |  |
| 3. _____   | _____            | _____                                | _____            |  |
| 4. _____   | _____            | _____                                | _____            |  |
| Total Cover: <u>55%</u>                                  |                  |                                      |                  |  |
| 50% of total cover: <u>28%</u>                           |                  | 20% of total cover: <u>11%</u>       |                  |  |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?                    | Indicator Status | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>75</u> x 3 = <u>225</u><br>FACU species <u>64</u> x 4 = <u>256</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>139</u> (A) <u>481</u> (B)<br>Prevalence Index = B/A = <u>3.46</u>      |
| 1. <u>Vaccinium ovalifolium</u>                          | <u>25%</u>       | <u>Yes</u>                           | <u>FAC</u>       |  |
| 2. <u>Menziesia ferruginea</u>                           | <u>20%</u>       | <u>Yes</u>                           | <u>FACU</u>      |  |
| 3. <u>Oplopanax horridus</u>                             | <u>10%</u>       | <u>No</u>                            | <u>FACU</u>      |  |
| 4. <u>Rubus spectabilis</u>                              | <u>5%</u>        | <u>No</u>                            | <u>FACU</u>      |  |
| 5. _____   | _____            | _____                                | _____            |  |
| 6. _____   | _____            | _____                                | _____            |  |
| Total Cover: <u>60%</u>                                  |                  |                                      |                  |  |
| 50% of total cover: <u>30%</u>                           |                  | 20% of total cover: <u>12%</u>       |                  |  |
| Herb Stratum   | Absolute % Cover | Dominant Species?                    | Indicator Status | <b>Hydrophytic Vegetation Indicators:</b><br>____ Dominance Test is >50%<br>____ Prevalence Index is ≤3.0 <sup>1</sup><br>____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 1. <u>Maianthemum dilatatum</u>                          | <u>10%</u>       | <u>Yes</u>                           | <u>FAC</u>       |  |
| 2. <u>Cornus canadensis</u>                              | <u>10%</u>       | <u>Yes</u>                           | <u>FACU</u>      |  |
| 3. <u>Rubus spectabilis</u>                              | <u>4%</u>        | <u>No</u>                            | <u>FACU</u>      |  |
| 4. _____   | _____            | _____                                | _____            |  |
| 5. _____   | _____            | _____                                | _____            |  |
| 6. _____   | _____            | _____                                | _____            |  |
| 7. _____   | _____            | _____                                | _____            |  |
| 8. _____   | _____            | _____                                | _____            |  |
| 9. _____   | _____            | _____                                | _____            |  |
| 10. _____  | _____            | _____                                | _____            |  |
| Total Cover: <u>24%</u>                                  |                  |                                      |                  |  |
| 50% of total cover: <u>12%</u>                           |                  | 20% of total cover: <u>5%</u>        |                  |  |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>1%</u>              |                  |  |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>75%</u> |                  |  |
| (Where applicable)                                       |                  |                                      |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw  
 No *Lysichiton americanus* or other FACW or OBL vegetation species near plot.

**SOIL**

Sampling Point: **P48**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |  |                   |                  |          |         |
|---|---------------|-----|----------------|---|--|-------------------|------------------|----------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |  | Type <sup>1</sup> | Loc <sup>2</sup> | Texture  | Remarks |
|   | Color (moist) | %   | Color (moist)  | % |  |                   |                  |          |         |
| 0-17  | 7.5YR 3/4     | 100 |                |   |  |                   |                  | organics |         |
| 17-29   | 10YR 2/1      | 100 |                |   |  |                   |                  | muck     |         |
|   |               |     |                |   |  |                   |                  |          |         |
|   |               |     |                |   |  |                   |                  |          |         |
|   |               |     |                |   |  |                   |                  |          |         |
|   |               |     |                |   |  |                   |                  |          |         |
|   |               |     |                |   |  |                   |                  |          |         |
|   |               |     |                |   |  |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                            | Indicators for Problematic Hydric Soils <sup>3</sup> :          |
|--|---|
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)  |   |
| <input type="checkbox"/> Alaska Gleyed (A13)       |   |
| <input type="checkbox"/> Alaska Redox (A14)        |   |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |   |

Alaska Gleyed Without Hue 5Y or Redder  
 Underlying Layer  
 Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b><br>Type: _____<br>Depth (inches): _____ | <b>Hydric Soil Present?</b> Yes _____    No <input checked="" type="checkbox"/> |
|--|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)  
 Surface organics were not saturated; therefore does not meet A1.

**HYDROLOGY**

| Wetland Hydrology Indicators:   | Secondary Indicators (2 or more required)   |
|---|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |   |
|---|---|
| <b>Field Observations:</b><br>Surface Water Present?    Yes _____    No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): 28<br>Saturation Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): 20<br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No _____ |
|---|---|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P49  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope bench  
 Local relief (concave, convex, none): Concave Slope (%): 3-5  
 Subregion: Southeast Alaska Lat: 57.469866 Long: -134.541300 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |   |
|---------------------------------|--------------|----------|---|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b><br>Yes <u>X</u> No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |   |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |   |
| Remarks: _____                  |              |          |   |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|                                       | Absolute % Cover          | Dominant Species?   | Indicator Status |  |  |
|---------------------------------------|---------------------------|---------------------|------------------|--|--|
| <b>Tree Stratum</b>                   |                           |                     |                  |  |  |
| 1. <u>Picea sitchensis</u>            | <u>20%</u>                | <u>Yes</u>          | <u>FACU</u>      | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>4</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)  |  |
| 2. <u>Tsuga heterophylla</u>          | <u>20%</u>                | <u>Yes</u>          | <u>FAC</u>       |  |  |
| 3. _____                              | _____                     | _____               | _____            |  |  |
| 4. _____                              | _____                     | _____               | _____            |  |  |
| Total Cover:                          | <u>40%</u>                |                     |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>55</u> x 1 = <u>55</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>73</u> x 3 = <u>219</u><br>FACU species <u>47</u> x 4 = <u>188</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>175</u> (A) <u>462</u> (B)<br>Prevalence Index = B/A = <u>2.64</u>    |  |
| 50% of total cover:                   | <u>20%</u>                | 20% of total cover: | <u>8%</u>        |  |  |
| <b>Sapling/Shrub Stratum</b>          |                           |                     |                  |  |  |
| 1. <u>Vaccinium alaskaense</u>        | <u>35%</u>                | <u>Yes</u>          | <u>FAC</u>       |  |  |
| 2. <u>Menziesia ferruginea</u>        | <u>10%</u>                | <u>No</u>           | <u>FACU</u>      |  |  |
| 3. <u>Vaccinium parvifolium</u>       | <u>10%</u>                | <u>No</u>           | <u>FACU</u>      |  |  |
| 4. _____                              | _____                     | _____               | _____            |  |  |
| 5. _____                              | _____                     | _____               | _____            |  |  |
| 6. _____                              | _____                     | _____               | _____            |  |  |
| Total Cover:                          | <u>55%</u>                |                     |                  |  |  |
| 50% of total cover:                   | <u>28%</u>                | 20% of total cover: | <u>11%</u>       |  |  |
| <b>Herb Stratum</b>                   |                           |                     |                  |  |  |
| 1. <u>Lysichiton americanus</u>       | <u>55%</u>                | <u>Yes</u>          | <u>OBL</u>       | <b>Hydrophytic Vegetation Indicators:</b><br>X Dominance Test is >50%<br>_____ Prevalence Index is ≤3.0 <sup>1</sup><br>_____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |  |
| 2. <u>Rubus pedatus</u>               | <u>15%</u>                | <u>No</u>           | <u>FAC</u>       |  |  |
| 3. <u>Cornus canadensis</u>           | <u>5%</u>                 | <u>No</u>           | <u>FACU</u>      |  |  |
| 4. <u>Coptis asplenifolia</u>         | <u>3%</u>                 | <u>No</u>           | <u>FAC</u>       |  |  |
| 5. <u>Streptopus amplexifolius</u>    | <u>2%</u>                 | <u>No</u>           | <u>FACU</u>      |  |  |
| 6. _____                              | _____                     | _____               | _____            |  |  |
| 7. _____                              | _____                     | _____               | _____            |  |  |
| 8. _____                              | _____                     | _____               | _____            |  |  |
| 9. _____                              | _____                     | _____               | _____            |  |  |
| 10. _____                             | _____                     | _____               | _____            |  |  |
| Total Cover:                          | <u>80%</u>                |                     |                  |  |  |
| 50% of total cover:                   | <u>40%</u>                | 20% of total cover: | <u>16%</u>       |  |  |
| Plot size (radius, or length x width) | <u>5 ft radius</u>        | % Bare Ground       | <u>0%</u>        |  |  |
| % Cover of Wetland Bryophytes _____   | Total Cover of Bryophytes |                     | <u>20%</u>       |  |  |
| (Where applicable)                    |                           |                     |                  |  |  |

Remarks: \*Identifies indicator status is tentative Entered by: sar QC by: cmw  
 FACU shrubs on slightly elevated hummocks.

**SOIL**

Sampling Point: **P49**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |  |                   |                  |            |         |
|---|---------------|-----|----------------|---|--|-------------------|------------------|------------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |  | Type <sup>1</sup> | Loc <sup>2</sup> | Texture    | Remarks |
|   | Color (moist) | %   | Color (moist)  | % |  |                   |                  |            |         |
| 0-22+   | 10YR 2/1      | 100 |                |   |  |                   |                  | mucky peat |         |
|   |               |     |                |   |  |                   |                  |            |         |
|   |               |     |                |   |  |                   |                  |            |         |
|   |               |     |                |   |  |                   |                  |            |         |
|   |               |     |                |   |  |                   |                  |            |         |
|   |               |     |                |   |  |                   |                  |            |         |
|   |               |     |                |   |  |                   |                  |            |         |
|   |               |     |                |   |  |                   |                  |            |         |
|   |               |     |                |   |  |                   |                  |            |         |
|   |               |     |                |   |  |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)   | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Type: _____                            |   |
| Depth (inches): _____                  |   |

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <u>Primary Indicators (any one indicator is sufficient)</u> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)   | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |  |
|--|--|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Surface Water Present?    Yes _____    No <input checked="" type="checkbox"/> Depth (inches): _____                                      |  |
| Water Table Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>10</u>                                    |  |
| Saturation Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>Surface</u><br>(includes capillary fringe) |  |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P50  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope bench  
 Local relief (concave, convex, none): Concave Slope (%): 5-7  
 Subregion: Southeast Alaska Lat: 57.469960 Long: -134.543405 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |   |          |   |
|---------------------------------|---|----------|---|
| Hydrophytic Vegetation Present? | Yes <input checked="" type="checkbox"/> | No _____ | <b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____ |
| Hydric Soil Present?            | Yes <input checked="" type="checkbox"/> | No _____ |   |
| Wetland Hydrology Present?      | Yes <input checked="" type="checkbox"/> | No _____ |   |
| Remarks: _____                  |   |          |   |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|  | Absolute % Cover          | Dominant Species?   | Indicator Status |   |  |
|--|---------------------------|---------------------|------------------|---|--|
| <b>Tree Stratum</b>                    |                           |                     |                  |   |  |
| 1. <u><i>Tsuga heterophylla</i></u>    | <u>30%</u>                | <u>Yes</u>          | <u>FAC</u>       | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>7</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71%</u> (A/B)   |  |
| 2. <u><i>Picea sitchensis</i></u>      | <u>30%</u>                | <u>Yes</u>          | <u>FACU</u>      |   |  |
| 3. _____                               | _____                     | _____               | _____            |   |  |
| 4. _____                               | _____                     | _____               | _____            |   |  |
| Total Cover:                           | <u>60%</u>                |                     |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>5</u> x 1 = <u>5</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>61</u> x 3 = <u>183</u><br>FACU species <u>62</u> x 4 = <u>248</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>128</u> (A) <u>436</u> (B)<br>Prevalence Index = B/A = <u>3.41</u>   |  |
| 50% of total cover:                    | <u>30%</u>                | 20% of total cover: | <u>12%</u>       |   |  |
| <b>Sapling/Shrub Stratum</b>           |                           |                     |                  |   |  |
| 1. <u><i>Oplopanax horridus</i></u>    | <u>20%</u>                | <u>Yes</u>          | <u>FACU</u>      | <b>Hydrophytic Vegetation Indicators:</b><br><input checked="" type="checkbox"/> Dominance Test is >50%<br><input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup><br><input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br><input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |  |
| 2. <u><i>Vaccinium alaskaense</i></u>  | <u>15%</u>                | <u>Yes</u>          | <u>FAC</u>       |   |  |
| 3. <u><i>Menziesia ferruginea</i></u>  | <u>5%</u>                 | <u>No</u>           | <u>FACU</u>      |   |  |
| 4. <u><i>Rubus spectabilis</i></u>     | <u>5%</u>                 | <u>No</u>           | <u>FACU</u>      |   |  |
| 5. _____                               | _____                     | _____               | _____            |   |  |
| 6. _____                               | _____                     | _____               | _____            |   |  |
| Total Cover:                           | <u>45%</u>                |                     |                  |   |  |
| 50% of total cover:                    | <u>23%</u>                | 20% of total cover: | <u>9%</u>        |   |  |
| <b>Herb Stratum</b>                    |                           |                     |                  |   |  |
| 1. <u><i>Rubus pedatus</i></u>         | <u>5%</u>                 | <u>Yes</u>          | <u>FAC</u>       |   |  |
| 2. <u><i>Lysichiton americanus</i></u> | <u>5%</u>                 | <u>Yes</u>          | <u>OBL</u>       |   |  |
| 3. <u><i>Athyrium cyclosorum</i></u>   | <u>5%</u>                 | <u>Yes</u>          | <u>FAC</u>       |   |  |
| 4. <u><i>Coptis asplenifolia</i></u>   | <u>4%</u>                 | <u>No</u>           | <u>FAC</u>       |   |  |
| 5. <u><i>Maianthemum dilatatum</i></u> | <u>2%</u>                 | <u>No</u>           | <u>FAC</u>       |   |  |
| 6. <u><i>Cornus canadensis</i></u>     | <u>2%</u>                 | <u>No</u>           | <u>FACU</u>      |   |  |
| 7. _____                               | _____                     | _____               | _____            |   |  |
| 8. _____                               | _____                     | _____               | _____            |   |  |
| 9. _____                               | _____                     | _____               | _____            |   |  |
| 10. _____                              | _____                     | _____               | _____            |   |  |
| Total Cover:                           | <u>23%</u>                |                     |                  |   |  |
| 50% of total cover:                    | <u>12%</u>                | 20% of total cover: | <u>5%</u>        |   |  |
| Plot size (radius, or length x width)  | <u>5 ft radius</u>        | % Bare Ground       | <u>0%</u>        |   |  |
| % Cover of Wetland Bryophytes _____    | Total Cover of Bryophytes |                     | <u>77%</u>       |   |  |
| (Where applicable)                     |                           |                     |                  |   |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P50**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth<br>(inches) | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|-------------------|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
|                   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-7               | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
| 7-25+             | 10YR 2/1      | 100 |                |   |                   |                  | muck     |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |
|                   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <b>Primary Indicators (any one indicator is sufficient)</b> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)              | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____                         | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): 16                              |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): 7<br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P51  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope bench  
 Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion: Southeast Alaska Lat: 57.469403 Long: -134.544367 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |
| Remarks: _____                  |              |          |  |              |          |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|                                       | Absolute % Cover   | Dominant Species?         | Indicator Status |   |
|---------------------------------------|--------------------|---------------------------|------------------|---|
| <b>Tree Stratum</b>                   |                    |                           |                  |   |
| 1. <u>Picea sitchensis</u>            | 15%                | Yes                       | FACU             | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>7</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57%</u> (A/B)   |
| 2. <u>Tsuga heterophylla</u>          | 15%                | Yes                       | FAC              |   |
| 3. _____                              | _____              | _____                     | _____            |   |
| 4. _____                              | _____              | _____                     | _____            |   |
| Total Cover:                          | <u>30%</u>         |                           |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>25</u> x 1 = <u>25</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>72</u> x 3 = <u>216</u><br>FACU species <u>55</u> x 4 = <u>220</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>152</u> (A) <u>461</u> (B)<br>Prevalence Index = B/A = <u>3.03</u>   |
| 50% of total cover:                   | <u>15%</u>         | 20% of total cover:       | <u>6%</u>        |   |
| <b>Sapling/Shrub Stratum</b>          |                    |                           |                  |   |
| 1. <u>Oplopanax horridus</u>          | 20%                | Yes                       | FACU             | <b>Hydrophytic Vegetation Indicators:</b><br><input checked="" type="checkbox"/> Dominance Test is >50%<br><input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup><br><input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br><input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 2. <u>Vaccinium alaskaense</u>        | 15%                | Yes                       | FAC              |   |
| 3. <u>Rubus spectabilis</u>           | 10%                | Yes                       | FACU             |   |
| 4. <u>Vaccinium parvifolium</u>       | 5%                 | No                        | FACU             |   |
| 5. _____                              | _____              | _____                     | _____            |   |
| 6. _____                              | _____              | _____                     | _____            |   |
| Total Cover:                          | <u>50%</u>         |                           |                  | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  |
| 50% of total cover:                   | <u>25%</u>         | 20% of total cover:       | <u>10%</u>       |   |
| <b>Herb Stratum</b>                   |                    |                           |                  |   |
| 1. <u>Lysichiton americanus</u>       | 25%                | Yes                       | OBL              | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  |
| 2. <u>Athyrium cyclosorum</u>         | 25%                | Yes                       | FAC              |   |
| 3. <u>Coptis asplenifolia</u>         | 8%                 | No                        | FAC              |   |
| 4. <u>Rubus pedatus</u>               | 5%                 | No                        | FAC              |   |
| 5. <u>Cornus canadensis</u>           | 5%                 | No                        | FACU             |   |
| 6. <u>Tiarella trifoliata</u>         | 2%                 | No                        | FAC              |   |
| 7. <u>Maianthemum dilatatum</u>       | 2%                 | No                        | FAC              |   |
| 8. _____                              | _____              | _____                     | _____            |   |
| 9. _____                              | _____              | _____                     | _____            |   |
| 10. _____                             | _____              | _____                     | _____            |   |
| Total Cover:                          | <u>72%</u>         |                           |                  | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  |
| 50% of total cover:                   | <u>36%</u>         | 20% of total cover:       | <u>14%</u>       |   |
| Plot size (radius, or length x width) | <u>5 ft radius</u> | % Bare Ground             | <u>0%</u>        |   |
| % Cover of Wetland Bryophytes         | _____              | Total Cover of Bryophytes | <u>45%</u>       |   |
| (Where applicable)                    |                    |                           |                  |   |

Remarks: \*Identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P51**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |  |                   |                  |         |         |
|---|---------------|-----|----------------|---|--|-------------------|------------------|---------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |  | Type <sup>1</sup> | Loc <sup>2</sup> | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % |  |                   |                  |         |         |
| 0-29+   | 10YR 2/1      | 100 |                |   |  |                   |                  | muck    |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)   | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Type: _____<br>Depth (inches): _____   |   |

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|   |  |
|---|--|
| <b>Wetland Hydrology Indicators:</b>                        | <b>Secondary Indicators (2 or more required)</b>                       |
| <u>Primary Indicators (any one indicator is sufficient)</u> |  |
| <input type="checkbox"/> Surface Water (A1)                 | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)   | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)         | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                   | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)             | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)            | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                 | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)           | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|   | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|  |  |
|--|--|
| <b>Field Observations:</b>   | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____   |  |
| Water Table Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>8</u>                                     |  |
| Saturation Present?    Yes <input checked="" type="checkbox"/> No _____    Depth (inches): <u>Surface</u><br>(includes capillary fringe) |  |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P52  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Toeslope bench  
 Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion: Southeast Alaska Lat: 57.468985 Long: -134.545236 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |
|---------------------------------|--------------|----------|--|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |
| Remarks: _____                  |              |          |  |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|                                       | Absolute % Cover   | Dominant Species?         | Indicator Status |   |  |
|---------------------------------------|--------------------|---------------------------|------------------|---|--|
| <b>Tree Stratum</b>                   |                    |                           |                  |   |  |
| 1. <u>Picea sitchensis</u>            | <u>40%</u>         | <u>Yes</u>                | <u>FACU</u>      | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)   |  |
| 2. <u>Tsuga heterophylla</u>          | <u>35%</u>         | <u>Yes</u>                | <u>FAC</u>       |   |  |
| 3. _____                              | _____              | _____                     | _____            |   |  |
| 4. _____                              | _____              | _____                     | _____            |   |  |
| Total Cover:                          | <u>75%</u>         |                           |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>30</u> x 1 = <u>30</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>72</u> x 3 = <u>216</u><br>FACU species <u>74</u> x 4 = <u>296</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>176</u> (A) <u>542</u> (B)<br>Prevalence Index = B/A = <u>3.08</u>   |  |
| 50% of total cover:                   | <u>38%</u>         | 20% of total cover:       | <u>15%</u>       |   |  |
| <b>Sapling/Shrub Stratum</b>          |                    |                           |                  |   |  |
| 1. <u>Oplopanax horridus</u>          | <u>25%</u>         | <u>Yes</u>                | <u>FACU</u>      | <b>Hydrophytic Vegetation Indicators:</b><br><input checked="" type="checkbox"/> Dominance Test is >50%<br><input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup><br><input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br><input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |  |
| 2. <u>Menziesia ferruginea</u>        | <u>3%</u>          | <u>No</u>                 | <u>FACU</u>      |   |  |
| 3. <u>Vaccinium parvifolium</u>       | <u>3%</u>          | <u>No</u>                 | <u>FACU</u>      |   |  |
| 4. _____                              | _____              | _____                     | _____            |   |  |
| 5. _____                              | _____              | _____                     | _____            |   |  |
| 6. _____                              | _____              | _____                     | _____            |   |  |
| Total Cover:                          | <u>31%</u>         |                           |                  |   |  |
| 50% of total cover:                   | <u>16%</u>         | 20% of total cover:       | <u>6%</u>        |   |  |
| <b>Herb Stratum</b>                   |                    |                           |                  |   |  |
| 1. <u>Athyrium cyclosorum</u>         | <u>25%</u>         | <u>Yes</u>                | <u>FAC</u>       |   |  |
| 2. <u>Lysichiton americanus</u>       | <u>30%</u>         | <u>Yes</u>                | <u>OBL</u>       |   |  |
| 3. <u>Tiarella trifoliata</u>         | <u>10%</u>         | <u>No</u>                 | <u>FAC</u>       |   |  |
| 4. <u>Gymnocarpium dryopteris</u>     | <u>3%</u>          | <u>No</u>                 | <u>FACU</u>      |   |  |
| 5. <u>Maianthemum dilatatum</u>       | <u>2%</u>          | <u>No</u>                 | <u>FAC</u>       |   |  |
| 6. _____                              | _____              | _____                     | _____            |   |  |
| 7. _____                              | _____              | _____                     | _____            |   |  |
| 8. _____                              | _____              | _____                     | _____            |   |  |
| 9. _____                              | _____              | _____                     | _____            |   |  |
| 10. _____                             | _____              | _____                     | _____            |   |  |
| Total Cover:                          | <u>70%</u>         |                           |                  |   |  |
| 50% of total cover:                   | <u>35%</u>         | 20% of total cover:       | <u>14%</u>       |   |  |
| Plot size (radius, or length x width) | <u>5 ft radius</u> | % Bare Ground             | <u>0%</u>        |   |  |
| % Cover of Wetland Bryophytes         | _____              | Total Cover of Bryophytes | <u>30%</u>       |   |  |
| (Where applicable)                    |                    |                           |                  |   |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P52**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |  |                   |                  |         |         |
|---|---------------|-----|----------------|---|--|-------------------|------------------|---------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |  | Type <sup>1</sup> | Loc <sup>2</sup> | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % |  |                   |                  |         |         |
| 0-26+   | 10YR 2/1      | 100 |                |   |  |                   |                  | muck    |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |
|   |               |     |                |   |  |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Underlying Layer                       |
| <input type="checkbox"/> Alaska Redox (A14)                 | <input type="checkbox"/> Other (Explain in Remarks)             |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|  |  |
|--|--|
| <b>Wetland Hydrology Indicators:</b>                 | <b>Secondary Indicators (2 or more required)</b>                       |
| Primary Indicators (any one indicator is sufficient) |  |
| <input type="checkbox"/> Surface Water (A1)          | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input type="checkbox"/> High Water Table (A2)       | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)  | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)            | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)      | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)         | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)     | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)          | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)    | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|  | <input type="checkbox"/> FAC-Neutral Test (D5)                         |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____                                 | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>16</u>                               |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>11</u><br>(includes capillary fringe) |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P53  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Ridge  
 Local relief (concave, convex, none): Convex Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.470022 Long: -134.547130 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |           |             |  |           |             |
|---------------------------------|-----------|-------------|--|-----------|-------------|
| Hydrophytic Vegetation Present? | Yes _____ | No <u>X</u> | <b>Is the Sampled Area within a Wetland?</b> |           |             |
| Hydric Soil Present?            | Yes _____ | No <u>X</u> |  | Yes _____ | No <u>X</u> |
| Wetland Hydrology Present?      | Yes _____ | No <u>X</u> |  |           |             |
| Remarks: _____                  |           |             |  |           |             |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|                                       | Absolute % Cover | Dominant Species?         | Indicator Status |  |
|---------------------------------------|------------------|---------------------------|------------------|--|
| <b>Tree Stratum</b>                   |                  |                           |                  |  |
| 1. <u>Picea sitchensis</u>            | 30%              | Yes                       | FACU             | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>7</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>43%</u> (A/B)  |
| 2. <u>Tsuga heterophylla</u>          | 30%              | Yes                       | FAC              |  |
| 3. _____                              | _____            | _____                     | _____            |  |
| 4. _____                              | _____            | _____                     | _____            |  |
| Total Cover:                          | 60%              |                           |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>0</u> x 1 = <u>0</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>37</u> x 3 = <u>111</u><br>FACU species <u>48</u> x 4 = <u>192</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>85</u> (A) <u>303</u> (B)<br>Prevalence Index = B/A = <u>3.56</u>       |
| 50% of total cover:                   | 30%              | 20% of total cover:       | 12%              |  |
| <b>Sapling/Shrub Stratum</b>          |                  |                           |                  |  |
| 1. <u>Menziesia ferruginea</u>        | 5%               | Yes                       | FACU             | <b>Hydrophytic Vegetation Indicators:</b><br>____ Dominance Test is >50%<br>____ Prevalence Index is ≤3.0 <sup>1</sup><br>____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 2. <u>Menziesia ferruginea</u>        | 5%               | Yes                       | FACU             |  |
| 3. <u>Vaccinium ovalifolium</u>       | 5%               | Yes                       | FAC              |  |
| 4. _____                              | _____            | _____                     | _____            |  |
| 5. _____                              | _____            | _____                     | _____            |  |
| 6. _____                              | _____            | _____                     | _____            |  |
| 7. _____                              | _____            | _____                     | _____            |  |
| 8. _____                              | _____            | _____                     | _____            |  |
| 9. _____                              | _____            | _____                     | _____            |  |
| 10. _____                             | _____            | _____                     | _____            |  |
| Total Cover:                          | 15%              |                           |                  | <b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>   |
| 50% of total cover:                   | 8%               | 20% of total cover:       | 3%               |  |
| <b>Herb Stratum</b>                   |                  |                           |                  |  |
| 1. <u>Cornus canadensis</u>           | 8%               | Yes                       | FACU             |  |
| 2. <u>Maianthemum dilatatum</u>       | 2%               | Yes                       | FAC              |  |
| 3. _____                              | _____            | _____                     | _____            |  |
| 4. _____                              | _____            | _____                     | _____            |  |
| 5. _____                              | _____            | _____                     | _____            |  |
| 6. _____                              | _____            | _____                     | _____            |  |
| 7. _____                              | _____            | _____                     | _____            |  |
| 8. _____                              | _____            | _____                     | _____            |  |
| 9. _____                              | _____            | _____                     | _____            |  |
| 10. _____                             | _____            | _____                     | _____            |  |
| Total Cover:                          | 10%              |                           |                  |  |
| 50% of total cover:                   | 5%               | 20% of total cover:       | 2%               |  |
| Plot size (radius, or length x width) | 5 ft radius      | % Bare Ground             | 10%              |  |
| % Cover of Wetland Bryophytes         | _____            | Total Cover of Bryophytes | 80%              |  |
| (Where applicable)                    |                  |                           |                  |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P53**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |          |         |
|---|---------------|-----|----------------|---|-------------------|------------------|----------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture  | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |          |         |
| 0-27  | 7.5YR 3/4     | 100 |                |   |                   |                  | organics |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |
|   |               |     |                |   |                   |                  |          |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                            | Indicators for Problematic Hydric Soils <sup>3</sup> :          |
|--|---|
| <input type="checkbox"/> Histosol or Histel (A1)   | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)      | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)     | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)  |   |
| <input type="checkbox"/> Alaska Gleyed (A13)       |   |
| <input type="checkbox"/> Alaska Redox (A14)        |   |
| <input type="checkbox"/> Alaska Gleyed Pores (A15) |   |

Alaska Gleyed Without Hue 5Y or Redder Underlying Layer  
Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.  
<sup>4</sup>Give details of color change in Remarks

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Bedrock</u><br>Depth (inches): <u>27</u> | <b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|   |  |
|---|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____<br>Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;27</u><br>Saturation Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>&gt;27</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
|---|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:    Entered by: sar    QC by: cmw  
 Slightly moist throughout. No saturation or water table.

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P54  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope bench  
 Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion: Southeast Alaska Lat: 57.470075 Long: -134.547064 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |
| Remarks: _____                  |              |          |  |              |          |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|                                       | Absolute % Cover   | Dominant Species?         | Indicator Status |   |  |
|---------------------------------------|--------------------|---------------------------|------------------|---|--|
| <b>Tree Stratum</b>                   |                    |                           |                  |   |  |
| 1. <u>Picea sitchensis</u>            | 15%                | Yes                       | FACU             | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>5</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)   |  |
| 2. <u>Tsuga heterophylla</u>          | 15%                | Yes                       | FAC              |   |  |
| 3. _____                              | _____              | _____                     | _____            |   |  |
| 4. _____                              | _____              | _____                     | _____            |   |  |
| Total Cover:                          | <u>30%</u>         |                           |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>25</u> x 1 = <u>25</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>32</u> x 3 = <u>96</u><br>FACU species <u>39</u> x 4 = <u>156</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>96</u> (A) <u>277</u> (B)<br>Prevalence Index = B/A = <u>2.89</u>   |  |
| 50% of total cover:                   | <u>15%</u>         | 20% of total cover:       | <u>6%</u>        |   |  |
| <b>Sapling/Shrub Stratum</b>          |                    |                           |                  |   |  |
| 1. <u>Oplopanax horridus</u>          | 15%                | Yes                       | FACU             | <b>Hydrophytic Vegetation Indicators:</b><br><input checked="" type="checkbox"/> Dominance Test is >50%<br><input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup><br><input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br><input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |  |
| 2. <u>Rubus spectabilis</u>           | 4%                 | No                        | FACU             |   |  |
| 3. <u>Vaccinium parvifolium</u>       | 3%                 | No                        | FACU             |   |  |
| 4. _____                              | _____              | _____                     | _____            |   |  |
| 5. _____                              | _____              | _____                     | _____            |   |  |
| 6. _____                              | _____              | _____                     | _____            |   |  |
| Total Cover:                          | <u>22%</u>         |                           |                  |   |  |
| 50% of total cover:                   | <u>11%</u>         | 20% of total cover:       | <u>4%</u>        |   |  |
| <b>Herb Stratum</b>                   |                    |                           |                  |   |  |
| 1. <u>Lysichiton americanus</u>       | 25%                | Yes                       | OBL              |   |  |
| 2. <u>Athyrium cyclosorum</u>         | 15%                | Yes                       | FAC              |   |  |
| 3. <u>Tiarella trifoliata</u>         | 2%                 | No                        | FAC              |   |  |
| 4. <u>Gymnocarpium dryopteris</u>     | 2%                 | No                        | FACU             |   |  |
| 5. _____                              | _____              | _____                     | _____            |   |  |
| 6. _____                              | _____              | _____                     | _____            |   |  |
| 7. _____                              | _____              | _____                     | _____            |   |  |
| 8. _____                              | _____              | _____                     | _____            |   |  |
| 9. _____                              | _____              | _____                     | _____            |   |  |
| 10. _____                             | _____              | _____                     | _____            |   |  |
| Total Cover:                          | <u>44%</u>         |                           |                  |   |  |
| 50% of total cover:                   | <u>22%</u>         | 20% of total cover:       | <u>9%</u>        |   |  |
| Plot size (radius, or length x width) | <u>5 ft radius</u> | % Bare Ground             | <u>31%</u>       |   |  |
| % Cover of Wetland Bryophytes         | _____              | Total Cover of Bryophytes | <u>25%</u>       |   |  |
| (Where applicable)                    |                    |                           |                  |   |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw



**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Ketchikan Gateway Borough Sampling Date: 9/15/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P55  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 5-10  
 Subregion: Southeast Alaska Lat: 57.471071 Long: -134.546331 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |              |          |
|---------------------------------|--------------|----------|--|--------------|----------|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> | Yes <u>X</u> | No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |              |          |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |              |          |
| Remarks: _____                  |              |          |  |              |          |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

|  | Absolute % Cover   | Dominant Species?         | Indicator Status |   |  |
|--|--------------------|---------------------------|------------------|---|--|
| <b>Tree Stratum</b>                    |                    |                           |                  |   |  |
| 1. <u><i>Tsuga heterophylla</i></u>    | 25%                | Yes                       | FAC              | <b>Dominance Test worksheet:</b><br>Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)<br><br>Total Number of Dominant Species Across All Strata: <u>7</u> (B)<br><br>Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57%</u> (A/B)   |  |
| 2. <u><i>Picea sitchensis</i></u>      | 10%                | Yes                       | FACU             |   |  |
| 3. _____                               | _____              | _____                     | _____            |   |  |
| 4. _____                               | _____              | _____                     | _____            |   |  |
| Total Cover:                           | <u>35%</u>         |                           |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____<br>OBL species <u>10</u> x 1 = <u>10</u><br>FACW species <u>0</u> x 2 = <u>0</u><br>FAC species <u>75</u> x 3 = <u>225</u><br>FACU species <u>55</u> x 4 = <u>220</u><br>UPL species <u>0</u> x 5 = <u>0</u><br>Column Totals: <u>140</u> (A) <u>455</u> (B)<br>Prevalence Index = B/A = <u>3.25</u>   |  |
| 50% of total cover:                    | <u>18%</u>         | 20% of total cover:       | <u>7%</u>        |   |  |
| <b>Sapling/Shrub Stratum</b>           |                    |                           |                  |   |  |
| 1. <u><i>Rubus spectabilis</i></u>     | 25%                | Yes                       | FACU             | <b>Hydrophytic Vegetation Indicators:</b><br><input checked="" type="checkbox"/> Dominance Test is >50%<br><input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup><br><input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br><input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |  |
| 2. <u><i>Oplopanax horridus</i></u>    | 15%                | Yes                       | FACU             |   |  |
| 3. <u><i>Vaccinium ovalifolium</i></u> | 15%                | Yes                       | FAC              |   |  |
| 4. <u><i>Menziesia ferruginea</i></u>  | 5%                 | No                        | FACU             |   |  |
| 5. _____                               | _____              | _____                     | _____            |   |  |
| 6. _____                               | _____              | _____                     | _____            |   |  |
| Total Cover:                           | <u>60%</u>         |                           |                  |   |  |
| 50% of total cover:                    | <u>30%</u>         | 20% of total cover:       | <u>12%</u>       |   |  |
| <b>Herb Stratum</b>                    |                    |                           |                  |   |  |
| 1. <u><i>Athyrium cyclosorum</i></u>   | 20%                | Yes                       | FAC              |   | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____ |
| 2. <u><i>Lysichiton americanus</i></u> | 10%                | Yes                       | OBL              |   |  |
| 3. <u><i>Tiarella trifoliata</i></u>   | 8%                 | No                        | FAC              |   |  |
| 4. <u><i>Coptis asplenifolia</i></u>   | 5%                 | No                        | FAC              |   |  |
| 5. <u><i>Rubus pedatus</i></u>         | 2%                 | No                        | FAC              |   |  |
| 6. _____                               | _____              | _____                     | _____            |   |  |
| 7. _____                               | _____              | _____                     | _____            |   |  |
| 8. _____                               | _____              | _____                     | _____            |   |  |
| 9. _____                               | _____              | _____                     | _____            |   |  |
| 10. _____                              | _____              | _____                     | _____            |   |  |
| Total Cover:                           | <u>45%</u>         |                           |                  |   |  |
| 50% of total cover:                    | <u>23%</u>         | 20% of total cover:       | <u>9%</u>        |   |  |
| Plot size (radius, or length x width)  | <u>5 ft radius</u> | % Bare Ground             | <u>0%</u>        |   |  |
| % Cover of Wetland Bryophytes          | _____              | Total Cover of Bryophytes | <u>55%</u>       |   |  |
| (Where applicable)                     | _____              |                           |                  |   |  |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw

**SOIL**

Sampling Point: **P55**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |         |         |
|---|---------------|-----|----------------|---|-------------------|------------------|---------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   | Loc <sup>2</sup> | Texture | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> |                  |         |         |
| 0-25  | 10YR 2/1      | 100 |                |   |                   |                  | muck    |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |
|   |               |     |                |   |                   |                  |         |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                     | Indicators for Problematic Hydric Soils <sup>3</sup> :                           |
|---|--|
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup>                  |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer |
| <input type="checkbox"/> Hydrogen Sulfide (A4)              | <input type="checkbox"/> Alaska Alpine Swales (TA5)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)           | <input type="checkbox"/> Alaska Redox With 2.5Y Hue                              |
| <input type="checkbox"/> Alaska Gleyed (A13)                | <input type="checkbox"/> Other (Explain in Remarks)                              |
| <input type="checkbox"/> Alaska Redox (A14)                 |  |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |  |

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

|   |   |
|---|---|
| <b>Restrictive Layer (if present):</b><br>Type: <u>Bedrock</u><br>Depth (inches): <u>25</u> | <b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|---|---|

Remarks:    s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

| Wetland Hydrology Indicators:  | Secondary Indicators (2 or more required)   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b><br><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)<br><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)<br><input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks)<br><input type="checkbox"/> Algal Mat or Crust (B4)<br><input type="checkbox"/> Iron Deposits (B5)<br><input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)<br><input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Salt Deposits (C5)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |

|  |  |
|--|--|
| <b>Field Observations:</b><br>Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u><br>Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>16</u><br>Saturation Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>5</u><br>(includes capillary fringe) | <b>Wetland Hydrology Present?</b><br>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
|--|--|

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Entered by: sar    QC by: cmw

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Angoon Airport 12a with access to 12 Borough/City: Hoonah Angoon Sampling Date: 9/16/2013  
 Applicant/Owner: ADOT&PF Sampling Point: P56  
 Investigator(s): Stacey Reed and Taya MacLean Landform (hillside, terrace, hummocks, etc.): Bench on hillslope  
 Local relief (concave, convex, none): Concave Slope (%): <3  
 Subregion: Southeast Alaska Lat: 57.465138 Long: -134.539918 Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

|                                 |              |          |  |
|---------------------------------|--------------|----------|--|
| Hydrophytic Vegetation Present? | Yes <u>X</u> | No _____ | <b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ |
| Hydric Soil Present?            | Yes <u>X</u> | No _____ |  |
| Wetland Hydrology Present?      | Yes <u>X</u> | No _____ |  |
| Remarks: _____                  |              |          |  |

**VEGETATION - Use scientific names of plants. List all species in the plot.**

| Tree Stratum   | Absolute % Cover | Dominant Species?                   | Indicator Status | Dominance Test worksheet:   |
|--|------------------|-------------------------------------|------------------|---|
| 1. <u>Pinus contorta</u>                                 | <u>5%</u>        | Yes                                 | FAC              | Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)   |
| 2. <u>Tsuga heterophylla</u>                             | <u>5%</u>        | Yes                                 | FAC              | Total Number of Dominant Species Across All Strata: <u>7</u> (B)  |
| 3. _____   | _____            | _____                               | _____            | Percent of Dominant Species That Are OBL, FACW, or FAC: <u>86%</u> (A/B)  |
| 4. _____   | _____            | _____                               | _____            |   |
| Total Cover: <u>10%</u>                                  |                  |                                     |                  | <b>Prevalence Index worksheet:</b><br>Total % Cover of: _____ Multiply by: _____  |
| 50% of total cover: <u>5%</u>                            |                  | 20% of total cover: <u>2%</u>       |                  |   |
| Sapling/Shrub Stratum                                    | Absolute % Cover | Dominant Species?                   | Indicator Status | Prevalence Index worksheet:   |
| 1. <u>Alnus viridis</u>                                  | <u>15%</u>       | Yes                                 | FAC              | OBL species <u>7</u> x 1 = <u>7</u>   |
| 2. <u>Tsuga mertensiana</u>                              | <u>15%</u>       | Yes                                 | FAC              | FACW species <u>2</u> x 2 = <u>4</u>  |
| 3. <u>Vaccinium alaskaense</u>                           | <u>15%</u>       | Yes                                 | FAC              | FAC species <u>90</u> x 3 = <u>270</u>  |
| 4. <u>Picea sitchensis</u>                               | <u>10%</u>       | No                                  | FACU             | FACU species <u>12</u> x 4 = <u>48</u>  |
| 5. <u>Tsuga heterophylla</u>                             | <u>15%</u>       | Yes                                 | FAC              | UPL species <u>0</u> x 5 = <u>0</u>   |
| 6. <u>Rhododendron groenlandicum</u>                     | <u>5%</u>        | No                                  | FAC              | Column Totals: <u>111</u> (A) <u>329</u> (B)  |
| Total Cover: <u>75%</u>                                  |                  |                                     |                  | Prevalence Index = B/A = <u>2.96</u>  |
| 50% of total cover: <u>38%</u>                           |                  | 20% of total cover: <u>15%</u>      |                  |   |
| Herb Stratum   | Absolute % Cover | Dominant Species?                   | Indicator Status | Hydrophytic Vegetation Indicators:  |
| 1. <u>Carex species</u>                                  | <u>70%</u>       | Yes                                 | OBL to FACU      | X Dominance Test is >50%<br>Prevalence Index is ≤3.0 <sup>1</sup><br>Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present. |
| 2. <u>Calamagrostis canadensis</u>                       | <u>8%</u>        | No                                  | FAC              |   |
| 3. <u>Lysichiton americanus</u>                          | <u>5%</u>        | No                                  | OBL              |   |
| 4. <u>Athyrium cyclosorum</u>                            | <u>3%</u>        | No                                  | FAC              |   |
| 5. <u>Nephrrophyllidium crista-galli</u>                 | <u>2%</u>        | No                                  | OBL              |   |
| 6. <u>Tiarella trifoliata</u>                            | <u>2%</u>        | No                                  | FAC              |   |
| 7. <u>Angelica genuflexa</u>                             | <u>2%</u>        | No                                  | FACW             |   |
| 8. <u>Coptis asplenifolia</u>                            | <u>2%</u>        | No                                  | FAC              |   |
| 9. <u>Cornus canadensis</u>                              | <u>2%</u>        | No                                  | FACU             |   |
| 10. <u>Agrostis species</u>                              | <u>2%</u>        | No                                  | FAC?             |   |
| Total Cover: <u>98%</u>                                  |                  |                                     |                  | <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  |
| 50% of total cover: <u>49%</u>                           |                  | 20% of total cover: <u>20%</u>      |                  |   |
| Plot size (radius, or length x width) <u>5 ft radius</u> |                  | % Bare Ground <u>0%</u>             |                  |   |
| % Cover of Wetland Bryophytes _____                      |                  | Total Cover of Bryophytes <u>0%</u> |                  |   |
| (Where applicable)                                       |                  |                                     |                  |   |

Remarks: \*identifies indicator status is tentative Entered by: sar QC by: cmw  
 Also 5% *Menziesia ferruginea* in shrub stratum.

**SOIL**

Sampling Point: **P56**

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) |               |     |                |   |                   |                  |            |         |
|---|---------------|-----|----------------|---|-------------------|------------------|------------|---------|
| Depth<br>(inches)   | Matrix        |     | Redox Features |   |                   |                  | Texture    | Remarks |
|   | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |            |         |
| 0-25  | 7.5YR 3/2     | 100 |                |   |                   |                  | peat       |         |
| 25-30+  | 10YR 2/1      | 100 |                |   |                   |                  | mucky peat |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |
|   |               |     |                |   |                   |                  |            |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

|   |   |
|---|---|
| <b>Hydric Soil Indicators:</b>                              | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>     |
| <input checked="" type="checkbox"/> Histosol or Histel (A1) | <input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> |
| <input type="checkbox"/> Histic Epipedon (A2)               | <input type="checkbox"/> Alaska Alpine Swales (TA5)             |
| <input checked="" type="checkbox"/> Hydrogen Sulfide (A4)   | <input type="checkbox"/> Alaska Redox With 2.5Y Hue             |
| <input type="checkbox"/> Thick Dark Surface (A12)           |   |
| <input type="checkbox"/> Alaska Gleyed (A13)                |   |
| <input type="checkbox"/> Alaska Redox (A14)                 |   |
| <input type="checkbox"/> Alaska Gleyed Pores (A15)          |   |

Alaska Gleyed Without Hue 5Y or Redder  
 Underlying Layer  
 Other (Explain in Remarks)

<sup>3</sup>One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.

<sup>4</sup>Give details of color change in Remarks

|  |   |
|--|---|
| <b>Restrictive Layer (if present):</b> | <b>Hydric Soil Present?</b>   |
| Type: _____                            | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Depth (inches): _____                  |   |

Remarks: s = sand; si = silt; c = clay; l = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

**HYDROLOGY**

|  |  |
|--|--|
| <b>Wetland Hydrology Indicators:</b>                               | <b>Secondary Indicators (2 or more required)</b>                       |
| <u>Primary Indicators (any one indicator is sufficient)</u>        |  |
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9)                     |
| <input checked="" type="checkbox"/> High Water Table (A2)          | <input type="checkbox"/> Drainage Patterns (B10)                       |
| <input checked="" type="checkbox"/> Saturation (A3)                | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Presence of Reduced Iron (C4)                 |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Salt Deposits (C5)                            |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Stunted or Stressed Plants (D1)               |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Geomorphic Position (D2)                      |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Shallow Aquitard (D3)                         |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Microtopographic Relief (D4)                  |
|  | <input type="checkbox"/> FAC-Neutral Test (D5)                         |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |
| <input type="checkbox"/> Marl Deposits (B15)                       |  |
| <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)     |  |
| <input type="checkbox"/> Dry-Season Water Table (C2)               |  |
| <input type="checkbox"/> Other (Explain in Remarks)                |  |

|   |   |
|---|---|
| <b>Field Observations:</b>  | <b>Wetland Hydrology Present?</b>                                   |
| Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> |
| Water Table Present? Yes <input checked="" type="checkbox"/> No _____   |   |
| Saturation Present? Yes <input checked="" type="checkbox"/> No _____    |   |
| (includes capillary fringe)   |   |
| Depth (inches): _____   |   |
| Depth (inches): <u>2</u>  |   |
| Depth (inches): <u>Surface</u>  |   |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_ Entered by: sar QC by: cmw

APPENDIX D. GROUND-LEVEL SITE PHOTOGRAPHS

*This Page Intentionally Left Blank*



Photo location map.

*This Page Intentionally Left Blank*



**Photo 1.** View of isolated upland ridge in wetland/  
upland mosaic area.



**Photo 2.** View of wetland drainage feature.



Photo 3. View of palustrine forested wetland community.



Photo 4. View of palustrine forested wetland community.



Photo 5. View of organic muck at wetland Plot 10.



Photo 6. View of scattered, isolated ponding in forested wetland.



Photo 7. View of iron deposits in wetland.



Photo 8. View of palustrine scrub-shrub broad-leaved deciduous wetland community.



Photo 9. View of palustrine scrub-shrub needle-leaved evergreen wetland community.



Photo 10. View of palustrine scrub-shrub wetland community.



**Photo 11.** View of palustrine emergent wetland community.



**Photo 12.** View of peat soils in palustrine emergent fen community.



Photo 13. View of upland community.



Photo 14. View of upland soils at Plot 16.



Photo 15. View of upstream portions of narrow perennial drainage flowing through fern.



Photo 16. View of downstream portion of perennial drainage.



**Photo 17.** View of the main perennial drainage that flows southerly through the site



**Photo 18.** View of headwaters of perennial drainage located in the southwestern portion of the study area.

*This Page Intentionally Left Blank*

APPENDIX E. VEGETATION TABLES

E-1

*This Page Intentionally Left Blank*

E-2

**Angoon Airport 12A with Access 12**  
**Table of Vascular Vegetation Observed On-Site**  
**8/19-8/22/2013 (Plots 1-41) and 9/14-9/16/2013 (Plots 42-56)**

| Common Name   | Scientific Name                      | Wetland Indicator Status |
|---|--------------------------------------|--------------------------|
| <b>WETLAND VEGETATION</b>                               |                                      |                          |
| Rocky Mountain maple                                    | <i>Acer glabrum</i>                  | FACU                     |
| common yarrow   | <i>Achillea millefolium</i>          | FACU                     |
| Red Baneberry   | <i>Actaea rubra</i>                  | FAC                      |
| mountain alder, Sitka alder                             | <i>Alnus viridis</i>                 | FAC                      |
| kneeling angelica                                       | <i>Angelica genuflexa</i>            | FACW                     |
| Western Lady Fern                                       | <i>Athyrium cyclosorum</i>           | FAC                      |
| bluejoint   | <i>Calamagrostis canadensis</i>      | FAC                      |
| white marsh marigold                                    | <i>Caltha leptosepala</i>            | OBL                      |
| giant mountain aster, Canada aster                      | <i>Canadanthus modestus</i>          | FAC                      |
| water sedge, leafy tussock sedge                        | <i>Carex aquatilis</i>               | OBL                      |
| sedge   | <i>Carex species</i>                 | OBL to FACU              |
| yellow sedge, yellow-green sedge                        | <i>Carex flava</i>                   | OBL                      |
| livid sedge   | <i>Carex livida</i>                  | OBL                      |
| Umbell's Bittercress                                    | <i>Cardamine umbellata</i>           | FACW                     |
| Northwest Territory sedge                               | <i>Carex utriculata</i>              | OBL                      |
| purple marshlocks                                       | <i>Comarum palustre</i>              | OBL                      |
| fern-leaf goldthread                                    | <i>Coptis asplenifolia</i>           | FAC                      |
| three-leaf goldthread                                   | <i>Coptis trifolia</i>               | FAC                      |
| Red Osier   | <i>Cornus alba</i>                   | FAC                      |
| bunchberry dogwood, Canadian bunchberry                 | <i>Cornus canadensis</i>             | FACU                     |
| round-leaf sundew                                       | <i>Drosera rotundifolia</i>          | OBL                      |
| spikerush species                                       | <i>Eleocharis species</i>            | OBL to FACW              |
| black crowberry   | <i>Empetrum nigrum</i>               | FAC                      |
| field horsetail   | <i>Equisetum arvense</i>             | FAC                      |
| water horsetail   | <i>Equisetum fluviatile</i>          | OBL                      |
| variegated scouring-rush                                | <i>Equisetum variegatum</i>          | FACW                     |
| tall cotton-grass                                       | <i>Eriophorum angustifolium</i>      | OBL                      |
| fragrant bedstraw                                       | <i>Galium triflorum</i>              | FAC                      |
| western oakfern, northern oak fern                      | <i>Gymnocarpium dryopteris</i>       | FACU                     |
| common cowparsnip, American cow-parsnip                 | <i>Heracleum maximum</i>             | FACU                     |
| meadow barley   | <i>Hordeum brachyantherum</i>        | FACW                     |
| common woodrush   | <i>Luzula multiflora</i>             | FACU                     |
| American skunkcabbage, yellow-skunk-cabbage             | <i>Lysichiton americanus</i>         | OBL                      |
| false lily of the valley, two-leaf false Solomon's-seal | <i>Maianthemum dilatatum</i>         | FAC                      |
| Oregon crabapple  | <i>Malus fusca</i>                   | FACU                     |
| rusty menziesia, fool's-huckleberry                     | <i>Menziesia ferruginea</i>          | FACU                     |
| buck-bean   | <i>Menyanthes trifoliata</i>         | OBL                      |
| seep monkey-flower                                      | <i>Mimulus guttatus</i>              | OBL                      |
| Heart-Leaf Twayblade                                    | <i>Neottia cordata</i>               | FACU                     |
| deer-cabbage  | <i>Nephrophyllidium crista-galli</i> | OBL                      |
| devil's-club  | <i>Oplopanax horridus</i>            | FACU                     |
| sidebells wintergreen                                   | <i>Orthilia secunda</i>              | FACU                     |
| Sitka spruce  | <i>Picea sitchensis</i>              | FACU                     |
| lodgepole pine  | <i>Pinus contorta</i>                | FAC                      |
| Scentbottle   | <i>Piperia dilatata</i>              | FACW                     |

**Angoon Airport 12A with Access 12**  
**Table of Vascular Vegetation Observed On-Site**  
**8/19-8/22/2013 (Plots 1-41) and 9/14-9/16/2013 (Plots 42-56)**

| Common Name   | Scientific Name                   | Wetland Indicator Status |
|---|-----------------------------------|--------------------------|
| slender bog orchid                                      | <i>Platanthera stricta</i>        | FACW                     |
| Arctic False Bent                                       | <i>Podagrostis aequivalvis</i>    | OBL                      |
| western bracken fern, northern bracken fern             | <i>Pteridium aquilinum</i>        | FACU                     |
| Rusty Labrador-Tea                                      | <i>Rhododendron groenlandicum</i> | FAC                      |
| cloudberry  | <i>Rubus chamaemorus</i>          | FACW                     |
| strawberry-leaf raspberry                               | <i>Rubus pedatus</i>              | FAC                      |
| salmonberry, salmon raspberry                           | <i>Rubus spectabilis</i>          | FACU                     |
| Canadian burnet   | <i>Sanguisorba canadensis</i>     | FACW                     |
| clasping twistedstake                                   | <i>Streptopus amplexifolius</i>   | FACU                     |
| Douglas aster, leafy-bract American-aster               | <i>Symphotrichum subspicatum</i>  | FAC                      |
| three-leaf foamflower                                   | <i>Tiarella trifoliata</i>        | FAC                      |
| tufted leafless-bulrush                                 | <i>Trichophorum caespitosum</i>   | OBL                      |
| sticky tofieldia, sticky false asphodel                 | <i>Triantha glutinosa</i>         | FACW                     |
| western hemlock   | <i>Tsuga heterophylla</i>         | FAC                      |
| mountain hemlock  | <i>Tsuga mertensiana</i>          | FAC                      |
| Alaska blueberry  | <i>Vaccinium alaskaense</i>       | FAC                      |
| oval-leaf blueberry                                     | <i>Vaccinium ovalifolium</i>      | FAC                      |
| small cranberry   | <i>Vaccinium oxycoccos</i>        | OBL                      |
| red huckleberry   | <i>Vaccinium parvifolium</i>      | FACU                     |
| bog blueberry, alpine blueberry                         | <i>Vaccinium uliginosum</i>       | FAC                      |
| lingonberry, northern mountain-cranberry                | <i>Vaccinium vitis-idaea</i>      | FAC                      |
| green false hellebore, American false hellebore         | <i>Veratrum viride</i>            | FAC                      |
| squashberry   | <i>Viburnum edule</i>             | FACU                     |
| <b>UPLAND VEGETATION</b>                                |                                   |                          |
| Rocky Mountain maple                                    | <i>Acer glabrum</i>               | FACU                     |
| common yarrow   | <i>Achillea millefolium</i>       | FACU                     |
| Red Baneberry   | <i>Actaea rubra</i>               | FAC                      |
| Western Lady Fern                                       | <i>Athyrium cyclosorum</i>        | FAC                      |
| queen's cup, bride's bonnet                             | <i>Clintonia uniflora</i>         | NOL                      |
| fern-leaf goldthread                                    | <i>Coptis asplenifolia</i>        | FAC                      |
| Red Osier   | <i>Cornus alba</i>                | FAC                      |
| bunchberry dogwood, Canadian bunchberry                 | <i>Cornus canadensis</i>          | FACU                     |
| black crowberry   | <i>Empetrum nigrum</i>            | FAC                      |
| western oakfern, northern oak fern                      | <i>Gymnocarpium dryopteris</i>    | FACU                     |
| false lily of the valley, two-leaf false Solomon's-seal | <i>Maianthemum dilatatum</i>      | FAC                      |
| rusty menziesia, fool's-huckleberry                     | <i>Menziesia ferruginea</i>       | FACU                     |
| single-delight  | <i>Moneses uniflora</i>           | FACU                     |
| devil's-club  | <i>Oplopanax horridus</i>         | FACU                     |
| Sitka spruce  | <i>Picea sitchensis</i>           | FACU                     |
| western rattlesnakeroot                                 | <i>Prenanthes alata</i>           | NOL                      |
| Nootka rose   | <i>Rosa nutkana</i>               | FACU                     |
| western thimble-berry                                   | <i>Rubus parviflorus</i>          | FACU                     |
| strawberry-leaf raspberry                               | <i>Rubus pedatus</i>              | FAC                      |
| salmonberry, salmon raspberry                           | <i>Rubus spectabilis</i>          | FACU                     |
| red elderberry  | <i>Sambucus racemosa</i>          | FACU                     |
| Sitka Mountain-Ash                                      | <i>Sorbus sitchensis</i>          | FACU                     |

**Angoon Airport 12A with Access 12**  
**Table of Vascular Vegetation Observed On-Site**  
**8/19-8/22/2013 (Plots 1-41) and 9/14-9/16/2013 (Plots 42-56)**

| Common Name           | Scientific Name                 | Wetland Indicator Status |
|-----------------------|---------------------------------|--------------------------|
| clasping twistedstake | <i>Streptopus amplexifolius</i> | FACU                     |
| western hemlock       | <i>Tsuga heterophylla</i>       | FAC                      |
| Alaska blueberry      | <i>Vaccinium alaskaense</i>     | FAC                      |
| oval-leaf blueberry   | <i>Vaccinium ovalifolium</i>    | FAC                      |
| red huckleberry       | <i>Vaccinium parvifolium</i>    | FACU                     |

Wetland Indicator Status and taxonomy for the Alaska Region per the National Wetland Plant List.

Accessed 7/12/2013:

<http://rsgisias.crrel.usace.army.mil/NWPL/>

| WETLAND INDICATOR STATUS - Alaska Region |   |
|--|---|
| OBL                                      | Obligate Wetland - Plant that almost always is a hydrophyte, rarely in uplands.             |
| FACW                                     | Facultative Wetland - Plant that usually is a hydrophyte but occasionally found in uplands. |
| FAC                                      | Facultative - Plant that commonly occurs as either a hydrophyte or non-hydrophyte.          |
| FACU                                     | Facultative Upland - Plant that occasionally is a hydrophyte but usually occurs in uplands. |
| UPL                                      | Upland - Plant that rarely is a hydrophyte, almost always in uplands.                       |
| NOL                                      | Not Listed - Plants that are not on the list and assumed to be UPL.                         |

---

**From:** Jamie C. M. Young  
**Sent:** Thursday, March 20, 2014 3:25 PM  
**To:** Randy Vigil (randal.p.vigil@usace.army.mil)  
**Cc:** Stacy N. Benjamin; Stacey Reed; Amanda Childs; Leslie Grey (Leslie.Grey@faa.gov); Lara Bjork  
**Subject:** Angoon Airport EIS: clarification regarding connectivity of waters

Hello Randy,

At your request, I'm writing to clarify that it is our best professional judgment that the waters delineated in the "*Wetland and Waters Delineation, Preliminary JD Report, Angoon Airport EIS*" are hydrologically connected to Killisnoo Harbor, which is a marine water body located on the western shore of Admiralty Island, off of Chatham Strait.

Section 8.0 (pages 10-11) clarifies that the "Wetland conditions extend off-site to the south of the study area and are located immediately adjacent to Killisnoo Harbor (a tidally influenced traditional navigable water of the U.S.). Based on aerial photography, an upland ridge may be present along the shoreline, separating the estuarine community from the palustrine wetlands. However, the perennial drainages delineated in the study area are non-navigable, perennial, relatively permanent waters that are directly adjacent to and drain wetlands in the study area. The drainages flow southerly and potentially flow directly into the harbor. Therefore, due to the potential hydrologic connection to Killisnoo Harbor, wetlands and drainages delineated in the study area may be determined to be jurisdictional by the Alaska District USACE."

Please let us know, if you need any further information or clarification.  
Thank you for your time!

**Jamie C. M. Young**  
Natural Resources Specialist

**SWCA Environmental Consultants**  
4435 E. Canvasback Ave.  
Post Falls, ID 83854  
P 208.262.9323 | C 907.821.0404 | F 907.279.7922



Visit Our Website: <http://www.swca.com>



 Please consider the environment before printing this email

Jamie

**Jamie C. M. Young**  
Natural Resources Specialist

**SWCA Environmental Consultants**  
C 907.821.0404 | F 907.279.7922



Visit Our Website: <http://www.swca.com>



 Please consider the environment before printing this email

Angoon Airport EIS  
Document 0765

mhtml:file://C:\Users\lbjork\AppData\Local\Microsoft\Windows\Temporary Internet Files\... 5/27/2014



**DEPARTMENT OF THE ARMY**  
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
REGULATORY DIVISION  
P.O. BOX 22270  
JUNEAU, ALASKA 99802-2270

AUG 04 2014

Regulatory Division  
POA-2009-1254

Ms. Leslie Grey  
Federal Aviation Administration  
222 West 7<sup>th</sup> Avenue, Box #14  
Anchorage, Alaska 99513

Dear Ms. Grey:

This is in response to your January 9, 2014, request for a jurisdictional determination for a 163.54 - acre parcel of land described as Angoon Airport Environmental Impact Statement, Airport Alternative 12a with Access 12. It has been assigned number POA-2009-1254, Killisnoo Harbor, which should be referred to in all correspondence with us. The project site is located within Sections 5, 6, and 8, T. 51 S., R. 68 E., Copper River Meridian; USGS Quad Map Sitka B-2; Latitude 57.473° N., Longitude 134.547° W., in Angoon, Alaska.

Based on our review of the information you furnished, including the January 2014, Wetland and Waters Delineation Preliminary Jurisdictional Determination Report Angoon Airport Environmental Impact Statement Admiralty Island (PJD), prepared by SWCA Environmental Consultants, we have determined the above property contains waters of the United States (U.S.), including wetlands, under the Corps' regulatory jurisdiction. Specifically, there are: 128.43 acres of wetlands and 1.31 acres of stream on the site. These waters of the U.S. are shown on the enclosed drawing from the PJD (Figure 4) prepared by SWCA Environmental Consultants. A copy of the Approved Jurisdictional Determination form is available at [www.poa.usace.army.mil/Missions/Regulatory/JurisdictionalDeterminations.aspx](http://www.poa.usace.army.mil/Missions/Regulatory/JurisdictionalDeterminations.aspx) under the above file number.

This approved jurisdictional determination is valid for five (5) years from the date of this letter, unless new information supporting a revision is provided to us before the expiration date. Enclosed is a Notification of Administrative Appeal Options and Process and Request for Appeal form (see section titled "Approved Jurisdictional Determination").

DA authorization is required if you propose to place dredged and/or fill material into waters of the U.S., including wetlands and/or perform work in navigable waters of the U.S.

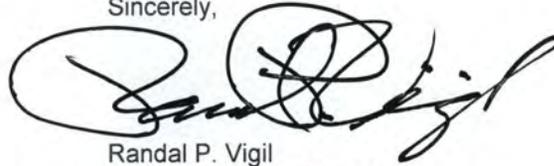
Section 404 of the Clean Water Act requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands (33 U.S.C. 1344). The Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403). Section 10 waters are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified by the Alaska District.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

Please contact me via email at [Randal.P.Vigil@usace.army.mil](mailto:Randal.P.Vigil@usace.army.mil), by mail at the address above, or by phone at (907) 790-4491, if you have questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Randal P. Vigil". The signature is stylized with large loops and a cursive style.

Randal P. Vigil  
Chief, Southeast Section

Enclosures

CF:

[sreed@swca.com](mailto:sreed@swca.com)  
[jyoung@swca.com](mailto:jyoung@swca.com)



Figure 4. 2004 aerial wetland and waters delineation map.

## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

|  |  |                            |                      |
|--|--|----------------------------|----------------------|
| Applicant: Federal Aviation Administration |  | File Number: POA-2009-1254 | Date: August 4, 2014 |
| Attached is:                               |  |                            | See Section below    |
|  | INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission) |                            | A                    |
|  | PROFFERED PERMIT (Standard Permit or Letter of permission)         |                            | B                    |
|  | PERMIT DENIAL  |                            | C                    |
| <b>XX</b>                                  | <b>APPROVED JURISDICTIONAL DETERMINATION</b>                       |                            | <b>D</b>             |
|  | PRELIMINARY JURISDICTIONAL DETERMINATION                           |                            | E                    |

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at

[http://www.usace.army.mil/CECW/Pages/reg\\_materials.aspx](http://www.usace.army.mil/CECW/Pages/reg_materials.aspx) or Corps regulations at 33 CFR Part 331.

**A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

**B: PROFFERED PERMIT:** You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**E: PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

**REASONS FOR APPEAL OR OBJECTIONS:** (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

**ADDITIONAL INFORMATION:** The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

**Randal Vigil**  
Alaska District Corps of Engineers  
Juneau Regulatory Field Office (CEPOA-RD-S)  
PO Box 22270  
Juneau, Alaska 99802-2270  
(907) 790-4491

If you only have questions regarding the appeal process you may also contact:

Commander  
USAED, Pacific Ocean Division  
ATTN: CEPOD-PDC/Cindy Barger  
Building 525  
Fort Shafter, HI 96858-5440

**RIGHT OF ENTRY:** Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

\_\_\_\_\_  
Signature of appellant or agent.

Date:

Telephone number:



## **APPENDIX T**

### **FAA RESPONSES TO COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL IMPACT STATEMENT**

*Note:* The Section 508 amendment of the Rehabilitation Act of 1973 requires that the information in federal documents be accessible to individuals with disabilities. The FAA has made every effort to ensure that the information in the *Draft Angoon Airport Environmental Impact Statement* is accessible. However, this appendix is not fully compliant with Section 508, and readers with disabilities are encouraged to contact Leslie Grey at (907) 271-5453 or [Leslie.Grey@faa.gov](mailto:Leslie.Grey@faa.gov) if they would like access to the information.





## APPENDIX T

### FAA RESPONSES TO COMMENTS RECEIVED ON DRAFT ENVIRONMENTAL IMPACT STATEMENT



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

### CONTENTS

|   |    |
|---|----|
| INTRODUCTION .....  | 2  |
| BACKGROUND .....  | 2  |
| COMMENTS AND FAA RESPONSE .....                           | 3  |
| APPENDIX 1: ANGOON PUBLIC DRAFT EIS COMMENT SUMMARY ..... | 93 |



**Introduction**

This appendix includes all comments received by the FAA during the draft environmental impact statement (draft EIS) comment period. A response to each comment is also included in this appendix. Additionally, where appropriate and as noted in the individual responses, the EIS document has been revised to address specific comments. Comments were received from federal, state and local agencies, tribes, project stakeholders, and members of the general public.

**Background**

The EIS process has included extensive public and agency coordination. A notice of availability for the draft EIS and details about the public comment period were published in the *Federal Register* on January 9, 2015. The official comment period closed on March 11, 2015; however, because the public hearings were scheduled later in the comment period and per FAA Order 5050.4b, the FAA accepted comments through March 20, 2015. Comments have been documented and incorporated into the analysis and decision-making process.

Comments were received via letter, email, comment form, and during the public hearings. The following table includes a copy of the individual comment text and provides the FAA’s response. A list of all commenters, comment themes, a list of all coded comments, and a copy of all responses received on the public draft of the Angoon Airport Draft EIS can be found in Appendix 1 of this report.



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

### Comments and FAA Response

| Comment Letter No. | Comment No. | Commenter Name    | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|-------------------|------------------------|---|--|
| 1                  | 1           | Anthony DiNardo   | Public                 | I have a question regarding the comment period for the Draft EIS. Do you accept public comment from anyone (i.e., I live in new york state) or just from the local citizens/Alaska residents?   | The FAA encourages public comment from all interested parties on the scope and content of the Angoon Airport draft EIS. FAA's commitment to inclusive public involvement is described in sections 9.3.1 and 9.3.2 of the draft EIS.  |
| 2                  | 1           | Concerned Alaskan | Public                 | Has anyone considered building a tunnel (yellow on map) from the floatplane base across the entrance to Favorite Bay, come up above ground for about 2/3 mile (purple on map), start a tunnel again for 2/3 mile, and finally an above ground road to the Site 3a location?   | A tunnel alternative is not a reasonable alternative due to extraordinary costs as seen on other airport projects where tunnels have been examined. Construction of a tunnel as described might not even be feasible from a construction perspective.  |
| 3                  | 1           | Concerned Alaskan | Public                 | I am writing to express my concern that no consideration was given to a ship-based airport. Specifically, I propose towing a decommissioned aircraft carrier to Angoon and permanently docking the ship in Favorite Bay. The USS Constellation, a Kitty-Hawk class aircraft carrier, was recently decommissioned by the U.S. Navy and is awaiting dismantling in Brownsville, Texas. This cost of acquiring the ship and towing it to Angoon is far less than the construction of a new airport on Admiralty Island. Since the runway length of an aircraft carrier is under 1,000', aircraft flying to or from Angoon will require special modification to accommodate the initial slingshot propulsion. Alternatively, the USS Enterprise, another Kitty-Hawk class aircraft carrier, is scheduled for decommission later this year. If both ships were acquired, they could be attached at the end of the runways, effectively doubling the length. Thank you for considering this alternative. I look forward to your response. | This alternative is not reasonable because it does not meet the operational needs of the airport. All aircraft being used at Angoon would have to be modified to use a catapult for takeoff and a tailhook to land. This is not reasonable to expect of the entire fleet that would access Angoon. It is not feasible to improve the structure of each aircraft to withstand the stresses of catapult launches and tailhook/arresting gear landings. Aircraft carriers would also need a dredged basin in the bay in order to accommodate aircraft especially considering the large tidal range resulting in enormous environmental impacts to the marine environment. |
| 4                  | 1           | Luke Nelson       | Public                 | My only comment regarding the Airport Location selection, is that DOT would use Responsible Economics in making that selection.<br><br>The State of Alaska is in serious Funding trouble regarding our Oil Revenues, and our nation is by now 18 Trillion dollars in debt.<br><br>If we spend moneys that are "not directly" related to building an airstrip, then other's that have Needs, will be without funding.<br><br>Lets just spend Responsibly.  | Thank you for your comment. Airport and road construction costs and estimated ROW acquisition costs (which include private land acquisition, as applicable) for all alternatives are estimated and reported in Chapter 3 of the draft EIS. FAA's preferred alternative, Airport 12a and Access 12a, is the lowest cost alternative considered for the Angoon Airport EIS.  |
| 5                  | 1           | Martha Jaegers    | Public                 | I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.<br><br>Please do not intrude into Wilderness areas.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands.  |
| 6                  | 1           | Jamaka Petzak     | Public                 | I support selection of the Alternative 12a with Access 12a (the Non-Wilderness location for the airport and road) or the No Action Alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name                               | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|--|------------------------|--|---|
|                    |             |  |                        |  | alternative.  |
| 7                  | 1           | Priscilla J. Mattison, Esq. (Sally Mattison) | Public                 | <p>As a concerned conservationist, I am very glad to hear that the FAA has rejected for now a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska, and has instead recommended a site where the lands are privately owned or owned by the local community.</p> <p>I strongly support either the FAA's selection of Alternative 12a with Access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative.</p> | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 8                  | 1           | Gene Whitaker                                | Public                 | I urge FAA to keep this airport out of the Wilderness Area and approve Alternative 12a with Access 12a or the No Action Alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 9                  | 1           | Jared Brenner                                | Public                 | I support either its selection of Alternative 12a with Access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |
| 10                 | 1           | Lyn Lowry                                    | Public                 | Please follow the FAA's recommendation to build the new airport on privately owned lands or those of the local community. The Kootznoowoo Wilderness should not be marred by an airport and access road. This airport should be located elsewhere and our remaining wilderness areas should be protected from development.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 11                 | 1           | Necia Refes                                  | Public                 | <p>It is of paramount importance that we keep and maintain our wild spaces as wild spaces with no invasion of any kind. These areas are important as they help off-set our environmental impact.</p> <p>i am in total support of your selection of alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.</p>  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 12                 | 1           | Debra and David Ashton                       | Public                 | I am writing to tell you that I support the FAA's selection of Alternative 12a with Access 12a (non- wilderness location for the airport and the road) or the No Action Alternative. Under no circumstances do I want the airport/road to be built in the Kootznoowoo Wilderness area on Admiralty Island. The wilderness must remain intact and unscathed by commercial development.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 13                 | 1           | Donna Provance                               | Public                 | I support the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name        | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|-----------------------|------------------------|--|---|
| 14                 | 1           | David and Betty Batty | Public                 | The Federal Aviation Administration (FAA) has rejected for now a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. The FAA has instead recommended a site where the lands are privately owned or owned by the local community | Thank you for your comment.   |
| 15                 | 1           | Sue McHenry           | Public                 | I oppose any construction in a wilderness area on Admiralty Island.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 16                 | 1           | Michelle Macy         | Public                 | I support either the selection of Alternative 12a with Access 12a (non-wilderness location for airport and road) or the No Action Alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |
| 17                 | 1           | Fran Mauer            | Public                 | I am pleased to learn that the FAA has selected alternative 12a which would keep the airport out of designated Wilderness lands. I support this decision because it allows for development of the airport, but leaves the Wilderness lands alone, as they were intended to be.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 18                 | 1           | Stephen Rosenblum     | Public                 | I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |
| 19                 | 1           | Heather Payne         | Public                 | Thank you for the opportunity to comment on the Angoon Airport EIS. I support either the selection of Alternative 12a with Access 12a or the No Action Alternative. Both these would continue to support wilderness.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 20                 | 1           | Bob Brister           | Public                 | Thank you for rejecting a proposal from the State of Alaska to build a new airport and access road in the Kootznoowoo Wilderness on Admiralty Island. We have too few designated wilderness areas. Existing wilderness like Kootznoowoo should never be degraded.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 21                 | 1           | ilde Schlesinger      | Public                 | I am writing to urge support for either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |
| 22                 | 1           | Kristin Vyhna         | Public                 | I am writing to register my support for keeping the Kootznoowoo Wilderness intact, and moving the proposed airport and access roads to privately or community owned lands as per Alternative 12a and Access 12a. If these fail to pass I would support the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name       | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------------|------------------------|--|---|
| 23                 | 1           | Bonnie MacRaith      | Public                 | I support either your selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |
| 24                 | 1           | Marilyn Evenson      | Public                 | Thank you, FAA, for rejecting the proposal from Alaska to build a new airport & access road in the Kootznoowoo Wilderness. I support either Alternative 12a with Access 12a (the non-Wilderness location) or the No Action Alternative.<br><br>Let us leave the wild to wilderness because once humans invade it, it slowly disappears. When it is gone, it is gone forever with all its wildlife.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 25                 | 1           | Cecelia Samp         | Public                 | It makes sense to use land that is privately owned or community owned for the Angoon Airport rather than take land from the Kootznoowoo Wilderness on the Admiralty Island. Logic dictates preserving the wilderness and take advantage of other opportunities for this airport.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 26                 | 1           | Carol Ohlendorf      | Public                 | Please spare the Kootznoowoo Wilderness from Airport and road construction. I support either your selection of Alternative 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 27                 | 1           | Betty J. Van Wicklen | Public                 | I am writing to submit my comments on the FFA proposal for airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. I urge you to protect the wilderness areas of Kootznoowoo by selecting Alternative 12a with access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative<br><br>Alaska has some of the best and last of our true wilderness areas, and even the FAA, in its proposal, has recognized this by proposing the least invasive way to complete the access to the airport. Particularly, in this time of changing climate, we must do all we possibly can to preserve the unique and very fragile wilderness areas of Alaska in order to provide as much a chance as possible to provide havens for animals which would not survive in other conditions or food sources, particularly when we have ready alternatives. | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 28                 | 1           | Jim Ewing            | Public                 | Please protect the Koontzoonoo Wilderness - I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|------------------|------------------------|--|---|
| 29                 | 1           | Marilyn Snyder   | Public                 | I support selection of Alternative 12A with access 12A (the non-Wilderness location for the airport or road) or the No Action alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |
| 30                 | 1           | Vince            | Public                 | FAA, we support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.<br><br>Take an run down area in a city or a property that has already been "developed" that is abandoned and build there but not in a wilderness area or anywhere near it.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 31                 | 1           | Joe Ginsburg     | Public                 | I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |
| 32                 | 1           | Sherry Olson     | Public                 | Please reconsider construction of the airport in the Kootznoowoo Wilderness.<br><br>The Federal Aviation Administration (FAA) has rejected for now a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. The FAA has instead recommended a site where the lands are privately owned or owned by the local community. The FAA's recommendation is contained in the Angoon Airport Draft Environmental Impact Statement released in early January.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |
| 33                 | 1           | Dr. Mark Waltzer | Public                 | I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |
| 34                 | 1           | Sandra Maar      | Public                 | The Alaskan Wilderness areas must be protected from development not only to ensure that these areas and the wildlife that thrives within them will be there for subsequent generations to enjoy but also to aid in balancing global warming trends and related pollution.<br><br>An airport through any Federally protected area is contrary to the Wilderness act and would not be in the best interest of the American People.<br><br>Therefore, I ask that you support either the Alternative 12a with Access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative. | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|------------------|------------------------|---|--|
| 35                 | 1           | Wallace M. Elton | Public                 | <p>As both a supporter of designated Wilderness and one who has visited Southeast Alaska several times, I oppose siting the airport on land designated as Wilderness. Furthermore, I do not believe that every village requires or can have an airport. In my view, Angoon does not need one. Even located outside Wilderness lands, the activity at an airport would seriously intrude on the very qualities the Wilderness designation was intended to protect and erode Wilderness values that people like me pay to come and enjoy. As you note, "Airport 12a would degrade opportunities for solitude in the wilderness area as a result of light emissions during construction and operation, overhead aircraft noise, and temporary construction noise."</p> <p>Therefore, I support the No Action Alternative first. If an airport is to be built, then it must be outside designated Wilderness and I support Airport 12A with Access 12A. I oppose Airport 3A and 4 with either access.</p> | <p>Thank you for your comment. The no action alternative would not meet the purpose and need to provide sufficient availability and reliability in transportation to and from Angoon. Therefore, the FAA does not intend to select the no action alternative. The FAA's preferred alternative, Airport 12a and Access 12a, would meet the purpose and need but would not require physical use of wilderness lands.</p>   |
| 36                 | 1           | Sandra Walters   | Public                 | <p>I support either FAA's selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.</p>   | <p>Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.</p>  |
| 37                 | 1           | Bryan Wyberg     | Public                 | <p>I am writing to express my support of the Alternative 12a with Access 12a or the No Action Alternative. Please ensure that the final record of decision is for a non-wilderness location for the airport and road.</p> <p>I think it would be a tragedy for future generations if the wilderness area protected by Congress were diminished by the development of an airport on its lands. There is certainly plenty of private land that can be used for this purpose. There is no justification for reducing wilderness acreage for the purpose of building an airport or road.</p> <p>Again, please ensure that political pressure does not influence the final record of decision. Make sure that the sound reasoning that led to the preferred alternative of 12a is maintained. Or better yet, chose the no action alternative.</p>  | <p>Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands. The no action alternative would not meet the purpose and need to provide sufficient availability and reliability in transportation to and from Angoon. Therefore, the FAA does not intend to select the no action alternative</p> |
| 38                 | 1           | Karen L. Naiman  | Public                 | <p>I am against any airport/road being built.</p>   | <p>Thank you for your comment. The FAA has determined there is a need to improve aviation availability and reliability to and from Angoon. The FAA's preferred alternative, Airport 12a and Access 12a, would meet the purpose and need while reducing social or economic effects and project costs.</p>   |
| 39                 | 1           | Sarah Stewart    | Public                 | <p>I am pleased that there is an FAA Plan that would spare Kootznoowoo Wilderness from airport and road construction.</p> <p>I am writing to say that I support either the selection of Alternative 12a with Access 12a (the non-wilderness location for the airport and road) or the No Action Alternative.</p>  | <p>Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name     | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|--------------------|------------------------|--|--|
| 40                 | 1           | Sally Hayati       | Public                 | I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative for the Angoon Airport.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznooowoo, Inc. lands, as the agency's preferred alternative.  |
| 41                 | 1           | Jean Public        | Public                 | put that airport in the town on private land. the faa recommendation is the way to go. why turn wilderness into crap like everything else in this world. save and protect nature. this comment is for the public record. please receipt.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznooowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands.   |
| 42                 | 1           | Lydia Garvey       | Public                 | I strongly urge you support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.<br><br>Do your job- Protect Our Public lands, waters, wildlife, health & future!<br>You work for citizens, not industry!<br><br>Your attention to this most urgent matter would be much appreciated by all present & future generations of all species. | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznooowoo, Inc. lands, as the agency's preferred alternative.  |
| 43                 | 1           | James Woods        | Public                 | I write to request the Federal Aviation Administration reject any and all proposals to construct airports within a wilderness area.<br><br>Wilderness does not have roads and airports . . . period.<br><br>Please select alternative 12a of the Angoon Airport DEIS as the action alternative. Otherwise, No Action.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznooowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands.   |
| 44                 | 1           | Steve Hylton       | Public                 | Thanks for letting me comment, as for the airport I prefer the No Action Alternative. Reason being is there are enough airports already and they are to noisy 24/7 and Im especially opposed to having it built adjacent to a wilderness as this ruins wilderness character. Alaskas wildlands are to valuable to have anything like an airport being built  | Thank you for your comment. The no action alternative would not meet the purpose and need to provide sufficient availability and reliability in transportation to and from Angoon. Therefore, the FAA does not intend to select the no action alternative.<br><br>The FAA's preferred alternative, Airport 12a and Access 12a, would meet the purpose and need while reducing social or economic effects and project costs. This alternative would not require physical use of wilderness lands. |
| 45                 | 1           | Diana Artemis      | Public                 | I support your selection of Alternative 12a with Access 12a, the non-Wilderness location for the airport and road.   | Thank you for your comment.  |
| 46                 | 1           | Dr. Jeremy Rossman | Public                 | In regards to the request for public comments on the EIS for the Kootznooowoo Wilderness Angoon Airport, I am writing to express my support of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznooowoo, Inc. lands, as the agency's preferred alternative.  |
| 47                 | 1           | Michael Garitty    | Public                 | I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznooowoo, Inc. lands, as the agency's preferred alternative.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name        | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|-----------------------|------------------------|--|--|
| 48                 | 1           | Judy Ann Cohen        | Public                 | Please note that I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.   |
| 49                 | 1           | Cynthia Patterson     | Public                 | Please accept these comments regarding the DEIS for a proposed airport in the Kootznoowoo Wilderness, on Admiralty Island, Alaska.<br><br>I agree the airport should be built on privately owned and community owned land and NOT in the wilderness area.<br><br>I support Alternative 12a with Access 12a or the No Action Alternative.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands.  |
| 50                 | 1           | Robert Havrilla       | Public                 | With regard to the subject EIS, I support and request that the FAA support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.   |
| 51                 | 1           | Marcus J. Lanskey     | Public                 | The Kootznoowoo Wilderness must be compromised by airport construction within the wilderness. I support either its selection of Alternative 12a with Access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.   |
| 52                 | 1           | Jeff and Karen Wilson | Public                 | We are writing in support of the FAA's preferred alternative 12a for the Angoon airport location. 12a makes the best sense by far, due to its close proximity to Angoon and its lower cost. The use of utilities and a road already in existence not only play into the lower cost, but will also help to keep environmental impact at a minimum.<br><br>In our travels between Juneau and Tenakee, we often visit Angoon by ferry or float plane. We highly value the wilderness setting and subsistence lifestyle of Angoon, and want to see that lifestyle and the fish and wildlife habitat protected as much as possible. The DOT proposed alternative 3a would have very negative impacts on both environment and finances...we can't afford that.<br><br>Please support alternative 12a to provide the best possible airport for Angoon while honoring and protecting the standards of the Admiralty Island Wilderness and National Monument. | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS. |
| 53                 | 1           | Joel Bennett          | Public                 | This is to support the FAA's preferred alternative 12a, for the site of an airport runway and facility in Angoon, Alaska.<br><br>I am very familiar with Angoon, having travelled there for work and pleasure over the course of a 47 year residency in Southeast Alaska.<br><br>The village is confined to a very narrow stretch of land, with a single short road leading to the ferry terminal area. This allows easy access for village residents.<br><br>A small airport off this existing road, as specified in the FAA alternative, would be the most convenient for the most people, many of whom have very limited resources and no access to a vehicle.  | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|------------------|------------------------|--|--|
|                    |             |                  |                        | <p>I see 5 main reasons for rejecting Alternative 3a: (1) constructing a new road several miles longer would mean more expense and trouble for people to travel back and forth to the village; (2) the weather is more stable in the flatter land closer to Chatham Straits. As a part time resident of Funter bay, to the north of Angoon on Admiralty, I know that the closer you get to the hills and mountains of the island, the more the winds impact air travel; (3) It is much a much more expensive alternative when there is already a road and infrastructure in place from the village to the ferry terminal at the present time; (4) there would be unnecessary and harmful impacts to wildlife resources if a road and runway were constructed in an area that has not had previous development; and (5) locating a road and airport in a National Monument Wilderness is an unacceptable precedent and impact to lands recognized by Congress for their national values.</p> <p>I urge adoption of the FAA preferred alternative 12a.</p>   |  |
| 54                 | 1           | Andy Romanoff    | Public                 | <p>I am writing in regards to the draft EIS for the proposed Angoon Airport. I feel strongly that the FAA's Airport Alternative 12A is the most appropriate plan for Angoon. This alternative offers a facility that is close to town, near existing transportation, road and power installations, would require the least amount of winter and annual maintenance, does not require the construction of a road and the associated expenses and impacts to wilderness values.</p> <p>The alternatives offered by DOT make very little economic sense and offer an approach that is wasteful and unnecessary. This is an airport project, not a road building project.</p>  | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p>  |
| 55                 | 1           | Kootznoowoo Inc. | Kootznoowoo Inc.       | <p>I am writing to offer comments on behalf of Kootznoowoo, Inc., regarding the Final Environmental Impact Statement (FEIS). On December 6, 2013, Kootznoowoo Inc. provided comments, via email and we incorporate those comments by reference and enclose a copy for your files. We would also reiterate our concerns for a safe and reliable airport.</p> <p>After consulting with Alaska Seaplanes, Angoon's primary air carrier, it appears the wilderness option (Alternative 3(a)) provides the largest safety margin for Angoon Airport. The prevailing winds are from the southeast which is how the runway is aligned. Winds are more predictable with less turbulence from tree tops. There are always two approach and departure routes. Lastly, there is less potential for harm to Angoon residents should there ever be a mechanical failure on one of the airplanes.</p> <p>Kootznoowoo, Inc. has been consistent in expressing the need for a safe and reliable airport. Whatever alternative is selected, we expected safety to be the standard by which each alternative is evaluated.</p> | <p>Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." All alternatives analyzed in the draft EIS satisfy FAA aviation criteria, and are all considered reasonable alternatives.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name            | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|---------------------------|------------------------|--|---|
| 56                 | 1           | Catharine Ritchie Dorrier | Public                 | <p>I support alternative 12a. This location is closest to the town of Angoon, and has minimal impact on the beautiful and pristine natural environment. This alternative utilizes existing infrastructure, and has the lowest cost.</p> <p>The AK Dept of Transportation's favored alternative, 3A, has the potential for huge negative impacts on the Admiralty Island National Monument and Wilderness. The Monument and Wilderness has a significant ecosystem that will be more affected by alternative 3A.</p>  | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p> |
| 57                 | 1           | Forrest Netzel            | Public                 | <p>I am writing to express my displeasure with the idea of building an airport and road in the Kootznoowoo Wilderness. There are alternatives available outside the wilderness which should be used instead. I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.</p>  | <p>Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands.</p>  |
| 58                 | 1           | Kevin Proescholdt         | Wilderness Watch       | <p>These features all derive from Admiralty Island's intact natural integrity and undegraded wilderness character. As an irreplaceable and unparalleled crown jewel of the National Wilderness Preservation System, the Kootznoowoo Wilderness must be protected by whichever alternative is selected in the Final EIS.</p>  | <p>Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands.</p>  |
| 58                 | 2           | Kevin Proescholdt         | Wilderness Watch       | <p>All four of the options dealing with Airport 3a and Airport 4 will irreparably and irretrievably damage the Kootznoowoo Wilderness by building an airport and access road within the wilderness boundaries. These actions directly contravene the Wilderness Act's intent to ensure that not all lands are occupied and modified by humankind. They would seriously degrade the superlative values of the conservation units established by the Alaska National Interest Lands Conservation Act, including "unrivaled scenic and geological values associated with natural landscapes," "sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas," "extensive unaltered ... coastal rainforest ecosystems" and "opportunities for scientific research and undisturbed ecosystems." Only the No Action alternative and the Airport 12a with Access 12a will prevent irreparable and irretrievable damage to the Kootznoowoo Wilderness.</p> <p>Airport 12a with Access 12a would be located on lands owned or managed by private landowners; Kootznoowoo, Inc. (the local Alaska Native corporation); and the City of Angoon. Both the airport and access road would be on the Angoon peninsula southeast of the community of Angoon; no part of this alternative would be located in the Kootznoowoo Wilderness. Access 12a would begin at the existing BIA Road and travel directly to the proposed airport location.</p> <p>Unlike the access roads to Airport 3a or Airport 4, this road would be built wider to two 10-foot lanes with 5-foot shoulders and would</p> | <p>Thank you for your comment.</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name    | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|-------------------|------------------------|---|---|
|                    |             |                   |                        | <p>require no bridge.</p> <p>Wilderness Watch believes that the only alternatives in the Angoon Airport DEIS that would protect the Kootznoowoo Wilderness and meet the decision criteria found in ANILCA Title XI are the No Action alternative and the alternative for Airport 12a with Access 12a (the FAA's preferred alternative). Because of this conclusion, Wilderness Watch supports either the No Action alternative or the alternative for Airport 12a with Access 12a, the non-wilderness alternative.</p>  |   |
| 58                 | 3           | Kevin Proescholdt | Wilderness Watch       | <p>ANILCA Section 1104(g) requires that each federal agency make a tentative decision to approve or disapprove the transportation and utility system. The tentative decisions would be based on the detailed findings in this EIS and the Standard Form 299 application for eight ANILCA decision criteria. The second criterion in particular has significant bearing on the Angoon Airport proposal:</p> <p>"(B) alternative routes and modes of access, including a determination with respect to whether there is any economically feasible and prudent alternative to the routing of the system through or within a conservation system unit, national recreation area, or national conservation area and, if not, whether there are alternative routes or modes which would result in fewer or less severe adverse effects on the conservation system unit."</p> <p>ANILCA, Sec. 1104(g)(2)(B) (emphasis added)</p> <p>Of the action alternatives analyzed in the Angoon Airport DEIS, the alternative for Airport 12a with Access 12a represents an economically feasible and prudent alternative to building the airport and access road within the Kootznoowoo Wilderness. Because this alternative exists, the other action alternatives should not be selected in the Final EIS.</p> <p>ANILCA Section 1103 also reaffirms that other applicable laws must apply. This means that Section 4(f) of the 1966 Department of Transportation Law applies (prohibiting transportation projects in areas like the Kootznoowoo Wilderness unless "there is no prudent and feasible alternative to using that land.") This law provides another statutory reason why the Kootznoowoo Wilderness cannot be selected as a site for the airport or road when other viable options exist.</p> | <p>Airport 12a with Access 12a is the FAA's preferred alternative in part because it provides the least impact to DOT&amp;PF Section 4(f) properties and best meets the review criteria outlined in ANILCA Title XI. The language in ANILCA Section 1103 clearly states that other applicable laws, such as Section 4(f) of the Department of Transportation Act of 1966, shall continue to apply to the ANILCA Title XI process and that these applicable laws can be superseded only by action from the President and Congress under ANILCA Title XI. The following statement will be added to section 5.4 of the final EIS: "The State of Alaska is authorized by ANILCA Title XI to apply for a right-of-way for the airport and access road in the Admiralty Island National Monument and Kootznoowoo Wilderness Area. Because an ANILCA application has been submitted, all permitting agencies must comply with the requirements in ANILCA. ANILCA Section 1103 states that other applicable laws shall continue to apply to the ANILCA Title XI process. These applicable laws can be superseded only by action from the President and Congress under ANILCA Title XI".</p> |
| 59                 | 1           | Karla Hart        | Public                 | <p>I strongly support the FAA preferred option of 12A for the following reasons:</p> <ul style="list-style-type: none"> <li>Lower costs over the DOT preferred alternative.</li> <li>Less road to maintain (and improve).</li> <li>No bridge to build, maintain and some day replace.</li> </ul>  | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p>   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization     | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|----------------------------|---|--|
|                    |             |                |                            | <p>A roadway with shoulders will better allow the community to walk and bike safely along the roadway to access the airport or simply get exercise.</p> <p>Shorter travel distance to/from the airport will make already expensive air travel a bit more affordable by reducing taxi and other transportation costs for residents and visitors. Travel time will also be a bit less.</p> <p>Shorter construction time.</p> <p>No intrusion into the wilderness area.</p> <p>Less environmental impacts in so many ways, from amounts of hardened surface and fill to resources for construction to surface disturbance to number of streams impacted.</p> <p>Less roadway for the City of Angoon to patrol and provide emergency medical services for the inevitable accidents and incidents.</p> <p>Reduces transport of invasive plants into the wilderness area along the roadway corridor.</p> <p>Protects wildlife from habitat fragmentation, increased roadway access for hunting and poaching, and roadkill.</p> <p>I am a Juneau resident whose family has owned property on Killisnoo Island since about 1973. I have traveled to Angoon by air and ferry and recreate in Mitchell Bay.</p>   |  |
| 60                 | 1           | Philip Johnson | U.S. Dept. of the Interior | <p>The U.S. Department of the Interior (Department) has reviewed the Draft EIS and Draft Section 4(f) Evaluation for the Proposed Angoon Airport and has the following comments to offer for your consideration. Our comments are based on authorities found in Section 4(f) of the Department of Transportation Act of 1966 and the National Environmental Protection Act of 1970.</p> <p><b>SECTION 4(F) EVALUATION COMMENTS</b></p> <p>The Department concurs that there is no feasible and prudent alternative that completely avoids the use of Section 4(f) property because the Federal Aviation Administration's (FAA)-preferred alternative will have a de minimis impact on two Section 4(f) resources. We also recognize that uses of 4(f) properties with de minimis impacts do not require 4(f) concurrence from the Department.</p> <p>The Department concurs that the FAA-preferred alternative (Airport 12a with Access 12a) is a feasible and prudent alternative to the proposed alternative (Airport 3a with Access 2), which would result in Section 4(f) physical use of the Admiralty Island National Monument and the Kootznoowoo Wilderness Area. The FAA-preferred alternative avoids physical use of the Monument-Wilderness.</p> | <p>The FAA received SHPO concurrence on the Finding of Effects for Airport 12a with Access 12a (the preferred alternative) on November 13, 2015. This information will be added to the Final EIS.</p> <p>Chapter 5 of the EIS (ANILCA) will be updated to include preliminary terms and conditions that will be required if Airport 3a with Access 2 (the DOT&amp;PF's proposed action) is approved by the President and Congress. This includes a condition that cultural resources field surveys will be completed and concurrence on determinations of effect will be received from the SHPO as required by 36 CFR Part 800 prior to the USFS issuing a right-of-way.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|------------------|------------------------|---|---|
|                    |             |                  |                        | <p>SUMMARY COMMENTS</p> <p>The Department has no objection to Section 4(f) approval of the FAA-preferred alternative, contingent upon the Alaska State Historic Preservation Office's concurrence on the findings of no adverse effect for the two impacted 4(f) properties.</p>  |   |
| 61                 | 1           | Kootznoowoo Inc. | Kootznoowoo Inc.       | More work, with resulting analysis, is necessary with respect to subsurface ownership which may or may not change the analysis.   | Subsequent to a discussion with Peter Naoroz on 1/31/2014, subsurface landownership in the draft EIS was updated to state that Kootznoowoo, Inc. owns the surface rights to the ANSCA conveyed lands and the subsurface rights on the Angoon peninsula east of Kootznahoo Road (Naoroz 2014) (draft EIS pages 10 and 134).  |
| 61                 | 2           | Kootznoowoo Inc. | Kootznoowoo Inc.       | Kootznoowoo, Inc.'s decision to sell or lease land, right of ways and assets is completely in the control and discretion of its Board of Directors and not the General Manager. See comments in DEIS attributed to General Manager of Kootznoowoo.  | Draft EIS statements (page 154) regarding Kootznoowoo, Inc. landownership decisions, where applicable, state the following: "The general manager of Kootznoowoo, Inc. has verbally indicated that, at the discretion and final approval of the Board of Directors, the corporation would consider transferring lands to the airport sponsor if Airport 12a is selected (Naoroz 2014)."  |
| 61                 | 3           | Kootznoowoo Inc. | Kootznoowoo Inc.       | We strongly urge the FAA to reject alternatives with inferior location and orientation and not just settle for what is acceptable. A Wilderness or Monument impact should not outweigh the need for an airport that offers the greatest benefits for aviation operators and the public. The whole purpose of constructing an airport in Angoon is to bring the benefit of wheel plane service and its relative safety and reliability versus the community's current floatplane only access. These primary benefits of an airport are however shortchanged if the FAA proceeds with an inferior location for the airport based on the land status only. Title 11 of ANILCA provides a means for Wilderness/Monument alternatives in order to provide for the best decisions related to airport orientation. We urge the FAA to carry forward with the agency's primary mission as the top consideration--siting of an airport that offers the greatest benefits to aviation operators and the traveling public. | Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." All alternatives analyzed in the draft EIS satisfy FAA aviation criteria, and are all considered reasonable alternatives. |
| 61                 | 4           | Kootznoowoo Inc. | Kootznoowoo Inc.       | Noise, air pollution, other flight impacts need to be better assessed in both absolute terms and economic impacts and set forth in the DEIS. Angoon is completely bounded by a wilderness area and limiting alternatives to only private lands and lands owned by the City of Angoon has a significant impact to remaining lands which need to be better described.   | An assessment of community impacts from development of the proposed land-based airport for listed topics are provided in the following draft EIS sections: Section 4.3 Compatible Land Use Section 4.11 Noise Section 4.2 Air Quality Section 4.12 Socioeconomic Conditions   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|------------------|------------------------|--|--|
| 61                 | 5           | Kootznoowoo Inc. | Kootznoowoo Inc.       | Ancillary development opportunities along the road ways and outside of wilderness and monument areas presents a significant economic development opportunity to leverage this project. Road costs and cost of lands needed to purchased must be estimated as well as total economic benefits to the community and region must be more fully described in the analysis of alternatives.   | Ancillary development would not be allowed occur along the proposed road in designated Wilderness. Airport and road construction costs and estimated ROW acquisition costs (which include private land acquisition, as applicable) for all alternatives are estimated and reported in Chapter 3 of the draft EIS. These estimates were incorporated into the economic model used to predict economic benefits (revenue, jobs, and taxes) for Angoon in section 4.12 Socioeconomic Conditions. Final costs for any action alternative may differ from these estimates, depending on final design. |
| 62                 | 1           | Kootznoowoo Inc. | Kootznoowoo Inc.       | This comment letter is a duplicate of letter 61.   | See response to comments for Letter 61.  |
| 63                 | 1           | Heather Best     | Public                 | I support the option of location 12A for building an airport for the community of Angoon. Having a site near town makes the most sense in terms of easy of maintenance, building costs, and convenience of access for the local population. Please select the more reasonable choice, 12A.   | Thank you for your comment. Project cost, social and environmental impacts, and Section 4(f) regulations were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.  |
| 64                 | 1           | Frank Rue        | Public                 | I support the FAA's preferred alternative (12a) for the Angoon airport. The FAA alternative is preferred because it is closest to town, is safe, uses existing infrastructure, has the best access for people, does not require road maintenance for a long road around Favorite Bay, AND does not compromise National monument values that the DOT alternatives do compromise. I have spent a lot of time in Angoon, Favorite Bay and mitchell Bay and I know that the FAA alternative is the best for all of the reasons FAA has stated and that I have mentioned here.  | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.   |
| 65                 | 1           | Bart Koehler     | Public                 | <p>I want to personally go on record in strong support of the FAA's preferred alternative (12a) for the proposed Angoon Airport. I also want to endorse any and all comments submitted to you by Friends of Admiralty Island.</p> <p>Alternative 12a proposes the most sensitive and sensible alternative that both honors the need for a reliable and safe airport for Angoon, plus protects the natural and cultural integrity of Admiralty Island National Monument and Wilderness.</p> <p>Furthermore, the FAA preferred alternative 12a is: the closest to Angoon; uses existing roads and utilities; minimizes environmental impacts; and is the least costly of the action alternatives.</p> <p>It sure seems to me that selecting the FAA's 12a preferred alternative should be the easiest, most compelling, and most cost-effective slam-dunk decision you could possibly make.</p> <p>In stark contrast to the FAA's alternative 12a, the Alaska Department</p> | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name              | Commenter Organization      | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|-----------------------------|-----------------------------|---|--|
|                    |             |                             |                             | <p>of Transportation's proposed alternative 3a would cost twice as much as the FAA's alternative 12a; is the furthest from Angoon, has major impacts on fish and wildlife habitat and subsistence areas, and would require the construction and maintenance of 5 miles of new road, to boot. It must be noted that the FAA's proposed alternative locates the new airport right along the existing main road from the ferry terminal to the village of Angoon: this is the most practical place for this facility, and will cost the least amount of funding ---- something to very mindful about during these times of federal and state budgets being seriously stressed. Moreover, the wrong-headed AKDOT's proposed alternative 3a would take far longer to implement and construct ---- because under 3a the airport would be located (with serious impacts) within the Admiralty Island National Monument and Wilderness Area and therefore would require approval/special dispensation by the U.S. House and Senate and the President of the United States. (This could add many more years of delay to a project that has been delayed for a long time already.)</p> <p>Again, I strongly support the FAA preferred alternative 12a, and quite definitely oppose the AKDOT's alt. 3a.</p> |  |
| 66                 | 1           | K.J. and Peggy Metcalf      | Public                      | <p>We, support the FAA's preferred alternative 12a over DOT's proposed action 3a for the following reasons:</p> <ul style="list-style-type: none"> <li>• More efficient and safer medivac Easier access</li> <li>• Greater convenience for community and traveling public Easier maintenance</li> <li>• More secure (less likely to be vandalized or broken into - closer to community) Clustered with ferry terminal and existing infrastructure</li> <li>• Minimizes impacts to National Monument and Wilderness Less impact to important subsistence area</li> <li>• Honors Angoon Elders who had advocate protection for Admiralty and especially Mitchell Bay</li> </ul> <p>We did live in Angoon for 18 years and are intimately familiar, having traveled and subsisted in this area extensively.</p> <p>We endorse the Friends of Admiralty Island response.</p>  | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS. |
| 67                 | 1           | Friends of Admiralty Island | Friends of Admiralty Island | <p>Please let us know that Friends of Admiralty Island comments have been received. They were sent earlier this date. Most email comments to agencies have an automatic response, since none was received in this case I need confirmation or I will fax a copy to assure our comments are considered. Thank you.</p>   | The FAA provided email confirmation of receipt on Thursday, March 19, 2015.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name    | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|-------------------|------------------------|---|---|
| 68                 | 1           | Kevin Proescholdt | Wilderness Watch       | <p>As we mentioned in our earlier submission, Wilderness Watch is primarily concerned with protecting the integrity and wilderness character of the Kootznoowoo Wilderness on Admiralty Island, a world-class wilderness resource.</p> <p>But more broadly, the Angoon Airport Draft EIS and Title XI decisions require considering the following factors:</p> <ul style="list-style-type: none"> <li>• Impact to the conservation system unit (both the Kootznoowoo Wilderness and Admiralty Island National Monument)</li> <li>• Meeting the project purpose and need</li> <li>• Economics</li> <li>• Safety</li> </ul> <p>Of the action alternatives, Alternative 12a best meets the first three criteria and meets the robust safety standards required for siting an airport. Alternative 12a would be located in town and not develop the Monument-Wilderness lands.</p> <p>Alternative 12a is most conveniently located for medical evacuations, for business purposes and for personal transportation needs. Alternative 12a is tens of millions of dollars cheaper than all of the other action alternatives. And Alternative 12a meets the stringent safety requirements for siting an airport.</p> <p>By contrast, the other action Alternatives significantly degrade the conservation system unit (the Kootznoowoo Wilderness), less-adequately meet the project purpose and need, and cost millions of dollars more for negligible safety differences. All of these factors must be considered together.</p> <p>Because of the impacts to the Kootznoowoo Wilderness from the other action alternatives, and because only Alternative 12a meets the four factors cited above, Wilderness Watch reiterates its support for either the No Action Alternative, or Alternative 12a with Access 12a.</p> | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p> |
| 68                 | 2           | Kevin Proescholdt | Wilderness Watch       | <p>We suggest that the Final EIS for this project be amended to clearly identify Alternative 12a as the only action Alternative that satisfies all of the 1966 Transportation Law Section 4(f) and ANILCA Title XI criteria. Alternatively, Alternative 12a can be clearly identified as best meeting the ANILCA Title XI criteria, with the other alternatives documented as incurring more degradation of the conservation system unit, more cost to the people and less effectively meeting the project purpose and need. If this latter expression is chosen, then the Final EIS must specifically note that the other (non 12a) action alternatives do not comply with Section 4(f) as required by both the 1966 Transportation Law and ANILCA (which requires applicable law be applied).</p>   | <p>Findings regarding Section 4(f) and ANILCA Title XI criteria will be added to the final EIS.</p>   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|---|---|---|---|
| 69                 | 1           | Butch Laughlin & Sarah Dunlap                     | Alaska Fly "N" Fish Charters                      | <p>As a floatplane pilot for the last 25 years in the Juneau area and owner of Alaska Fly "N" Fish Charters I really agree and concur with the Angoon Community Association that FAA's preferred alternative 12A best meets the stated purpose and the need and seems to best satisfy the community's desire for safety and ease of access. Also as a pilot I really feel the airport located in accordance with alternative 12A is way more in line with the prevailing wind direction for the runway.</p> <p>We would like to see 12A selected and put in place.</p>  | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p>   |
| 70                 | 1           | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>The Federal Aviation Administration (FAA) and the Alaska State Department of Transportation (ADOT) differ as to preferred alternatives. The FAA has made Alternative 12a, the in-town project site, its preferred alternative. The ADOT proposes Alternative 3a with Access 2, the site furthest from town and furthest in the Monument-Wilderness, as Alaska DOT's preferred alternative. Federal law supports the FAA's preferred Alternative 12a.</p> <p>The Department of Transportation Act of 1966, Section 4(f), reads:</p> <p>The Secretary may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) [of the United States Code, "Federal Lands Highways Program"] requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if—</p> <p>(1) there is no prudent and feasible alternative to using that land; and</p> <p>(2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.</p> <p>Alternative 12a is a prudent and feasible alternative to using the Monument-Wilderness lands for Airports 3a and 4, and Access Roads 2 and 3. Additionally, the sites for Airports 3a and 4, and Access Roads 2 and 3 would all incur more than de minimis impacts to the Monument-Wilderness lands. These lands are protected for their ecological, wilderness and heritage values that would suffer significant impairment being logged, roaded, and built upon.</p> <p>The Alaska National Interest Lands Conservation Act of 1980, Section 1103 states:</p> <p>Except as specifically provided for in this title, applicable law shall apply with respect to the authorization and administration of transportation or utility systems.</p> | <p>The FAA agrees that DOT Section 4(f) requires FAA to select an alternative that minimizes harm to parks, recreation areas, or wildlife and waterfowl refuges of national, state, or local significance, or land of an historic site of national, state, or local significance. Airport 12a with Access 12a is the FAA's preferred alternative in part because it provides the least impact to DOT Section 4(f) properties and best meets the review criteria outlined in ANILCA Title XI. ANILCA requires federal permitting agencies to make tentative approvals or disapprovals for a transportation system in a conservation system using the criteria outlined in ANILCA Section 1104. However, the ultimate decision for placement of a transportation system within the Admiralty Island National Monument and Kootznooowoo Wilderness Area lies with the President and Congress. In the case of the Angoon Airport project, because the DOT&amp;PF has filed an ANILCA application, the FAA and cooperating agencies will provide a tentative approval or disapproval for the DOT&amp;PF's proposed action. The language in ANILCA Section 1103 clearly states that other applicable laws shall continue to apply to the ANILCA Title XI process and that these applicable laws can be superseded only by action from the President and Congress under ANILCA Title XI. The final EIS will contain FAA's draft determination for the eight criteria listed in Section 1104(g)2.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|---|---|--|---|
|                    |             |   |   | <p>The Alaska National Interest Lands Conservation Act of 1980, Section 1104(g)(1) states, in part:</p> <p>... with respect to any transportation or utility system, each Federal agency shall make a decision to approve or disapprove, in accordance with applicable law, each authorization that applies with respect to the system ....</p> <p>These two ANILCA provisions affirm that "applicable law" is in play and thus the Department of Transportation Act of 1966, Section 4(f) applies to the Angoon Airport project and the Admiralty Island National Monument and Kootznoowoo Wilderness lands.</p> <p>The Alaska National Interest Lands Conservation Act of 1980, Section 1104(g)(2)(B) establishes the following Title XI review criterion:</p> <p>alternative routes and modes of access, including a determination with respect to whether there is any economically feasible and prudent alternative to the routing of the system through or within a conservation system unit, national recreation area, or national conservation area ....</p> <p>The Federal Aviation Administration, the USDA Forest Service and the Army Corps of Engineers must adhere to the Department of Transportation Act of 1966, Section 4(f), and the ANILCA Title XI review and its expressed intent to minimize adverse impacts to conservation system units and to find economically feasible and prudent alternatives to adversely affecting conservation system units. The federal agencies must choose Alternative 12a and avoid needless impairment of Monument-Wilderness lands.</p> |   |
| 70                 | 2           | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>Once built, the airport and access road will require regular operation and maintenance. These costs will be borne by residents of Alaska and American taxpayers. The differing layouts of the airports and the various lengths of the access roads will incur different costs to operate and maintain. The DEIS and the Title XI Review fail to quantify these costs. The economic feasibility of the various alternatives cannot be meaningfully assessed without these costs.</p> <p>The EIS and the Title XI Review should contain a table that includes the construction costs of the various airports and access routes and the annual operating &amp; maintenance costs, as well as the projected operating &amp; maintenance costs for periods of 25, 50 and 100 years, for each alternative. Only with this complete cost information can the economic feasibility of the various alternatives be made.</p> <p>These costs need to be expressed in "Table ES-2 Comparison of characteristics and construction requirements for the action alternatives" (DEIS, ES 1-13) as well since costs are a primary consideration of any mega-construction project funded by public money.</p>  | Costs to construct and operate the proposed airport and access road will be added to Table ES-2. A new table will also be added in section 3.5.3 to disclose estimated operation and maintenance costs, by alternative. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|---|---|---|---|
| 70                 | 3           | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>The need for an Angoon Airport is to “improve the availability and reliability of aviation transportation services to and from Angoon” (DEIS, ES 1-4). Yet nowhere in the DEIS is there a comparison of the travel time between Angoon and the different airport sites along the various access roads. A table should address the travel time from a central location such as the Jessie Norma Jim Health Center, to each airport. This compares how well each alternative meets the community needs:</p> <ul style="list-style-type: none"> <li>• during emergency medical evacuations</li> <li>• for business transporting goods and clients</li> <li>• for personal travel needs</li> </ul> <p>Additionally, any anticipated difficulties of access due to lack of maintenance or snow/ice conditions, should be quantified in the table</p>  | <p>Section 4.12.3.3.8 of the draft EIS reports the range of round-trip travel distance between the city center and proposed airport locations. This section will be updated to provide a table showing round-trip distances (in miles) for each considered alternative. Travel times are not provided in the EIS, because they will differ based on the mode of transportation. Impacts to access due to road condition cannot be quantified at this time. However, section 4.12.3.3.8 will also be updated to acknowledge that travel may vary based on weather and road condition by adding the following sentence: “Travel times and cost to travel to alternative airport sites could also vary based on weather and road conditions; travel could take longer or even be inaccessible during poor weather or road conditions.”</p> |
| 70                 | 4           | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>DEIS Section 5.5.2 attempts to address the Title XI criterion established by ANILCA Section 1104(g)(2)(B), but it fails to do so. The DEIS states “Under ANILCA Section 1104(g)(2)(B), the FAA must consider alternatives outside the Monument–Wilderness Area” (DEIS, 717). The DEIS/Title XI review then notes that Alternative 12a “is not located in the Monument–Wilderness Area, and could be built using sound engineering and aviation principles” (DEIS, 717).</p> <p>ANILCA Section 1104(g)(2)(B) actually requires the Title XI Review to make “a determination with respect to whether there is any economically feasible and prudent alternative to the routing of the system through or within a conservation system unit . . .” (ANILCA Sec. 1104(g)(2)(B)). Beneath the comprehensive cost comparison table and the comparative travel times table mentioned in the previous comment, there should be a clear expression of the requisite determination stating: “Alternative 12a is an economically feasible and prudent alternative to the routing of the airport and its access road through Admiralty Island National Monument and the Kootznoowoo Wilderness.” The current DEIS fails to make this determination in clear language.</p> | <p>Findings regarding Section 4(f) and ANILCA Title XI criteria will be added to the final EIS.</p>   |
| 70                 | 5           | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>ANILCA Section 1104(g)(2) requires federal agencies to make “detailed findings supported by substantial evidence, with respect to” eight criteria as part of the Title XI review. The DEIS fails to articulate “short- and long-term social, economic, and environmental impacts of national, State, or local significance” (ANILCA Section 1104(g)(2)(D)). Most of the DEIS pertains to local impacts. The EIS needs to identify which impacts are of national and State significance – especially such long-term impacts. Examples include:</p> <ul style="list-style-type: none"> <li>• Airports 3a and 4 both require ADOT to operate and maintain new roads. This creates a long-term economic impact to the State that should be quantified. Similarly, if the FAA will fund operating and</li> </ul>  | <p>A new table will be added in section 3.5.3 to disclose estimated operation and maintenance costs, by alternative. The proposed Angoon Airport would not be a Part 139 airport and would not be subject to additional costs associated with the Department of Homeland Security Transportation Safety Administration for passenger safety checkpoints. The State of Alaska is authorized by ANILCA Title XI to apply for a right-of-way for the airport and access road in the Admiralty Island National Monument and Kootznoowoo Wilderness Area and because an ANILCA application has been submitted, all permitting agencies must</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|---|---|--|--|
|                    |             |   |   | <p>maintaining the airport, and if the Department of Homeland Security will be required to administer the facility in some manner, then these are long-term national economic impacts. If the costs are difficult to ascertain, then the costs from similar-sized airport projects – such as can be found in Kake or Hoonah, Alaska – should be provided for comparison.</p> <ul style="list-style-type: none"> <li>• Another social-environmental-economic impact at the State and national level is the potential precedent of a Title XI approved airport in a highly-treasured conservation system unit. This is especially noteworthy when an economically feasible and prudent alternative exists outside of the conservation system unit and meets the expressed purpose and needs of the project. Two outcomes from this potential precedent are: <ol style="list-style-type: none"> <li>1. State-national impact: The ADOT/State of Alaska will be emboldened to pursue additional costly Title XI projects within valued conservation system units to assert State rights even when more economic and less environmentally damaging options exist.</li> <li>2. State-national impact: World-class conservation system units that were designated in Alaska to preserve intact ecosystems and to proactively conserve valued lands and waters before they were subjected to civilization's sprawl will be more vulnerable to the impact of encroaching development than before. This is especially so considering that Alternative 12a clearly meets the needs of the project with the least cost to the people and with the least impact to an esteemed conservation system unit, and yet the State is pressing on with its effort to build in Monument-Wilderness lands.</li> </ol> </li> </ul> | comply with the requirements in ANILCA.  |
| 70                 | 6           | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <ul style="list-style-type: none"> <li>• Considering the previous point, it is especially urgent that the EIS addresses the long-term and nationally significant social-environmental impacts to the broadly supported values and purposes of Admiralty Island National Monument and Kootznoowoo Wilderness. This transcends the affected local acreage as documented in the DEIS. The EIS must clearly detail how: <ol style="list-style-type: none"> <li>(a) The National Wilderness Preservation System, established by the Wilderness Act of 1964 designed to designate areas unoccupied and unmodified by civilization, would be blemished by expanding development – especially where Title XI is exercised when a non-wilderness alternative is viable.</li> <li>(b) The values and purposes of Alaskan conservation system units as expressed in ANILCA Sections 101(a)-(c) will be degraded. Note that this would also remedy a deficiency in the DEIS/Title XI review regarding fulfilling ANILCA Section 1104(g)(2)(F) by better addressing the broader wilderness values and purposes that will be affected beyond the locally impacted acres.</li> </ol> </li> </ul>  | <p>The following text will be added to Chapter 4.16, Wilderness</p> <p>"It is the position of the USFS that in general, wilderness areas are not threatened by large-scale projects that would degrade large proportions of their acreages. Rather, wilderness areas are threatened by the cumulative effect of small incremental changes over time and by new precedents allowing previously incompatible uses. These incremental changes and new uses together could add up to significant development, modification, and occupation of the National Wilderness Preservation System over time. In this light, the wilderness alternatives for the proposed Angoon Airport indirectly affect the public's appreciation that this wild and undeveloped place is protected by national monument and wilderness area designations. Members of the public who may never visit Admiralty Island support the monument and wilderness area for its intrinsic spiritual and symbolic values, including the value of preserving an extensive, unaltered coastal island ecosystem; the subsistence and recreation</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|---|---|---|---|
|                    |             |   |   |   | <p>opportunities afforded by vast undeveloped areas; and the value of an intact cultural landscape for the Tlingit Indians. These values reflect the national interest expressed in ANILCA Section 101, the Wilderness Act, and President Carter's monument proclamation.</p> <p>The precedent of constructing an airport in the monument-wilderness when there is a viable alternative outside but nearby the monument-wilderness could increase concerns about the preservation of the Admiralty Island National Monument, the Kootznoowoo Wilderness Area, and other Alaskan national interest lands that could be subjected to ANILCA Title XI projects."</p> |
| 70                 | 7           | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | ANILCA Section 1104(g)(2)(F) requires a detailed finding supported by substantial evidence with respect to "any impacts that would affect the purposes for which the Federal unit or area concerned was established." The DEIS and Title XI review examine the local impacts to Wilderness lands. As noted above, the State-national significant impacts should be detailed.  | See response to comment 70(6)   |
| 70                 | 8           | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | Just as important, yet wholly ignored, are the expressed purposes for which the Monument was designated. These can be found in President Jimmy Carter's Presidential Proclamation 4611, in ANILCA Section 503(c), and in the Admiralty Island National Monument Land Management Act of 1990 Section 202(1). The EIS must document how the alternatives impact these purposes.   | The FAA will include a separate section outlining the Admiralty Island National Monument purposes and evaluating project effects to these defined purposes.   |
| 70                 | 9           | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>The Angoon Airport DEIS is intended to disclose for public review the impacts of various sites and access routes relating to a new airport for Angoon. The DEIS does a decent job of mapping where the sites and routes will occur, but it fails in a key aspect. The airport will not be a static development that will be abandoned once it is built. Rather, it will have planes landing and taking off, and the various alternatives feature different flight paths and impacts.</p> <p>To ensure proper understanding of how the various sites manifest different flight patterns, <u>all of the maps throughout the EIS</u> should have approach and take off arrows indicating the direction of plane traffic. This is not hard to do in that it would simply require adding a map layer with directional flight arrows. It is not enough to have the flight path information somewhere within the 828 page DEIS/EIS or its supplemental materials: few if any of the public will read the massive document in its entirety and the FAA must strive to facilitate the best comprehension of the project and its possible alternatives. The simple step of adding flight path arrows to all maps will better empower the public to understand how each site will be used and affect the surrounding environment.</p> | The maps in the noise section 4.11 of the draft EIS indicate the flight tracks for each alternative. Throughout the resource sections and chapters, the airport and its potential effects from operations and maintenance are described thoroughly. In Chapter 3, operations will be added to section 3.3.2, including maps that show flight tracks.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|---|---|--|--|
| 70                 | 10          | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>The DEIS states “No significant effects to cultural resources were identified for any action alternative” (DEIS, 391). ... Insofar as Native Americans have lived in and around Angoon for centuries, it is unlikely that the clearing, grading, paving and operation of an airport would have no effect upon cultural or archaeological resources.</p> <p>The National Historic Preservation Act, Section 106 asserts:<br/>           The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking.</p> <p>The Section 106 review requires consultation with the State Historic Preservation Officer (SHPO) where the activity “has the potential to cause effects on historic properties” (36 CFR § 800.3). Considering the rich history of Angoon, the cultural-heritage purposes for which Admiralty Island National Monument was designated and the likelihood that cultural-archaeological resources exist in the various project areas, please assure that you have conferred with the State Historic Preservation Office (SHPO) and that SHPO has concurred with the EIS findings regarding impacts of the various alternatives on cultural and archaeological resources, including findings of no significant effects. SHPO’s concurrence, or lack thereof, must be documented in the EIS.</p> | <p>The FAA received SHPO concurrence on the Finding of Effects for Airport 12a with Access 12a (the FAA’s preferred alternative) on November 13, 2015. This information will be added to the Final EIS.</p> <p>Chapter 5 of the EIS (ANILCA) will be updated to include preliminary terms and conditions that will be required if Airport 3a with Access 2 (the DOT&amp;PF’s proposed action) is approved by the President and Congress. This includes a condition that cultural resources field surveys will be completed and concurrence on determinations of effect will be received from the SHPO as required by 36 CFR Part 800 prior to the USFS issuing a right-of-way.</p> |
| 71                 | 1           | Ric Iannolino                                     | Public  | <p>I am familiar with both proposed Angoon Airport sites. I have spent many years working, visiting friends and recreating in both Angoon, Favorite and surrounding areas. I clearly understand Favorite Bay and the surrounding areas are the major subsistence area near Angoon. I have reviewed the EIS documents.</p> <p>I strongly support the FAA 12A Angoon Airport Alternative. I will summarize many of the excellent comments offered by the residents of Angoon and the nearby communities that are consistent with my analysis.</p> <p>It is important the Angoon airport location be closer to the community of Angoon because<br/> <u>roads in Angoon are icy and hard to maintain in winter and because the cost of gas is high for both private vehicles and</u></p>   | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|------------------|------------------------|--|---|
|                    |             |                  |                        | <p><b><u>maintenance equipment travelling to and from the airport.</u></b></p> <p>The FAA 12A Option would be closer to the existing road system and therefore <b><u>more accessible</u></b>. There would be <b><u>less overall road to construct</u></b>. It would <b><u>provide a tailwind and southeast headwind</u></b>. It would provide <b><u>access to fresh water</u></b>. It would <b><u>not affect subsistence taking</u></b>. It would be <b><u>far less costly</u></b> to construct.</p> <p>The FAA 12A option would not impact the inside waterway and bays and inlets including:</p> <ul style="list-style-type: none"> <li>• Kootznoohoo Inlet</li> <li>• Favorite Bay</li> <li>• Mitchell Bay</li> <li>• Salt Lake</li> <li>• Kanalku Bay</li> </ul> <p>These subsistence areas contain <b><u>their valued subsistence food sources that contain most, if not all, of the major foods Angoon residents use to survive</u></b>. (These foods are deer, crab, clams, shrimp, salmon, gumbots, bottom fish, waterfowl, bear, goose tongue, wild asparagus, blueberries, huckleberries, currants, and other traditional foods.</p> <p>In addition the current untouched wilderness at Favorite Bay provides more of a <b><u>benefit to tourism</u></b> because of its uniqueness.</p> <p><b><u>I am opposed to the Alaska DOT/PF the seven-mile road an option</u></b> Sites 3 and 3a that propose to construct a road on both the south and north shores of Favorite Bay with crossings over Favorite Creek because it would have a negative impact on an important salmon- spawning stream.</p> <p>The 3A option simply makes no sense other than another Alaska DOT/PF engineering project i.e. another, " Road to No Where".</p> |   |
| 72                 | 1           | Christopher Lish | Public                 | <p>I am pleased to learn that the Federal Aviation Administration (FAA) has rejected a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. I strongly support the No Action Alternative of the Angoon Airport Draft Environmental Impact Statement, although if an airport is going to be built, the best alternative is the FAA's recommendation of using a site where the lands are privately owned or owned by the local community (Airport 12a with Access 12a).</p> <p><i>"Our duty to the whole, including to the unborn generations, bids us to restrain an unprincipled present-day minority from wasting the heritage of these unborn generations. The movement for the conservation of wildlife and the larger movement for the conservation</i></p>  | <p>The FAA has determined that Airport 12a with Access 12 meets the purpose and need for improved availability and reliability to and from Angoon while still minimizing adverse effects to the wilderness and other resources.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | <p><i>of all our natural resources are essentially democratic in spirit, purpose and method."</i></p> <p>- Theodore Roosevelt</p> <p>The remoteness of Admiralty Island National Monument led the Congress to pass legislation designating almost all of the monument as the Kootznoowoo Wilderness. A Wilderness designation is supposed to ensure that these lands will be permanently protected from development. The Airport 3a with Access 2 or 3 and Airport with Access 2 or 3 alternatives would result in the destruction of Wilderness lands and be contrary to the intent of the Congress for these lands. The FAA, if it adheres to the law, has no other options aside from the No Action Alternative or the Airport 12a with Access 12a alternative.</p> <p><i>"Every man who appreciates the majesty and beauty of the wilderness and of wild life, should strike hands with the farsighted men who wish to preserve our material resources, in the effort to keep our forests and our game beasts, game- birds, and game-fish—indeed, all the living creatures of prairie and woodland and seashore—from wanton destruction. Above all, we should realize that the effort toward this end is essentially a democratic movement."</i></p> <p>- Theodore Roosevelt</p> <p>Please spare the Kootznoowoo Wilderness from airport and road construction.</p> <p><i>"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."</i></p> <p>- Aldo Leopold</p> <p>Thank you for your consideration of my comments. Please do NOT add my name to your mailing list. I will learn about future developments on this issue from other sources.</p> |   |
| 73                 | 1           | Julie Koehler  | Public                 | <p>The community of Angoon is experiencing a difficult time with a declining population, high unemployment, high utility rates and diminishing state and federal funds for services and infrastructure.</p> <p>Angoon is in need of a reliable stable economic base for the health and wellbeing of the community.</p> <p>As the DEIS states, the Alaska Department of Transportation's proposed action 3a would result in more income from taxes and several local hires during construction. It appears those gains are offset by the higher cost of daily access, maintaining the access road and maintaining airport facilities, security and safety.</p> <p>There was no indication of how Angoon's long term economic plan would be benefited by alternatives 3a or 12a. In most cases there are</p>   | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name              | Commenter Organization      | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|-----------------------------|-----------------------------|---|---|
|                    |             |                             |                             | economic benefits to grouping transportation facilities with existing infrastructure – roads and power, in Angoon's case.   |   |
| 74                 | 1           | Friends of Admiralty Island | Friends of Admiralty Island | <p>My name is Julie Koehler, and I live in Juneau, Alaska. I was fortunate to have lived in Angoon for almost a year, back in 1991. While I was there I was able to canoe in Favorite Bay and the back channel and into the wild heart of Admiralty Island National Monument and Wilderness. When I think about the best place to build an airport for Angoon, I dread the thought of an unnecessary road and bad location of the AKDOT's proposed alt 3a, knowing full well that the FAA's proposed alt. 12a makes the most sense in every possible way. Therefore, I want to emphatically state my strong support of the FAA's preferred alternative (12a) for the proposed Angoon Airport. I also want to support the comments submitted to you by Friends of Admiralty Island.</p> <p>Alternative 12a proposes the most sensitive and sensible alternative that both honors the need for a reliable and safe airport for Angoon, and protects the natural and cultural integrity of Admiralty Island National Monument and Wilderness.</p> <p>Furthermore, the FAA preferred alternative 12a is: the closest to Angoon; uses existing roads and utilities; minimizes environmental impacts; and is the least costly of the action alternatives.</p> <p>Clearly, selecting the FAA's 12a preferred alternative would and should be the easiest, most compelling, and most cost-effective, and wisest decision you could possibly make.</p> <p>In sharp contrast to the FAA's alternative 12a, the Alaska Department of Transportation's proposed alternative 3a would cost twice as much as the FAA's alternative 12a; is the farthest from Angoon, has major impacts on fish and wildlife habitat and subsistence areas, and would require the construction and maintenance of 5 miles of new road. It must be noted that the FAA's proposed alternative locates the new airport right along the existing main road from the ferry terminal to the village of Angoon: this is the most practical and logical place for this facility, and will cost the least amount of funding - something to be mindful about during these times of federal and state budgets being under duress. Moreover, the wrong-headed AKDOT's proposed alternative 3a would take far longer to implement and construct - because under alternative 3a the airport would be located (along with its serious impacts) within the Admiralty Island National Monument and Wilderness Area and therefore would require approval/special action by the full U.S. Congress and then the President of the United States. (This could add many more years of delay to a project that has been delayed for a long time already.)</p> <p>Lastly, I strongly support the FAA preferred alternative 12a, and quite definitely oppose the AKDOT's alt. 3a.</p> | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|------------------|------------------------|--|---|
| 74                 | 2           | Christopher Lish | Public                 | <p>Friends of Admiralty Island<sup>[1]</sup> have participated in the Angoon airport EIS process by commenting in the scoping phase, monitoring FAA's newsletters, meeting with FAA's EIS Planning Team, alerting our 400 plus membership base of FAA's progress, publicly testifying at the Juneau open house/hearing on the DEIS and now by these written comments on the DEIS.</p> <p>We have, throughout the process supported Angoon's desire to obtain a land- based airport that is safe, easily accessible and dependable maintained. We have also favored minimizing the intrusion and impacts to; subsistence and overall environmental effects, as well as and National Monument and Wilderness values. The community has consistently stated that safety by ease of medivac has been one of the primary desires for a land based airport</p> <p>We concur with the Angoon Community Association (the federally recognized Indian Tribe of Angoon) that FAA's preferred alternative 12a best meets the stated Purpose and Need and seems to best satisfy the community's desire for safety and ease of access.</p> <p>We have long advocated for Angoon to have a larger role in managing the National Monument and Wilderness. This seems especially important since the Angoon elders fought so hard to have Admiralty Island protected in some form of a reserve system, which resulted in the National Monument and Wilderness designations – which started with President Carter's 1978 presidential National Monument proclamation under the Antiquities Act.</p> <p>When the elders testified in Congressional hearings they emphasized the need to protect their cultural and subsistence values. Angoon's strong voices carried the day for presidential action and convinced congress to include Admiralty in the Alaska National Interest Lands Conservation Act of 1980 as a National Monument and Wilderness (ANILCA). The Angoon elders also prevailed to have their own village Native Corporation land selections (awarded as part of the 1971 Alaska Native Claims Settlement Act - ANSCA) moved from the Mitchell Bay area and off of the island and those of the Sitka Urban Native Corporation moved from Hood Bay lands, immediately adjacent to Angoon to lands originally selected by Juneau Urban Native Corporation in the Cube Cove area, some 20 miles north of Angoon. The rational presented by the Angoon elders at congressional hearings was to protect the island from development, particularly at the time road building and logging. This history is well preserved in congressional hearing records and it is believed, by many that without the courageous action of the Angoon elders that President Carter nor congress would have acted to protect Admiralty Island.</p> <p>In the 1980's the Jimmie Johnson Native Land Allotment was</p> | <p>All alternatives are consistent with Angoon's 1999 Economic Development Plan, which promotes improved access and infrastructure upgrades. Section 4.12.3.3.5 of the draft EIS provides a comparison of estimated short-term and long-term economic benefits from construction and operation of the proposed airport and access road, by alternative.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | <p>approved in Favorite Bay (in the general location of Alternative 4) and was proposed to be logged. The community was very much opposed to that development, due to the impact that would occur to subsistence values and the allotment was purchased and incorporated into the National Monument.</p> <p>While the debate of the best location for Angoon's airport is complicated by the desperate need of Angoon to have a sustainable and solid economic foundation for the long-term the historic record would support the location of the airport at FAA's preferred alternative (12a) over the Department of Transportation's proposed alternative and access (3a).</p> <p>Again, friends of Admiralty Island strongly recommends the selection of Alternative 12a and believe it to be supported on the basis of construction and maintenance cost, convenience of access (especially in medivac cases), minimizes damage to fish and wildlife values and protection of the National Monument and Wilderness values.</p> <p><sup>[1]</sup> Established in 1997 as a non-profit corporation to promote those values that Admiralty Island National Monument and Wilderness were designated to protect. Currently we have a membership of over 400 members.</p>  |   |
| 75                 | 1           | Ric Iannolino  | Public                 | <p>I strongly support the FAA 12A Angoon Airport Alternative. I will summarize many of the excellent comments offered by the residents of Angoon and the nearby communities that are consistent with my analysis.</p> <p>It is important the Angoon airport location be closer to the community of Angoon because <b><u>roads in Angoon are icy and hard to maintain in winter and because the cost of gas is high for both private vehicles and maintenance equipment travelling to and from the airport.</u></b></p> <p>The FAA 12A Option would be closer to the existing road system and therefore <b><u>more accessible</u></b>. There would be <b><u>less overall road to construct</u></b>. It would provide a <b><u>tailwind and southeast headwind</u></b>. It would provide <b><u>access to fresh water</u></b>. It would <b><u>not affect subsistence taking</u></b>. It would be <b><u>far less costly</u></b> to construct.</p> <p>The FAA 12A option would not impact the inside waterway and bays and inlets including:</p> <ul style="list-style-type: none"> <li>• Kootznoohoo Inlet</li> <li>• Favorite Bay</li> <li>• Mitchell Bay</li> <li>• Salt Lake</li> <li>• Kanalku Bay</li> </ul> <p>These subsistence areas contain <b><u>their valued subsistence food sources that contain most, if not all, of the major foods Angoon</u></b></p> | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name         | Commenter Organization               | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|------------------------|--------------------------------------|---|---|
|                    |             |                        |                                      | <p><b>residents use to survive.</b> (These foods are deer, crab, clams, shrimp, salmon, gumboots, bottom fish, waterfowl, bear, goose tongue, wild asparagus, blueberries, huckleberries, currants, and other traditional foods).</p> <p>In addition the current untouched wilderness at Favorite Bay provides more of a <b>benefit to tourism</b> because of its uniqueness.</p> <p><b>I am opposed to the Alaska DOT/PF the seven-mile road an option</b> Sites 3 and 3a that propose to construct a road on both the south and north shores of Favorite Bay with crossings over Favorite Creek because it would have a negative impact on an important salmon-spawning stream.</p> <p>The 3A option simply makes no sense other than another Alaska DOT/PF engineering project i.e. another, " Road to No Where".</p>  |   |
| 76                 | 1           | Judith Maier           | Public                               | <p>The best option for the Angoon Airport is closest to town. It uses existing utilities and road. It requires less interference with the natural environment. It is the most accessible and the least expensive to visit. I have relatives from Angoon. Please select the FAA's preferred alternative, closest to Angoon village site, thereby protecting and preserving the National Monument and Wilderness Lands. Thank you for your careful consideration of this matter.</p>  | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p> |
| 77                 | 1           | Quinn Sharkey          | Public                               | <p>Please take this letter as my formal public comment on the Angoon Airport Proposal. As an Alaska resident, I have a keen interest in protecting the environment as much as possible while addressing critical infrastructure and transpiration needs. Having traveled to Angoon many times, I have a sincere appreciation of the extraordinary place that island, and the community of Angoon represent, as well as there need for reliable air transportation (other than float planes). It is with that in mind, that I formally request that you reject the Alaska Department of Transportation's proposed alternative 3a and instead, <b>authorize and endorse the FAA's preferred alternative 12a</b>, which is closest to Angoon, utilizes existing utilities and road, minimizes environmental impacts and is the least costly. Please let me know if you have any questions and thank you for the opportunity to participate in the process.</p> | <p>Thank you for your comment. Project cost, social and environmental impacts, and Section 4(f) regulations were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p>  |
| 78                 | 1           | Christine B. Reichgott | U.S. Environmental Protection Agency | <p>We believe that the selection of the preferred alternative (Alternative 12a with 12a Access) is environmentally preferable to the other airport locations and access roads in nearly all resource categories. In addition to avoiding designated Wilderness, it requires substantially less waterbody crossings, including no crossing of Favorite Creek. This alternative would result in less fill, less impervious surface, less terrain disturbance, and fewer culverts, stream diversions, truck trips and barge trips. We also note that it is the least costly alternative and is similar to other alternatives in instrument approach capability, minimums for visibility, and year-round availability.</p>  | <p>Thank you for your comment</p>   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name         | Commenter Organization               | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|------------------------|--------------------------------------|---|--|
|                    |             |                        |                                      | <p>We note that although the Draft EIS concludes that none of the action alternatives would result in "unacceptable adverse impacts to non-wetland waters of the U.S. per Clean Water Act Section 404(b)(1) guidelines," only the Least Environmentally Damaging Practicable Alternative may be permitted by the U.S. Army Corps of Engineers. Based on the analysis in the EIS, there is substantial difference in impacts to aquatic resources between the preferred alternative and the other action alternatives, with the preferred alternative resulting in substantially fewer impacts to aquatic resources. We believe that overall, the preferred alternative is environmentally preferable because of the reasons listed above and because the preferred alternative will likely be the LEDPA, or will more closely resemble the LEDPA, compared to the other action alternatives. We support the selection of this alternative by the FAA in the Final EIS and Record of Decision.</p>   |  |
| 78                 | 2           | Christine B. Reichgott | U.S. Environmental Protection Agency | <p>We do have concerns, however, regarding the impact that the preferred alternative has on the amount and accessibility of Alaska Native Claims Settlement Act village corporation and private land, including native allotments, which are in close vicinity to the community. These lands are currently used for a variety of purposes, including subsistence activities. There is a trend in Alaska for private and corporation lands that are accessible to owners and shareholders to be utilized for public infrastructure projects. While these projects often provide benefits to residents, such as safer and more reliable air service, there is often a trade-off or loss of other uses. The loss of easily accessible subsistence areas is particularly detrimental for low-income and disabled residents. It is not clear if this was fully evaluated in the EIS. We recommend additional work to identify appropriate mitigation for these losses and monitoring to ensure that the mitigation being implemented is effective.</p> | <p>The Subsistence section in the EIS (section 4.13) includes information on the effects to subsistence users from loss of easily accessible use areas, particularly from Airport 12a with Access 12a. The effects to subsistence users would not rise to the level of significant impacts as established by the BLM standard for significant impacts to subsistence, therefore FAA would not mitigate for any non-significant adverse effects. The Environmental Justice section of the EIS (section 4.18) also considers whether project impacts to subsistence users would disproportionately affect low-income or minority residents. These analyses and findings—which upon careful review the FAA has determined to be sufficient for NEPA disclosure—note that access reductions would be limited with unnoticeable changes to abundance, availability, or competition. Therefore, the Angoon community would not experience a disproportionate adverse effect related to subsistence resources and uses.</p> |
| 78                 | 3           | Christine B. Reichgott | U.S. Environmental Protection Agency | <p>We are also concerned that, in comparison to the other action alternatives, the preferred alternative requires substantially more vegetation removal, resulting in a much more concentrated stream geomorphic effect and substantial loss of natural stream function for Stream 10. We recommend that the FAA work closely with the Alaska Department of Transportation and Public Facilities and other stakeholders to determine if any additional avoidance or minimization can be included in the project design. For impacts that cannot be avoided or reduced, appropriate mitigation must be identified. For impacts that cannot be mitigated, compensation should be applied. We recommend that a robust draft compensation plan be included in the Final EIS.</p>  | <p>The FAA will work with stakeholders to develop appropriate mitigation and compensation plans for the streams potentially affected by the selected alternative.</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name         | Commenter Organization               | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|------------------------|--------------------------------------|--|---|
| 78                 | 4           | Christine B. Reichgott | U.S. Environmental Protection Agency | First, in the Executive Summary and Chapter 1, the access route for Alternative 3a is not identified. We recommend that this be corrected.   | In the Executive Summary, the two access options for Airport 3a (Access 2 and Access 3) are specified in section ES-1.7.2. Chapter 1 is intended to be a more general introduction to the project and its background; no alternatives are described in detail. Chapter 3 is the chapter that provides more detail about the alternatives, and in this chapter the access route alternatives for Airport 3a (Access 2 and Access 3) are described and mapped in sections 3.3.2.1 and 3.3.2.2.  |
| 78                 | 5           | Christine B. Reichgott | U.S. Environmental Protection Agency | while we recognize that information relating to Alaska National Interest Lands Conservation Act is very thorough, we believe it is important that the EIS also clearly articulate that agencies must also comply with other applicable laws and regulations. We recommend that this be clarified in the Final EIS.   | The following statement will be added to section 5.4 of the final EIS: "The State of Alaska is authorized by ANILCA Title XI to apply for a right-of-way for the airport and access road in the Admiralty Island National Monument and Kootznoowoo Wilderness Area. Because an ANILCA application has been submitted, all permitting agencies must comply with the requirements in ANILCA. ANILCA Section 1103 states that other applicable laws shall continue to apply to the ANILCA Title XI process. These applicable laws can be superseded only by action from the President and Congress under ANILCA Title XI". |
| 79                 | 1           | Matt Kookesh           | City of Angoon                       | First and Foremost is the Position of the Angoon City Council on Proposed Airport Sites around Angoon. The City of Angoon has chosen Site 3A, as the preferred site for our community.   | Thank you for your comment.   |
| 79                 | 2           | Matt Kookesh           | City of Angoon                       | I would like to point out on the Draft E.I.S. on Page 134, Land ownership in The Angoon area is primarily owned by both Kootznoowoo Inc. and the City of Angoon. If that is the case than why does this process not include the land owners in your draft EIS process? The City of Angoon and its residents have been overlooked in the meeting and consultation process.  | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative.  |
| 79                 | 3           | Matt Kookesh           | City of Angoon                       | We request that your next meeting be held at the City office so that all residents can be welcomed to participate. At the last meeting, every time someone got up to speak the local tribe would stand up and counter what was just said. This is very uncomfortable for the community to participate. Please don't have meetings at the tribe's office unless you're going to control the tribal chair from debating every testimony. | Meeting facilities were selected based on their familiarity to the community and proximity to town. All meeting facilities were also selected to be Americans with Disabilities Act (ADA) accessible. The FAA understands the City of Angoon's concerns and has reached out to the mayor to discuss options for any future meetings.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------|---|---|
| 79                 | 4           | Matt Kookesh   | City of Angoon         | <p>The City of Angoon requests that you address the following pages and respond as to why your stating platted parks but yet not consulting us on 12 A as a detriment to our land ownership and our right to designate a parcel of land for future use. We look forward to your explanation of our platted park and why you are overriding this designation. List below are some pages we are concerned about:</p> <p>On page 133, 4.3, figure lu2: it shows platted park as being directly affected by the airport site 12 A.</p> <p>On page 134,4.3, figure lu3, it shows City of Angoon land being directly affected, including the platted park and Auk Tah Lake (our drinking water source)</p> <p>On page 136,4.3.2.3.2, compatible I and use, no discussion of City of Angoon owned land in vicinity of 12 A airport site.</p> <p>On page 133, table lu2: displays Killisnoo Lagoon parcel as Platted Park.</p> <p>On page 141 ,14.3.2.5.1 compatible land use, Angoon Peninsula: 73.18 acre area near Auk Tah Lake is designated as central park in our 14c3 reconveyance. 111.36 acres in the salt lagoon has been designated as City Park land. This area maybe contaminated from garbage dump runoff, so no berry picking in this area however between Auk Tah and the Salt lagoon over 18 deer was harvested by the community residents in 2014.</p> <p>On page 153, 4.3.3.3.3 compatible land uses, affect land acquisition, right of ways, permits and or leases, figure lu11: notes that no city of Angoon land will be required for airport site 12 A, however 12a easement sits right on city park land or platted Park.</p> | <p>The FAA has contacted the mayors (both the current mayor and his predecessors) as well as city staff to discuss the existing and anticipated use of the platted parks and to gather any written documentation related to these lands. The determination about these lands made by the FAA was based, in part, on these conversations. The FAA met again with the current mayor following the release of the draft EIS and gathered new information from the City. The FAA has determined that the platted parks are not 4(f) properties.</p> <p>On page 153, section 4.3.3.3.3, the draft EIS notes that the acres reported do not include lands subject to avigation easements. The DOT&amp;PF would negotiate a right-of-way agreement with the City of Angoon for long-term access to city lands to clear obstacles, but there would be no change in landownership.</p> |
| 79                 | 5           | Matt Kookesh   | City of Angoon         | <p>On page 162, 4.4.1.1 DOT 4 F determination summary, what is section 4 f and how does it apply to this project. Since The City owns, the platted Park and our residents use the area for recreation and it has significant values both locally and nationally.</p>  | <p>As described in section 4.4.1 of the draft EIS, Section 4(f) is a federal law specific to transportation agencies such as the FAA. It is part of the Department of Transportation Act of 1966. Its implementing regulations have been revised several times since 1966, and different transportation agencies have different internal policies for interpreting and implementing Section 4(f). Section 4.4.2.1 of the draft EIS further clarifies what potential 4(f) properties are near the action alternatives. The FAA met again with the current mayor following the release of the draft EIS and gathered additional information from the City. The FAA has determined that the platted parks are not 4(f) properties.</p>   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name    | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|-------------------|------------------------|---|--|
| 79                 | 6           | Matt Kookesh      | City of Angoon         | <p>On page 163, 4.4.2.1.1 4 F determination summary is of significant interest to the City of Angoon. We want to know how you are going to determine 4 f resources without the City of Angoons input.</p> <p>On page 166, 4.4.2. 1.1 DOT 4 F determination summary this section makes a determination that the city park properties are not 4 F properties. How can you make this determination without true consultation with the City of Angoon?</p>      | <p>The FAA has contacted the mayors (both the current mayor and his predecessors) as well as city staff to discuss the existing and anticipated use of the platted parks and to gather any written documentation related to these lands. The determination about these lands made by the FAA was based, in part, on these conversations. The FAA met again with the current mayor following the release of the draft EIS and gathered new information from the City. The FAA has determined that the platted parks are not 4(f) properties.</p>  |
| 79                 | 7           | Matt Kookesh      | City of Angoon         | <p>The City of Angoon cannot afford to relinquish any land within the Airport Site 12 A. Nor can we afford to have an outside federal or state agency condemn our platted Parks for the purpose of building an airport. Any relinquishment of lands given to the city under aboriginal claim or lands for future development of our community is unacceptable. Once we give up local land than we will never be able to replace those lands ever again.</p> | <p>As displayed in Figure LU11 of the draft EIS, lands subject to avigation easements are not included in acres affected per landowner/land manager because there would be no change in landownership. Avigation easements would be required on some City of Angoon lands for access to clear them of flight obstructions and maintain that clearance. However, this easement would not preclude ongoing community use of city park lands or change landownership. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for commercial land uses. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other income-generating activity. Airport 12a with Access 12a would also remove several large, adjoining land parcels that could be used for larger-scale economic enterprises, leaving smaller, land-locked parcels for future economic growth opportunities.</p> <p>After thorough analysis and consideration of regulatory requirements, the FAA has determined that Airport 12a with Access 12a is the preferred alternative. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon</p> |
| 80                 | 1           | Cynthia Ann Frank | Public                 | make sure it doesn't effect our subsistence food  | <p>Section 4.13 and the ANILCA Section 810 Evaluation (included as Appendix O of the draft EIS) details the project effects to subsistence resources. Effects to subsistence would not be significant under any of the action alternatives.</p>  |
| 80                 | 2           | Cynthia Ann Frank | Public                 | is there road to airport location sight   | <p>All action alternatives would require the construction of a road to access the airport. These access roads are discussed in section 3.3 of the draft EIS.</p>   |
| 80                 | 3           | Cynthia Ann Frank | Public                 | the noise be a problem since so close to town   | <p>As disclosed in section 4.11.3.6 of the draft EIS, all action alternatives would increase daily noise levels over an average 24-hour period by 5 dBA to approximately 20 dBA over existing conditions, but these noise levels would still be low (44 dBA, or the equivalent of bird calls in a nature area).</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name    | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|-------------------|------------------------|--|---|
| 80                 | 4           | Cynthia Ann Frank | Public                 | are people going to be trained to run a airport?   | Any hiring or training would be completed by the DOT&PF, as owners and operators of the airport.  |
| 80                 | 5           | Cynthia Ann Frank | Public                 | will the price be cheaper to Juneau  | Section 4.12.3.3.8 of the draft EIS states that "Under all action alternatives, a new land-based airport could increase the number and types of airplanes that provide service to Angoon, potentially increasing competition and decreasing air travel costs for passengers and cargo. Because of the greater passenger and cargo capacity on wheel-based aircraft, fares on wheel-based aircraft are lower per average seat mile than fares on seaplanes, the only type of aircraft currently serving Angoon (DOWL Engineers and Southeast Strategies 2008). Actual fares would be determined by aircraft carriers based on various factors, including demand and fuel costs." |
| 80                 | 6           | Cynthia Ann Frank | Public                 | will this effect monument status?  | None of the alternatives would affect the status of the Admiralty Island National Monument. Only Congress can modify the Admiralty Island National Monument or the Kootznoowoo Wilderness Area. Even if Airport 3a or Airport 4 were chosen, the lands for airport construction would still be part of the Admiralty Island National Monument and/or the Kootznoowoo Wilderness Area.   |
| 80                 | 7           | Cynthia Ann Frank | Public                 | will it be state operated?   | As stated in section 1.3 of the draft EIS, the DOT&PF would maintain and operate the airport if it is built.  |
| 80                 | 8           | Cynthia Ann Frank | Public                 | who will be in charge of the airport.  | As stated in section 1.3 of the draft EIS, the DOT&PF would maintain and operate the airport if it is built.  |
| 80                 | 9           | Cynthia Ann Frank | Public                 | will it effect ANILCA.   | None of the alternatives would affect ANILCA. Only Congress can modify the statute. ADOT&PF has submitted and ANILCA application for Alternatives 3a and 4. ANILCA does not apply to Alternative 12a.   |
| 81                 | 1           | Doris Williams    | Public                 | The main concern I have is...will the airport be near my property? Favorite Bay is where my lot is and I was trying to decide - do I want to relocate or keep it where it is at. The hold up is the location of the Airport... | Figure SO10 in section 4.12.3.3.1 of the draft EIS displays the property boundaries for proposed airport locations and highlights private residential lots that could be affected by property acquisition or building height requirements.  |
| 81                 | 2           | Doris Williams    | Public                 | I am all for 3a, Access 3 - This would have the least effect on my lot : )   | Thank you for your comment. Following a final decision on the selected alternative, the DOT&PF would adhere to the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 for any land acquisition. The law was enacted to ensure fair and equitable treatment as well as moving assistance to all people whose property would be acquired.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No.        | Commenter Name   | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|--------------------|------------------|------------------------|---|--|
| 81                 | 3                  | Doris Williams   | Public                 | Q. What is the time frame at this time? 2-3 yrs? 4-6 yrs? 7-10 yrs?   | The timing for the airport would depend on multiple scenarios. Because the DOT&PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress. Permitting, land acquisition (as needed), final design, and construction would likely be 3 or more years following a final decision.   |
| 82                 | 1 See Also 87(4-8) | Verne Skagerberg | Alaska DOT&PF          | <p>The State of Alaska has undertaken this project, the construction of an airport to serve the people of Angoon -the largest community in the state that has no access to a runway - in order to ensure their basic transportation needs are met. These include access to emergency and routine medical care, efficient transportation of goods to and from the community, and passenger service for cultural, recreational, and sundry purposes. The airport will also provide a significant improvement to the aviation system in the region and much improved access to Admiralty Island National Monument.</p> <p>Our proposed action, which is located within the Kootznoowoo Wilderness, was determined after an extensive planning process that included a thorough and detailed reconnaissance study and the development of an airport master plan. We remain convinced after the additional analysis conducted by the FAA that the airport site we have proposed is the best location aeronautically. We do agree that the site which the FAA has preliminarily identified as its preferred alternative is aeronautically acceptable, though somewhat less advantageous than what we've proposed. However, there are other compelling reasons for our reluctance to alter our proposed action and, hence, our filing of an application in accordance with the provisions of ANILCA Title XI.</p> <p>With the designation of over 100 million acres of conservation system units (CSUs) and other conservation designations across the State of Alaska in 1980 under the Alaska National Interest Lands Conservation Act (ANILCA), Congress' express intent in Title XI was to provide a single overarching process for consideration of transportation and utility systems in or across CSUs, including designated Wilderness. The law makes it clear that the Title XI process is to be fully completed before any other actions or determinations are made. The inclusion of eight specific criteria, which federal agencies must consider and "make detailed findings supported by substantial evidence" is an indication that Congress intended for federal agencies to not just rely on their own authorities but to more broadly consider the needs of Alaska and its people when evaluating proposed transportation and utility projects. The fact that Congress applied the process to designated Wilderness indicates that Congress also recognized the constraints the Wilderness Act places on the discretionary authority of federal agencies, and despite those constraints, ensured those projects would receive consideration by the President and Congress.</p> | <p>Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." All alternatives analyzed in the draft EIS satisfy FAA criteria, and are all considered reasonable alternatives.</p> <p>The following statement will be added to section 5.4 of the final EIS: "The State of Alaska is authorized by ANILCA Title XI to apply for a right-of-way for the airport and access road in the Admiralty Island National Monument and Kootznoowoo Wilderness Area. Because an ANILCA application has been submitted, all permitting agencies must comply with the requirements in ANILCA. ANILCA Section 1103 states that other applicable laws shall continue to apply to the ANILCA Title XI process. These applicable laws can be superseded only by action from the President and Congress under ANILCA Title XI".</p> <p>Prudence determinations will be added to the final EIS. The FAA has evaluated all comments and new information received during the draft EIS comment period. The FAA's Section 4(f) determinations have not changed.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response |
|--------------------|-------------|----------------|------------------------|--|--------------|
|                    |             |                |                        | <p>The Draft EIS that was published on January 9<sup>th</sup> and is appended to our Title XI application has from the outset been intended to provide the information necessary to facilitate the agencies' review and development of preliminary recommendations as required under the law. While the DEIS includes certain determinations concerning the Section 4(f) status of the proposed action and preferred alternative, those determinations remain the subject of debate from our perspective but, in any event, have no preempting effect regarding the outcome of the Title XI process (Sec. 1104 (a)).</p> <p>Our assertion that Section 4(f) is not deterministic at this point in the process notwithstanding, it is our view that our proposed action is not precluded by that law even within the context of a conventional NEPA analysis. We say this because we find the analysis contained in the DEIS to be unconvincing in its dismissal of Section 4(f) implications regarding the FAA's preferred alternative. In short, we believe both alternatives to have 4(f) impacts and, therefore, that the circumstances require an analysis that weighs the relative merits and impacts of each.</p> <p>We also believe the DEIS to be incomplete with regard to the preliminary consideration of factors required by ANILCA. More specifically, Section 1104 (g)(2)(C) requires agencies consider whether there exists a feasible and prudent alternative to building on a CSU. The draft does identify the preferred alternative as being feasible -- a finding that we do not dispute -- but it does not address prudence.</p> <p>There are a number of considerations that, when taken in their cumulative effect, lead us to the conclusion that the preferred alternative is arguably imprudent. This must be resolved before the Title XI process is complete.</p> <p>For all of these reasons, we believe that our proposed action remains a viable solution to Angoon's aviation needs, and we anticipate that it may well be identified as the preferred action in the final analysis. Additionally, our determination to stay the course in that regard rests to a large extent on the fact that what we have proposed was developed through a lengthy process that included a great deal of Angoon's involvement. The community provided us with official concurrence in the form of supporting resolutions for the decisions made throughout the planning effort. It would not be appropriate for us to so significantly alter our proposed action without the community's input which we are just now receiving. With the resolution of the issues we have outlined, and with the explicit concurrence of the people of Angoon, we may find the FAA's alternative to be a satisfactory answer to the needs of the community. Until we have completed the ANILCA process, however, we are not prepared to make that determination.</p> |              |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No.          | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|----------------------|----------------|------------------------|---|---|
| 83                 | 1 See Also 86(46-49) | Matt Kookesh   | City of Angoon         | <p>The Angoon City Council has chosen Site 3 A as the proposed site for the Angoon Airport.</p> <p>The City of Angoon does not want to give up any more land than what was given up in the Alaska Native Claims Act (ANCSA) and what was received by the City under 14 C 3 process. Kootznoowoo received 2000 acres in the Angoon Area, they received 6000 acres in the corridor lands and in return under 14c3, They gave the City 850 acres for future expansion. The City of Angoon and Kootznoowoo and its Residents cannot afford to give up any more land that was given to us under aboriginal claim, not Because of our aboriginal claim but because once we give up our land it will never be replaced. The Elders saw the future when they negotiated the right for us to get lands outside of City boundaries. We Strongly encourage using title 11so that we can use 237 .8 or 284.4 acres of monument land to build This airport. The City of Angoon is also in the process of securing funds for a utility corridor from Hood Bay Mountain so that we have a gravity fed water supply.</p> <p>The City of Angoon and The Tribe both have selected proposed airport sites that are in conflict with each Other. The Tribe voted to authorize me to put 12a and 3 a on the ballot in October general election.</p> <p>The City reserves the right to have an airport in Angoon and we want to be consulted before any more Money is put in this process and I would highly recommend that you start attending city council meeting Because we are in contact with our legislators and our congressional delegation. The city of Angoon Needs true consultation since we are the land holder and land use planner of both public and private Lands</p> | <p>Thank you for your comment and further information. ANILCA Title XI does not provide a right to allow, but only defines a process for approving transportation and utility corridors in conservation system units. The Admiralty Island National Monument Land Management Act of 1990 provides for agreements between the federal government, indigenous residents, the City of Angoon, and Kootznoowoo, Inc. for management of the Admiralty Island National Monument. The FAA has contacted the mayors (both the current mayor and his predecessors) as well as city staff to discuss the existing and anticipated use of city-owned lands and to gather any written documentation related to these lands. The determination about these lands made by the FAA was based, in part, on these conversations. The FAA met again with the current mayor following the release of the draft EIS and gathered new information from the City. The FAA has determined that the platted parks are not 4(f) properties.</p> <p>After thorough analysis and consideration of regulatory requirements, the FAA has determined that Airport 12a with Access 12a is the preferred alternative. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon.</p> |
| 84                 | 1                    | Mark Rorick    | Sierra Club            | <p><b>The Department of Transportation Act of 1966 and the Alaska National Interest Lands Conservation Act of 1980 Both Compel Selection of an Alternative Outside of Conservation System Unit Lands</b></p> <p>The Department of Transportation Act of 1966, Section 4(1), asserts that the</p> <p><b>The Secretary may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) [of the United States Code, "Federal Lands Highways Program"] requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if-</b></p> <p><b>(1) there is no prudent and feasible alternative to using that land; and</b></p>   | <p>The FAA agrees that DOT Section 4(f) requires FAA to select an alternative that minimizes harm to parks, recreation areas, or wildlife and waterfowl refuges of national, state, or local significance, or land of an historic site of national, state, or local significance. Airport 12a with Access 12a is the FAA's preferred alternative in part because it provides the least effect to DOT Section 4(f) properties and best meets the review criteria outlined in ANILCA Title XI. ANILCA requires federal permitting agencies to make approvals or disapprovals for a transportation system in a conservation system using the criteria outlined in ANILCA Section 1104. However, the ultimate decision for placement of a transportation system lies with the President and Congress.</p>   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | <p><b>(2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.</b></p> <p>Alternative 12a is a prudent and feasible alternative to using the sites for Airports 3a and 4, and Access Roads 2 and 3. Additionally, the sites for Airports 3a and 4, and Access Roads 2 and 3 would all incur more than de minimis impacts to these valued Monument-Wilderness lands.</p> <p>The Alaska National Interest Lands Conservation Act of 1980, Section 1103 states:</p> <p><b>Except as specifically provided for in this title, applicable law shall apply with respect to the authorization and administration of transportation or utility systems.</b></p> <p>This means that the Department of Transportation Act of 1966 applies to the Angoon Airport project and Admiralty Island National Monument and the Kootznoowoo Wilderness per Section 4(f). ANILCA Section 1104(g)(l) repeats that applicable law applies.</p> <p>Complying with the ANILCA Title XI review, including the expressed intent to minimize adverse impacts to conservation system units and to find economically feasible and prudent alternatives to adversely affecting conservation system units as asserted in Sections 1101(c) and 1104(g)2(A)-(H) compel the Federal Aviation Administration, the USDA Forest Service and the Army Corps of Engineers to select Alternative 12a over other alternatives within Monument-Wilderness lands.</p> |   |
| 84                 | 2           | Mark Rorick    | Sierra Club            | <p><b>The Costs to the Public Between the Alternatives Need to More Prominently Displayed in Table ES-2 "Comparison of characteristics and construction requirement for the action alternatives"</b></p> <p>Currently the Executive Summary Table ES-2 on page E-1-13 compares construction materials and requirements across the alternatives. What are missing are the comparative costs, including construction costs and ongoing operations and maintenance costs. These costs should be added to this table as they are of primary consideration by the public when assessing if the cost of this project is worth it. This is especially true as the State of Alaska is running a \$3.5 billion budget deficit and as the federal tax dollars available for large-scale projects is diminishing over time. See following passage for what costs should include.</p>  | Costs to construct and operate the proposed airport and access road will be added to Table ES-2. A new table will also be added in section 3.5.3 to disclose estimated operation and maintenance costs, by alternative.   |
| 84                 | 3           | Mark Rorick    | Sierra Club            | <p><b>The Alternative Comparisons Are Missing Critical Information</b></p> <p>The DEIS alternative comparisons Section 3.5 is deficient in that critical comparative information pertinent to the professed need for the project and to the public costs of the project are missing.</p>   | The FAA's purpose and need is to provide sufficient availability and reliability in transportation to and from Angoon. Improved emergency air service is not a component of the FAA's purpose and need, although it may result from an increase in availability and reliability of flights. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | <p>The professed need for the project includes providing emergency air service and improving access to the isolated community. In comparing the alternatives, there needs to be an expressed comparison of estimated travel times to the various airports via the various access roads from a central in-town location such as the tribal community center. This is especially important for the improved emergency air service need since timeliness is a critical factor in medically evacuating desperate cases. Receiving care within the first hour of a serious incident requiring medical attention increases the likelihood of survival. Considering that the flight from Angoon to Juneau will take up much of an hour, every minute of road travel to the airport will matter. The travel time to the airport is also an important consideration for residents and businesses, especially tourism operations, who need to factor in the time and cost it takes to transport themselves, clients and goods on the access roads. The travel time should be realistic in terms of speed limits and potential hazards such as potholes, puddles, snow and ice.</p> | <p>Section 4.12.3.3.8 of the draft EIS reports the range of round-trip travel distance between the city center and proposed airport locations. This section will be updated to provide a table showing round-trip distances (in miles) for each considered alternative as follows: Travel times are not provided in the EIS because they would differ based on the mode of transportation.</p>  |
| 84                 | 4           | Mark Rorick    | Sierra Club            | <p>Another missing component to the alternatives comparison is the operation and maintenance costs of keeping the various access roads open. This is important because the alternatives vary significantly in regards to how many miles of access road are constructed and because the taxpayers will bear the costs of keeping the roads intact and open. Considering that the airport and access roads are permanent features, the operating and maintenance costs for each should be projected on an annual basis and outward for 25, 50 and 100 years. The costs must include filling potholes, maintaining culverts, snow plowing and sanding/icing the road, and incorporate inflation in their projection, to be realistic. This is especially pertinent now as the Alaska State Government faces a \$3.5 billion shortfall in the state budget with low oil prices and many infrastructure projects are being scaled back.</p> <p>The inclusion of these comparative elements is necessary for the EIS to inform the public as to how the alternatives meet the professed need for the project and as to how much each alternative will truly cost.</p>          | <p>Costs to construct and operate the proposed airport and access road will be added to Table ES-2. A new table will also be added in section 3.5.3 to disclose estimated operation and maintenance costs, by alternative.</p>  |
| 84                 | 5           | Mark Rorick    | Sierra Club            | <p><b>The DEIS Does Not Adequately Address Impacts and Issues of National Significance</b></p> <p>The DEIS reduces the impacts to purposes and values of the Kootznoowoo Wilderness and Admiralty Island National Monument down to how many acres are affected in Tables WCS-13 (pp.651-672) and Table WCIS (pp.675-6) and local impacts in Table WC14 (pp.673-5). There is far more at stake that must be discussed in the EIS.</p> <p>The Monument-Wilderness lands have national significance as stated in:</p>   | <p>The following text will be added to Chapter 4.16, Wilderness</p> <p>"It is the position of the USFS that in general, wilderness areas are not threatened by large-scale projects that would degrade large proportions of their acreages. Rather, wilderness areas are threatened by the cumulative effect of small incremental changes over time and by new precedents allowing previously incompatible uses. These incremental changes and new uses together could add up to significant development, modification, and occupation of the National Wilderness Preservation System over time. In this light, the wilderness alternatives for the proposed Angoon Airport</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | <p>The Wilderness Act of 1964:</p> <p>§2(a) In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by the Congress as "wilderness areas," and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness; and no Federal lands shall be designated as "wilderness areas" except as provided for in the Act or by a subsequent Act.</p> <p>ANILCA:</p> <p>§101. (a) In order to preserve for the benefit, use, education and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values, and units described in the following titles are hereby established.</p> <p>(b) It is the intent of Congress in this Act to preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems, to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing fishing, and sport hunting, within large arctic and subarctic wildlands and on freeflowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems.</p> <p>(c) It is further the intent and purpose of this Act consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each conservation system unit is established, designated, or expanded by or pursuant to</p> | <p>indirectly affect the public's appreciation that this wild and undeveloped place is protected by national monument and wilderness area designations. Members of the public who may never visit Admiralty Island support the monument and wilderness area for its intrinsic spiritual and symbolic values, including the value of preserving an extensive, unaltered coastal island ecosystem; the subsistence and recreation opportunities afforded by vast undeveloped areas; and the value of an intact cultural landscape for the Tlingit Indians. These values reflect the national interest expressed in ANILCA Section 101, the Wilderness Act, and President Carter's monument proclamation.</p> <p>The precedent of constructing an airport in the monument-wilderness when there is a viable alternative outside but nearby the monument-wilderness could increase concerns about the preservation of the Admiralty Island National Monument, the Kootznooowoo Wilderness Area, and other Alaskan national interest lands that could be subjected to ANILCA Title XI projects."</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response |
|--------------------|-------------|----------------|------------------------|---|--------------|
|                    |             |                |                        | <p>this Act, to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so.</p> <p>(d) This Act provides sufficient protection for the national interest in the scenic, natural, cultural and environmental values on the public lands in Alaska, and at the same time provides adequate opportunity for satisfaction of the economic and social needs of the State of Alaska and its people; accordingly, the designation and disposition of the public lands in Alaska pursuant to this Act are found to represent a proper balance between the reservation of national conservation system units and those public lands necessary and appropriate for more intensive use and disposition ....</p> <p>The Admiralty Island National Monument Land Management Act of 1990:</p> <p>§202 The Congress hereby finds that-</p> <p>(1) Admiralty Island National Monument, Alaska, is an area of unparalleled natural beauty containing multiple values including but not limited to, fish and wildlife, forestry, recreational, subsistence, educational, wilderness, historical, cultural, and scenic values of enduring benefit to the Nation and the Native peoples residing therein ....</p> <p>An assessment as to whether the alternatives degrade or uphold the following values, which are touted by the aforementioned laws repeatedly, must be presented: ecological; wildlife; geological; scientific; educational; historic; prehistoric; archeological; natural; scenic; cultural; subsistence; recreational; wilderness; conservation and environmental. 40 CFR 1508.27 defines the significant impacts that must be addressed and they include the broad public values nationally held by the American people. These values are encapsulated by terms such as:</p> <p>a National Wilderness Preservation System for "the permanent good of the whole people" and for the "use and enjoyment of the American people" [The Wilderness Act, title and Z(a)]</p> <p>"unrivaled scenic and geological values associated with natural landscapes" [ANILCA IOIb] "extensive unaltered coastal rainforest ecosystems" [ANILCA IOIb]</p> <p>To be clear, there is no need to conduct additional studies, but there is a clear requirement to state the impacts of national significance and adverse effects to public values.</p> <p>40 CFR 1508.27 defines the significant impacts that must be addressed and they include the broad public values nationally held by the American people. These values are encapsulated by terms such as:</p> |              |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------|---|--|
|                    |             |                |                        | <p>a National Wilderness Preservation System for "the permanent good of the whole people" and for the "use and enjoyment of the American people" [The Wilderness Act, title and Z(a)]</p> <p>"unrivaled scenic and geological values associated with natural landscapes" [ANILCA 101b] "extensive unaltered coastal rainforest ecosystems" [ANILCA 101b]</p> <p>To be clear, there is no need to conduct additional studies, but there is a clear requirement to state the impacts of national significance and adverse effects to public values.</p>   |  |
| 84                 | 6           | Mark Rorick    | Sierra Club            | <p>The Cumulative Effects Analysis Omits Significant Impacts to Monument-Wilderness Lands</p> <p>While the DEIS quantifies short-term project impacts to wilderness character, it fails to quantify long-term impacts to wilderness character and thus is insufficient in its cumulative effects analysis.</p> <p>Considering that the foundational purposes of the Monument-Wilderness lands are to preserve wilderness character, ecosystem integrity and the cultural legacy embedded in the land as artifacts and sacred sites, there is a particular need to describe long-term impacts and cumulative effects from future road and airport use for the in-Monument-Wilderness alternatives - especially projected road use. While ANI LCA Title XI may provide for transportation facilities in wilderness, the Wilderness Act of 1964 specifically prohibits permanent roads in wilderness [4c] in order to preserve wilderness character. The language of the Wilderness Act and its legislative history make it clear that roads are primary agents facilitating development, extraction and modification and thus the Wilderness Act institutes a powerful check on roads. The EIS analysis needs to project long-term uses affiliated with the in-Monument-Wilderness road and airport alternatives and how they would affect wilderness character qualities and designated purposes. Specific impacts that must be quantified include:</p> <ul style="list-style-type: none"> <li>• projected traffic use/noise impacts from residents, visitors, airport and commercial operations</li> <li>• potential additional future infrastructure developments (transmission lines, water lines, further roads and structures)</li> <li>• potential increased ATV use due to increased access</li> <li>• increased trash and contaminants</li> <li>• increased hunting &amp; fishing pressure</li> </ul> <p>These impacts are reasonably foreseeable should the in-Monument-Wilderness access roads be built. Projections of such long-term effects should be available from other NEPA reviews where roads were introduced. This should be more of a research project than a need for new studies.</p> | <p>Cumulative effects evaluate effects from other past, present, or reasonably foreseeable future actions combined with the action alternatives and should be addressed in the Cumulative Effects chapter (Chapter 8), whereas long-term impacts resulting from airport and access road construction and operation are evaluated in the Existing Conditions and Project Effects chapter of the EIS (Chapter 4). Table WC5, WC7, WC9, WC11, and WC13 disclose that there would be an increase in vehicular traffic in the wilderness and quantifies where possible. As disclosed, there would be unquantifiable public use of motorized vehicles and equipment associated with subsistence, recreation, and airport/road maintenance during operation of the airport. Any future development would be required to complete the Title XI process and the resulting NEPA analysis. There are currently no plans for additional development therefore, it is not a reasonably foreseeable action. Currently, there are few illegal uses and no ATV use occurring in the wilderness, even though local residents can access the wilderness through the end of the existing BIA road. The area has steep topography and dense vegetation, making ATV use and other illegal uses difficult. Therefore, it is difficult to assess what, if any, illegal uses may occur. However, the FAA will include a requirement for the road design to reduce the potential for illegal activities in the wilderness in the best management practices section in Chapter 7 (Mitigation) of the final EIS. Design feature would include rehabilitating/restoring temporary work sites and/or installing guard rails or concrete traffic barriers at susceptible locations (waysides, rock pits, or temporary access corridors for construction). The Hazardous Materials section (section 4.7) provides information on increased trash and contaminants in the area from airport and access road construction and operation. The Subsistence section (section 4.13) evaluates the potential for non-local hunting and fishing pressure as a result of airport and access road construction and operation.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name  | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|-----------------|------------------------|---|--|
|                    |             |                 |                        | <p>Conclusion</p> <p>The DEIS makes a good attempt at quantifying local impacts of the Angoon Airport project. Our recommendations center primarily on the need to better address issues that have broader resonance, such as cost to taxpayers, long-term impacts and adverse effects to nationally cherished values of the " Monument-Wilderness lands.</p>   |  |
| 85                 | 1           | KJ Metcalf      | Friends of Admiralty   | We support the FAA's preferred alternative 12a. It's next to existing infrastructures, road, and water, electricity   | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.   |
| 85                 | 2           | KJ Metcalf      | Friends of Admiralty   | and a more remote airport such as the one that is the preferred alternative for the proposed action from DOT is also one that would work but it would have an incredible impacts on those values that the monument was created for and that people have worked so hard for over the years, particularly those people from Angoon to protect those values.   | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.   |
| 85                 | 3           | KJ Metcalf      | Friends of Admiralty   | And in the winter time when equipment breaks down and you have a 4-5 mile road and you have to drive to get to the airport and the plows aren't there or are not working. It could be a really serious situation if people need to be medevac'd out of town and gotten out of town as so often happens. Coast Guard comes in now and medevac's people but they are not always available e to do that. | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.   |
| 85                 | 4           | KJ Metcalf      | Friends of Admiralty   | The other aspect of that alternative is that it's half the cost of the proposed action by DOT and it seems to fit so much better meeting the needs of the community as well as having all that infrastructure right next so, I think it will be far easier facility to maintain and operate than the more remote one.   | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.   |
| 86                 | 1           | Maxine Thompson | Public                 | My biggest concern is is uh Angoon is being squished into a small area and all too often a lot of our projects face that as an obstacle. Because you know we need it right now. It's put right in our face. Good example is we've grown out of the dump now and then the sludge infill.   | Thank you for your comment. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for development. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other activities during airport operation. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name  | Commenter Organization       | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|-----------------|------------------------------|---|---|
| 86                 | 2           | Maxine Thompson | Public                       | And so but having said that my other concern is that the information that's put out there um veiled threat if we don't go with the best or the most available location right now we'll lose it. So I'm very concerned.  | Thank you for your comment. The FAA continues to work with the cooperating agencies and the DOT&PF toward final alternative decisions. Because the DOT&PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.                     |
| 86                 | 3           | Maxine Thompson | Public                       | But Angoon needs to have good infrastructure to service us way into the future. We can't do this we need it yesterday already. And I'm talking about yesterday meaning 98 when we voted for the airport. So we have a big dilemma here. We have an aging population. The baby boomers are right around the corner being medevac'd out. And you know for yourself that to make sure you got her for the meeting a lot of you went on the ferry.  | Thank you for your comment. The FAA continues to work with the cooperating agencies and the DOT&PF toward final alternative decisions. Because the DOT&PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.                     |
| 86                 | 4           | Maxine Thompson | Public                       | We need to have guaranteed service on and off the island coming and going. And if we had a runway you know we could be rest assured we can meet the needs to medevac someone out. It takes too long to medevac someone on the ferry. God forbid that we don't have ferry service anymore. My biggest concern is service for the residence and people  | Thank you for your comment. The FAA continues to work with the cooperating agencies and the DOT&PF toward final alternative decisions. Because the DOT&PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.                     |
| 86                 | 5           | Wally Frank     | Angoon Community Association | I know that there's some state people here. I hate to say this but the states been draining us on our subsistence life for many years. I hate to see the state's selection be thrown in or the tribes' subsistence. You know our on our charter and our bi laws the tribe has the right to do what's right for the native people of Angoon. What timber and water rights but the states been fighting us on water rights that the congress gave the different nations of Angoon.  | State subsistence and water rights are out of the scope of this EIS.  |
| 86                 | 6           | Wally Frank     | Angoon Community Association | Oversee (unintelligible) and all the native people use it (unintelligible) nation. I hope it hits them to some peoples take that if the state has to really have the airport on the other side I don't know if it will open up. And I was talking to Chad and I asked him about the timber rights. I remember sometime back when I think it was somebody was working that was working with the state a local said you'll even have to get permits for what we call (unintelligible) and I asked him if we had that airport on the other side of the bay a lot of people here are excited we are able to get timber off that land. I thought it was the wilderness and needed to be protected both for subsistence way of life | Thank you for your comment. Section 4.3 Compatible Land Use will be updated to acknowledge that the U.S. Forest Service holds rights and title to surface timber, public access, and development on Kootznoowoo Corridor Lands. Commercial timber harvest on Kootznoowoo Wilderness Area lands is not a permitted action. |
| 86                 | 7           | Wally Frank     | Angoon Community Association | I know maybe 30-40 years back when we had the right to try hydro in favorite bay and everything looked good but people voted it down because that area was a subsistence area. Now were again, I hope, we're not fighting anyone. We're fighting for our people and our native rights. I've seen native people I guess you know what I mean. I know the state wants to even when they didn't have the power to regulate subsistence they were doing it with the subsistence permits and everything. So. We just have to be careful on what we do here and make sure that  | Thank you for your comment. Effects to subsistence are disclosed in section 4.13 of the EIS.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name  | Commenter Organization       | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|-----------------|------------------------------|--|--|
| 86                 | 8           | Joseph Thompson | Public                       | the main thing is I don't want anything to slow the airport down   | Thank you for your comment. The FAA continues to work with the cooperating agencies and the DOT&PF toward final alternative decisions. Because the DOT&PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.  |
| 86                 | 9           | Joseph Thompson | Public                       | the thing that seems to me that would be important is that we look to the future of Angoon. And if I understand correctly what was said originally was that 12a is what the feds and the state is uh recommending. But 3a is what the community I thought voted for. 3a would be on the other side of Favorite Bay and it would require quite a bit of road way. To me it would open up an area and provide expansion. Look around Angoon right now we're all clustered up all tightly together. And uh, sometime in the future this community and this land will be really valuable uh, for everybody. And that opening up that small area, and it is small in comparison to everything else, uh, will be really important, | Thank you for your comment. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for development. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other activities during airport operation. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon. |
| 86                 | 10          | Joseph Thompson | Public                       | again I'd like to emphasize the most important thing is that we get an airport whether it's 3a or 12a,   | Thank you for your comment. The FAA continues to work with the cooperating agencies and the DOT&PF toward final alternative decisions. Because the DOT&PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.  |
| 86                 | 11          | Joseph Thompson | Public                       | But, um, if you look to where the futures going, we need to expand and move away from just being all clustered up tight together and um, that's mainly what I have to say.   | Thank you for your comment. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for development. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other activities during airport operation. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon. |
| 86                 | 12          | Wally Frank     | Angoon Community Association | will we be able to expand in that area.  | Approval and construction of an airport on Admiralty Island National Monument and Kootznoowoo Wilderness Area lands would occur through the ANILCA Title XI process. Any proposed expansion of airport facilities on wilderness lands would require additional airport planning, NEPA analysis, and Title XI approval.   |
| 86                 | 13          | Wally Frank     | Angoon Community Association | you just come in and say a few words and you leave.  | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization       | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------------|---|---|
|                    |             |                |                              |   | updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS.  |
| 86                 | 14          | Wally Frank    | Angoon Community Association | I'm talking about what the tribe voted on what we have resolution on. The one by the lake. I just say this because from the material that we get if you build it across the bay it will be 20 more years.   | Thank you for your comment. The FAA continues to work with the cooperating agencies and the DOT&PF toward final alternative decisions. Because the DOT&PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.   |
| 86                 | 15          | Wally Frank    | Angoon Community Association | And I don't know how long our hydro took. For the natives peoples use. When you look at it, the airport, is being supported by Juneau, the State, the favorite bay site. So I think this is the last one.   | Thank you for your comment.   |
| 86                 | 16          | Wally Frank    | Angoon Community Association | I wish it was because in my mind I don't know how much money was spent on administration for that airport. I think it was 5 years, 6 years. That's a lot of money and I don't think my friend has too much longer.  | Thank you for your comment.   |
| 86                 | 17          | Wally Frank    | Angoon Community Association | Probably won't see the airport if it goes much longer. I can guarantee that uh, if you put it in wilderness it will probably take 10 more years to try to get through the permit system and congress.   | Thank you for your comment. The FAA continues to work with the cooperating agencies and the DOT&PF toward final alternative decisions. Because the DOT&PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.   |
| 86                 | 18          | Mike Stedman   | Alaska Seaplanes             | I don't have the EIS in front of me but uh, I will speak to the fact that the airport um, the position over there by Kanalku, I believe it's 3a? In my 30 some years of flying in and out of Angoon I believe that's the best alternative, it's the safest alternative, | Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." The FAA acknowledges that Airport 3a is nominally better by having instrument approach capability, generally lower minimums, and greater overall year-round availability than the other two alternatives. However, all alternatives analyzed in the draft EIS satisfy FAA criteria, and are all considered reasonable alternatives. |
| 86                 | 19          | Mike Stedman   | Alaska Seaplanes             | it gives you the most area to expand later on if you need to.   | Approval and construction of an airport on Admiralty Island National Monument and Kootznoowoo Wilderness Area lands would occur through the ANILCA Title XI process. Any proposed expansion of airport facilities on wilderness lands would require additional airport planning, NEPA analysis, and Title XI approval.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization       | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------------|---|---|
| 86                 | 20          | Mike Stedman   | Alaska Seaplanes             | Uh with the proposal, proposed runway being pretty close in town there, I don't have the EIS in front of me so I don't have the number of the runway alternative, but the one that kinda runs parallel with the peninsula there. I don't think that would be a very good alternative for one for safety reasons um also the wind. You're landing and taking off right over the top of houses. Um, you know so I still sticking with the preferred first one. Uh, you know I've been involved with this from the very beginning and uh, that was the place that I had chosen right off the bat and the winds are the most favorable out there, your away from you know buildings and houses and uh, it would be a safer environment. | Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." The FAA acknowledges that Airport 3a is nominally better by having instrument approach capability, generally lower minimums, and greater overall year-round availability than the other two alternatives. However, all alternatives analyzed in the draft EIS satisfy FAA criteria, and are all considered reasonable alternatives. |
| 86                 | 21          | Carl Ramseth   | Alaska Seaplanes             | I understand the distance from town is greater and the road that would be necessary to get there is expensive.  | Thank you for your comment. Airport and access road dimensions and construction costs for all alternatives are estimated and reported in Chapter 3 of the draft EIS. FAA's preferred alternative, Airport 12a and Access 12a, provides the shortest road distance and lowest cost among alternatives considered for the Angoon Airport EIS.   |
| 86                 | 22          | Carl Ramseth   | Alaska Seaplanes             | And by far the best alternative for safety and for approaches and IFR environment. The reliability of air service would be greatly increased cause the, ah position of the airport that Mr. Steadman mentioned, I'll apologize also for not having the map with the three alternatives, I'm having trouble finding it.  | Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." The FAA acknowledges that Airport 3a is nominally better by having instrument approach capability, generally lower minimums, and greater overall year-round availability than the other two alternatives. However, all alternatives analyzed in the draft EIS satisfy FAA criteria, and are all considered reasonable alternatives. |
| 86                 | 23          | Wally Frank    | Angoon Community Association | I want to talk to someone face to face. And uh, the state has no right to try to force us to do something that we want. We were put down on the airport before like 40 or 30 years ago but it was some business people who put it down.   | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization       | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------------|---|---|
| 86                 | 24          | Wally Frank    | Angoon Community Association | I hate to see that and uh I don't know how many times you guys flew here and you talk about favorable winds and need to define wind term (unintelligible) so I don't know what kind of winds they're talking about. That man that was talking should have been here. Said something about the weather you could jump on the ferry and save money.   | Thank you for your comment.   |
| 86                 | 25          | Pauline Jim    | Public                       | I've been on the health council for a good many years and we do need the transportation because our people's healths are involved. We need it because people have to get out of town to do what needs to be done that doesn't have to go to SEARCH.   | Thank you for your comment. The FAA continues to work with the cooperating agencies and the DOT&PF toward final alternative decisions. Because the DOT&PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.   |
| 86                 | 26          | Pauline Jim    | Public                       | And I think the wind would have a big variant on it. I know because when were done on front street and we walk down this street it was nice and calm until you get to front street where I stay and you can really feel the wind there. So the wind has a variant on even walking, I could imagine what it is. I flew in from Juneau one time and it was pretty bad. So it is important as to see what the best location is for wind and in Angoon.   | Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." The FAA acknowledges that Airport 3a is nominally better by having instrument approach capability, generally lower minimums, and greater overall year-round availability than the other two alternatives. However, all alternatives analyzed in the draft EIS satisfy FAA criteria, and are all considered reasonable alternatives. |
| 86                 | 27          | Pauline Jim    | Public                       | If there was a resolution that came from Angoon, not everybody is always in full attendance for one reason or another because people aren't able to get up here or haven't been given ample notice.   | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS.  |
| 86                 | 28          | Pauline Jim    | Public                       | When I was just a pretty little girl that front street was our town. We can't say that we're not going to expand. Look at, we're all the way back here. And we're still going. We've gone up the road, we're out to where the dam is. We can't say there isn't going to be an expansion and this is minor stuff yet. I'm sure once the plane hits, an airport hits Angoon that there is going to be open opportunity for the community. Angoon has been shut down for too many years. We haven't been given the opportunity to do anything other than be confined to the streets we walk today. | Thank you for your comment. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for development. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other activities during airport operation. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------|---|--|
| 86                 | 29          | Frank Jim      | Public                 | <p>And uh, speaking of subsistence, our people are having a lot of trouble with subsistence all the time. The things that communities in SE Alaska are looking at is a fish that are being caught out in the ocean. They put floatin canneries out there. They're already putting another one out there. And this is something that our community should have got together with all the southeast communities here they don't look at stuff like as floatin canneries that kill our fish. It used to take the boats seventeen days seven days coming in and seven days coming out and a few days to wrap up and fuel up. It used to take that long for trawlers to run back and forth. Now they just troll right out there in the ocean. All the fisherman that fishes out in the ocean they don't come in no more. They're the ones that's killing our subsistence. Every time it comes to the point of something they want to build in Angoon they talk about our subsistence resolutions. And this is some kind of resolutions those canneries floating canneries that are being put out in the ocean. They need to stop that. Put an end to no more floating canneries out in the ocean. And that. That way maybe our airport will get build you know? They're the ones that's killing our fish, not anybody else. I've been watching news how many years and these things are the things that's coming up and uh. We asked for an airport I remember when I was still young when they were talking about it. Nobody turned it away. Just the people that were sitting here that people didn't even know they were having a meeting on any stuff like that. And all the sudden we come walking into a meeting like now and here we are talking again. It's really something when you start throwing resolutions around to people that's trying to help our people but uh, this is something I'm trying to tell them to get together with all southeast and then there's no more trouble with our subsistence issue with these floating canneries.</p> | Subsistence management is outside of the scope of this EIS.  |
| 86                 | 30          | Frank Jim      | Public                 | <p>I'm all for the airport to be put in cause I was flying home from down south one year and I missed the ferry so I called Hoonah and asked how much is it to fly to Hoonah and it was only like \$57 and Angoon here was \$100. Now I see the difference on coming to Angoon. Hoonah's just the same distance as Angoon they got the wheels on the airport and we got float planes it costs them a lot of money to keep the floatplanes running. That's why it's costing us so much money to fly in and out of Angoon. So I'm all for the airport be put in.</p>  | Thank you for your comment. Section 4.12.3.3.8 of the draft EIS notes the following: "Under all action alternatives, a new land-based airport could increase the number and types of airplanes that provide service to Angoon, potentially increasing competition and decreasing air travel costs for passengers and cargo. Because of the greater passenger and cargo capacity on wheel-based aircraft, fares on wheel-based aircraft are lower per average seat mile than fares on seaplanes, the only type of aircraft currently serving Angoon (DOWL Engineers and Southeast Strategies 2008). Actual fares would be determined by aircraft carriers based on various factors, including demand and fuel costs." |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|----------------|------------------------|--|--|
| 86                 | 31          | Frank Jim      | Public                 | When you decide to put something in like the airport you have to think 20 years ahead of time. 20 years ahead, not today. When you're gonna build you don't think of today how you're gonna build it, you think of how you're gonna build it for the next 20 years of people that will be here the next 20 years from now. You're expansion will keep coming out and you're looking for some more money to extend on the airport and that's if you have to look at by just a small little runway it's not gonna really help Angoon, it will turn into dirt right away. And you have to think of a bigger airport then what we're thinking of now and you have people from outside that has the education on keeping up the planes here in Angoon. People need to go to school and stuff like that. Don't just run and do it any old way. | The FAA evaluated projected facility requirements necessary to accommodate the projected operational demands through a generalized 20-year planning period. The proposed airport design includes a 3,300-foot runway with a full length parallel taxiway system, and would allow for future runway expansion to 4,000 feet should operational demands warrant expansion.   |
| 86                 | 32          | Frank Jim      | Public                 | But uh, subsistence they have to look out in the ocean. They're the ones that's doing the damage. I've been watching news up north and what they're doing to our people down in southeast here and people aren't seeing it here. Their just thinking of our tricks that's all. So do you want to talk about our subsistence those are things you have to put a stop to. Put a stop to our floating canneries that's going out in our ocean. That's all I have to say.  | Thank you for your comment. Subsistence management is outside of the scope of this EIS.  |
| 86                 | 33          | Ed Gamble      | Public                 | Maybe the guys that's stuck in Juneau, if they let the locals put the airport where they want it to be they wouldn't be stranded in Juneau right now because the people that live in the local community have the most knowledge about what kinds of conditions you have and I see where we've been going through years and years of study.  | Thank you for your comment. Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." All alternatives analyzed in the draft EIS underwent extensive assessment to determine that they satisfy FAA criteria and can be considered reasonable alternatives.   |
| 86                 | 34          | Ed Gamble      | Public                 | But the thing they were looking at was the location and I always make the comment that they have an EIS process. The EIS lets the whole country talk about an airport that's coming in Angoon. And who's gonna use the airport. The people in the community. So all we get to an airport. How we get to an airport or where the airport lands us on the returning. It's important to us.   | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|----------------|------------------------|--|--|
| 86                 | 35          | Ed Gamble      | Public                 | <p>And the shorter the distance the better. When they first pointed out the preferred site. The preferred site was pointed out by a pilot for a pilot for an airline that wasn't even here. Wings of Alaska. He came and make a statement and he said he wanted the airport in that area. At that time I made the comment that we're gonna need another seaplane on the other side so we can get to our airport. If you look at the distance I work with the roads program with the Tribe. You look at the cost of building the roads. The airport no problem, you can put an airport anywhere around this area if you look at it it's a nice area to put an airport. But the location and the distance and we work with the Tribal government and the maintenance program. It's a costly thing the more distance you put into it the more maintenance you work it. And the road and if you got a road from here to the preferred site, you're building a whole heck of a long road and a long road to maintain. And how much funds you and how many people are going to be using it going in.</p>   | <p>Costs to construct and operate the proposed airport and access road will be added to Table ES-2. A new table will also be added in section 3.5.3 to disclose estimated operation and maintenance costs, by alternative. An estimated number of additional, round-trip car trips per year on the airport access road is provided in section 4.12.3.3.3 of the draft EIS.</p>   |
| 86                 | 36          | Ed Gamble      | Public                 | <p>I spoke of a preferred site because at that time we had a young man that was the president of Kootznouwo incorporated. And he found out that they wanted the airport near Kanalku. It's a nice place for fly casting and stuff like that. And there's a lot of people that work in the state of Alaska that have private planes. And they wanted an area where they can take a plane ride from Juneau and come to the community. HE said that's not an ideal situation. The airport wouldn't be there for the community of Angoon. The airport would be there for preferred people that work in the state of Alaska. There's a lot of them, they're in Juneau. It's the capitol. So the impact would be in the place an area that has to do with quiet enjoyment. When you have language like that protecting a place like a little community like Angoon. It's hard for the agency people to find the definition of quite enjoyment. And you have to keep saying it over and over again. But we get the negative impact whenever someone wants to do something for the community of Angoon. Or something that we want to do. It gets voted out of either the State government or the federal. So those are the sentiments we look at we have when we look at the location of the airport. I say we need an airport. That would be my comment. And we need access to the airport also. That should be a high consideration. Not someone that's stuck in Juneau that has a preferred site. The preferred site for the community I think would be expressed by the local people and it should be something they have access to. It's a comment. Thank you and again thank you for being here.</p> | <p>Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznouwo Wilderness Area are outside of the scope of this EIS.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------|---|--|
| 86                 | 37          | Gilbert Fred   | Public                 | And I really appreciate and I wanted to go on record the comments that President of the tribe Ed Gambel stated. I believe he shares a lot of community sentiments with you people in regards to the airport and the preferred site and the site that would be most uh logical and beneficial to the community. I do share with him looking at the alternative sites there that the best sites available is utilizing and choosing the locale because I do know in Kanalku that the wind there, there's so much turbidity there and the way the mountains are funneled into that area that even when we're going to get, that place is always cold. I'm really concerned about white out conditions um, the possibility of a plane flying around the top of the community  | Thank you for your comment. Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." All alternatives analyzed in the draft EIS underwent extensive assessment to determine that they satisfy FAA criteria and can be considered reasonable alternatives. |
| 86                 | 38          | Gilbert Fred   | Public                 | and just exactly how accessible these proposed sites are and um in terms of um subsistence and other user groups and industries impacted by upland activities   | Impacts to subsistence are disclosed in section 4.13 of the EIS, including a discussion of access from each action alternative.  |
| 86                 | 39          | Gilbert Fred   | Public                 | I'm really concerned that we axed a program that was developed by a broad spectrum of the public industry and user groups called the Alaska coastal zone management program. Which is we have a federal coastal zone management program and I'm really concerned that Murkowski axed that and Cornell failed to fund it. This is a really really important document because it was quite extensive in its development and covered a broad spectrum of the public in its development, especially in the land use designation of areas and their importance to the community, also um, it lists areas meriting special attention to the community and we just shelved those. I understand that out of ANILCA there came 33 new landowners and it requires that there would be an integrated management plan in place one that was favorable to adjacent land owners and user groups that's never been developed since ANILCA was written. We're still out of compliance with ANILCA. Now you know the only voice the only forum and venue we had available for discussion alternatives and development the Coastal zone program was axed and we don't have an integrated resource management plan, we're relying on NEPA. So I really really consider that we really take a good hard look as federal agencies at that Alaska coastal zone management plan. Especially when we are dealing with communities on a site specific basis. I think that the state of Alaska should still have copies. Communities should still have their individual copies and I really feel that it would be beneficial to reference those documents that are still there because it represents like I said quite a bit of time and money and public involvement over a vast spectrum of the public. People with different values got together and collaborated in its involvement and we just trashed it. I feel we took 8 steps forward and 16 steps back with that. | Because the Alaska Coastal Zone Management Program (CZMP) is no longer in effect, the FAA cannot evaluate project consistency with the coastal zone management plan for the Angoon area. It is out of the scope of this project to evaluate an integrated management plan for the CZMP.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------|---|---|
| 86                 | 40          | Gilbert Fred   | Public                 | <p>And it really concerns me and I'm kind of anxious that an IRMP hasn't even been developed yet and we've seen the land being carved up and just how Green's Creek was able to ride in on the coat tails of ANILCA and we had the mixing zone pipe on the Chatham straight side, gosh cause we didn't want to contaminate the waters for the canoers going from Juneau going on the Seymour Canal side. When we worked for the tribal EP we felt that mixing zone pipe from their tailings pond should have been shifted over to the east side of the island. But it seems like we were disturbing the recreational use of people living in the capital city. So we say it's okay to put the mixing zone in Chatham Straight so our tribe is concerned about going and do bio and water sampling because it could have the potential of impact on human health. And so you know we're sort of in a catch 22 we need to raise the quality and value of life here in the community but also if we just totally abandoned our traditional diets we start coming down with a whole host of diseases. Diabetes is one. Through search and earth study and our ability as native entities to go out and push resolutions as Frank was referencing to allow us to take our native foods into the hospitals and to the elderly homes that the elderly that were suffering and sickly their immune systems began to bounce back and they were able to knock diabetes out of their systems so we want to raise the quality of life, we want to enjoy a lot of the conveniences that modern society has but we can't abandon our traditional diet. So I think the balance in that for us from a local perspective is how do have the best of both worlds without adversely impacting our ability to go out there and traditional hunt and fish.</p> | <p>Thank you for your comment. Decision on other projects on and surrounding Admiralty Island are outside of the scope of this EIS.</p>   |
| 86                 | 41          | Gilbert Fred   | Public                 | <p>And so I'm really concerned that in developing these alternative sites you know if we really referenced some of those program documents that are out there like the coastal zone management program and we know we see areas that could be a source of contention.</p>   | <p>Because the Alaska Coastal Zone Management Program (CZMP) is no longer in effect, the FAA cannot evaluate project consistency with the coastal zone management plan for the Angoon area. It is out of the scope of this project to evaluate an integrated management plan for the CZMP.</p>  |
| 86                 | 42          | Gilbert Fred   | Public                 | <p>I feel the best science should have been applied in designating those areas and the winter conditions. Have we even started a base line graph line on you know how accessible that are is in the winter time. What's the turbidity like in those areas you know there are times in these areas I've looked in these action alternatives and it was a complete white out in that area. The idea of a plane circling about our community is scary to me.</p>   | <p>Thank you for your comment. Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." All alternatives analyzed in the draft EIS underwent extensive assessment to determine that they satisfy FAA criteria and can be considered reasonable alternatives.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|----------------|------------------------|--|--|
| 86                 | 43          | Gilbert Fred   | Public                 | <p>And so I really feel that we do need that airport. We really do. There's times when even the Alaska Marine Highway system has broken down because some of our vessels are so old they've depreciated to the point we'd be better off just buying a whole new one. And it's kind of disconcerting for me that we're you know facing a 9 million dollar budget cut on the Alaska Marine highway budget. And you know this is one of the things that makes Alaska unique. I really feel that we've seen a lot of things going on on the monument I really feel that we've been sort of left out of the loop on raising the quality of life. And it was a lot of our people that fought hard to turn this place into a national monument. We feel there's a lot of I don't think it's wrong for eco-tourism or fresh water tackle fishing going on on Admiralty provided it goes by the rules and that these people that are utilizing the area go through the proper hurdles like everybody else. And get the permits. I feel on that note we haven't even tapped into the eco-tourism potential of the island and people will pay just to go and track forest service track the salt water fish. And you know I really feel that you know if that's gonna go on then there ought to be some sort of liaison with the tribe and the forest service and state making sure that everybody that's on the island is playing by the rules and respecting the integrity of the sites where they are going . So I really support an airport here.</p> | <p>As stated in section 2.3 of the EIS, the purpose and need for the proposed airport are to improve the availability and reliability of transportation services to and from Angoon. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS.</p> |
| 86                 | 44          | Gilbert Fred   | Public                 | <p>There's times when even helicopters couldn't fly in to fly some of our patients out of here and there's times where the ferry was broken down and they had to wait for the weather to clear. If we just had an airport at that time, there was a short little window where a plane could have come in and flew that patient before the weather turned bad and so Murphy 's Law comes into play. We've faced situations where we live on an island here in Southeast and we were inaccessible at the time and we had somebody on the verge of dying here in the community and everybody was wringing their hands and biting their nails and people were praying for the families and stuff and supporting them and trying to stay positive during a time of crisis. And that's the way are as a community. When something effects on of our community members it affects us all.</p>   | <p>The FAA continues to work with the cooperating agencies and the DOT&amp;PF toward final alternative decisions. Because the DOT&amp;PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.</p>   |
| 86                 | 45          | Gilbert Fred   | Public                 | <p>So in these areas where we're discussing Favorite Bay here some of these small pox epidemics and influenza epidemics and stuff there are so many people dying off that we still hear stories of the ones that were determined to have the virus and made a personal choice that they would rather go into favorite bay and die then contaminate the rest of the community so we have stories of them waving to their loved ones that were leaving so in a sense some of these areas are like a shrine to us. And we wanna respect the connection that our ancestors and people have historically with those places. So there's times where we have to really really hash it out at a local level, how can we best utilize these areas with the best intentions and respect the integrity of the historical connections that we have with those area.</p>  | <p>Thank you for your comment.</p>   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------|---|--|
| 86                 | 46          | Matt Kookesh   | City of Angoon         | The Angoon City Council has chosen Site 3 A as the proposed site for the Angoon Airport. The City of Angoon does not want to give up any more land than what was given up in ANCSA and what was received by the City under 14 C3 process. Kootznoowoo only received 2000 acres around Angoon they received 6000 acres in the corridor lands and in return under 14c3, they gave the City 850 acres of land. So the point I'm trying to make is we have set amount of land here and for us to put all the pressure and put an airport on that set amount of land is something this community will never get back. It's not in the act. There's language on inholdings, but this would not qualify for that. The reason why we want to pick outside of the city boundaries is because our Elders have gone to DC and talked about ANSCA and ANILCA many times. And one of the things they have talked about is us building outside of what's been given to us. We have a proposed water line site coming down from hood Bay that's gonna have to come off the monument lands and we don't want to start shutting this door. We spend time with Don Young we spend time with Murkowski staff talking about getting back on to the monument. And I have no idea why we have to fight this battle. We're a community we need to grow. And we only have set amount of land to grow in | Thank you for your comment. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for development. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other activities during airport operation. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon.           |
| 86                 | 47          | Matt Kookesh   | City of Angoon         | to put that airport right there in 12a would mean that our quiet enjoyment for the community would be affected. Because we'll have the airplanes flying right over the community to land at 12a. And I realize 3a, the site we picked that it will affect the quiet enjoyment of that area. But what do you chose. We live in both areas. I would rather have this community protected and once you start instrument, using instruments to come into this community, they're not just going to come in during the day. They're also gonna come in at night.   | Sections 4.11.2.1 and 4.11.3.3.2 of the draft EIS show current and proposed flight paths for all considered alternatives. Current flight paths and maximum noise levels (Lmax) occur over the mainland and the city of Angoon. Under Airport 12a with Access 12a, flight paths would still occur over the mainland, but maximum noise levels would shift further east, away from the city center. Nighttime flight activity is incorporated into the noise analysis; however, nighttime flights are not anticipated to be a routine source of noise for the community. |
| 86                 | 48          | Matt Kookesh   | City of Angoon         | The City and the Tribe have both selected different areas. Different sites. We selected 12a, oh no, they selected 12a, we selected 3a and what the council voted on, the tribal council voted on was to authorize me to put this on the ballot in October. So I have to work on the language of that and I know that this is still early in the process and I don't know if it will have any credibility to this process. It may or may not.  | Thank you for providing information regarding the community vote. After thorough analysis and consideration of regulatory requirements, the FAA has determined that Airport 12a with Access 12a is the preferred alternative. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon.  |
| 86                 | 49          | Matt Kookesh   | City of Angoon         | The City reserves the right to have an airport in Angoon and we want to be consulted before any more money is put in this airport and I would highly recommend that you start attending city council meeting. Because we are in contact with our legislators and our congressional delegation on this very subject. The city of Angoon needs true consultation since we are the land holder and land use planner even if it belongs to Kootznoowoo or the monument.   | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization       | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------------|---|--|
|                    |             |                |                              |   | costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS.  |
| 86                 | 50          | Wally Frank    | Angoon Community Association | And watch over the lands which we don't have much of. And on the comment period on lands they wondered why corporations gave city lands when they weren't all natives and they never mentioned the tribes. Who are the people that gave up the most and I'm sorry if I hurt anybody, I know I did. But I speak for our native people. You hear people say that our lands was made for expansion by our Elders. Our elders went to DC to save this land for the use of the animals, not just fish, not just sockeye. So that's all I'm gonna say. I'm sorry if I hurt some people's feelings but I don't have too much more time in this world. I'm 78. I'm speaking for our children and our grandchildren.   | Thank you for your comment.  |
| 86                 | 51          | Wally Frank    | Angoon Community Association | I guarantee you that some people will get hurt or lose their lives if you fix a long road over there no matter how much they create it now. Terrible place to ride. If Angoon had the equipment like Juneau where you can spray the roads when it is 15 degrees then that would be good. Some people they don't even go riding but they want the long road. 2 and half [unintelligible talking] I think albert made a good comment. You know that the favorite bay area is a lot colder in the winter time and our roads, the road that goes to the lake is terrible in the winter. I think some of the people here wouldn't want to ride on it. I ride on it and I know what it's like. It's like glass. So I'll leave it up to folks whatever you want. But you know what our stance is as the tribe for our native people. | Thank you for your comment. Please see our responses to similar comments regarding the distance and operations/maintenance costs of proposed access roads in representative Comments 70-2 and 70-3.  |
| 86                 | 52          | Frank Jim      | Public                       | I talked a little earlier about the airport you know mentioning you should think about 20 years ahead of it is because they made a mistake on Kake and Hoonah airport, it was short. People complain about the short runway they had. That's why I was saying think 20 years ahead of time. Make it longer then you expect to. I didn't ask for Alaska Airlines to land on our airport, but they could later on in the years to come. Our people need that airport.   | The FAA evaluated projected facility requirements necessary to accommodate the projected operational demands through a generalized 20-year planning period. The proposed airport design includes a 3,300-foot runway with a full length parallel taxiway system, and would allow for future runway expansion to 4,000 feet should operational demands warrant expansion.   |
| 86                 | 53          | Frank Jim      | Public                       | It's pretty hard for us to be waiting for a plane. The cost of the pontoons is what ups our cost of paying on the plane. Get the wheels like I said and our prices will go down. And that's good for winter too.  | Thank you for your comment. Section 4.12.3.3.8 of the draft EIS notes the following: "Under all action alternatives, a new land-based airport could increase the number and types of airplanes that provide service to Angoon, potentially increasing competition and decreasing air travel costs for passengers and cargo. Because of the greater passenger and cargo capacity on wheel-based aircraft, fares on wheel-based aircraft are lower per average seat mile than fares on seaplanes, the only type of aircraft currently serving Angoon (DOWL Engineers and Southeast Strategies 2008). Actual fares would be determined by aircraft carriers based on various factors, including demand and fuel costs." |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name  | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|-----------------|------------------------|--|---|
| 86                 | 54          | Maxine Thompson | Public                 | There's some good comments raised by different people but one of the things I wanted to state was that my parents were part of the three couples that went to DC to make this a national monument. They never envisioned that Angoon would be put in a poverty state. Which is what I see as a business owner. Because of the lack of space, because of the lack of expansion. We can't even get to our hydro site because of the monument. That's not the purpose of the monument.  | Thank you for your comment. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for development. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other activities during airport operation. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon.  |
| 86                 | 55          | Maxine Thompson | Public                 | And I've asked before that the Forest Service stand by Angoon. To better the lives of our people. They ought to be ashamed looking at our community. Our business is depleting because of the high cost of electricity. And then the other thing is my father retired from Forest service and he said the same complaints they had about the ferry, the same threats, it's going to ruin us, and it's going to bring in these people. And now we're all in a state if the ferry doesn't come in. We have to get over that fear tactics. There's a runway in Mount Edgcombe where do we go for our herring. If anything is changing it's because of the climate maybe. There's different fish going up in Barrow. We're going to have to adjust we're going to have to make choices.  | As stated in section 2.3 of the EIS, the purpose and need for the proposed airport improve the availability and reliability of transportation services to and from Angoon. Ultimately, the FAA has weighed public and agency input with social and environmental impacts, Section 4(f) regulations and project costs to determine their preferred alternative.  |
| 86                 | 56          | Maxine Thompson | Public                 | Do we want to medevac our person at 11 at night or do we have to wait for 6 or 8 in the morning.   | Thank you for your comment. The FAA continues to work toward a decision for the Angoon Airport EIS and subsequent construction of the airport and access road for the community of Angoon.  |
| 86                 | 57          | Maxine Thompson | Public                 | And I believe, I trust that the wind studies that were done were for our safety. And that's what I believe we ought to support.  | Thank you for your comment. All alternatives analyzed in the draft EIS underwent extensive assessment to determine that they satisfy FAA aviation criteria and can be considered reasonable alternatives.   |
| 86                 | 58          | Maxine Thompson | Public                 | I'm very concerned that people that have money can get a tailings expansion if they have the money to buy land and return it to the monument when we can't do that. Why don't they equate that land that's been returned to property that Angoon could use to better the lives of our people? That's all we're asking. Anybody that wants to protect the trees should live here and turn their lights on or turn them off as we do. Tlingit and Haida held an energy conservation training here. I said "you'd learn more from these people if you walked around and listened to them". You drive around and you're going to see the TV on, one lamp above the stove. That's all that's on. Because our electricity is too high. We need Forest Service to stand by Angoon. On a projects that are needed. These aren't fluff projects. These aren't luxury projects. These are necessary. For our grandchildren, our great grandchildren that aren't here. We need to get brave, we need to | As stated in section 3.9 of the draft EIS, the following two other options could provide the DOT&PF sufficient control of the airport lands in the Admiralty Island National Monument and Kootznoowoo Wilderness Area: 1. A congressionally mandated conveyance: This would require an act of Congress to direct the U.S. Forest Service to transfer ownership of lands for the airport and access road to the DOT&PF, thereby removing the land from the Admiralty Island National Monument and Kootznoowoo Wilderness Area. 2. A land exchange or the voluntary trading of land between the U.S. Forest Service and the State of Alaska: In this instance, the State of Alaska would have to provide the U.S. Forest Service with Alaska lands equal in market value to those used for the airport and access road, and the |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | stand up and speak for our people.   | exchange would have to be in the public interest. This process would also remove the lands used for airport and access purposes from the Admiralty Island National Monument and Kootznoowoo Wilderness Area. The FAA would have no role in a land exchange. No congressional action has been taken that would suggest that a mandated conveyance is being contemplated. The U.S. Forest Service and State of Alaska have engaged in discussions about a potential land exchange, but specific lands have not been identified, and no market analysis has been conducted. Neither the U.S. Forest Service nor the State of Alaska currently intend to pursue either of these options. NEPA requirements would apply to a land exchange between the State of Alaska and the U.S. Forest Service, and possibly also to a congressionally mandated conveyance. The effects of either action would be evaluated, and the results disclosed to the public before the exchange. The draft EIS does not evaluate the possible effects of these other means of land use change because, at this time, neither is necessary for approval, construction, or operation of an airport in the Admiralty Island National Monument and Kootznoowoo Wilderness Area. |
| 86                 | 59          | Richard George | Public                 | On both ends that land is primary land for our growth. And the traffic that comes into that strip would interfere with our development. We can't have restrictions of the airport, we can't develop.   | Thank you for your comment. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for development. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other activities during airport operation. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon.  |
| 86                 | 60          | Richard George | Public                 | It's extremely important to us, to you as Forest Service. I mean, envision if you will a road going around Favorite Bay into the wilderness. You talk about Admiralty Island being the jewel. We have a lot of pride in it. That's why we fought so hard in developing Angoon and putting, keeping it the way it is in its pristine state. We went, we made legislation in Washington DC. We don't have we didn't have the wherewithal to allow people to study for us. We just knew what we wanted was to protect this island. We even had to fight our relatives and our neighbors in the villages around Angoon. So you are responsible, Forest Service, for what is forever on this island. I don't want Angoon bunched up on this peninsula. It's a shame on you if you allow it to happen. Shame on you. | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------|---|---|
| 86                 | 61          | Richard George | Public                 | <p>You have the, it takes a stroke of a pen, as far as we're concerned when we look at the Forest Service you have an office in Washington D.C. You have the wherewithal to say okay we're going to expand on our areas of responsibility. Let's fix this place up. I travel around the United States. I see stuff that Forest Service is involved in. I see all the development that's taken place in other states. I don't want to be, listen to you hem and haw because you want to bunch everything up. Look around our town you see our post office, our city office, our clinic. It's all in one area. You don't do that in Juneau. You don't do that in Anchorage. You don't do that up north. Don't do that here. We sat at the table, I remember as Kootznoowoo. Developing this relationship. We knew that you had to be seated at the table. And we were open we had to change some of your job description, I said it before. I was there. What this will do to us if you keep the airport on the side of the road. It will impact our children. We need room to expand. And you people that came I want to thank you for coming. It's an important issue to us. But I'm like the speaker said a minute ago, you need to choose wisely. Because the end product can be a model in the whole United States. We've heard the feedback coming back on Kootznoowoo national monument. We've heard it. We have pride in it. And we're counting on your office to be our friend to this community. We don't want to be complaining to Washington about this box you put us in. I would like to hear that you're pushing the envelope trying to develop.</p> | <p>Thank you for your comment. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for development. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other activities during airport operation. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon.</p> |
| 86                 | 62          | Richard George | Public                 | <p>Imagine if you will going from year to year. If the cost of the road is an issue then let's fund it from year to year until we get to that location. We've waited how many years? It's not going to make that much difference. I don't want to hear "it's going to cost too much"</p>  | <p>As stated in section 1.9 of the draft EIS, the DOT&amp;PF intends to pay for the construction of the airport and access road through a combination of funds obtained from the FAA's Airport Improvement Program (pending availability), state funds, and potentially through other agencies such as the Federal Highway Administration. Funding for operation and maintenance of the airport and access road would come from the DOT&amp;PF maintenance and operations budget.</p>   |
| 86                 | 63          | George Nelson  | Public                 | <p>I know everybody sitting here knows I served on the fire department and EMS a long time ago. I was on a call when a plane crashed in favorite bay. I was the first guy to reach the pilot. A Petersburg plane flipped over. Three times. I reached, I got to the pilot and got out of the plane and the plane exploded. I do want an airport so hopefully this community will come together as one like I said I'll probably (unintelligible) by the time the first plane lands. I don't know why we spent so much money on it. I wasn't getting my social security when we first started this airport and now I'm getting social security and still never seen a plane land yet. I'd like to see something so hopefully I'll see one land before I get too old. I'm not going to talk forever. When that plane crashed from Petersburg I was down there. I knew the pilot real well too. Thank you.</p>   | <p>Thank you for your comment. The FAA continues to work with the cooperating agencies and the DOT&amp;PF toward final alternative decisions. Because the DOT&amp;PF has submitted an ANILCA application, the timing for construction of the airport would depend on the decision of the President and Congress.</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|----------------|------------------------|--|--|
| 86                 | 64          | Frank Jim      | Public                 | you guys should ask Ward Air they come out all summer long here. They come and fish here out of Angoon and they do a lot of flying in and out of here and they charter up Ward Air so it would be good for you guys to get comments from them too so get their comments too.   | The FAA has encouraged public comment from all interested parties on the scope and content of the Angoon Airport draft EIS. The FAA's commitment to inclusive public involvement is described in sections 9.3.1 and 9.3.2 of the draft EIS.  |
| 86                 | 65          | Gilbert Fred   | Public                 | We are discussing a road to access the airport and I really feel we can't close the door. The tribe has land down in Hood Bay it would be beneficial to the tribe to access their land holdings in the monument down in Hood Bay. And also the Kootznoowoo incorporated has the ROW to develop a hydro project up by Thayer creek. I really feel we have to get that ASAP. It should have been here a long time ago. In a rush to preserve the island I feel we closed the door to keep us in the state we're in right now. I really feel that whatever the forest service can do to ensure that Kootznoowoo and the Tribe are able to access their holdings and raise the quality of life with safe water and electricity. I would really appreciate that. Thank you. | The FAA and DOT&PF evaluated an airport alternative along the proposed access road to Hood Bay. This alternative does not meet FAA aviation operation criteria: Terrain obstructions would not allow the airport to meet aircraft glidepath standards for commercial aircraft and would violate FAA standards for final approach and straight missed approach. The proposed hydro project and access to inholdings is outside of the scope of this EIS.  |
| 86                 | 66          | Albert Howard  | Public                 | A lot of the rights given to us as far as deciding our own future are embedded in the constitution. I say this because it seems to me we're being told what we should have and we know what we want. I tried to spend as much time as possible listening to community members and voicing their opinion on different things that concern them and I think this is part of that process. I'll agree with Mayor Kookesh when he talks about wanting 3a as our airport and to explain why. It leaves the rest of the area open for economic development and the possibility of expanding the airport in the future. So I think there seems to be a lot we're always up against to try to accomplish what we need for our community.                                       | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS. |
| 86                 | 67          | Albert Howard  | Public                 | Things that other communities already have and take for granted. I've listened to the elders speak. This process started years ago. I remember as I served as Mayor the EIS was supposed to be done now. I think it's important to listen to what our community members want because at the end of the day we have to live with the result.  | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------|---|--|
| 86                 | 68          | Albert Howard  | Public                 | It's for our public safety to get our patients in and out of Angoon when they have health problems. It gives us more options than what we have currently. And it's hard to actually explain it unless you live here and you live it like we do. We're given a right under Title XI for transportation utility corridors. The 1990 Act also gives us the right to be part of the process, which is a combination between the city, the Tribe, the corporation, and the Forest Service to co-manage the island. It's in written law. The 1990 Act also states for the betterment of the indigenous people. I'd like to think that's me. | ANILCA Title XI does not provide a right to allow, but only defines a process for approving transportation and utility corridors in conservation system units. The Admiralty Island National Monument Land Management Act of 1990 provides for agreements between the federal government, indigenous residents, the city of Angoon, and Kootznoowoo, Inc. for management of the Admiralty Island National Monument.  |
| 86                 | 69          | Albert Howard  | Public                 | So when you guys are debating over whether to build it on this side of Favorite Bay or the other side of Favorite Bay keep in mind who you are building it for. You're building it for us. We have to live with the end result.   | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS. |
| 86                 | 70          | Albert Howard  | Public                 | There's conflicting laws on both sides of this issue. Organizations hands are tied by one law and I'm starting to wonder when our rights as citizens matter. If you get back to the US constitution and the State of Alaska constitution and build the airport around that instead of laws created after that we'd probably have an airport already.  | The FAA and all cooperating agencies are bound to consider all applicable laws while evaluating an airport for the community of Angoon.  |
| 86                 | 71          | Albert Howard  | Public                 | I think it's important to hear what the community wants and serving on the Tribal council we passed a motion to have Mayor Kookesh put it on the ballot and let the community decide.   | Under NEPA, the FAA is required to consider all comments received during the NEPA process, regardless of the number of comments received for or against a certain alternative. NEPA is a disclosure and decision-making process. The FAA encourages public comment from all interested parties on the scope and content of the Angoon Airport EIS. Results from the Angoon ballot measure will be considered along with project cost, social and environmental impacts, and Section 4(f) regulations during preparation of the final EIS.  |
| 86                 | 72          | Albert Howard  | Public                 | But I've always supported 3a cause that gives our community room to grow.   | Thank you for your comment. Pages 155 and 529 of the draft EIS disclose that Airport 12a with Access 12a would affect approximately 10% of Kootznoowoo, Inc. land holdings that are currently available for development. This land conversion is consistent with Kootznoowoo, Inc.'s goal of profitability for their lands, although it would preclude the use of those lands for other activities during airport operation. The proposed airport benefits the community by improving the availability and reliability of transportation to and from Angoon.   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
| 86                 | 73          | Frank W. Sharp | Public                 | And Joe here, my friend, has told me that I was afraid they were going to select over on the Favorite Bay side. I don't favor that because if you remember our elders when we had the last native claims settlement act. WE first selected here and then decided to move off island because we want to have our subsistence way of life. And that area over there across Favorite Bay, whatever you call it the number, is it 3a? That's one of our favorite subsistence places for deer and just about everything there is there. And that to me our elders would turn over in their grave if they knew we were gonna mess it up. When it's rough out front, where do we go? We go inside so we can get deer and all the things up there.   | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.  |
| 86                 | 74          | Frank W. Sharp | Public                 | So I've always favored 12a since this progress. Which is, would affect me more than anybody in town. I live right on the beach below the high school and 12a is just down the beach and the air traffic coming across would affect noise. Would be more. So I know they probably would approach there.   | Sections 4.11.2.1 and 4.11.3.3.2 of the draft EIS show current and proposed flight paths for all considered alternatives. Current flight paths and maximum noise levels (Lmax) occur over the mainland and city of Angoon. Under Airport 12a with Access 12a, flight paths would still occur over the mainland, but maximum noise levels would shift further east, away from the city center. |
| 86                 | 75          | Frank W. Sharp | Public                 | I oppose the 3a because of our lifestyle. And I think our elders, like I said, would turn over in their graves if they knew. I hunt over there now. And there's flags all over where they surveyed.  | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.  |
| 86                 | 76          | Frank W. Sharp | Public                 | I'm doubtful that an airport will ever be built here because I don't know if everyone knows it but the federal gov't is about over two hundred trillion dollars in the hole right now. Eighteen trillion on regular debt and then about a hundred and fifty six million trillion on social security and Medicare. So I don't know that the federal gov't. I was president of Kootznoowoo in 1986-1990. I've always favored. I'm sorry this is kind of off. I'm a little nervous, I haven't done this in a while. But anyway, I actually favored a strip rather than an airport. Joe and Maxine worked up in Barrow and all the villages up there have strips. And I would prefer if it was me that we build a strip on Kootznoowoo land. The reason for that is that if you have a state airport any one can land there. You can't stop people from landing there. And that again affects our subsistence lifestyle because when I was president of Kootznoowoo we had a survey and over 200 private pilots signed the thing saying they would use Angoon for hunting and fishing if there was an airport here. If it was on a strip, you can control a privately owned property you can control who lands there and who doesn't land there. | It is out of the scope of this EIS to evaluate a privately owned airstrip because there is no proposal in place from Kootznoowoo, Inc. to develop a privately owned airstrip.   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------|---|--|
| 86                 | 77          | Frank W. Sharp | Public                 | I remember about 60 years ago, congress, over 200 congressmen said Alaska don't do what we did and pave it and everything. Keep it wild and in the end it will be more valuable than all of those things. I believe that today.   | Thank you for your comment.  |
| 86                 | 78          | Frank W. Sharp | Public                 | <p>Since I got a chance here, I really think we're sitting on a gold mine and we're not using it. And that is our wildness. We're in the wilderness we are on the Admiralty Island national monument and people are just dying to see those kinds of things. And on our section of Admiralty, we didn't log. As you know Hoonah, Kake, Klawok, everybody logged right down to the village. From the cove south, it's just like it was a million years ago. It's wild. And I believe that with proper leadership we could be making a fortune and the people not taking anything. We have fish lodges now, two fish lodges, but what kind of income do they really bring to Angoon. They take, they take the fish but what money do they spend here. I think that our wilderness, and I told Peter Naroz this at the last annual meeting, he was CEO of Kootznoowoo, that you know where the value is? Is right here in Angoon for Kootznoowoo because of our wilderness. I know there's a lot of permits. I have an idea to sell silence. And when anyone says "you sold silence?" they want to know what it means. And I have an idea that you have no noise what so ever. No machines, any kind of noise. I even have the area picked out. My grandfather was a Canadian from New Brunswick and he came for mining. Didn't do well in mining and he ended up on Killisnoo. It used to be 1500 population there. It burnt down in I believe 1922, but anyway, I lost my train of thought there. But anyway. What it is is you wouldn't have any machinery what so ever that made a noise, my grandfather, that's what I was talking about! My grandfather had a ranch, it's known as Knudsen's ranch but it's actually Sharps ranch. Knudson never really owned it. I have all the history on it. My dad and the whole family, brothers and sisters were all born on the ranch when my grandfather had. Kootznoowoo has right now and this has nothing to do with the airport, sorry! I got an opportunity to talk to people. Kootznoowoo still has 70 acres to select right now under ANCSA. And the ranch is 58 acres and is the prettiest beach anywhere in this whole area. I'd say there's potential for a small hydroelectric there too cause there's a water fall that runs down on the hill behind. And I think if we really looked into this, and I realize it takes time. We don't have the infrastructure here for people to stay and all this sort of thing but anyway I'm glad to see that 12a is now a choice cause I think logically and that's the way I've operated all my life is I don't have an education, I only have a GED. I've traveled in 30 states. I was in Europe for 4 years in the air force. But education wise I'm not that smart. But I think I'm the Socrates of Angoon anyway. And the poet laureate which I'm gonna do one more time before I go. We have no economy here what so ever. I counted up and we have about 40 jobs</p> | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznoowoo Wilderness Area are outside of the scope of this EIS. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | in Angoon for the whole community. We are dying. When limited entry came in and IFQ for halibut and everything it killed all the villages in southeast basically. For fishing. So we have nothing. We weren't big takers of the resource we all had 19 foot skiffs we pulled by hand some guys had little motors. But when you lived here you didn't really look like white people do, 30 years down the line what's going to happen, it was right now, and through that winter and then next spring do this and it was always a continually thing. You only made a little money but it was enough and then what they used to ask me was what did you do in the winter time? I said I went home and made babies. It was a really relaxing thing. You didn't have to do a thing. So anyways. I don't figure I have much longer here. I'm looking forward to the adventure to find out what's on the other side. So I'm not afraid of that but I appreciate you coming here, listening, especially to this old guy. And thank you. |   |
| 86                 | 79          | Randy Gamble   | Public                 | and it's difficult to know that you can't get someone out of town when it's necessary. I know there's been several times when we try to get Elder's out and we couldn't. So with an airport that would make a big difference. You know. If it's life and death. Sometimes coast guard won't come cause their main mission is search and rescue. Getting helicopters out here is sometimes it doesn't happen. So I think with an airport it gives us a broader section to get our, whatever you want to call it, to help this community out.  | Thank you for your comment. FAA continues to work towards a decision for the Angoon Airport EIS and subsequent construction of the airport and access road for the community of Angoon.   |
| 86                 | 80          | Randy Gamble   | Public                 | I oppose 12a. I would still go with 3a that what the majority of us want. I'm a council member here in Angoon, I'm also on the fire department/EMS/search and rescue. I'm pretty involved in this community. So I think I speak for those that can't speak. That can't be here today.  | Thank you for your comment.   |
| 86                 | 81          | Randy Gamble   | Public                 | Wanted the airport put in as soon as possible instead of 10 years down the road. Our economy is not that great like Frank said I know that the federal government doesn't have that much money I think the sooner the better.  | Thank you for your comment. The FAA continues to work toward a decision for the Angoon Airport EIS and subsequent construction of the airport and access road for the community of Angoon.  |
| 86                 | 82          | Donald Frank   | Public                 | We went through a process and we took all the things into considerations. Alternatives that you have posted up. Which one would meet the least amount of resistance. Which one we felt was doable. And some people are speaking against 3a but at the time when we finished we thought that would be the best alternative site.  | Thank you for your comment. Since the onset of the EIS process for the Angoon Airport, the FAA has actively worked to fully engage the Angoon community and local government through a variety of public involvement efforts including ongoing visits to the community of Angoon to provide project updates and to answer resident questions and concerns. Ultimately, the FAA has weighed public input with social and environmental impacts, Section 4(f) regulations, and project costs to determine their preferred alternative. Increasing recreation opportunities within the Admiralty Island National Monument and Kootznooowoo Wilderness Area are outside of the scope of this EIS. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name    | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|-------------------|------------------------|--|---|
| 86                 | 83          | Donald Frank      | Public                 | I like the comment Frank made about the airstrip. I was born in Metlakatla. Which has the largest airstrip in the state today. And it's still strong. It's still usable. It's a lot less cost to build it.   | It is out of the scope of this EIS to evaluate a privately owned airstrip because there is no proposal in place from Kootznoowoo, Inc. to develop a privately owned airstrip.   |
| 86                 | 84          | Donald Frank      | Public                 | One more comment. I support the alternative that guarantees we begin work tomorrow.  | Thank you for your comment. The FAA continues to work toward a decision for the Angoon Airport EIS and subsequent construction of the airport and access road for the community of Angoon.  |
| 87                 | 1           | Kevin Proescholdt | Wilderness Watch       | It is an incredible area and we believe that area needs to be protected as an intact wilderness in this whole process. Our organization either the preferred alternative airport 12a with access 12a or the no action alternative because we believe that those are the two alternatives that protect the wilderness.  | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative. This alternative would not require physical use of wilderness lands.   |
| 87                 | 2           | Kevin Proescholdt | Wilderness Watch       | We understand Title XI process under ANILCA and that can under certain circumstances allow for the placement of an airport within the boundaries of the designated wilderness. But we believe the 8 decision criteria that are part of Title XI process speak loudly to having an alternative chosen that does not site an airport within the wilderness boundaries.   | Airport 12a with Access 12a is the FAA's preferred alternative in part because it best meets the review criteria outlined in ANILCA Title XI. ANILCA requires federal permitting agencies to make tentative approvals or disapprovals for a transportation system in a conservation system using the criteria outlined in ANILCA Section 1104. However, the ultimate decision for placement of a transportation system lies with the President and Congress.  |
| 87                 | 3           | Kevin Proescholdt | Wilderness Watch       | As I mentioned, we submitted written comment with more detail. Wilderness Watch support either their preferred alternative, alternative 12E with access 12E or the no action alternative. As the only two that will protect this fabulous world class resource. Thank you very much and I appreciate the chance to come and speak today.   | Thank you for your comment. The FAA has identified Airport 12a and Access 12a, located on private, City of Angoon, and Kootznoowoo, Inc. lands, as the agency's preferred alternative.  |
| 87                 | 4           | Verne Skagerberg  | Alaska DOT&PF          | We remain convinced after additional analysis conducted by the FAA that the airport site we have proposed is the best location aeronautically. We do agree that the site which the FAA has preliminarily identified as its preferred alternative is aeronautically acceptable, though somewhat less advantageous than what we have proposed.   | Section 3.5.2 of the draft EIS provides the following information: "To be considered practical and feasible, the airport alternatives selected for detailed evaluation in the draft EIS had to satisfy performance screening criteria for aviation performance in the following three categories: 1. Airport constructability and future development capability. 2. Instrument approaches. 3. Wind coverage." All alternatives analyzed in the draft EIS satisfy FAA aviation criteria, and are all considered reasonable alternatives. |
| 87                 | 5           | Verne Skagerberg  | Alaska DOT&PF          | However, there are other compelling reasons for our reluctance to alter our proposed action and, hence, our filing of an application in accordance with the provisions of ANILCA Title XI. With the designation of over 100 million acres of conservation system units and other conservation designations across the State of Alaska in 1980 under the Alaska National Interest Lands Conservation Act ( or ANILCA), Congress' express intent in Title XI was to provide a single overarching process for consideration of transportation and utility systems in or across CSUs, including designated Wilderness. | The State of Alaska is authorized by ANILCA Title XI to apply for a right-of-way for the airport and access road in the Admiralty Island National Monument and Kootznoowoo Wilderness Area, and because an ANILCA application has been submitted, all permitting agencies would comply with the requirements in ANILCA.   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|------------------|------------------------|--|--|
| 87                 | 6           | Verne Skagerberg | Alaska DOT&PF          | Our assertion that Section 4(f) is not deterministic at this point in the process notwithstanding, it is our view that our proposed action is not precluded by that law even within the context of a conventional NEPA analysis. We say this because we find the analysis contained in the DEIS to be unconvincing in its dismissal of Section 4(f) implications regarding the FAA's preferred alternative. In short, we believe both alternatives to have 4(f) impacts and, therefore, that the circumstances require an analysis that weighs the relative merits and impacts of each.  | The FAA has evaluated all comments and new information received during the draft EIS comment period. The FAA's Section 4(f) determinations have not changed.   |
| 87                 | 7           | Verne Skagerberg | Alaska DOT&PF          | We also believe the DEIS to be incomplete with regard to the preliminary consideration of factors required by ANILCA. More specifically, Section 1104 (g)(2)(C) requires agencies consider whether there exists a feasible and prudent alternative to building on a CSU. The draft does identify the preferred alternative as being feasible-- a finding that we do not dispute-- but it does not address prudence. There are a number of considerations that, when taken in their cumulative effect, lead us to the conclusion that the preferred alternative is arguably imprudent. This must be resolved before the Title XI process is complete. For all of these reasons, we believe that our proposed action remains a viable solution to Angoon's aviation needs, and we anticipate that it may well be identified as the preferred action in the final analysis. | The FAA has evaluated all comments and new information received during the draft EIS comment period. The FAA's Section 4(f) determinations have not changed. Prudence determinations will be added to the final EIS.   |
| 87                 | 8           | Verne Skagerberg | Alaska DOT&PF          | Additionally, our determination to stay the course in that regard rests to a large extent on the fact that what we have proposed was developed through a lengthy process that included a great deal of Angoon's involvement. The community provided us with official concurrence in the form of supporting resolutions for the decisions made throughout the planning effort. It would not be appropriate for us to so significantly alter our proposed action without the community's input which we are just now receiving. With the resolution of the issues we have outlined, and with the explicit concurrence of the people of Angoon, we may find the FAA's alternative to be a satisfactory answer to the needs of the community. However, until we have completed the ANILCA process we are not prepared to make that determination.                            | Thank you for your comment.  |
| 88                 | 1           | Verne Skagerberg | Alaska DOT&PF          | First and foremost of our concerns is that our early agreement to allow the NEPA process to advance to the DEIS stage before tendering an ANILCA Title XI application seems to have resulted in an inversion of the proper decision making sequence. This is most readily apparent in the U.S. Forest Service's response to our application. That letter makes it quite clear that the Forest Service, as a Cooperating Agency, believed that the FAA's determination of a non monument/wilderness preliminary preferred alternative on the basis of an arguably faulty §4(f) assessment essentially pre-empted our filing, or would result in our rescinding that application. That is directly counter to the  | The State of Alaska is authorized by ANILCA Title XI to apply for a right-of-way for the airport and access road in the Admiralty Island National Monument and Kootznoowoo Wilderness Area. Because an ANILCA application has been submitted, all permitting agencies must comply with the requirements in ANILCA. ANILCA Section 1103 states that other applicable laws shall continue to apply to the ANILCA Title XI process. These applicable laws can be superseded only by action from the President and Congress under ANILCA Title XI. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|------------------|------------------------|---|---|
|                    |             |                  |                        | requirements of ANILCA's §1104(a). Our determination to proceed with a Title XI application has never been in question. Our indicating that it might eventually be rescinded has always been inextricably tied to an unequivocal change in Angoon's position on the alternatives. Not having seen evidence that a change has occurred in their official view, we have no basis upon which to change ours. Our proposed action by its very nature made ANILCA an inevitable and overarching consideration for this project, and by the explicit language in §1104, it precludes other applicable law from having any effect prior to its provisions having been exhausted.   |   |
| 88                 | 2           | Verne Skagerberg | Alaska DOT&PF          | Although the DEIS undertakes to address the considerations required under §1104, the treatment of those concerns is somewhat cursory in general - largely making reference to other sections in the document - but significantly deficient regarding a few critical factors. Avoiding redundancy through reference helps to keep an already overlarge document from becoming more unwieldy; however, the approach used in this instance makes the ANILCA process appear to be an afterthought while leaving a weary reviewer with the impression that all of the issues have been comprehensively addressed elsewhere. That is not the case with regard to socioeconomic impacts, environmental justice, nor -most importantly - the prudence of FAA's preferred alternative.   | The FAA has carefully reviewed and considered the DOT&PF's comments and has determined that the socioeconomic and environmental justice analysis, findings, and determinations in the draft EIS are sufficient for NEPA disclosure. Prudence findings will be added to the final EIS. |
| 88                 | 3           | Verne Skagerberg | Alaska DOT&PF          | The socioeconomic analysis of the alternatives is inadequate, largely because it takes an urban America view of the impacts despite the FAA's assertions to the contrary. Most of the analysis addresses the current socioeconomic status of the community and changes that are foreseeable from the various action alternatives. Much of section 4.12 deals with the minor and insignificant impacts on sales tax and the additional temporary construction jobs. For the uninformed reader, the statements in section 4.12.3 .3.1. Relocation of Residents lead to the conclusion that the impact of the preferred alternative is rather negligible. The ultimate sentence in the section says, "However, there are vacant homes in Angoon's town core that displaced residents could choose to purchase." The fact that a substantial portion of the town's commercial and residential potential is eliminated by the preferred alternative is glossed over with an analysis more appropriate for a suburban community whose future growth potential is less constrained by geography. | The FAA has carefully reviewed and considered the DOT&PF's comments and has determined that the socioeconomic analysis, findings, and determinations in the draft EIS are sufficient for NEPA disclosure.   |
| 88                 | 4           | Verne Skagerberg | Alaska DOT&PF          | Environmental justice considerations are given a very narrow treatment that seems a hunt for the easy and least problematic assessment of the facts. A more appropriate characterization of the situation would clearly identify the circumstances of a mostly native, largely impoverished community which stands to lose much of its long-term economic development potential because that is preferable to the national interest in preserving an exceedingly small portion of   | The FAA has carefully reviewed and considered the DOT&PF's comments and determined that the environmental justice analysis, findings, and determinations in the draft EIS are sufficient for NEPA disclosure.   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|------------------|------------------------|---|---|
|                    |             |                  |                        | an exceedingly large wilderness - a portion that is on the boundary of the wilderness, essentially adjacent to the community, and likely visited by an exceedingly small number of people not from that community (though the document doesn't tell us that number). That view of the situation is not the entire story, nor does it make any particular conclusion inevitable, but it is a valid perspective that is buried in the narrative of the document. Angoon's situation is not analogous to that of the typical rural American town, and the document ought not to approach the environmental justice analysis as though it were.   |   |
| 88                 | 5           | Verne Skagerberg | Alaska DOT&PF          | Socioeconomic analysis and environmental justice are inseparable, yet the DEIS analysis of environmental justice does not include socioeconomics among the evaluated resources. This is contrary to DOT Order 5610.2(a) which requires the analysis of social and economic impacts to populations like Angoon's. On the other hand it discusses, at some length, resources like wilderness which are not specifically identified in the Order yet have little to do with environmental justice per se.  | The FAA has carefully reviewed and considered the DOT&PF's comments and determined that the environmental justice analysis, findings, and determinations in the draft EIS are sufficient for NEPA disclosure.   |
| 88                 | 6           | Verne Skagerberg | Alaska DOT&PF          | The combination of the socioeconomic and environmental justice analysis, if approached as they ought to be, would lead one to a conclusion that Alternative 12a may not be a prudent alternative to our proposed action.  | The FAA acknowledges the DOT&PF's lack of agreement with the findings related to Airport 12a and has carefully reviewed and considered the DOT&PF's comments. After reviewing these comments and revisiting the analysis completed for the socioeconomic and environmental justice, the FAA has determined that the analysis, findings, and determinations in the draft EIS comply with federal law. Airport 12a with Access 12a is a prudent alternative to Airport 3a.  |
| 88                 | 7           | Verne Skagerberg | Alaska DOT&PF          | The arguments used to dismiss §4(f) implications, either current or potential, on lands that were conveyed under ANCSA §14(c)(3) for the city's use as parks, are not consistent with our application of the law. Our practice in preparing NEPA documents would be to consider those properties that are identified as platted park land on figure 4fl in the DEIS as §4(f) properties even though there is not a formal management plan.  | The FAA acknowledges the DOT&PF's lack of agreement with the findings related to Airport 12a. The FAA has evaluated all information and comments received during the public comment period, met with the current mayor and gathered additional information from the City. The FAA has determined that the platted parks are not 4(f) properties.  |
| 88                 | 8           | Verne Skagerberg | Alaska DOT&PF          | Our experience with the distribution of cultural resources around village sites informs our position that the field work and analysis concerning the potential impact of the preferred alternative is significantly understated. We stand by our earlier comments on the Preliminary DEIS regarding the inadequacy of the cultural resource surveys that have been conducted thus far. SHPO has also raised concerns to FAA that the boundary of SIT-00169 had not been sufficiently defined and that it may be more extensive than what's reported in the current survey. FAA has not adequately researched the associations of site SIT-00169 relative to important historical persons or events and, therefore, has not offered an opinion on the eligibility of the site relative | The archeological survey and reporting were completed on behalf of the FAA by or supervised by qualified staff that meets or exceeds the Secretary of the Interior's Professional Qualification Standards for Archaeology. The SHPO has provided concurrence on the FAA's Finding of Effects for Airport 12a with Access 12a (the preferred alternative). SIT-00302 extends inside the direct APE of Airport 3a, and there is no indication that SIT-00169 extends into the 12a Direct APE. A shovel probe grid along the inland boundary of SIT-00169 would have been impractical due to the type of |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|------------------|------------------------|---|--|
|                    |             |                  |                        | <p>to A and B of the National Register Criteria. The archaeological testing should have been designed to delineate the boundary of SIT-00169 as was done on Site SIT-00302 (Alternative 3) which was a multi-component site similar to SIT-00169. Current archeological and ethnographical literature strongly suggests that site SIT-00169 had a prehistoric as well as historic component. The archaeological field work on SIT-00169 did not test the site, nor delineate the boundaries of the potential impacted site in relation to the projected construction footprint. Although it has obvious surface features including several pit features, the only testing was done in the purported Direct APE. This work was random with no consideration to the basic survey criteria of consistent testing covering a designated grid. The DEIS lacks discussion on potential cultural materials discovered between the site and the direct impact area, all of which figure predominantly in current Alaskan archaeological research. Ethnographic evidence references this area as an early occupation site before Killisnoo Island Village and the village of Angoon well beyond just an historic "wide place in the beach". Although the village is alluded to as only a minor historic Tlingit village, the prehistoric Killisnoo Harbor Village has the potential for as yet undiscovered information on the early lifeways and cultural utilization of the Killisnoo area. Intact cultural resources, typified by tribal native burials, including potential Shamans or other leadership personalities, could be impacted by Alternative 12a, thereby warranting a more intensive cultural evaluation in this area.</p> | <p>landform and right-of-entry to all private parcels. Inland from the surface features visible at SIT-00169, there is a low swale that is wet. Testing in this area is not realistic. An intensive pedestrian survey was conducted along 600 meters of the northwest-southeast-trending boundary of the Phase 2 Direct APE near the location of SIT-00169. This area was surveyed with 10-meter transects extending 10 meters outside the Direct APE on the seaward (SIT-00169) side and 30 meters inside the APE on the inland side. No indications of cultural resources inside the APE or in this transecting corridor were observed. The FAA does not dispute that the boundary of SIT-00169 may be more extensive than previously reported. The FAA's intent with the survey was to determine if there is evidence that the site may extend into the Direct APE and that the type of features that exist in the site will not be adversely affected by vibration effects. Determinations made in the draft EIS and in the technical report are based on this intent.</p> |
| 88                 | 9           | Verne Skagerberg | Alaska DOT&PF          | <p>The combination of these concerns leads us to our long-standing conclusion that Alternative 12a does indeed contain §4(f) resources - we identified them in our early planning documents. That does not preclude its use for the construction of an airport, but it does mean that it is not automatically a prudent alternative to our proposed action and that the relative merits of the alternatives need to be weighed in a more balanced fashion. Each of the items we have addressed is of some significance in its own right; however, the glaring omission from the DEIS, both in relation to NEPA and ANILCA, is a thorough analysis of the prudence of the preferred alternative which takes all of them into account regarding their cumulative effects. ANILCA and §4(t) require a determination of whether there exists a feasible and prudent alternative to the action we've proposed. The §4(t) prudence analysis does not exist in the DEIS because of FAA's determination that Alternative 12a has no §4(t) implications -we disagree as explained above. With regard to ANILCA, Chapter 5 of the DEIS makes a summary statement regarding the preferred alternative's feasibility - it is indisputably feasible - but no mention is made concerning its prudence. This is a fatal flaw in the document that must be corrected in order to provide the "... detailed findings supported by substantial evidence..." required by ANILCA §1104(g)(2). In making a determination of prudence, an approach we have found useful in the absence of its</p>   | <p>Prudence findings will be added to the final EIS. The FAA acknowledges that there are 4(f) resources that would be impacted by Airport 12a with Access 12a, and that those impacts are considered de minimus impacts.</p>   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|------------------|------------------------|--|--|
|                    |             |                  |                        | <p>definition in ANILCA, is the one provided in FHWA guidance for §4(t):<br/>An alternative is not prudent if: .</p> <ol style="list-style-type: none"> <li>1. It compromises the project to a degree that it is unreasonable to proceed in light of the project's stated purpose and need (i.e., the alternative doesn't address the purpose and need of the project);</li> <li>2. It results in unacceptable safety or operational problems;</li> <li>3. After reasonable mitigation, it still causes severe social, economic, or environmental impacts; severe disruption to established communities; severe or disproportionate impacts to minority or low-income populations; or severe impacts to environmental resources protected under other Federal statutes;</li> <li>4. It results in additional construction, maintenance, or operational costs of extraordinary magnitude;</li> <li>5. It causes other unique problems or unusual factors; or</li> <li>6. It involves multiple factors as outlined above that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.</li> </ol> <p>It is our opinion that a thorough, objective analysis of those considerations would lead one to the conclusion that Alternative 12a is not necessarily prudent -but we haven't seen that analysis yet. At the risk of seeming redundant, we emphasize that this determination, supported by substantial evidence, is required for a complete ANILCA process and must, therefore, be included in the final document.</p> |  |
| 88                 | 10          | Verne Skagerberg | Alaska DOT&PF          | <p>In their letter of March 9, 2015, the U.S. Forest Service identified a number of deficiencies that it found during the adequacy review of our Title XI application. Because it was understood by all concerned that it was our intent to rely on the DEIS as the supporting document for the application, we view the deficiencies that the Forest Service identified as resulting from a misunderstanding among cooperating agencies during the document's preparation. Since the additional information in question properly belongs in the DEIS and we are excluded from participating in its formulation by FAA policy, we ask that the FAA coordinate with the Forest Service to ensure all those concerns are addressed. The US Army Corps of Engineers expressed similar concerns regarding our ANILCA application in their letters of January 9 and February 11, 2015. Although their difficulties seem to be related more to procedure than content, they also appear to result from misunderstandings with regard to the role of cooperating agencies in developing the DEIS and reviewing our application at this stage of the ANILCA Title XI process. Again, we ask the FAA to coordinate with the USACE to help resolve the issues they have identified. Additionally, we ask that this coordination include the FAA's providing both the USACE and the Forest Service with any necessary assurances pertaining thereto such that they are able to give us their determination that our application is complete.</p>                                  | <p>The FAA is evaluating comments received from the U.S. Forest Service and the USACE and will respond to those comments that relate to the NEPA process and continue to work with the cooperating agencies toward a final EIS. The FAA has met statutory and regulatory requirements under NEPA and ANILCA and has made a good faith effort to provide an EIS that supports the DOT&amp;PF's ANILCA application. The FAA will not complete the additional cultural and wetland information requested by the USACE and U.S. Forest Service for the DOT&amp;PF's ANILCA application adequacy. This is the obligation of the ANILCA applicant.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name   | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|------------------|------------------------|--|---|
| 88                 | 11          | Verne Skagerberg | Alaska DOT&PF          | Our objective throughout this lengthy process has been, and remains, to provide Angoon with an airport that meets the community's transportation needs. The sustainability of places like Angoon is largely dependent on people's ability to engage in commerce, cultural exchange, and enjoy access to basic services such as emergency medical care. The people of Angoon have occupied the area for a very long time and, the advent of airplanes and the internet notwithstanding, we assume that they envision doing so for much longer. In order to accommodate their future on the small piece of land they have available, the determination of where we should build their airport must be considered in that light as well as that of the many other things the law requires.  | The FAA will consider all comments received on the draft EIS in making any determinations in the final EIS.   |
| 89                 | 1           | Susan Magee      | State of Alaska        | While the DEIS is clear that FAA does not consider the identification of a preferred alternative as its final decision, it is also evident that the preliminary decision was made using incomplete information and before the National Environmental Policy Act (NEPA) process, which is part of the Title XI process, was complete. As noted above, the Title XI process requires federal agencies to consider public comments on the DEIS and an analysis of all criteria in ANILCA Section 1104(g)(2) before rendering a decision on a proposed project.  | As the lead federal agency for this project, the FAA is required by 40 CFR 1502.14(e) to identify its preferred alternative, if a preferred alternative is known by the agency. The FAA will consider all public comments on the draft EIS before issuing tentative approval/disapproval on the Title XI application and before rendering a decision on the EIS.  |
| 89                 | 2           | Susan Magee      | State of Alaska        | <p>ADOT&amp;PF's proposed action (i.e. Alternative 3a with Access 2) drives the Title XI process; however, the DEIS prematurely identifies a different NEPA preferred alternative. This appears to have caused confusion among participating federal agencies. For example, since the beginning of the EIS process, it was the intent and mutual understanding of both the FAA and ADOT&amp;PF that the DEIS would be relied upon as supporting information for the Title XI process; however, recent correspondence from both the USACE and the USFS indicates that the DEIS does not provide sufficient information to support ADOT&amp;PF's Title XI application.</p> <p>In particular, correspondence from USFS, Alaska Region to ADOT&amp;PF dated March 9, 2015 states that the recently revised and finalized Memorandum of Understanding (MOU) between the FAA and USFS (signed by the USFS on 10/31/14 and the FAA on 2/18/15) indicated that since the FAA identified a preferred alternative outside of designated Wilderness, the Title XI process would not be followed (page 8); therefore, the USFS's preliminary review of the DEIS did not evaluate the document in terms of its sufficiency as supporting documentation for ADOT&amp;PF's Title XI application. This conflicts with statements in the DEIS, which indicate that the DEIS would be the supporting information for ADOT&amp;PF's Title XI application (page ES 1-7).</p> <p>Correspondence from the USACE to ADOT&amp;PF dated January 29, 2015 and February 11, 2015 indicates that additional information is required to complete ADOT&amp;PF's Title XI application; however,</p> | There have been two MOUs between the FAA and the U.S. Forest Service during this project. The first MOU was in effect during the review of the preliminary draft EIS in October and November 2013. This first MOU expired on December 31, 2013. A draft of the second MOU was submitted to the U.S. Forest Service for review in December 2013, and was returned and signed to FAA in February 2015, during the draft EIS public comment period. Therefore, the U.S. Forest Service referencing the second MOU as the reason they did not evaluate the preliminary draft for ANILCA adequacy is faulty. Regardless, the current MOU does not state that an application would never be filed. The MOU states the following: "If, following agency and public review of the EIS, the FAA selects an alternative within the wilderness area, an application would need to be filed," and the MOU sets guidance for the U.S. Forest Service should an application be filed. The identification of a preferred alternative in the preliminary draft EIS is not considered a final decision under NEPA. Nor did the FAA state that it was. The ANILCA application is the sponsor's application, and the sponsor could submit the application at any time. The FAA has met statutory and regulatory requirements under NEPA and ANILCA and has made a good faith effort to provide an EIS that supports the DOT&PF ANILCA application. The FAA will not complete the additional cultural and wetland |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | <p>subsequent correspondence from ADOT&amp;PF to the USACE dated February 20, 2015 identifies the specific locations in the DEIS where the requested information can be found.</p> <p>We request the FAA, as the lead federal agency for the Title XI process, assist ADOT&amp;PF in resolving any misperceptions or inaccuracies as represented in the correspondence from the USFS and the USACE to ADOT&amp;PF, as well as the MOU between the FAA and the USFS. We also request the FAA clarify in the final EIS that the preliminary identification of a preferred alternative in the DEIS is not intended to preempt the full completion of the Title XI process or influence the independent federal agency analyses and decisions, which are required under ANILCA Section 1104(g)(2).</p>   | <p>information requested by the USACE and U.S. Forest Service for the DOT&amp;PF's ANILCA application adequacy. This is the obligation of the ANILCA applicant. The FAA has and will continue to work with the USACE and U.S. Forest Service through the life of this project.</p>  |
| 89                 | 3           | Susan Magee    | State of Alaska        | <p>The DEIS devotes considerable space to the effects of the proposed project and alternatives on wilderness character, and by extension the wilderness purposes of the Kootznoowoo Wilderness; however, the analysis provided is very limited. For example, the DEIS discloses the acreage of designated Wilderness that will be affected by the airport footprint without providing a corresponding perspective on the amount of actual "on-the-ground" or anticipated uses that will be impacted or displaced in the area, or conversely, the uses and remaining acreage of the Kootznoowoo Wilderness that would remain unaffected by the airport.</p> <p>The resulting conclusion is that Alternatives 3a and 4, essentially due to the airport's location and its incompatibility with wilderness character, cause significant impacts to the Kootznoowoo Wilderness. By the same measure, Alternative 12a, which is not located within the Kootznoowoo Wilderness, does not cause significant impacts (4.16.3.6.3, page 68—681). Since the impact analysis on wilderness character will be used to inform federal agencies' (tentative) decisions and by extension, the President's and, if applicable, Congress' decisions, the analysis needs to provide more meaningful information as to the actual affects other than a generalized loss of Wilderness acreage and corresponding wilderness character.</p> | <p>The following text will be added to Chapter 4.16, Wilderness</p> <p>"It is the position of the USFS that in general, wilderness areas are not threatened by large-scale projects that would degrade large proportions of their acreages. Rather, wilderness areas are threatened by the cumulative effect of small incremental changes over time and by new precedents allowing previously incompatible uses. These incremental changes and new uses together could add up to significant development, modification, and occupation of the National Wilderness Preservation System over time. In this light, the wilderness alternatives for the proposed Angoon Airport indirectly affect the public's appreciation that this wild and undeveloped place is protected by national monument and wilderness area designations. Members of the public who may never visit Admiralty Island support the monument and wilderness area for its intrinsic spiritual and symbolic values, including the value of preserving an extensive, unaltered coastal island ecosystem; the subsistence and recreation opportunities afforded by vast undeveloped areas; and the value of an intact cultural landscape for the Tlingit Indians. These values reflect the national interest expressed in ANILCA Section 101, the Wilderness Act, and President Carter's monument proclamation.</p> <p>The precedent of constructing an airport in the monument-wilderness when there is a viable alternative outside but nearby the monument-wilderness could increase concerns about the preservation of the Admiralty Island National Monument, the Kootznoowoo Wilderness Area, and other Alaskan national interest lands that could be subjected to ANILCA Title XI projects."</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|----------------|------------------------|--|--|
| 89                 | 4           | Susan Magee    | State of Alaska        | <p>the emphasis in the DEIS on FAA's inability to authorize a project that significantly affects Section 4(f) resources or properties (i.e. designated Wilderness) is inaccurate. The final EIS must also recognize that even though the FAA may be constrained by elements of the Transportation Act, just as the USFS may be constrained by the Wilderness Act, the final decision on this project rests with the President and Congress, who can authorize the proposed project regardless of the Section 4(f) impacts, if determined to be in the best interests of the community.</p>   | <p>The FAA recognizes that the final decision on the ANILCA Title XI process rests with the President and Congress. However, the FAA cannot abrogate the requirements under Section 4(f). Only the President and Congress can determine whether to override the requirement on minimizing or avoiding 4(f) properties.</p> <p>The following text will be added to section 5.3 of the EIS.</p> <p>"The State of Alaska is authorized by ANILCA Title XI to apply for a right-of-way for the airport and access road in the Admiralty Island National Monument and Kootznoowoo Wilderness Area. The DOT&amp;PF submitted an ANILCA application on January 9, 2015 for their proposed action, Airport 3a with Access 2. Because this application has been submitted all permitting agencies must comply with the requirements in ANILCA. ANILCA Section 1103 states that other applicable laws shall continue to apply to the ANILCA Title XI process. These applicable laws can be superseded only by action from the President and Congress under ANILCA Title XI".</p> |
| 89                 | 5           | Susan Magee    | State of Alaska        | <p>both Section 4(f) of the Transportation Act and ANILCA Section 1104(g)(2) require the FAA to consider "feasible and prudent" alternatives to the proposed action. The EIS defines a "feasible" and "prudent" project in the context of Section 4(f) of the Transportation Act as "...one that can be built as a matter of sound engineering judgment" and does not compromise the project on a number of factors, including "...even with mitigation, still causes severe social, economic, or environmental impacts, disruption of established communities, disproportionate impacts to minority or low-income populations, or impacts to environmental resources protected under other federal statutes" (Page 162, emphasis added). While not identified in the DEIS, Department of Interior (DOI) implementing regulations for Title XI at 43 CFR 36.2(h) define an "economically feasible and prudent alternative route" as "...a route either within or outside an area that is based on sound engineering practices and is economically practicable, but does not necessarily mean the least costly alternative route" (Emphasis added).</p> <p>While FAA's preferred alternative (Alternative 12a with Access 12a) may be feasible from a sound engineering standpoint, we question whether the DEIS adequately considered socio-economic factors in its determination that the preferred alternative was also "prudent" as defined in the DEIS and DOI regulations. As noted, Congress also intended for each federal agency to objectively and fully consider several criterion (Section 1104(g)(2)), including "feasible and prudent" alternatives and the positive and negative impacts of the proposed</p> | <p>The FAA has carefully reviewed and considered the state's comments and has determined that the socioeconomic analysis, subsistence, and land use findings and determinations in the draft EIS are sufficient for NEPA disclosure.</p>   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------|---|---|
|                    |             |                |                        | <p>project (and alternatives) on the local community of Angoon.</p> <p>All of the alternatives appear to have a combination of positive and negative impacts for the community. For example, Alternatives 3a and 4 with either Access:</p> <ul style="list-style-type: none"> <li>· Provide increased access to subsistence resources.</li> <li>· Do not encroach into the community's limited supply of available land.</li> <li>· Do not provide much room for expansion in the event new economic development opportunities arise and there is a need for additional airport capacity/facilities (as doing so would require expanding further into designated Wilderness).</li> <li>· Have higher initial costs.</li> <li>· Have greater ongoing costs associated with access maintenance, which could have the unintended consequence of reducing available resources for other community needs.</li> </ul> <p>Alternative 12a with Access 12a:</p> <ul style="list-style-type: none"> <li>· Provides easy and low-cost access.</li> <li>· Has the effect of dedicating much of the community's available land to airport use.</li> <li>· Removes some of the limited supply of residential lots from inventory.</li> <li>· Reduces the availability of subsistence resources immediately adjacent to the existing community. Beyond the immediate transportation needs of the community and the impacts and opportunities associated with construction and operation of the airport, the DEIS needs to give greater consideration to the community's long-term need to create viable economic opportunities. Improved access could be a catalyst for the community to develop new business enterprises, such as adventure tourism, seafood/mariculture and other areas that are not as yet foreseen. From an economic development perspective, ADOT&amp;PF's proposed action provides for the transportation needs of the community while maintaining the existing inventory of available "private" land for future development, including residential use.</li> </ul> |   |
| 89                 | 6           | Susan Magee    | State of Alaska        | <p>We also request the FAA take a hard look at the limited socioeconomic analysis in the EIS as it relates to Environmental Justice.</p>  | <p>The FAA has carefully reviewed and considered the state's comments and determined that the socioeconomic analysis, findings, and determinations in the draft EIS are sufficient for NEPA disclosure. No additional socioeconomic analysis will be completed for the EIS.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|----------------|------------------------|--|--|
| 89                 | 7           | Susan Magee    | State of Alaska        | <p>The DEIS indicates the subsistence effects of all the alternatives did not rise to the level of the significance criteria identified in the EIS. Given the importance of subsistence to the community of Angoon (as recognized in the DEIS on page 538), we question the analysis that concludes that Alternative 12a with Access 12a, which causes a loss of land within the community that would no longer be readily available for subsistence use, does not create new access to subsistence resources (as does Alternatives 3a and 4 with either access), and increases competition for land-based subsistence resources, is of no consequence to the overall significance determination (page 569).</p> <p>It is interesting to compare the subsistence impact analysis to the wilderness impact analysis. Even though the airport footprint directly eliminates the availability and use of subsistence resources within the airport footprint, the impact is not considered significant because it only represents a percentage of the total resources available for use, while the direct impact of the airport on wilderness character causes significant impact even though it also only represents a percentage of the total wilderness acreage. We similarly request the FAA take a hard look at these analyses and corresponding conclusions relative to Environmental Justice.</p> | <p>Although Airport 12a with Access 12 has greater impact on subsistence users, particularly users who do not have the ability to access areas across Favorite Bay, the overall level of effect does not rise to the level of significant effects as outlined by the BLM and affirmed by the Kunaknana decision. Although the FAA does not have established significance thresholds for subsistence, and does not set them in this EIS, significance has been determined based on criteria used by U.S. Forest Service, developed by the BLM, and confirmed by the U.S. District Court in Alaska. Alternately, because Airport 3a and Airport 4 are on lands managed by the U.S. Forest Service, the FAA consulted with them and used their guidance to make determinations of significance. Placement of an airport and access road would be incompatible with the desired conditions set forth in the Wilderness Act and the U.S. Forest Service land management plan. By extension, the FAA therefore finds that the effects from any of the wilderness alternatives to wilderness qualities and public purposes would be significant. The FAA has carefully reviewed and considered the State's comments and determined that the environmental justice analysis, findings, and determinations in the draft EIS are sufficient for NEPA disclosure.</p> |
| 89                 | 8           | Susan Magee    | State of Alaska        | <p>When completing the analyses required under ANILCA Section 1104(g)(2), participating federal agencies must also take into consideration comments from the community that provide individual or collective perspectives on current and future socio-economic needs and the trade-offs associated with the various alternatives.</p>  | <p>Since the onset of the planning process for the Angoon Airport EIS, the FAA has actively worked to fully engage the Angoon community and solicit public input on the proposed project. The FAA will evaluate all comments received from stakeholders in making determinations under ANILCA 1104(g)(2).</p>  |
| 89                 | 9           | Susan Magee    | State of Alaska        | <p>Dolly Varden is a species of char not trout and the name is typically written Dolly Varden char.</p>  | <p>Following all instances of "Dolly Varden" in the EIS, "char" will be added.</p>   |
| 89                 | 10          | Susan Magee    | State of Alaska        | <p>The following statement should be incorporated in the final EIS on marine sportfish use in the Angoon area:</p> <p>Statewide Harvest Survey (SWHS) results for the saltwater shoreline of Admiralty Island near the community of Angoon indicate that during at least one year during the 1996-2013 period, sport fishing respondents to the SWHS reported catching and/or harvesting hardshell clams, Dungeness crab, Dolly Varden char, cutthroat trout, chum salmon, pink salmon and coho salmon (Alaska Sport Fishing Survey database [Intranet]. 1996-2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish cited February 5, 2015. Available from: <a href="https://intra.sf.adfg.state.ak.us/swhs_est/">https://intra.sf.adfg.state.ak.us/swhs_est/</a>).</p>  | <p>This statement will be added to the final EIS: "Statewide harvest survey results for the saltwater shoreline of Admiralty Island near the community of Angoon indicate that during at least 1 year during the 2001-2013 period, sport fishing survey respondents reported catching or harvesting hardshell clams, Dungeness crab, Dolly Varden char, cutthroat trout, chum salmon, pink salmon and coho salmon (Alaska Department of Fish and Game 2013a )."</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response   |
|--------------------|-------------|----------------|------------------------|--|--|
| 89                 | 11          | Susan Magee    | State of Alaska        | Chapter 4, Existing Conditions and Project Effects, page 220, paragraph 5: Dolly Varden char is not listed as a species present in Favorite Creek, but it is listed in the Anadromous Waters Catalog (AWC).  | This sentence will be revised in the final EIS to include Dolly Varden char: "Favorite Creek, a Class 1 stream, contains spawning and rearing habitat for Dolly Varden char ( <i>Salvelinus malma</i> ), chum ( <i>Oncorhynchus keta</i> ), coho ( <i>O. kisutch</i> ), and pink salmon ( <i>O. gorbuscha</i> ) (Johnson and Klein 2009)." |
| 89                 | 12          | Susan Magee    | State of Alaska        | Chapter 4, Existing Conditions and Project Effects, page 223, Figure AHAS3, bullet 3: Favorite Creek supports sculpins and at least three species of salmon (pink, chum, coho), cutthroat trout, and Dolly Varden char. One adult sockeye salmon was documented by SWCA Environmental Consultants in 2009, but there is not enough supporting documentation to conclude that Favorite Creek supports a population of sockeye salmon or if the one observed was a stray.  | The 3rd bullet on page 223 will be replaced with the following: "Favorite Creek supports sculpins and at least three species of salmon (pink, chum, coho), cutthroat trout ( <i>O.clarkii</i> ), and Dolly Varden char. "  |
| 89                 | 13          | Susan Magee    | State of Alaska        | Chapter 4, Existing Conditions and Project Effects, pages 237-246: Although mentioned elsewhere for each of the alternatives under stream habitat alterations, streams 112-67-10790(stream 3), 112-67-10780(stream 4), 112-67-10610(Stream 9D-G), and 112-67-10802(Stream 2) are left out of section titled "Reduction to aquatic resources and damage to aquatic habitats" and Favorite Creek is the only stream described as Class 1 that could be affected by additional harvest of aquatic species. These other streams all contain anadromous fish according to the AWC, as well as Class 1 habitat. Since there will be new or improved access to these streams, the possibility cannot be ruled out that these streams may have increased fishing and therefore more human use. | Updates will be made to the aquatics section of the final EIS to include referenced streams and include the following statement: "It is possible that human use would increase at the small Class 1 streams that provide coho rearing habitat near this alternative".  |
| 89                 | 14          | Susan Magee    | State of Alaska        | Chapter 7, Mitigation, page 737, bullet 4: Wording for "Time construction to minimize effects to aquatic species" should match page 229 so it reads May 15 to September 15.  | Updates will be made to the aquatics section of the final EIS to include referenced streams and include the following statement: "It is possible that human use would increase at the small Class 1 streams that provide coho rearing habitat near this alternative".  |
| 89                 | 15          | Susan Magee    | State of Alaska        | Chapter 7, Mitigation, page 741, bullet 6: We recommend using U.S. Forest Service preferred seed mix on U.S. Forest Service managed lands and non-U.S. Forest Service managed lands to ensure invasive plant control. It would be helpful to define weed-free and clarify whether weed-free applies to invasive plants such as reed canary grass.  | This bullet has been simplified in the EIS. The DOT&PF would not require that U.S. Forest Service preferred seed mix be used on non-Forest Service lands.  |
| 90                 | 1           | Jack Hession   | Public                 | I am a former resident of Alaska. During my years there, I visited every region of the State. In SE Alaska, I have twice crossed Admiralty Island on the Admiralty Canoe Route east to west, to the community of Angoon. On another occasion, I traveled to Angoon via scheduled float plane service.<br><br>I support an onshore airport for the community that would compliment the existing float plane dock in town.   | Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.                         |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | <p>Of the EIS alternatives, 12a, the in-town alternative, is obviously the one most consistent with the purposes for which Congress set aside the national monument and the Kootznoowoo Wilderness. Compared with alternatives 2 and 3, alternative 12a has the advantage of lower road construction and maintenance costs because it is within the community. Most importantly it would have no adverse effect on the adjoining wilderness area.</p> <p>Alternatives 2 and 3 would be within the wilderness area, with alternative 3 having the worst impact on wilderness values due to its location near the network of channels and islands on the south side of Mitchell Bay that end in Favorite Bay. These channels and islands provide the best and for some paddlers the safest canoe/kayak approach to Angoon as opposed to the direct route through Mitchell Bay ( I have paddled both routes). Air traffic and airport operations of Alternative 3 would disrupt the solitude that is an integral part of the wilderness experience in this back channel route to Favorite Bay. Alternatives 2 and 3 roads looping around the southern end of Favorite Bay would also introduce noise into what is now an undisturbed and tranquil part of the Angoon community.</p> <p>Finally, as the FAA's preferred alternative is 12a, that should settle the the airport location issue.</p> |   |
| 91                 | 1           | Beth Pendleton | U.S. Forest Service    | <p>General - Comments: <i>Procedural Requirement for the FS:</i><br/>Prior to the Forest Service issuing a final ROD (should either 3a or 4 with either access selected), we must follow the Project-Level Predecisional Administrative Review Process (36 CFR 218) which requires that we allow any member of the public to object to a draft decision. Any person who commented in writing, either during scoping, this recent comment period, or who provided comments during any other designated opportunity for public participation, has "standing" to object. Should the decision on this project require a Forest Service-issued ROD, then we are required to first issue a draft ROD and allow for a 45-day objection period. Depending on the outcome of the objection period, there may be another 45-day period (with a possible additional 30-day extension) to resolve any objections prior to issuance of a final ROD.</p>   | Thank you for clarifying U.S. Forest Service procedural requirements.   |
| 91                 | 2           | Beth Pendleton | U.S. Forest Service    | <p>General - Comments: Throughout the DEIS, references are made that indicate adjustments to the selected alternative may be required during implementation of the project. If a selected alternative is located on NFS lands, then any adjustments made after the issuance of a ROD will require an interdisciplinary change analysis to determine whether the adjustment and its effects are within the range of effects disclosed in the FEIS and ROD, or whether additional NEPA will be required.</p>   | The FAA will continue to collaborate with the U.S. Forest Service and follow all requirements of NEPA and the U.S. Forest Service guidance within the scope of this EIS. Current design of the airports and access roads are not considered final designs. It would be impracticable to fully design all alternatives. The draft EIS and current designs allow the federal agencies to have enough information to make a decision. If during the final designs there are major changes to the layout of the airport or access roads, the FAA would also |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------|---|---|
|                    |             |                |                        |   | have to determine whether the adjustment and its effects are within the range of effects disclosed in the final EIS, or whether additional NEPA will be required.   |
| 91                 | 3           | Beth Pendleton | U.S. Forest Service    | Chapter 1 (p. 3): Suggest adding Section 707 of ANILCA to the discussion for why this proposal is being considered within a congressionally designated wilderness. The section notes that; "Except as otherwise expressly provided for in this Act wilderness designated by this Act shall be administered in accordance with applicable provisions of the Wilderness Act..." Adding this section could clarify the discussions for "how" could this project be considered within a wilderness.   | Section 707 of ANILCA is discussed in Chapter 5 of the EIS.   |
| 91                 | 4           | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 62-63, p. 717): The DEIS provides no annual operations and maintenance costs of each alternative, including the projected costs of occupancy of Forest Service lands in airports 3a and 4 and access 2 and 3. The Forest Service currently waives most fees to the state for occupancy on NFS lands through a 5-year Memorandum of Agreement. The waiver does not apply where "municipal utilities and cooperatives whose principal source of revenue from the authorized use is customer charges." <i>Chapters 3.5.3 and 5.5.1</i> state that a portion of the ongoing operations and maintenance costs for the airport and access will be from fees for long-term apron and future hangar uses. Therefore, it is unclear whether the fee waiver will apply. A fee Comments: A discussion of the costs to own and operate similar airports such as those in Kake and Hoonah are therefore applicable and should be included in the FEIS. Also, the agreement is negotiated every five years and a waiver is not guaranteed in perpetuity. Providing this information will provide a more meaningful comparison of economic feasibility among alternatives. The Forest Service can assist with determining possible fees for airport and road right-of-ways and other potential use fees. | Costs to construct and operate the proposed airport and access road will be added to Table ES-2. A new table will also be added in section 3.5.3 to disclose estimated operation and maintenance costs, by alternative.<br><br>The FAA requires airports to secure a 20 year permit in connection with grant assurances. The FAA will work with U.S. Forest Service to ensure the correct statement is made regarding the fee waiver. |
| 91                 | 5           | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 80), <i>Table ALT5 - Cultural Resources</i> : Until SHPO process completed this row of significant effects should state "Unknown" for all Alternatives. Same applies for 4.8.3.4 and 4.8.3.6.   | The FAA has finalized the Section 106 consultation process and received concurrence from the SHPO on the Finding of Effect for Airport 12a with Access 12a (the preferred alternative). Results of this consultation will be included in the final EIS.   |
| 91                 | 6           | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 81), <i>Table ALT 6</i> : Since 3a and 4 alternatives include several more miles of access road the effects of additional construction equipment and future road traffic should be explained in more detail than <i>de minimis</i> explanation on p. 81 and pp. 122-3 (e.g., 50 cars/day X 4 miles X 4.7 mile road = ___/year and far below NAAQS assessment).  | Table ALT6 is intended to provide a brief summary of findings; readers should review the resource sections in Chapter 4 for comprehensive analysis and a full justification of significance determinations. See responses to comments 91(11) and 91(12) to address construction effects and future road traffic.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------|---|--|
| 91                 | 7           | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 82), <i>Table ALT 7 - Land acquisition, rights-of-way, permits, and/or leases</i> : It is unclear if the acreage for land acquisition includes the access roads. For example, "Airport 3a with Access 2" lists 210 acres of Forest Service lands impacted but this is the size of just the airport footprint and would seem to include no road acreage. Though fees may be waived for this access road, a right-of way and other land use rights including avigation easements (p. 110) from the Forest Service would still be required. For a meaningful comparison of the effects of each alternative, these effects should be listed in more detail possibly pulling from p. 93 Table ALT16 (acres of land committed and disturbed). | Table ALT7 is intended to provide a brief summary of findings; readers should review the resource sections in Chapter 4 for comprehensive analysis and a full justification of significance determinations. The acreage for land acquisition includes all impacted lands with the exception of lands subject to an avigation easement.   |
| 91                 | 8           | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 92), <i>Table ALT15</i> : Focus should not be on only construction but also the long term effects of a road and airport built in a Wilderness Area. Visual effects on wilderness character of a road, airport and new vehicular traffic occurring in Wilderness (Airport 3a and 4 and access roads) are inherently higher than the Alternative with no proposed activities in Wilderness (Airport 12a). Since these effects are for the duration of road and airport operations they should not be described as "temporary." Table ALT15 p. 92 should clearly differentiate less visual and solitude effects for Airport 12a (for further discussion see pp. 647-8 below).  | The FAA will include additional information in section 4.16 of the final EIS disclosing that during operation, wilderness users near the road and airport would be able to hear vehicles and maintenance equipment. The acreages reported in the EIS have been checked and are reported correctly.   |
| 91                 | 9           | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 101), <i>Table ALT22 Undeveloped</i> : For Airport 3a and 4 alternatives the 22-28 acres of development seems low given atleast a 3300' runway (all in Wilderness) and up to 4.7 miles of road (a portion in Wilderness).   | A review of the calculations for the proposed developments for the wilderness alternatives show that the amount of acreage covered by development is correct.  |
| 91                 | 10          | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 103), <i>Table ALT22 Wilderness-Solitude-Noise from construction equipment and motor vehicles</i> : As mentioned above (p. 92), increases from long term effects of road and airport operations and maintenance need to be mentioned and are not temporary.<br><br><i>Opportunities for primitive and unconfined recreation</i> : As mentioned above (p. 101) the amount of fenced or paved area for a 3300-4000' runway and up to 4.7 miles of road would seem to be more than 103 – 108 acres mentioned in Wilderness alternatives.   | The FAA will include additional information in section 4.16 of the final EIS disclosing that during operation, wilderness users near the road and airport would be able to hear vehicles and maintenance equipment. The acreages reported in the EIS have been checked and are reported correctly.   |
| 91                 | 11          | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 105), <i>Table ALT23</i> : Comparison of greenhouse gas emissions focuses on airplane traffic and ignores increased automobile emissions from alternatives with up to 4.7 miles of additional roads and all the resultant traffic that a new road will foster, including non-airport related trips (see discussion for p. 81).  | For small proposed airport projects such as Angoon, a quantitative assessment of greenhouse gas emissions is not required by the FAA (FAA 2012b). Section 4.17.3.2.2 of the draft EIS states the following: "The greater distance traveled on land by residents using personal vehicles, and the increased number of trips to and from a land-based airport by car or truck would result in a negligible increase in CO2e emissions under any of the action alternatives. However, as a net effect, total long-term CO2e emissions for Angoon would decrease as a result of the airport's operation, assuming decreases in seaplane operations and all other emissions sources for the area remaining the same." |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
| 91                 | 12          | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 124-125), 4.2.3.3.1 <i>Air Quality - Effects from construction</i> : Table AQ2 displays that the air emissions for construction will be the same for all action alternatives. It does not provide rationale to this conclusion as the access road length and the amount of cut/fill required in each action alternative is substantially different. One would tend to think that the longer the access road or the more cut/fill required would result in varying emissions among action alternatives. Please provide additional rationale that supports the conclusion that air emissions from each action alternative are the same.  | Reported construction air quality emissions represent the highest amount of emissions likely for the maximum amount of construction time (up to three seasons). Section 4.2.3.3.1 will be revised to state the following: "Estimated construction-related emissions associated with all action alternatives are summarized in Table AQ2 and broken out by type of criteria pollutant. Reported emissions represent the highest amount of emissions likely for the maximum amount of construction time (up to three seasons). Alternatives that require less construction time could result in lower emissions than reported." |
| 91                 | 13          | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 127), <i>Section 4.3</i> : The DEIS does not contain adequate information to determine whether the agency will satisfy the requirements of ANILCA sections 506(a)(3)(C)(i-iv), commonly known as the Kootznoowoo Inc. corridor lands.<br><br>ANILCA Sections 506(a)(3)(C)(i-iv) give all rights, title and interest in certain lands within Favorite, Mitchell and Kanalku Bays to Kootznoowoo Inc. except those that are reserved to the United States. Reserved rights of the United States in those lands include:<br><i>(i) All timber rights are reserved subject to subsistence uses consistent with title VIII of this Act.</i><br><i>(ii) The right of public access and use within such area, subject to regulation by the Secretary of Agriculture to insure protection of the resources, and to protect the rights of quiet enjoyment of Kootznoowoo, Incorporated, granted by law, including subsistence uses consistent with title VIII of the Act.</i><br><i>(iii) The subsurface estate.</i><br><i>(iv) The development rights, except that the Secretary of Agriculture is authorized to permit construction, maintenance, and use of structures and facilities on said land which he determines to be consistent with the management of the Admiralty Island National Monument: Provided, that all structures and facilities so permitted shall be constructed of materials which blend and are compatible with the immediate and surrounding landscape.</i><br>The DEIS contains sufficient information to adequately determine effects and satisfy provisions (i) and (iii).<br><br>Provision (ii) reserves to the public the right of access and the rights of quiet enjoyment of Kootznoowoo Inc. The DEIS does provide adequate information to protect the right of public access, but fails to provide any substantive definition of quiet enjoyment and direct and indirect effects of the proposed alternatives on the rights of quiet enjoyment as defined by Kootznoowoo Inc., or to identify mitigation measures that may be necessary to ensure those rights are protected.<br><br>Provision (iv) reserves to the United States the development rights of the corridor lands. Any development of infrastructure proposed in the | The FAA will include a separate section outlining the Admiralty Island National Monument purposes and evaluating project effects to these defined purposes. This section will also include an evaluation of the requirements of ANILCA sections 506(a)(3)(C)(i-iv) as they relates to the Kootznoowoo Corridor Lands and the Admiralty Island National Monument.  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
|                    |             |                |                        | <p>DEIS on the corridor lands will require Forest Service authorization. In addition, this provision states that any structures and facilities on these lands need to be consistent with the management of the Admiralty Island National Monument and be constructed of materials which blend and are compatible with the immediate and surrounding landscape. Under section 506 of ANILCA the rights reserved to the United States within the corridor lands are managed part of the National Monument CSU and are subject to Title XI of the Act. The DEIS fails to disclose that the corridor lands are managed as part of the National Monument CSU. Furthermore, the DEIS lacks sufficient information to determine whether the structures and facilities are consistent with the management of Admiralty Island National Monument and their effects to the surrounding landscape.</p> <p>The Forest Service will need this information prior to issuing a Record of Decision and/or Title XI determination for any alternative located on NFS lands.</p> |   |
| 91                 | 14          | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 134), <i>Section 4.3.2.3.1</i>: The DEIS incorrectly states that the Kootznoowoo Inc. corridor lands are located between the Monument-Wilderness Area and the shores of the bays, but they are outside the boundaries of the Monument-Wilderness Area. This statement needs to be corrected to say that the corridor lands are exempt from the Wilderness Act (ANILCA section 506(a)(3)(D)) but are managed as part of the National Monument. The property interests reserved to the United States in the corridor lands are managed as part of the Admiralty Island National Monument CSU (ANILCA section 506(a)(3)(C)(iv)).</p>   | <p>Thank you for your comment. Section 4.3.2.3.1 will be revised as follows: "In addition, through ANILCA Section 506, Kootznoowoo, Inc. was granted ownership of the surface rights within a 660-foot-wide corridor along most of the shore lands of Favorite, Kanalku, and Mitchell Bays. These lands are typically referred to as the Kootznoowoo Corridor Lands. They are located between the Kootznoowoo Wilderness Area and the shores of the bays. The Kootznoowoo Corridor Lands are exempt from the Wilderness Act (ANILCA section 506(a)(3)(D)) but are managed as part of the Admiralty Island National Monument. The property interests reserved to the United States in the Kootznoowoo Corridor Lands are managed as part of the Admiralty Island National Monument CSU (ANILCA section 506(a)(3)(C)(iv))."</p>           |
| 91                 | 15          | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 137), <i>Section 4.3.2.3.5</i>: This needs to be corrected to state that the Admiralty Island National Monument was created in 1978. The National Monument status was affirmed and further designated wilderness by Congress in 1980 with the passage of ANILCA. Also, this section incompletely notes the property rights reserved to the United States in the Kootznoowoo Inc. corridor lands. In addition to the subsurface, the U.S. holds rights and title to timber, public access and development of the corridor lands. The U.S. is also required to protect Kootznoowoo Inc.'s property rights of quiet enjoyment.</p>   | <p>Thank you for your comment. Section 4.3.2.3.5 will be revised as follows: "Admiralty Island National Monument was created in 1978. The National Monument status was affirmed and further designated wilderness by Congress in 1980 with the passage of ANILCA. The combined Admiralty Island National Monument and Kootznoowoo Wilderness Area incorporates approximately 90% of Admiralty Island (nearly 1 million acres) and is currently managed by the U.S. Forest Service as part of the Tongass National Forest. The U.S. Forest Service also maintains the subsurface rights, as well as holds rights and title to surface timber, public access and development on Kootznoowoo Corridor Lands. The U.S. Forest Service is also required to protect Kootznoowoo, Inc.'s property rights of quiet enjoyment on Kootznoowoo</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------|---|---|
|                    |             |                |                        |   | Corridor Lands. Figure LU3 shows the portion of the Admiralty Island National Monument and Kootznoowoo Wilderness Area that overlaps with the area of the alternatives, and Figure LU5 illustrates what the forest is like in the Angoon area.”   |
| 91                 | 16          | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 153), <i>End of 3rd paragraph: Access 2 and Access 3 are currently routed through Auk'Tah Lake watershed...but may be rerouted prior to construction to avoid the property.</i></p> <p>Comment: Any additional ground disturbing action on NFS lands would require coordination with The Admiralty Monument staff and could potentially require additional NEPA.</p>   | The FAA will continue to collaborate with the U.S. Forest Service and follow all requirements of NEPA and the U.S. Forest Service guidance within the scope of this EIS. Current designs of the airports and access roads are not considered final designs. It would be impracticable to fully design all alternatives. The draft EIS and current designs allow the federal agencies to have enough information to make a decision. If during the final designs there are major changes to the layout of the airport or access roads, the FAA would also have to determine whether the adjustment and its effects are within the range of effects disclosed in the final EIS, or whether additional NEPA will be required.  |
| 91                 | 17          | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 363), <i>Section 4.8:</i> Heritage resource inventories and consultation on determination of effects with the State Historic Preservation Office (SHPO) have not been completed and, therefore, does not comply with section 106 of the National Historic Preservation Act.</p> <p>The Admiralty Island National Monument was originally designated by Presidential proclamation under the Antiquities Act in 1978. It was affirmed by Congress in 1980 under ANILCA section 503(c) to protect objects of ecological, cultural, geological, historical, prehistorical and scientific interest.</p> <p>The DEIS took a phased approach to analyzing effects to cultural resources in the area. The phased approach calls for further analysis on cultural resources if a particular alternative is chosen. Field surveys were not completed for areas of potential indirect effects for Airports 3a and 4 and their varying access routes. Finally, consultation with SHPO on the determination of effects to all alternative has not yet been completed.</p> <p>Completing the cultural analysis is necessary to determine the full extent of impacts to resources that directly support the purposes for which the National Monument was created. Also, this additional information will provide a meaningful comparison of alternatives within and outside the CSU.</p> <p>The Forest Service will need the NHPA section 106 process complete, including mitigations identified, prior to issuing a Record of Decision and/or Title XI determination for any alternative located on NFS lands.</p> | <p>The FAA has completed the Section 106 process for Airport 12a with Access 12a, the FAA's preferred alternative. The FAA has met statutory and regulatory requirements under NEPA and ANILCA and has made a good faith effort to provide an EIS that supports the DOT&amp;PF's ANILCA application. The FAA will not complete the additional cultural surveys or consultation to support DOT&amp;PF's ANILCA application. This is the obligation of the ANILCA applicant.</p> <p>Chapter 5 of the EIS (ANILCA) will be updated to include preliminary terms and conditions that will be required if Airport 3a with Access 2 (the DOT&amp;PF's proposed action) is approved by the President and Congress. This includes a condition that cultural resources field surveys will be completed and concurrence on determinations of effect will be received from the SHPO as required by 36 CFR Part 800 prior to the USFS issuing a right-of-way.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|----------------|------------------------|--|---|
| 91                 | 18          | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 363), <i>Section 4.8</i> : Site SIT-00169 is only 17 meters outside the direct effect boundary of the proposed undertaking (airport 12a). The site is owned by the Kootznoowoo Village Corp and the Forest Service would like make sure the corporation is comfortable with the results of the archaeological investigation and the FAA's determination of effect. It is suggested that a monitor may be appropriate while ground disturbing activities occur in that area.  | The FAA has completed the Section 106 consultation process and has involved Kootznoowoo, Inc., in this consultation. Chapter 7 (Mitigation) of the final EIS will identify the requirement for cultural monitoring during construction.   |
| 91                 | 19          | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 369), The document notes that the FAA is still consulting on a final determination of effect.<br><br>Comment: Forest Service would like to be apprised of the results of the consultation on the undertaking's determination of effect and whether they agree with the FAA's determination.  | The FAA will continue to provide information to the U.S. Forest Service and other cooperating agencies on the Section 106 process.  |
| 91                 | 20          | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 379), Line 28 - <i>"Periodic monitoring of historic properties could be implemented..."</i><br><br>Comment: The Forest Service recommends that the monitoring is carried out.  | Periodic monitoring would only be needed for Airport 3a or Airport 4 with either access because they are the only alternatives that would provide new access to the known historic properties (described as indirect impacts in the EIS). There is no potential for indirect impacts from new access for Airport 12a with Access 12 because no new access would be created. Therefore there will be no need for periodic monitoring of historic properties or other mitigation for historic properties. |
| 91                 | 21          | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 386), <i>"Note that additional field surveys are anticipated to be conducted for the preferred alternative, Airport 12a with Access 12a. If this fieldwork results in the discovery of additional historical or cultural resources, additional analysis would be conducted."</i><br><br>Comment: The Forest Service would need to be apprised of the results of additional survey and if additional environmental analysis is required the Forest Service would like to continue to be a consulting agency.  | The FAA will continue to provide information to the U.S. Forest Service and other cooperating agencies on the Section 106 process.  |
| 91                 | 22          | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 556, 563), 4.13.3.3.2: Focus on vegetative clearing and Turak et al. 1998 citation ignores long term impacts of paved surfaces on deer habitat particularly for forage that will not regenerate over time (not just inside perimeter fence but also road and fill footprint). Table SU4 and then ALT15 should calculate these effects in more detail possibly pulling from p. 93 Table ALT16 (acres of land committed and disturbed). Also no qualitative comparison of deer habitat acreage (i.e., muskegs in Airport 3a are an important traditional deer hunting area). | In the analysis for effects to abundance and availability, the numbers reported include pavement and assumes loss from these actions. However, the term "pavement" will be added following vegetation removal to make this clear. Page 544 of the draft EIS describes the different types of areas (habitats) where local residents hunt deer but does not distinguish the relative importance of the areas to hunters. Further analysis of deer habitat is not necessary to determine impacts.         |
| 91                 | 23          | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 623, 739-741), <i>Section 4.16</i> : The wilderness effects section lacks any substantive discussion on long-term effects of access 2 & 3 on illegal uses in wilderness, specifically ATVs. We would like to see a projection of anticipated illegal uses and propose mitigations that include engineered or natural barriers in the road  | Currently, there are few illegal uses and no ATV use occurring in the wilderness, even though local residents can access the wilderness through the end of the road. The area has steep topography and dense vegetation, making ATV use and other illegal uses difficult. Therefore, it is difficult to   |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------|---|--|
|                    |             |                |                        | <p>design that deter illegal use at locations that could be susceptible to such activity (i.e. waysides, rock pits, temporary access corridors for construction, etc.).</p> <p>Section 7.4.3: Mitigations listed above.</p>   | <p>assess what, if any, illegal uses may occur. However, the FAA will include a requirement for the road design to reduce the potential for illegal activities in the wilderness in the best management practices section in Chapter 7 (Mitigation) of the final EIS. Design feature would include rehabilitating/restoring temporary work sites and/or installing guard rails or concrete traffic barriers at susceptible locations (waysides, rock pits, or temporary access corridors for construction).</p>  |
| 91                 | 24          | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 647-648), <i>Table WC3 &amp; 4.16.3.22 – Tables WC5-14, Figure WC11-19</i>: While Wilderness section does a nice job quantifying effects on wilderness character overall the long term effects of road and airport operations of Alternatives Airport 3a and 4 and their access roads are downplayed with a focus instead on temporary effects during construction. Specifically, Light emissions during operation should mention the continued visual effect from headlights of increased vehicular traffic with a road through Wilderness by employees, travelers, fuel and other delivery vehicles, snowplowing equipment, etc. Under Noise from construction equipment and motor vehicles, the increase will not be “temporary” but will be for the long term duration of the operations of a road and an airport that is now situated in Wilderness.</p> <p>This problem is best exemplified by comparing display of effects on opportunities for solitude in Figure WC19 (Alternative 12a) and Figures WC12 and WC14 (Airport 3a Alternatives). Because of the focus on only effects from airplane traffic and not the effects of continued road and airport operations directly in Wilderness (as compared to outside Wilderness in 12a), it appears that Airport 3a and 4 alternatives would have a smaller degradation of opportunities for solitude, specifically less red shading. These figures should be amended to adequately display the increased effects on solitude of building, maintaining and operating a road and airport within the Wilderness boundary. If these effects are difficult to quantify numerically as mentioned in Table WC11 (p. 667) then statements that mention the disparity between Wilderness and non-Wilderness alternatives should be at least included in all Wilderness Character effects tables.</p> | <p>The FAA will include additional information in the final EIS on the amount of vehicle traffic and effects to wilderness character. Qualitative discussion on light emissions will also be added to the final EIS. As stated in the DEIS, there would be unquantifiable public use of motorized vehicles and equipment associated with subsistence and recreation along the access road. Because they are unquantifiable, the referenced figures cannot be revised. Therefore each table will be revised to state that during operation, wilderness users near the road and airport would be able to hear vehicles and maintenance equipment but that these effects are not quantifiable and are not shown on the opportunity for solitude maps. A discussion on light emissions will also be added to the final EIS for each wilderness alternative to describe the acreage where it is anticipated lights from vehicle traffic would be visible.</p> |
| 91                 | 25          | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 677), Section 4.16.3.5.1 - Desired conditions for wilderness qualities if not specifically provided through an ANILCA exception, the resources within a designated Wilderness shall be administered in accordance with the applicable provisions of the Wilderness Act. Suggest referencing Section 707 of ANILCA to anchor this statement. Should cite Section 707 of ANILCA to anchor this statement.</p>  | <p>The FAA will incorporate this suggestion into the final EIS.</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------|---|--|
| 91                 | 26          | Beth Pendleton | U.S. Forest Service    | Chapter 5 (p. 718), <i>Section 5.5.4</i> : The DEIS needs additional information on effects to the national significance of the conservation system unit (Admiralty Island National Monument and Kootznoowoo Wilderness). This information is necessary in order to determine the scale of effects to the purposes of the National Monument and National Wilderness Preservation System.  | <p>The following text will be added to Chapter 4.16, Wilderness and to the new Admiralty Island Monument section.</p> <p>"It is the position of the USFS that in general, wilderness areas are not threatened by large-scale projects that would degrade large proportions of their acreages. Rather, wilderness areas are threatened by the cumulative effect of small incremental changes over time and by new precedents allowing previously incompatible uses. These incremental changes and new uses together could add up to significant development, modification, and occupation of the National Wilderness Preservation System over time. In this light, the wilderness alternatives for the proposed Angoon Airport indirectly affect the public's appreciation that this wild and undeveloped place is protected by national monument and wilderness area designations. Members of the public who may never visit Admiralty Island support the monument and wilderness area for its intrinsic spiritual and symbolic values, including the value of preserving an extensive, unaltered coastal island ecosystem; the subsistence and recreation opportunities afforded by vast undeveloped areas; and the value of an intact cultural landscape for the Tlingit Indians. These values reflect the national interest expressed in ANILCA Section 101, the Wilderness Act, and President Carter's monument proclamation.</p> <p>The precedent of constructing an airport in the monument-wilderness when there is a viable alternative outside but nearby the monument-wilderness could increase concerns about the preservation of the Admiralty Island National Monument, the Kootznoowoo Wilderness Area, and other Alaskan national interest lands that could be subjected to ANILCA Title XI projects.</p> |
| 91                 | 27          | Beth Pendleton | U.S. Forest Service    | Chapter 5 (p. 719), <i>Section 5.5.6</i> : The DEIS does not identify the Admiralty Island National Monument as a conservation system unit subject to Title XI as provided for in ANILCA sections 503(b), (c), and (e). Nor does it provide adequate information as required by ANILCA section 1104(g)(2) on the effects to the purposes of the Admiralty Island National Monument. The Forest Service will need this analysis in order to issue a Record of Decision or Title XI determination for any alternative located on NFS lands. | <p>The FAA will include a separate section outlining the Admiralty Island National Monument purposes and evaluating project effects to these defined purposes in the final EIS. Chapter 5, ANILCA, will include findings for effects to the Monument.</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name  | Commenter Organization                        | Comment Text Verbatim  | FAA Response  |
|--------------------|-------------|-----------------|---|--|---|
| 91                 | 28          | Beth Pendleton  | U.S. Forest Service                           | Chapter 6 (p. 740), <i>Section 7.4.3</i> : We would also like to incorporate by reference the BMPs contained in the National BMPs for Water Quality Management on NFS Lands (publication FS-990a, 2012) and Alaska Region BMPs.  | A statement will be added to section 7.4.3 of the final EIS to incorporate these BMPs.  |
| 91                 | 29          | Beth Pendleton  | U.S. Forest Service                           | <i>Section 7.4</i> : The proposed mitigations to reduce visual effects for airport 3a did not carry into this section. Please be sure that all suggested mitigations within the DEIS are accounted for in this section.  | This proposed mitigation in the visual effects section will be included in Chapter 7: Mitigation.   |
| 91                 | 30          | Beth Pendleton  | U.S. Forest Service                           | Appendices (p. K-19), Site SIT-00169 is only 17 meters outside the direct effect boundary of the proposed undertaking. The site is owned by the Kootznoowoo Village Corp and the Forest Service would like make sure the corporation is comfortable with the results of the archaeological investigation and the FAA's determination of effect. As mentioned in 7.4.3 p. 740, a cultural resources monitor is needed for that area when ground disturbance activities are in the vicinity.   | The FAA has completed the Section 106 consultation process and has involved Kootznoowoo, Inc., in this consultation. Chapter 7 (Mitigation) of the final EIS will identify the requirement for cultural monitoring during construction.   |
| 92                 | 1           | Buck Lindekugel | Southeast Alaska Conservation Council (SEACC) | <p>The Alaska Department of Transportation and Public Facilities (DOT&amp;PF) is the project sponsor and proposed an airport site (Alternative 3a with Access 2) that is furthest from town and will have the most extensive impacts to the ecological, wilderness, and heritage values of the Admiralty Island National Monument &amp; Kootznoowoo Wilderness ("Admiralty Monument-Wilderness"). In contrast, after multi-year planning process combined with extensive community engagement, the FAA identified a prudent and feasible alternative (Alternative 12a) that avoids any impacts to Admiralty Monument-Wilderness lands and is the least costly and most environmentally preferable alternative.</p> <p>SEACC supports improving the availability and reliability in transportation services to and from Angoon. In honor of the Angoon elders whose leadership resulted in the designation of the Admiralty Monument-Wilderness, we support approval of Alternative 12a, the FAA's preferred alternative.</p> | Thank you for your comment. Project cost, social and environmental impacts, and Section 4(f) regulations were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS. |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name  | Commenter Organization                        | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|-----------------|---|---|--|
| 92                 | 2           | Buck Lindekugel | Southeast Alaska Conservation Council (SEACC) | <p>In the 1980 Alaska National Interest Lands Conservation Act (ANILCA), Congress established a process for consideration of whether to allow placement of transportation and utility systems in a conservation system unit like the Admiralty Monument-Wilderness. We appreciate the explanation provided in the DEIS relating to Title XI of ANILCA but wish to emphasize two additional points.</p> <p>First, Title XI allows approval of a transportation and utility system in a conservation system unit only if there is no economically feasible and prudent alternative for the proposed system. See Section 1104(g)(2)(B); 1106(a)(2)(specifying criteria for Presidential approval of Title XI application).</p> | <p>The FAA agrees that DOT&amp;PF Section 4(f) requires the FAA to select an alternative that minimizes harm to parks, recreation areas, or wildlife and waterfowl refuges of national, state, or local significance, or land of an historic site of national, state, or local significance. Airport 12a with Access 12a is the FAA's preferred alternative in part because it provides the least effect to DOT&amp;PF Section 4(f) properties and best meets the review criteria outlined in ANILCA Title XI. ANILCA requires federal permitting agencies to make tentative approvals or disapprovals for a transportation system in a conservation system using the criteria outlined in ANILCA Section 1104. However, the ultimate decision for placement of a transportation system within the Admiralty Island National Monument and Kootznoowoo Wilderness Area lies with the President and Congress. In the case of the Angoon Airport project, because the DOT&amp;PF has filed an ANILCA application, the FAA and cooperating agencies will provide a tentative approval or disapproval for the DOT&amp;PF's proposed action. The language in ANILCA Section 1103 clearly states that other applicable laws shall continue to apply to the ANILCA Title XI process and that these applicable laws can be superseded only by action from the President and Congress under ANILCA Title XI.</p> |
| 92                 | 3           | Buck Lindekugel | Southeast Alaska Conservation Council (SEACC) | <p>Secondly, both sections 1103 and 1104 require compliance with all other applicable law. As required by the Clean Water Act and the Section 404(b)(1) Guidelines, the Corps of Engineers may only approve the Least Environmentally Damaging Practicable Alternative to aquatic resources. Based on the analysis contained in the DEIS, Alternative 12a results in substantially fewer impacts to aquatic resources than any of the other alternatives.</p>   | <p>Thank you for your comment.</p>   |
| 93                 | 1           | Irene Alexakos  | Public  | <p>As an Alaska who has been to Angoon many times, who has paddled the waters &amp; walked the forests on Admiralty Island, I support the town airport site: Alternative 12a This site is the only one that makes sense. It would cost taxpayers the least AND uphold the natural &amp; cultural integrity of Admiralty Island.</p>   | <p>Thank you for your comment. Social and environmental impacts, Section 4(f) regulations, and project costs were all considered during alternatives evaluation and subsequent identification of Airport 12a and Access 12a as the preferred alternative. This rationale is provided in section 3.8 of the draft EIS.</p>  |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization       | Comment Text Verbatim   | FAA Response   |
|--------------------|-------------|----------------|------------------------------|---|--|
| 94                 | 1           | Randal Vigil   | U.S. Army Corps of Engineers | <p>The DEIS indicates that the proposed Project would cause terrain disturbance or wetland alterations that would reduce wetland functions due to vegetation clearing and tree felling. We request that the Final EIS clearly identify what activities would take place under the various alternatives that would involve land clearing operations. This information would assist the Corps in determining which of those activities require DA permit authorization. Additionally, we request that the Final EIS quantify impacts from land clearing operations under all alternatives.</p>  | <p>Section 4.15 (Wetlands) defines terrain disturbance as an action that converts wetlands to uplands, resulting in a loss to wetlands and all functions and services. Wetland alteration is defined as when vegetation clearing alters the wetlands and changes the wetland's capacity to provide function and services. Table WT1 details the actions that cause the loss or reduction of functions and services. Tables WT2, WT3, WT4, WT5, and WT6 provide the acreages of wetland fill and alteration by alternative. Table WT7 provides a comparison of these acres across all alternatives.</p>   |
| 94                 | 2           | Randal Vigil   | U.S. Army Corps of Engineers | <p>The Corps is authorized to issue Section 404 permits only for projects that clearly demonstrate compliance with the Environmental Protection Agency's 404 (b)(1) Guidelines (Guidelines). The Corps will rely on the FEIS in reaching a decision whether to issue a Section 404 permit, and we request that the Final EIS include a Draft Guidelines evaluation. The Corps ultimately must make an independent finding that the proposed activity complies with the applicable standards in the Guidelines, and this information would help facilitate information needed to make our determination.</p> <p>For informational purposes, we note that the following is information required by the Guidelines:</p> <p>The Guidelines state that no discharge of dredged or fill material can be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, as long as the alternative does not have other significant adverse environmental consequences. In those cases where non-water dependant work is proposed in a "special aquatic site", (such as wetlands, vegetated shallows, mudflats, or riffle and pool complexes), practicable alternatives are presumed to exist unless clearly demonstrated otherwise by the applicant. Also, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise. Based on the information provided in the DEIS and available to us, we have determined that special aquatic sites occur within the proposed project area.</p> <p>An alternative is considered practicable if it is available and capable of being accomplished after taking into consideration costs, existing technology, and logistics in light of the overall project purpose.</p> <p>The least environmentally damaging practicable alternative may include construction in uplands, reducing the size of the proposal to the minimum discharge necessary for the project, or the inclusion of logistic and operational controls.</p> | <p>Before implementation, DOT&amp;PF would need to apply for a Section 404 individual permit, and as part of the permit application, a draft 404(b)(1) guidelines evaluation would be prepared. The FAA will be including a compensatory mitigation plan in the final EIS, but will not be including a Section 404 permit application. Additionally, page 216 of the draft EIS clarifies that issuance of a Section 404 permit depends on the U.S. Army Corps of Engineers' determination that an action is 404(b)(1) compliant. Also, page 598 discusses wetlands as "special aquatic sites." Effects to "special aquatic sites" defined as wetlands, would occur under all action alternatives. No "riffle and pool complexes" would be affected by the preferred alternative. If any "riffle and pool complexes" are affected by the alternative selected in the final EIS, then potential impacts to these "special aquatic sites" would be discussed in the Section 404 permit application.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization       | Comment Text Verbatim   | FAA Response  |
|--------------------|-------------|----------------|------------------------------|---|---|
| 94                 | 3           | Randal Vigil   | U.S. Army Corps of Engineers | <p>Another requirement of the Guidelines is the sequential process of mitigation. The project should avoid and minimize impacts to aquatic resources, and then provide compensatory mitigation where necessary to offset unavoidable impacts. Compensatory mitigation is not considered until after all appropriate and practicable steps have been taken to first avoid and then minimize adverse impacts to the aquatic ecosystem. The mitigation regulations at 33 CFR Part 332 establishes standards and criteria for the use of appropriate and practicable compensatory mitigation for unavoidable functional losses of aquatic resources authorized by Corps permits.</p> <p>Avoidance measures are the planning strategies that entirely eliminate the discharge of fill material into the aquatic ecosystem to achieve the project purpose. A key requirement of compliance with the avoidance sequence of the Guidelines is to show whether or not an aquatic resource can be completely avoided. Minimization entails measures to reduce or diminish the impacts to aquatic resources. The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the United States authorized by DA permits.</p> <p>Although the burden of proof for satisfying these steps rests with the permit applicant, the Corps must rely upon its own analysis in making a finding of compliance or non-compliance with the Guidelines.</p> <p>The applicant must provide information that is sufficient to determine compliance, so the Corps can make a timely permit decision. The information provided in the mitigation section of the DEIS is not specific to the proposed work for the Corps' Guidelines analysis.</p> <p>The information provided in the DEIS state that it is unclear what might be required as compensatory mitigation, but outlines what components would be included in a compensatory mitigation plan to offset impacts, should it be required. The DEIS does not provide any information or analysis that explains how impacts to waters of the United States are to be compensated for or why compensatory mitigation should not be required for the proposed impacts.</p> <p>The compensatory mitigation regulations establish performance standards and criteria for permittee responsible and in-lieu fee compensatory mitigation in order to improve the quality and success of mitigation projects for proposed activities which would be authorization by a DA permit. In 33 CFR 332.3(b), the Corps and EPA have established a preference hierarchy for compensatory mitigation options (i.e., mitigation banks, in-lieu fee programs, and permittee-responsible mitigation). However, the potential for success may also justify as environmentally preferable a permittee responsible compensatory mitigation project that would restore or enhance an exceptional aquatic resource, based on robust scientific and technical analysis.</p> | <p>A draft mitigation plan will be developed in concert with the U.S. Army Corps of Engineers, DOT&amp;PF, and other stakeholders. This plan will be included in the final EIS.</p> |



# Angoon Airport Environmental Impact Statement

## FAA Responses to Comments Received

| Comment Letter No. | Comment No. | Commenter Name | Commenter Organization | Comment Text Verbatim  | FAA Response |
|--------------------|-------------|----------------|------------------------|--|--------------|
|                    |             |                |                        | Because the proposed Angoon Airport Project would result in the loss of waters of the United States, including special aquatic sites, we request that a draft compensatory mitigation plan be a component of the EIS. The Final EIS should include sufficient information about how the proposed compensatory mitigation relates to the individual and cumulative impacts to aquatic resources within the proposed project area, including an assessment to quantify debits and credits for aquatic resource impacts and compensation. |              |

## APPENDIX 1

### Angoon Public Draft EIS Comment Summary



## Angoon Public Draft EIS Comment Summary

The following document contains comment themes, list of all responses received, a list of all coded comments, and a copy of all responses received on the public draft of the Angoon Airport Draft EIS.

Table 1 contains the comment themes. The intent of this table is to allow reviewers to see how comments have been grouped for response. This table has been hyperlinked to Table 3 (later in this document) that contains the individual comments identified in each response. This is to provide reviewers with the ability to see the comment theme, yet easily track to the comments that fit within that theme. Please note that Table 3 is verbatim text from the original submittal so the comment may contain misspellings.

Appendix A contains all responses in their original format. The best way to access these individual responses is by using the links in Table 2. Table 2 contains a list of all letters, emails, faxes, and testimony received during the comment period. This table contains links to each of these individual submission to allow reviewers to easily access each letter. The majority of comments received were sent via email, with many of them including an attachment to the email. When you go to those emails, you will have to open the attachment to see the actual submittal. For example, if you navigate to letter 92, you will see the following:

Letter #92

**From:** [Buck Lindekugel](#)  
**To:** [leslie.grey@faa.gov](mailto:leslie.grey@faa.gov); [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** SEACC comments on DEIS  
**Date:** Friday, March 20, 2015 5:30:18 PM  
**Attachments:** [SEACC on Angoon Airport DEIS 3 20 15.pdf](#)

---

Howdy Leslie! Please accept these comments on the Angoon Airport DEIS. Thank you.

--

Buck Lindekugel  
Grassroots Attorney  
[Southeast Alaska Conservation Council](#)  
224 Gold Street  
Juneau, AK 99801



Note that anything that is “blue” is a live link. To be able to see the actual letter submitted by this commenter, you will need to **double click** on the blue attachment text as follows.

Letter #92

**From:** [Buck Lindekugel](#)  
**To:** [leslie.grey@faa.gov](mailto:leslie.grey@faa.gov); [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com) Double click this link to open the attached letter.  
**Subject:** SEACC comments on DEIS  
**Date:** Friday, March 20, 2015 5:30:18 PM  
**Attachments:** [SEACC on Angoon Airport DEIS 3 20 15.pdf](#)

---

Howdy Leslie! Please accept these comments on the Angoon Airport DEIS. Thank you.

--

Buck Lindekugel  
Grassroots Attorney  
[Southeast Alaska Conservation Council](#)  
224 Gold Street  
Juneau, AK 99801

Please keep in mind that sometimes there will be multiple attachments, often they are simply agency logos or website links. You will only need to click on an attachment that is either a pdf or word document.

**From:** [Orr, Marilyn N -FS](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Cc:** [Birk, Roger -FS](#); [VanOrmer, Chad M -FS](#)  
**Subject:** Comments on the Angoon Airport Draft EIS  
**Date:** Friday, March 20, 2015 4:28:13 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[Angoon Airport DEIS Letter 1 Signature.docm](#)  
[fs\\_angoon\\_airport\\_deis\\_comments\\_3\\_19\\_15.docx](#)

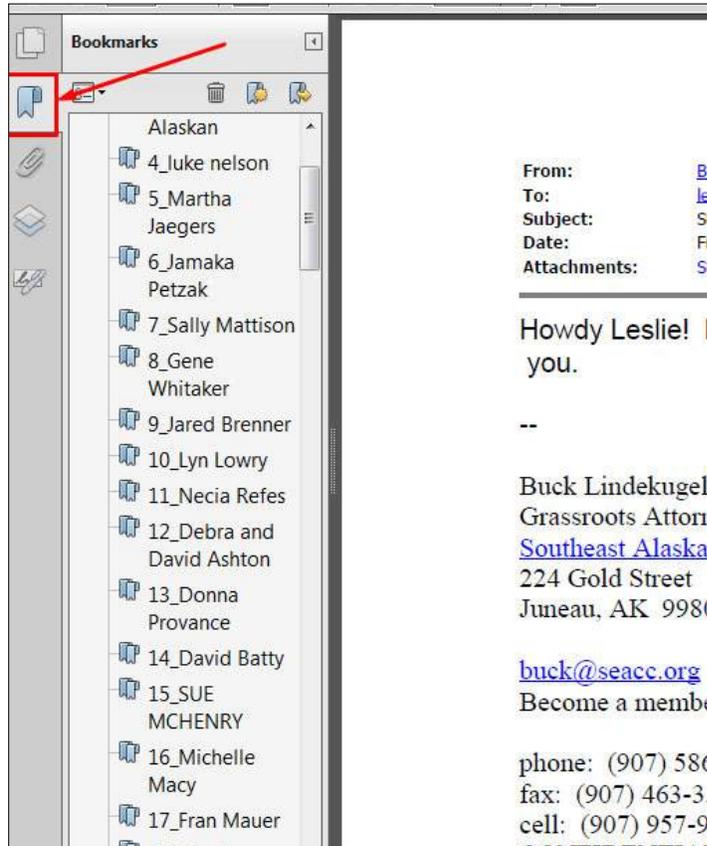
You only need to open pdf or word files →

---

Attached please find the cover letter from Beth Pendleton, and the enclosure for that letter.



In addition, you can navigate through the letters by using your Adobe pdf bookmarks as shown below:



If at any time you have any problems using the navigation or if you need to see the comments in a different format, please contact Leslie Grey [leslie.grey@faa.gov](mailto:leslie.grey@faa.gov)

**Table 1. Comment themes**

Clicking on the link within the column “Comment ID” will take you directly to the location in Table 3 where this comment is captured.

| Comment Theme   | Representative Letters (Comment #, if applicable)  |
|---|--|
| <b>General Public Opinion</b>   |  |
| <p>The FAA should select Alternative 12a with Access 12a (non-wilderness lands) or the No Action Alternative for reasons such as the following:</p> <ul style="list-style-type: none"> <li>• protection of subsistence resources</li> <li>• lower costs and maintenance</li> <li>• protection and/or avoidance of wilderness</li> </ul> | <p><a href="#">5</a>, <a href="#">6</a>, <a href="#">7</a>, <a href="#">8</a>, <a href="#">9</a>, <a href="#">10</a>, <a href="#">11</a>, <a href="#">12</a>, <a href="#">13</a>, <a href="#">14</a>, <a href="#">15</a>, <a href="#">16</a>, <a href="#">17</a>, <a href="#">18</a>, <a href="#">19</a>, <a href="#">20</a>, <a href="#">21</a>, <a href="#">22</a>, <a href="#">23</a>, <a href="#">24</a>, <a href="#">25</a>, <a href="#">26</a>, <a href="#">27</a>, <a href="#">28</a>, <a href="#">29</a>, <a href="#">30</a>, <a href="#">31</a>, <a href="#">32</a>, <a href="#">33</a>, <a href="#">34</a>, <a href="#">35</a>, <a href="#">36</a>, <a href="#">37</a>, <a href="#">38</a>, <a href="#">39</a>, <a href="#">40</a>, <a href="#">41</a>, <a href="#">42</a>, <a href="#">43</a>, <a href="#">44</a>, <a href="#">45</a>, <a href="#">46</a>, <a href="#">47</a>, <a href="#">48</a>, <a href="#">49</a>, <a href="#">50</a>, <a href="#">51</a>, <a href="#">52</a>, <a href="#">53</a>, <a href="#">54</a>, <a href="#">56</a>, <a href="#">57</a>, <a href="#">58(2)</a>, <a href="#">59</a>, <a href="#">60</a>, <a href="#">63</a>, <a href="#">64</a>, <a href="#">65</a>, <a href="#">66</a>, <a href="#">68(1)</a>, <a href="#">69</a>, <a href="#">71</a>, <a href="#">72</a>, <a href="#">73</a>, <a href="#">74(1)</a>, <a href="#">75</a>, <a href="#">76</a>, <a href="#">77</a>, <a href="#">78(1)</a>, <a href="#">86(7)</a>, <a href="#">86(35)</a>, <a href="#">86(73)</a>, <a href="#">86(75)</a>, <a href="#">87(1)</a>, <a href="#">87(3)</a>, <a href="#">90</a>, <a href="#">92(1)</a>, <a href="#">93</a></p> |
| <p>The FAA should select Alternative 3a for reasons such as the following:</p> <ul style="list-style-type: none"> <li>• Angoon has limited land and needs room to expand.</li> </ul>  | <p><a href="#">79(1)</a>, <a href="#">81(2)</a>, <a href="#">86(1)</a>, <a href="#">86(9)</a>, <a href="#">86(11)</a>, <a href="#">86(19)</a>, <a href="#">86(28)</a>, <a href="#">86(46)</a>, <a href="#">86(54)</a>, <a href="#">86(59)</a>, <a href="#">86(60)</a>, <a href="#">86(61)</a>, <a href="#">86(66)</a>, <a href="#">86(72)</a></p>  |
| <p>The FAA should select the most fiscally responsible alternative</p>  | <p><a href="#">4</a>, <a href="#">86(21)</a></p>   |
| <p>The FAA should select the alternative that provides the greatest safety margins, including considerations of wind coverage and flight paths</p>  | <p><a href="#">55</a>, <a href="#">61(3)</a>, <a href="#">86(18)</a>, <a href="#">86(20)</a>, <a href="#">86(22)</a>, <a href="#">86(26)</a>, <a href="#">86(37)</a>, <a href="#">86(42)</a>, <a href="#">86(57)</a></p>   |
| <p>The FAA should protect the Kootznoowoo Wilderness</p>  | <p><a href="#">58(1)</a>, <a href="#">86(50)</a>, <a href="#">86(77)</a></p>   |
| <p>Airport 3a is the best location aeronautically however, 12a is aeronautically acceptable</p>   | <p><a href="#">87(4)</a></p>   |
| <p>Angoon needs an airport sooner rather than later</p>   | <p><a href="#">86(3)</a>, <a href="#">86(4)</a>, <a href="#">86(10)</a>, <a href="#">86(14)</a>, <a href="#">86(17)</a>, <a href="#">86(81)</a>, <a href="#">86(84)</a>,</p>   |
| <p>Angoon needs an airport to meet the safety and medevac needs of the community</p>  | <p><a href="#">86(8)</a>, <a href="#">86(25)</a>, <a href="#">86(44)</a>, <a href="#">86(56)</a>, <a href="#">86(79)</a></p>   |
| <p>Angoon needs an airport to meet the economic needs of the community</p>  | <p><a href="#">86(30)</a>, <a href="#">86(53)</a>, <a href="#">88(11)</a></p>  |
| <p>The Angoon community should be allowed to select the location of the airport</p>   | <p><a href="#">86(33)</a>, <a href="#">86(34)</a>, <a href="#">86(36)</a>, <a href="#">86(45)</a>, <a href="#">86(48)</a>, <a href="#">86(67)</a>, <a href="#">86(69)</a>, <a href="#">86(71)</a>, <a href="#">86(80)</a></p>  |
| <p>The FAA should address concerns about how much this project has cost to date</p>   | <p><a href="#">86(16)</a></p>  |
| <p>The FAA should not require the City to relinquish lands for airport development.</p>   | <p><a href="#">79(7)</a></p>   |

**Table 1. Comment themes**

Clicking on the link within the column “Comment ID” will take you directly to the location in Table 3 where this comment is captured.

| Comment Theme  | Representative Letters (Comment #, if applicable)                            |
|--|--|
| <b>Alternatives</b>  |  |
| The FAA should acknowledge that the DOT&PF does not intend to change their proposed action until they have concurrence from the Angoon community or the ANILCA process is complete   | <a href="#">87(8)</a>  |
| The FAA should consider additional alternatives to meet project purpose and need   | <a href="#">2, 3, 86(76), 86(83)</a>   |
| The FAA should disclose the location of the airport road   | <a href="#">80(2)</a>  |
| The FAA should not consider costs when evaluating alternatives   | <a href="#">86(62)</a>   |
| The FAA should disclose who will run the airport   | <a href="#">80(4), 80(7), 80(8)</a>  |
| The FAA should disclose the timeframe to building the airport  | <a href="#">81(3)</a>  |
| The FAA should consider future growth in the community when determining the airport size   | <a href="#">86(31), 86(52)</a>   |
| <b>Public and Agency Involvement and Coordination</b>  |  |
| The FAA should fully coordinate or consult with all affected parties, including the City of Angoon; address any misperceptions regarding consultation and coordinating agency roles and responsibilities; and provide requested information to complete the ANILCA application | <a href="#">79(2), 86(49), 88(10), 89(2), 91(18), 91(19), 91(21), 91(30)</a> |
| The FAA should acknowledge receipt of comments, provide impartial meeting locations, and clarify that all public may comment on the proposed project   | <a href="#">1, 67, 79(3)</a>   |
| The FAA should acknowledge the community of Angoon’s perspective on public involvement activities conducted to-date  | <a href="#">86(13), 86(27), 86(64)</a>                                       |
| The FAA should address concerns that if the most available location is not selected Angoon may lose the airport and that the Angoon community has already lost out on an airport before  | <a href="#">86(2), 86(23)</a>  |

**Table 1. Comment themes**

Clicking on the link within the column “Comment ID” will take you directly to the location in Table 3 where this comment is captured.

| Comment Theme  | Representative Letters (Comment #, if applicable)                      |
|--|--|
| <b>Laws, Regulations, and Other Policy Considerations</b>  |  |
| The FAA should revise the EIS to identify Alternative 12a as the only action alternative that satisfies all of the 1966 Transportation Law Section 4(f) and ANILCA Title XI criteria                             | <a href="#">58(3)</a> , <a href="#">68(2)</a> , <a href="#">70(1)</a>  |
| The Department of Transportation Act of 1966 and/or ANILCA Act of 1980 compel selection of an alternative outside of conservation system unit lands if one exists.   | <a href="#">84(1)</a> , <a href="#">87(2)</a> , <a href="#">92(2)</a>  |
| The FAA should clarify that other applicable laws and regulations beyond ANILCA must also be met as part of project obligations  | <a href="#">78(5)</a> , <a href="#">92(3)</a>                          |
| The FAA and cooperating agencies should recognize that other laws and regulations should not preempt the ANILCA Title XI process nor preclude the ultimate approval of an airport in wilderness                  | <a href="#">87(5)</a> , <a href="#">88(1)</a> , <a href="#">89(4)</a>  |
| The FAA should acknowledge that identification of a preferred alternative does not preempt completion of the Title XI process or influence independent agency decisions required under ANILCA Section 1104(g)(2) | <a href="#">89(1)</a>  |
| The FAA should incorporate the Coastal Zone Management Program documents.  | <a href="#">86(39)</a> , <a href="#">86(41)</a>                        |
| ANILCA Title XI and Tongass Timber Reform Act allow for the City, the Tribe, Kootznoowoo and USFS the right to co-manage the island.   | <a href="#">86(68)</a>   |
| The FAA should include a discussion of ANILCA Section 707 in the EIS.  | <a href="#">91(3)</a> , <a href="#">91(25)</a>                         |
| The FAA should include a Draft Guidelines evaluation in the EIS to support the USACE’s Section 404 permitting process.   | <a href="#">94(2)</a>  |
| <b>NEPA Process</b>  |  |
| The FAA should acknowledge USFS procedural NEPA requirements as they relate to the Angoon airport EIS.   | <a href="#">91(1)</a> , <a href="#">91(2)</a> , <a href="#">91(16)</a> |



**Table 1. Comment themes**

*Clicking on the link within the column “Comment ID” will take you directly to the location in Table 3 where this comment is captured.*

| Comment Theme   | Representative Letters (Comment #, if applicable)   |
|---|---|
| <b>Feasibility and Prudence</b>   |   |
| The FAA should provide a clear statement that Alternative 12a is an economically feasible and prudent alternative in the EIS      | <a href="#">70(4)</a>   |
| The FAA should evaluate prudence under 4(f) and ANILCA in the EIS, including analysis of socioeconomics and environmental justice | <a href="#">87(7)</a> , <a href="#">88(6)</a> , <a href="#">88(9)</a> , <a href="#">89(5)</a> |
| <b>4(f) Resources</b>   |   |
| The FAA should do an analysis to weigh the 4(f) impacts across all alternatives   | <a href="#">87(6)</a>   |
| The FAA should consider City platted parks to be 4f properties  | <a href="#">88(7)</a>   |
| The FAA should provide additional information on 4f and how it applies to the Angoon airport EIS.                                 | <a href="#">79(5)</a>   |
| The FAA should not make 4f determinations for City lands without City input.  | <a href="#">79(6)</a>   |
| <b>Air Quality and Climate Change</b>   |   |
| The FAA should provide more justification of construction air quality effects in the EIS  | <a href="#">91(6)</a> , <a href="#">91(12)</a>  |
| The FAA should expand the analysis of greenhouse gas emissions to consider increased automobile traffic                           | <a href="#">91(11)</a>  |
| <b>ANILCA Analysis</b>  |   |
| The FAA should address concerns that issues under considerations, as required by Section 1104, are not fully addressed in the EIS | <a href="#">88(2)</a>   |
| The FAA should identify which EIS impacts are of national and State significance, per ANILCA Section 1104(g)(2)(D), in the EIS    | <a href="#">70(5)</a>   |
| The FAA should disclose how the airport will effect ANILCA  | <a href="#">80(9)</a>   |

**Table 1. Comment themes**

*Clicking on the link within the column “Comment ID” will take you directly to the location in Table 3 where this comment is captured.*

| Comment Theme  | Representative Letters (Comment #, if applicable)  |
|--|--|
| <b>Aquatics</b>  |  |
| The FAA should work with other stakeholders to further avoid or minimize impacts to streams for 12a, as well as provide appropriate mitigation and compensation plans in the final EIS                       | <a href="#">78(3)</a>  |
| The FAA should respond to all State comments on aquatic resources (see specific comments in letter)  | <a href="#">89(9)</a> , <a href="#">89(10)</a> , <a href="#">89(11)</a> , <a href="#">89(12)</a> , <a href="#">89(13)</a> , <a href="#">89(14)</a> |
| <b>Compatible Land Use</b>   |  |
| The FAA should provide additional analysis and discussion of subsurface land ownership in the EIS  | <a href="#">61(1)</a>  |
| The FAA should clarify in the EIS that all Kootznoowoo, Inc. decisions regarding the sale or lease of their land, right of ways, and assets is in the control and discretion of its Board of Directors       | <a href="#">61(2)</a>  |
| The FAA should provide additional analysis of project impacts to City lands, as well as justify land use designations in the EIS (see specific comments in letter)   | <a href="#">79(4)</a>  |
| The FAA should more fully address impacts to ANSCA lands and uses in the EIS and provide mitigation for losses and monitoring  | <a href="#">78(2)</a>  |
| The FAA should respond to all USFS EIS comments on land ownership and rights as it relates to the Monument designation and corridor lands (see specific comments in letter)                                  | <a href="#">91(14)</a> , <a href="#">91(15)</a>  |
| The FAA should clarify whether acreage for land acquisition includes access roads  | <a href="#">91(7)</a>  |
| The FAA should expand the land use analysis to determine whether ANILCA requirements for Kootznoowoo corridor lands are satisfied, including effects to the rights of quiet enjoyment and development rights | <a href="#">91(13)</a>   |
| The FAA should disclose the effects to private property from the airport locations   | <a href="#">81(1)</a>  |

**Table 1. Comment themes**

Clicking on the link within the column “Comment ID” will take you directly to the location in Table 3 where this comment is captured.

| Comment Theme  | Representative Letters (Comment #, if applicable)  |
|--|--|
| <b>Cultural Resources</b>  |  |
| The FAA should document SHPO concurrence, or lack thereof, in the EIS and list effects as unknown until the Section 106 process is complete  | <a href="#">70(10)</a> , <a href="#">91(5)</a> , <a href="#">91(17)</a>                        |
| The FAA should address concerns over the adequacy of cultural resource surveys at Alternative 12a and include additional information in the EIS  | <a href="#">88(8)</a>  |
| The FAA should implement monitoring of historic properties   | <a href="#">91(20)</a>   |
| <b>Cumulative Impacts</b>  |  |
| The FAA should revise the cumulative impacts section to include reasonably foreseeable actions such as increased traffic use/noise, additional infrastructure developments, increased ATV use, increased trash and contaminants, and increased hunting and fishing pressure. | <a href="#">84(6)</a>  |
| <b>Environmental Justice</b>   |  |
| The FAA should revise the EIS environmental justice section to clearly identify the effects of the loss of long-term development opportunities   | <a href="#">88(4)</a>  |
| The FAA should revise the EIS environmental justice section to include socioeconomics as an evaluated resource   | <a href="#">88(5)</a> , <a href="#">89(6)</a>  |
| <b>Mitigation</b>  |  |
| The FAA should respond to all USFS and State EIS comments on mitigation (see specific comments in letters)   | <a href="#">89(15)</a> , <a href="#">91(28)</a> , <a href="#">91(29)</a>                       |
| The FAA should include a detailed compensatory mitigation plan in the EIS.   | <a href="#">94(3)</a>  |
| <b>Monument and Wilderness</b>   |  |
| The FAA should revise the EIS to address the long-term and nationally significant social-environmental impacts to the broadly supported values and purposes of Admiralty Island National Monument and Kootznoowoo Wilderness   | <a href="#">70(6)</a> , <a href="#">70(7)</a> , <a href="#">84(5)</a> , <a href="#">91(26)</a> |

**Table 1. Comment themes**

*Clicking on the link within the column “Comment ID” will take you directly to the location in Table 3 where this comment is captured.*

| Comment Theme   | Representative Letters (Comment #, if applicable)  |
|---|--|
| The FAA should document how proposed alternatives impact the expressed purposes for which the Monument was designated   | <a href="#">70(8)</a> , <a href="#">91(27)</a>   |
| The FAA should disclose if the airport alternatives will change the monument status   | <a href="#">80(6)</a>  |
| The FAA should respond to all USFS and State of Alaska EIS comments on wilderness analysis, including reported acreages, effects of access, and duration of impacts (see specific comments in letters)      | <a href="#">89(3)</a> , <a href="#">91(9)</a> , <a href="#">91(10)</a> , <a href="#">91(23)</a> , <a href="#">91(24)</a> |
| <b>Noise</b>  |  |
| The FAA should disclose noise impacts from Airport 12a  | <a href="#">86(47)</a> , <a href="#">86(74)</a>  |
| <b>Socioeconomics</b>   |  |
| The FAA should quantify the cost for road operation and maintenance in the EIS, including the projected costs of occupancy of Forest Service lands  | <a href="#">70(2)</a> , <a href="#">84(2)</a> , <a href="#">84(4)</a> , <a href="#">91(4)</a>                            |
| The FAA should compare alternatives’ travel time between Angoon and a central location, as well as address effects of decreased access or safety concerns due to lack of maintenance or snow/ice conditions | <a href="#">70(3)</a> , <a href="#">84(3)</a> , <a href="#">86(51)</a>   |
| The FAA should document in the EIS how Angoon’s long term economic plan would be impacted by action alternatives  | <a href="#">74(2)</a>  |
| The FAA should revise the EIS socio section to evaluate the impacts of the preferred alternative on the limited amount of land and lack of potential for future growth                                      | <a href="#">61(4)</a> , <a href="#">88(3)</a>  |
| The FAA should consider all project costs and total economic benefits to the community and region in the EIS  | <a href="#">61(5)</a>  |
| The FAA should disclose if the price for flying to Juneau will be less expensive than flying on the seaplane  | <a href="#">80(5)</a>  |
| The FAA should include community perspectives on socioeconomic needs and tradeoffs, as required by Section 1104   | <a href="#">89(8)</a>  |



**Table 1. Comment themes**

*Clicking on the link within the column “Comment ID” will take you directly to the location in Table 3 where this comment is captured.*

| Comment Theme  | Representative Letters (Comment #, if applicable)                      |
|--|--|
| The FAA should discuss if having an airport in Wilderness will allow the Angoon community to further use those lands for development and/or timber.  | <a href="#">86(6)</a> , <a href="#">86(12)</a>                         |
| <b>Subsistence</b>   |  |
| The FAA should disclose the impacts on subsistence, reassess EIS determinations of significance associated with subsistence resources and corresponding conclusions for environmental justice, and respond to all USFS EIS comments on subsistence (see specific comments in letter) | <a href="#">80(1)</a> , <a href="#">89(7)</a> , <a href="#">91(22)</a> |
| <b>Visual Resources</b>  |  |
| The FAA should consider the long-term visual effects of a road and airport built in a wilderness area  | <a href="#">91(8)</a>  |
| <b>Wetlands</b>  |  |
| The FAA should provide further description of activities that would involve land clearing activities in the EIS and quantify impacts   | <a href="#">94(1)</a>  |
| <b>Miscellaneous</b>   |  |
| The FAA should revise EIS maps to include flight path arrows   | <a href="#">70(9)</a>  |
| The FAA should identify the access route for Alternative 3 in the Executive Summary and Chapter 1  | <a href="#">78(4)</a>  |



**Table 2. List of all Letters/Emails/Fax/Testimony Received**

*Click on the link in the column "page for entire letter/email" to go directly to the letter/email*

| <b>ID #</b> | <b>Commenter Name</b>                     | <b>Commenter Organization</b> | <b>Page for Entire Letter/Email</b> |
|-------------|---|-------------------------------|-------------------------------------|
| 1           | Anthony DiNardo                           | Public                        | <a href="#">A-1</a>                 |
| 2           | Concerned Alaskan                         | Public                        | <a href="#">A-2</a>                 |
| 3           | Concerned Alaskan                         | Public                        | <a href="#">A-3</a>                 |
| 4           | Luke Nelson                               | Public                        | <a href="#">A-4</a>                 |
| 5           | Martha Jaegers                            | Public                        | <a href="#">A-5</a>                 |
| 6           | Jamake Petzak                             | Public                        | <a href="#">A-6</a>                 |
| 7           | Sally Mattison/Priscilla J. Mattison, Esq | Public                        | <a href="#">A-7</a>                 |
| 8           | Gene Whitaker                             | Public                        | <a href="#">A-8</a>                 |
| 9           | Jared Brenner                             | Public                        | <a href="#">A-9</a>                 |
| 10          | Lyn Lowry                                 | Public                        | <a href="#">A-10</a>                |
| 11          | Necia Refes                               | Public                        | <a href="#">A-11</a>                |
| 12          | Debra and David Ashton                    | Public                        | <a href="#">A-12</a>                |
| 13          | Donna Provance                            | Public                        | <a href="#">A-13</a>                |
| 14          | David and Betty Batty                     | Public                        | <a href="#">A-14</a>                |
| 15          | Sue McHenry                               | Public                        | <a href="#">A-15</a>                |
| 16          | Michelle Macy                             | Public                        | <a href="#">A-16</a>                |
| 17          | Fran Mauer                                | Public                        | <a href="#">A-17</a>                |
| 18          | Stephen Rosenblum                         | Public                        | <a href="#">A-18</a>                |
| 19          | Heather Payne                             | Public                        | <a href="#">A-19</a>                |
| 20          | Bob Brister                               | Public                        | <a href="#">A-20</a>                |
| 21          | Sybil Schlesinger                         | Public                        | <a href="#">A-21</a>                |
| 22          | Kristin Vyhna                             | Public                        | <a href="#">A-22</a>                |
| 23          | Bonnie MacRaith                           | Public                        | <a href="#">A-23</a>                |
| 24          | Marilyn Evenson                           | Public                        | <a href="#">A-24</a>                |
| 25          | Cecelia Samp                              | Public                        | <a href="#">A-25</a>                |
| 26          | Carol Ohlendorf                           | Public                        | <a href="#">A-26</a>                |
| 27          | Betty J. Van Wicklen                      | Public                        | <a href="#">A-27</a>                |
| 28          | Jim Ewing                                 | Public                        | <a href="#">A-28</a>                |



**Table 2. List of all Letters/Emails/Fax/Testimony Received**

*Click on the link in the column “page for entire letter/email” to go directly to the letter/email*

| <b>ID #</b>          | <b>Commenter Name</b>     | <b>Commenter Organization</b> | <b>Page for Entire Letter/Email</b> |
|----------------------|---------------------------|-------------------------------|-------------------------------------|
| 29                   | Marilyn Snyder            | Public                        | <a href="#">A-29</a>                |
| 30                   | Vince                     | Public                        | <a href="#">A-30</a>                |
| 31                   | Joe Ginsburg              | Public                        | <a href="#">A-31</a>                |
| 32                   | Sherry Olson              | Public                        | <a href="#">A-32</a>                |
| 33                   | Dr. Mark Waltzer          | Public                        | <a href="#">A-33</a>                |
| 34                   | Sandra Maar               | Public                        | <a href="#">A-34</a>                |
| 35                   | Wallace M. Elton          | Public                        | <a href="#">A-35</a>                |
| 36                   | Sandra Walters            | Public                        | <a href="#">A-36</a>                |
| 37                   | Bryan Wyberg              | Public                        | <a href="#">A-37</a>                |
| 38                   | Karen L. Naiman           | Public                        | <a href="#">A-38</a>                |
| 39                   | Sarah Stewart             | Public                        | <a href="#">A-39</a>                |
| 40                   | Sally Hayati              | Public                        | <a href="#">A-40</a>                |
| 41                   | Jean Public               | Public                        | <a href="#">A-41</a>                |
| 42                   | Lydia Garvey              | Public                        | <a href="#">A-42</a>                |
| 43                   | James Woods               | Public                        | <a href="#">A-43</a>                |
| 44                   | Steve Hylton              | Public                        | <a href="#">A-44</a>                |
| 45                   | Diana Artemis             | Public                        | <a href="#">A-45</a>                |
| 46                   | Dr. Jeremy Rossman        | Public                        | <a href="#">A-46</a>                |
| 47                   | Michael Garitty           | Public                        | <a href="#">A-47</a>                |
| 48                   | Judy Ann Cohen            | Public                        | <a href="#">A-48</a>                |
| 49                   | Cynthia Patterson         | Public                        | <a href="#">A-49</a>                |
| 50                   | Robert Havrilla           | Public                        | <a href="#">A-50</a>                |
| 51                   | Marcus J. Lanskey         | Public                        | <a href="#">A-51</a>                |
| 52                   | Jeff and Karen Wilson     | Public                        | <a href="#">A-52</a>                |
| 53                   | Joel Bennett              | Public                        | <a href="#">A-53</a>                |
| 54                   | Andy Romanoff             | Public                        | <a href="#">A-54</a>                |
| 55 (duplicate of 61) | Kootznoowoo Inc.          | Kootznoowoo Inc.              | <a href="#">A-55</a>                |
| 56                   | Catharine Ritchie Dorrier | Public                        | <a href="#">A-56</a>                |
| 57                   | Forrest Netzel            | Public                        | <a href="#">A-57</a>                |
| 58                   | Kevin Proescholdt         | Wilderness Watch              | <a href="#">A-58</a>                |

**Table 2. List of all Letters/Emails/Fax/Testimony Received**

*Click on the link in the column "page for entire letter/email" to go directly to the letter/email*

| ID #                                   | Commenter Name                                      | Commenter Organization                              | Page for Entire Letter/Email |
|--|---|---|------------------------------|
| 59                                     | Karla Hart  | Public  | <a href="#">A-59</a>         |
| 60                                     | Philip Johnson                                      | U.S. Department of the Interior                     | <a href="#">A-60</a>         |
| 61                                     | Kootznoowoo Inc.                                    | Kootznoowoo Inc.                                    | <a href="#">A-61</a>         |
| 62 (duplicate of 61)                   | Kootznoowoo Inc.                                    | Kootznoowoo Inc.                                    | <a href="#">A-62</a>         |
| 63                                     | Heather Best  | Public  | <a href="#">A-63</a>         |
| 64                                     | Frank Rue   | Public  | <a href="#">A-64</a>         |
| 65                                     | Bart Koehler  | Public  | <a href="#">A-65</a>         |
| 66                                     | K.J. and Peggy Metcalf                              | Public  | <a href="#">A-66</a>         |
| 67                                     | Friends of Admiralty Island                         | Friends of Admiralty Island                         | <a href="#">A-67</a>         |
| 68                                     | Kevin Proescholdt                                   | Wilderness Watch                                    | <a href="#">A-68</a>         |
| 69                                     | Butch Laughlin & Sarah Dunlap                       | Alaska Fly "N" Fish Charters                        | <a href="#">A-69</a>         |
| 70                                     | Forest Service Employees for Environmental Ethics   | Forest Service Employees for Environmental Ethics   | <a href="#">A-70</a>         |
| 71                                     | Ric Iannolino                                       | Public  | <a href="#">A-71</a>         |
| 72                                     | Christopher Lish                                    | Public  | <a href="#">A-73</a>         |
| 73                                     | Julie Koehler                                       | Public  | <a href="#">A-75</a>         |
| 74                                     | Friends of Admiralty Island                         | Friends of Admiralty Island                         | <a href="#">A-77</a>         |
| 75 (duplicate of 71)                   | Ric Iannolino                                       | Public  | <a href="#">A-82</a>         |
| 76                                     | Judith Maier  | Public  | <a href="#">A-85</a>         |
| 77                                     | Quinn Sharkey                                       | Public  | <a href="#">A-87</a>         |
| 78                                     | Christine B. Reichgott                              | U.S. Environmental Protection Agency                | <a href="#">A-89</a>         |
| 79                                     | Matt Kookesh  | City of Angoon                                      | <a href="#">A-92</a>         |
| 80                                     | Cynthia Ann Frank                                   | Public  | <a href="#">A-95</a>         |
| 81                                     | Doris Williams                                      | Public  | <a href="#">A-97</a>         |
| 82 (see also letter 87, comment 4-8)   | Verne Skagerberg                                    | Alaska DOT&PF                                       | <a href="#">A-99</a>         |
| 83 (see also letter 86, comment 46-49) | Matt Kookesh  | City of Angoon                                      | <a href="#">A-101</a>        |
| 84                                     | Mark Rorick   | Sierra Club   | <a href="#">A-102</a>        |
| 85                                     | Various - Juneau, Alaska public hearings transcript | Various - Juneau, Alaska public hearings transcript | <a href="#">A-109</a>        |



**Table 2. List of all Letters/Emails/Fax/Testimony Received**

*Click on the link in the column "page for entire letter/email" to go directly to the letter/email*

| <b>ID #</b> | <b>Commenter Name</b>                               | <b>Commenter Organization</b>                       | <b>Page for Entire Letter/Email</b> |
|-------------|---|---|-------------------------------------|
| 86          | Various - Angoon, Alaska public hearing transcript  | Various - Angoon, Alaska public hearing transcript  | <a href="#">A-111</a>               |
| 87          | Various - Washington D.C. Public Hearing Transcript | Various - Washington D.C. Public Hearing Transcript | <a href="#">A-128</a>               |
| 88          | Verne Skagerberg                                    | Alaska DOT&PF                                       | <a href="#">A-131</a>               |
| 89          | Susan Magee   | State of Alaska                                     | <a href="#">A-132</a>               |
| 90          | Jack Hession  | Public  | <a href="#">A-133</a>               |
| 91          | Beth Pendleton                                      | U.S. Forest Service                                 | <a href="#">A-134</a>               |
| 92          | Buck Lindekugel                                     | Southeast Alaska Conservation Council (SEACC)       | <a href="#">A-135</a>               |
| 93          | Irene Alexakos                                      | Public  | <a href="#">A-136</a>               |
| 94          | Randal Vigil  | U.S. Army Corps of Engineers                        | <a href="#">A-137</a>               |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name    | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|-------------------|------------------------|---|
| 1                | 1         | Anthony DiNardo   | Public                 | I have a question regarding the comment period for the Draft EIS. Do you accept public comment from anyone (i.e., I live in new york state) or just from the local citizens/Alaska residents?   |
| 2                | 1         | Concerned Alaskan | Public                 | Has anyone considered building a tunnel (yellow on map) from the floatplane base across the entrance to Favorite Bay, come up above ground for about 2/3 mile (purple on map), start a tunnel again to for 2/3 mile, and finally an above ground road to the Site 3a location?  |
| 3                | 1         | Concerned Alaskan | Public                 | I am writing to express my concern that no consideration was given to a ship-based airport. Specifically, I propose towing a decommissioned aircraft carrier to Angoon and permanently docking the ship in Favorite Bay. The USS Constellation, a Kitty-Hawk class aircraft carrier, was recently decommissioned by the U.S. Navy and is awaiting dismantling in Brownsville, Texas. This cost of acquiring the ship and towing it to Angoon is far less than the construction of a new airport on Admiralty Island. Since the runway length of an aircraft carrier is under 1,000', aircraft flying to or from Angoon will require special modification to accommodate the initial slingshot propulsion. Alternatively, the USS Enterprise, another Kitty-Hawk class aircraft carrier, is scheduled for decommission later this year. If both ships were acquired, they could be attached at the end of the runways, effectively doubling the length. Thank you for considering this alternative. I look forward to your response. |
| 4                | 1         | Luke Nelson       | Public                 | My only comment regarding the Airport Location selection, is that DOT would use Responsible Economics in making that selection.<br>The State of Alaska is in serious Funding trouble regarding our Oil Revenues, and our nation is by now 18 Trillion dollars in debt.<br><br>If we spend moneys that are "not directly" related to building an airstrip, then other's that have Needs, will be without funding.<br>Lets just spend Responsibly.  |
| 5                | 1         | Martha Jaegers    | Public                 | I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.<br>Please do not intrude into Wilderness areas.  |
| 6                | 1         | Jamaka Petzak     | Public                 | I support selection of the Alternative 12a with Access 12a (the Non-Wilderness location for the airport and road) or the No Action Alternative.   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name                               | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|--|------------------------|---|
| 7                | 1         | Priscilla J. Mattison, Esq. (Sally Mattison) | Public                 | As a concerned conservationist, I am very glad to hear that the FAA has rejected for now a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska, and has instead recommended a site where the lands are privately owned or owned by the local community.<br><br>I strongly support either the FAA's selection of Alternative 12a with Access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative. |
| 8                | 1         | Gene Whitaker                                | Public                 | I urge FAA to keep this airport out of the Wilderness Area and approve Alternative 12a with Access 12a or the No Action Alternative.  |
| 9                | 1         | Jared Brenner                                | Public                 | I support either its selection of Alternative 12a with Access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative.   |
| 10               | 1         | Lyn Lowry                                    | Public                 | Please follow the FAA's recommendation to build the new airport on privately owned lands or those of the local community. The Kootznoowoo Wilderness should not be marred by an airport and access road. This airport should be located elsewhere and our remaining wilderness areas should be protected from development.  |
| 11               | 1         | Necia Refes                                  | Public                 | It is of paramount importance that we keep and maintain our wild spaces as wild spaces with no invasion of any kind. These areas are important as they help off-set our environmental impact.<br><br>i am in total support of your selection of alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  |
| 12               | 1         | Debra and David Ashton                       | Public                 | I am writing to tell you that I support the FAA's selection of Alternative 12a with Access 12a (non-wilderness location for the airport and the road) or the No Action Alternative. Under no circumstances do I want the airport/road to be built in the Kootznoowoo Wilderness area on Admiralty Island. The wilderness must remain intact and unscathed by commercial development.  |
| 13               | 1         | Donna Provance                               | Public                 | I support the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   |
| 14               | 1         | David and Betty Batty                        | Public                 | The Federal Aviation Administration (FAA) has rejected for now a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name    | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|-------------------|------------------------|---|
|                  |           |                   |                        | southeast Alaska. The FAA has instead recommended a site where the lands are privately owned or owned by the local community  |
| 15               | 1         | Sue McHenry       | Public                 | I oppose any construction in a wilderness area on Admiralty Island.   |
| 16               | 1         | Michelle Macy     | Public                 | I support either the selection of Alternative 12a with Access 12a (non-wilderness location for airport and road) or the No Action Alternative.  |
| 17               | 1         | Fran Mauer        | Public                 | I am pleased to learn that the FAA has selected alternative 12a which would keep the airport out of designated Wilderness lands. I support this decision because it allows for development of the airport, but leaves the Wilderness lands alone, as they were intended to be.    |
| 18               | 1         | Stephen Rosenblum | Public                 | I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  |
| 19               | 1         | Heather Payne     | Public                 | Thank you for the opportunity to comment on the Angoon Airport EIS. I support either the selection of Alternative 12a with Access 12a or the No Action Alternative. Both these would continue to support wilderness.  |
| 20               | 1         | Bob Brister       | Public                 | Thank you for rejecting a proposal from the State of Alaska to build a new airport and access road in the Kootznoowoo Wilderness on Admiralty Island. We have too few designated wilderness areas. Existing wilderness like Kootznoowoo should never be degraded.                 |
| 21               | 1         | sybil Schlesinger | Public                 | I am writing to urge support for either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   |
| 22               | 1         | Kristin Vyhna     | Public                 | I am writing to register my support for keeping the Kootznoowoo Wilderness intact, and moving the proposed airport and access roads to privately or community owned lands as per Alternative 12a and Access 12a. If these fail to pass I would support the No Action Alternative. |
| 23               | 1         | Bonnie MacRaith   | Public                 | I support either your selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   |
| 24               | 1         | Marilyn Evenson   | Public                 | Thank you, FAA, for rejecting the proposal from Alaska to build a new airport & access road in the Kootznoowoo Wilderness. I support either Alternative 12a with Access 12a (the non-Wilderness location) or the No Action Alternative.   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name       | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------------|------------------------|---|
|                  |           |                      |                        | Let us leave the wild to wilderness because once humans invade it, it slowly disappears. When it is gone, it is gone forever with all its wildlife.   |
| 25               | 1         | Cecelia Samp         | Public                 | It makes sense to use land that is privately owned or community owned for the Angoon Airport rather than take land from the Kootznoowoo Wilderness on the Admiralty Island. Logic dictates preserving the wilderness and take advantage of other opportunities for this airport.  |
| 26               | 1         | Carol Ohlendorf      | Public                 | Please spare the Kootznoowoo Wilderness from Airport and road construction. I support either your selection of Alternative 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   |
| 27               | 1         | Betty J. Van Wicklen | Public                 | <p>I am writing to submit my comments on the FFA proposal for airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. I urge you to protect the wilderness areas of Kootznoowoo by selecting Alternative 12a with access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative</p> <p>Alaska has some of the best and last of our true wilderness areas, and even the FAA, in its proposal, has recognized this by proposing the least invasive way to complete the access to the airport. Particularly, in this time of changing climate, we must do all we possibly can to preserve the unique and very fragile wilderness areas of Alaska in order to provide as much a chance as possible to provide havens for animals which would not survive in other conditions or food sources, particularly when we have ready alternatives.</p> |
| 28               | 1         | Jim Ewing            | Public                 | Please protect the Koontzoonoo Wilderness - I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  |
| 29               | 1         | Marilyn Snyder       | Public                 | I support selection of Alternative 12A with access 12A (the non-Wilderness location for the airport or road) or the No Action alternative.  |
| 30               | 1         | Vince                | Public                 | <p>FAA, we support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.</p> <p>Take an run down area in a city or a property that has already been "developed" that is abandoned and build there but not in a wilderness area or anywhere near it.</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|------------------|------------------------|---|
| 31               | 1         | Joe Ginsburg     | Public                 | I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  |
| 32               | 1         | Sherry Olson     | Public                 | <p>Please reconsider construction of the airport in the Kootznoowoo Wilderness.</p> <p>The Federal Aviation Administration (FAA) has rejected for now a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. The FAA has instead recommended a site where the lands are privately owned or owned by the local community. The FAA’s recommendation is contained in the Angoon Airport Draft Environmental Impact Statement released in early January.</p>  |
| 33               | 1         | Dr. Mark Waltzer | Public                 | I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  |
| 34               | 1         | Sandra Maar      | Public                 | <p>The Alaskan Wilderness areas must be protected from development not only to ensure that these areas and the wildlife that thrives within them will be there for subsequent generations to enjoy but also to aid in balancing global warming trends and related pollution.</p> <p>An airport through any Federally protected area is contrary to the Wilderness act and would not be in the best interest of the American People.</p> <p>Therefore, I ask that you support either the Alternative 12a with Access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative.</p>   |
| 35               | 1         | Wallace M. Elton | Public                 | As both a supporter of designated Wilderness and one who has visited Southeast Alaska several times, I oppose siting the airport on land designated as Wilderness. Furthermore, I do not believe that every village requires or can have an airport. In my view, Angoon does not need one. Even located outside Wilderness lands, the activity at an airport would seriously intrude on the very qualities the Wilderness designation was intended to protect and erode Wilderness values that people like me pay to come an enjoy. As you note, “Airport 12a would degrade opportunities for solitude in the wilderness area as a result of light emissions during construction and operation, overhead aircraft noise, and temporary construction noise.” |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name  | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|-----------------|------------------------|--|
|                  |           |                 |                        | Therefore, I support the No Action Alternative first. If an airport is to be built, then it must be outside designated Wilderness and I support Airport 12A with Access 12A. I oppose Airport 3A and 4 with either access.   |
| 36               | 1         | Sandra Walters  | Public                 | I support either FAA's selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   |
| 37               | 1         | Bryan Wyberg    | Public                 | <p>I am writing to express my support of the Alternative 12a with Access 12a or the No Action Alternative. Please ensure that the final record of decision is for a non-wilderness location for the airport and road.</p> <p>I think it would be a tragedy for future generations if the wilderness area protected by Congress were diminished by the development of an airport on its lands. There is certainly plenty of private land that can be used for this purpose. There is no justification for reducing wilderness acreage for the purpose of building an airport or road.</p> <p>Again, please ensure that political pressure does not influence the final record of decision. Make sure that the sound reasoning that led to the preferred alternative of 12a is maintained. Or better yet, chose the no action alternative.</p> |
| 38               | 1         | Karen L. Naiman | Public                 | I am against any airport/road being built.   |
| 39               | 1         | Sarah Stewart   | Public                 | <p>I am pleased that there is an FAA Plan that would spare Kootznoowoo Wilderness from airport and road construction.</p> <p>I am writing to say that I support either the selection of Alternative 12a with Access 12a (the non-wilderness location for the airport and road) or the No Action Alternative.</p>   |
| 40               | 1         | Sally Hayati    | Public                 | I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative for the Angoon Airport.  |
| 41               | 1         | Jean Public     | Public                 | put that airport in the town on private land. the faa recommendation is the way to go. why turn wilderness into crap like everything else in this world. save and protect nature. this comment is for the public record. please receipt.   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name     | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|--------------------|------------------------|---|
| 42               | 1         | Lydia Garvey       | Public                 | I strongly urge you support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.<br>Do your job- Protect Our Public lands, waters, wildlife, health & future! You work for citizens, not industry!<br>Your attention to this most urgent matter would be much appreciated by all present & future generations of all species. |
| 43               | 1         | James Woods        | Public                 | I write to request the Federal Aviation Administration reject any and all proposals to construct airports within a wilderness area.<br>Wilderness does not have roads and airports . . . period.<br><br>Please select alternative 12a of the Angoon Airport DEIS as the action alternative. Otherwise, No Action.   |
| 44               | 1         | Steve Hylton       | Public                 | Thanks for letting me comment, as for the airport I prefer the No Action Alternative. Reason being is there are enough airports already and they are to noisy 24/7 and Im especially opposed to having it built adjacent to a wilderness as this ruins wilderness character. Alaskas wildlands are to valuable to have anything like an airport being built   |
| 45               | 1         | Diana Artemis      | Public                 | I support your selection of Alternative 12a with Access 12a, the non-Wilderness location for the airport and road.  |
| 46               | 1         | Dr. Jeremy Rossman | Public                 | In regards to the request for public comments on the EIS for the Kootznoowoo Wilderness Angoon Airport, I am writing to express my support of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  |
| 47               | 1         | Michael Garitty    | Public                 | I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  |
| 48               | 1         | Judy Ann Cohen     | Public                 | Please note that I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.   |
| 49               | 1         | Cynthia Patterson  | Public                 | Please accept these comments regarding the DEIS for a proposed airport in the Kootznoowoo Wilderness, on Admiralty Island, Alaska.  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name        | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|-----------------------|------------------------|--|
|                  |           |                       |                        | I agree the airport should be built on privately owned and community owned land and NOT in the wilderness area.<br>I support Alternative 12a with Access 12a or the No Action Alternative.   |
| 50               | 1         | Robert Havrilla       | Public                 | With regard to the subject EIS, I support and request that the FAA support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.  |
| 51               | 1         | Marcus J. Lanskey     | Public                 | The Kootznoowoo Wilderness must be compromised by airport construction within the wilderness. I support either its selection of Alternative 12a with Access 12a (the non- Wilderness location for the airport and road) or the No Action Alternative.  |
| 52               | 1         | Jeff and Karen Wilson | Public                 | We are writing in support of the FAA's preferred alternative 12a for the Angoon airport location. 12a makes the best sense by far, due to its close proximity to Angoon and its lower cost. The use of utilities and a road already in existence not only play into the lower cost, but will also help to keep environmental impact at a minimum.<br><br>In our travels between Juneau and Tenakee, we often visit Angoon by ferry or float plane. We highly value the wilderness setting and subsistence lifestyle of Angoon, and want to see that lifestyle and the fish and wildlife habitat protected as much as possible. The DOT proposed alternative 3a would have very negative impacts on both environment and finances...we can't afford that.<br><br>Please support alternative 12a to provide the best possible airport for Angoon while honoring and protecting the standards of the Admiralty Island Wilderness and National Monument. |
| 53               | 1         | Joel Bennett          | Public                 | This is to support the FAA's preferred alternative 12a, for the site of an airport runway and facility in Angoon, Alaska.<br><br>I am very familiar with Angoon, having travelled there for work and pleasure over the course of a 47 year residency in Southeast Alaska.<br><br>The village is confined to a very narrow stretch of land, with a single short road leading to the ferry terminal area. This allows easy access for village residents.   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|------------------|------------------------|---|
|                  |           |                  |                        | <p>A small airport off this existing road, as specified in the FAA alternative, would be the most convenient for the most people, many of whom have very limited resources and no access to a vehicle.</p> <p>I see 5 main reasons for rejecting Alternative 3a: (1) constructing a new road several miles longer would mean more expense and trouble for people to travel back and forth to the village; (2) the weather is more stable in the flatter land closer to Chatham Straits. As a part time resident of Funter bay, to the north of Angoon on Admiralty, I know that the closer you get to the hills and mountains of the island, the more the winds impact air travel; (3) It is much a much more expensive alternative when there is already a road and infrastructure in place from the village to the ferry terminal at the present time; (4) there would be unnecessary and harmful impacts to wildlife resources if a road and runway were constructed in an area that has not had previous development; and (5) locating a road and airport in a National Monument Wilderness is an unacceptable precedent and impact to lands recognized by Congress for their national values.</p> <p>I urge adoption of the FAA preferred alternative 12a.</p> |
| 54               | 1         | Andy Romanoff    | Public                 | <p>I am writing in regards to the draft EIS for the proposed Angoon Airport. I feel strongly that the FAA's Airport Alternative 12A is the most appropriate plan for Angoon. This alternative offers a facility that is close to town, near existing transportation, road and power installations, would require the least amount of winter and annual maintenance, does not require the construction of a road and the associated expenses and impacts to wilderness values.</p> <p>The alternatives offered by DOT make very little economic sense and offer an approach that is wasteful and unnecessary. This is an airport project, not a road building project.</p>   |
| 55               | 1         | Kootznoowoo Inc. | Kootznoowoo Inc.       | <p>I am writing to offer comments on behalf of Kootznoowoo, Inc., regarding the Final Environmental Impact Statement (FEIS). On December 6, 2013, Kootznoowoo Inc. provided comments, via email and we incorporate those comments by reference and enclose a copy for your files. We would also reiterate our concerns for a safe and reliable airport.</p> <p>After consulting with Alaska Seaplanes, Angoon's primary air carrier, it appears the wilderness option</p>   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name            | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|---------------------------|------------------------|--|
|                  |           |                           |                        | <p>(Alternative 3(a)) provides the largest safety margin for Angoon Airport . The prevailing winds are from the southeast which is how the runway is aligned. Winds are more predictable with less turbulence from tree tops. There are always two approach and departure routes. Lastly, there is less potential for harm to Angoon residents should there ever be a mechanical failure on one of the airplanes.</p> <p>Kootznoowoo, Inc. has been consistent in expressing the need for a safe and reliable airport. Whatever alternative is selected, we expected safety to be the standard by which each alternative is evaluated.</p>   |
| 56               | 1         | Catharine Ritchie Dorrier | Public                 | <p>I support alternative 12a. This location is closest to the town of Angoon, and has minimal impact on the beautiful and pristine natural environment. This alternative utilizes existing infrastructure, and has the lowest cost.</p> <p>The AK Dept of Transportation's favored alternative, 3A, has the potential for huge negative impacts on the Admiralty Island National Monument and Wilderness. The Monument and Wilderness has a significant ecosystem that will be more affected by alternative 3A.</p>  |
| 57               | 1         | Forrest Netzel            | Public                 | <p>I am writing to express my displeasure with the idea of building an airport and road in the Kootznoowoo Wilderness. There are alternatives available outside the wilderness which should be used instead. I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.</p>  |
| 58               | 1         | Kevin Proescholdt         | Wilderness Watch       | <p>These features all derive from Admiralty Island's intact natural integrity and undegraded wilderness character. As an irreplaceable and unparalleled crown jewel of the National Wilderness Preservation System, the Kootznoowoo Wilderness must be protected by whichever alternative is selected in the Final EIS.</p>  |
| 58               | 2         | Kevin Proescholdt         | Wilderness Watch       | <p>All four of the options dealing with Airport 3a and Airport 4 will irreparably and irretrievably damage the Kootznoowoo Wilderness by building an airport and access road within the wilderness boundaries. These actions directly contravene the Wilderness Act's intent to ensure that not all lands are occupied and modified by humankind. They would seriously degrade the superlative values of the conservation units established by the Alaska National Interest Lands Conservation Act, including "unrivaled scenic and geological values associated with natural landscapes," "sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name    | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|-------------------|------------------------|--|
|                  |           |                   |                        | <p>dependent on vast relatively undeveloped areas,” “extensive unaltered ... coastal rainforest ecosystems” and “opportunities for scientific research and undisturbed ecosystems.” Only the No Action alternative and the Airport 12a with Access 12a will prevent irreparable and irretrievable damage to the Kootznoowoo Wilderness.</p> <p>Airport 12a with Access 12a would be located on lands owned or managed by private landowners; Kootznoowoo, Inc. (the local Alaska Native corporation); and the City of Angoon. Both the airport and access road would be on the Angoon peninsula southeast of the community of Angoon; no part of this alternative would be located in the Kootznoowoo Wilderness. Access 12a would begin at the existing BIA Road and travel directly to the proposed airport location.</p> <p>Unlike the access roads to Airport 3a or Airport 4, this road would be built wider to two 10-foot lanes with 5-foot shoulders and would require no bridge.</p> <p>Wilderness Watch believes that the only alternatives in the Angoon Airport DEIS that would protect the Kootznoowoo Wilderness and meet the decision criteria found in ANILCA Title XI are the No Action alternative and the alternative for Airport 12a with Access 12a (the FAA’s preferred alternative). Because of this conclusion, Wilderness Watch supports either the No Action alternative or the alternative for Airport 12a with Access 12a, the non-wilderness alternative.</p> |
| 58               | 3         | Kevin Proescholdt | Wilderness Watch       | <p>ANILCA Section 1104(g) requires that each federal agency make a tentative decision to approve or disapprove the transportation and utility system. The tentative decisions would be based on the detailed findings in this EIS and the Standard Form 299 application for eight ANILCA decision criteria. The second criterion in particular has significant bearing on the Angoon Airport proposal:</p> <p>“(B) alternative routes and modes of access, including a determination with respect to whether there is any economically feasible and prudent alternative to the routing of the system through or within a conservation system unit, national recreation area, or national conservation area and, if not, whether there are alternative routes or modes which would result in fewer or less severe adverse effects on the conservation system unit.”</p>   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | <p>ANILCA, Sec. 1104(g)(2)(B) (emphasis added)</p> <p>Of the action alternatives analyzed in the Angoon Airport DEIS, the alternative for Airport 12a with Access 12a represents an economically feasible and prudent alternative to building the airport and access road within the Kootznoowoo Wilderness. Because this alternative exists, the other action alternatives should not be selected in the Final EIS.</p> <p>ANILCA Section 1103 also reaffirms that other applicable laws must apply. This means that Section 4(f) of the 1966 Department of Transportation Law applies (prohibiting transportation projects in areas like the Kootznoowoo Wilderness unless “there is no prudent and feasible alternative t using that land.”) Thi law provide another statutory reason why the Kootznoowoo Wilderness cannot be selected as a site fo the airport or road when other viable options exist.</p>  |
| 59               | 1         | Karla Hart     | Public                 | <p>I strongly support the FAA preferred option of 12A for the following reasons:</p> <ul style="list-style-type: none"> <li>Lower costs over the DOT preferred alternative.</li> <li>Less road to maintain (and improve).</li> <li>No bridge to build, maintain and some day replace.</li> <li>A roadway with shoulders will better allow the community to walk and bike safely along the roadway to access the airport or simply get exercise.</li> <li>Shorter travel distance to/from the airport will make already expensive air travel a bit more affordable by reducing taxi and other transportation costs for residents and visitors. Travel time will also be a bit less.</li> <li>Shorter construction time.</li> <li>No intrusion into the wilderness area.</li> <li>Less environmental impacts in so many ways, from amounts of hardened surface and fill to resources for construction to surface disturbance to number of streams impacted.</li> <li>Less roadway for the City of Angoon to patrol and provide emergency medical services for the inevitable accidents and incidents.</li> <li>Reduces transport of invasive plants into the wilderness area along the roadway corridor.</li> <li>Protects wildlife from habitat fragmentation, increased roadway access for hunting and poaching, and roadkill.</li> </ul> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization     | Comment Text Verbatim   |
|------------------|-----------|------------------|----------------------------|---|
|                  |           |                  |                            | I am a Juneau resident whose family has owned property on Killisnoo Island since about 1973. I have traveled to Angoon by air and ferry and recreate in Mitchell Bay.   |
| 60               | 1         | Philip Johnson   | U.S. Dept. of the Interior | <p>The U.S. Department of the Interior (Department) has reviewed the Draft EIS and Draft Section 4(f) Evaluation for the Proposed Angoon Airport and has the following comments to offer for your consideration. Our comments are based on authorities found in Section 4(f) of the Department of Transportation Act of 1966 and the National Environmental Protection Act of 1970.</p> <p>SECTION 4(F) EVALUATION COMMENTS</p> <p>The Department concurs that there is no feasible and prudent alternative that completely avoids the use of Section 4(f) property because the Federal Aviation Administration's (FAA)-preferred alternative will have a de minimis impact on two Section 4(f) resources. We also recognize that uses of 4(f) properties with de minimis impacts do not require 4(f) concurrence from the Department.</p> <p>The Department concurs that the FAA-preferred alternative (Airport 12a with Access 12a) is a feasible and prudent alternative to the proposed alternative (Airport 3a with Access 2), which would result in Section 4(f) physical use of the Admiralty Island National Monument and the Kootznoowoo Wilderness Area. The FAA-preferred alternative avoids physical use of the Monument-Wilderness.</p> <p>SUMMARY COMMENTS</p> <p>The Department has no objection to Section 4(f) approval of the FAA-preferred alternative, contingent upon the Alaska State Historic Preservation Office's concurrence on the findings of no adverse effect for the two impacted 4(f) properties.</p> |
| 61               | 1         | Kootznoowoo Inc. | Kootznoowoo Inc.           | More work, with resulting analysis, is necessary with respect to subsurface ownership which may or may not change the analysis.   |
| 61               | 2         | Kootznoowoo Inc. | Kootznoowoo Inc.           | Kootznoowoo, Inc.'s decision to sell or lease land, right of ways and assets is completely in the control and discretion of its Board of Directors and not the General Manager. See comments in DEIS attributed   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|------------------|------------------------|---|
|                  |           |                  |                        | to General Manager of Kootznoowoo.  |
| 61               | 3         | Kootznoowoo Inc. | Kootznoowoo Inc.       | We strongly urge the FAA to reject alternatives with inferior location and orientation and not just settle for what is acceptable. A Wilderness or Monument impact should not outweigh the need for an airport that offers the greatest benefits for aviation operators and the public. The whole purpose of constructing an airport in Angoon is to bring the benefit of wheel plane service and its relative safety and reliability versus the community's current floatplane only access. These primary benefits of an airport are however shortchanged if the FAA proceeds with an inferior location for the airport based on the land status only. Title 11 of ANILCA provides a means for Wilderness/Monument alternatives in order to provide for the best decisions related to airport orientation. We urge the FAA to carry forward with the agency's primary mission as the top consideration--siting of an airport that offers the greatest benefits to aviation operators and the traveling public. |
| 61               | 4         | Kootznoowoo Inc. | Kootznoowoo Inc.       | Noise, air pollution, other flight impacts need to be better assessed in both absolute terms and economic impacts and set forth in the DEIS. Angoon is completely bounded by a wilderness area and limiting alternatives to only private lands and lands owned by the City of Angoon has a significant impact to remaining lands which need to be better described.   |
| 61               | 5         | Kootznoowoo Inc. | Kootznoowoo Inc.       | Ancillary development opportunities along the road ways and outside of wilderness and monument areas presents a significant economic development opportunity to leverage this project. Road costs and cost of lands needed to purchased must be estimated as well as total economic benefits to the community and region must be more fully described in the analysis of alternatives.  |
| 62               | 1         | Kootznoowoo Inc. | Kootznoowoo Inc.       | This comment letter is a duplicate of letter 61.  |
| 63               | 1         | Heather Best     | Public                 | I support the option of location 12A for building an airport for the community of Angoon. Having a site near town makes the most sense in terms of easy of maintenance, building costs, and convenience of access for the local population. Please select the more reasonable choice, 12A.  |
| 64               | 1         | Frank Rue        | Public                 | I support the FAA's preferred alternative (12a) for the Angoon airport. The FAA alternative is preferred because it is closest to town, is safe, uses existing infrastructure, has the best access for people, does not require road maintenance for a long road around Favorite Bay, AND does not compromise National monument values that the DOT alternatives do compromise. I have spent a lot of time in Angoon, Favorite Bay and mitchell Bay and I know that the FAA alternative is the best for all of the reasons FAA has stated and that I have mentioned here.   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
| 65               | 1         | Bart Koehler   | Public                 | <p>I want to personally go on record in strong support of the FAA's preferred alternative (12a) for the proposed Angoon Airport. I also want to endorse any and all comments submitted to you by Friends of Admiralty Island.</p> <p>Alternative 12a proposes the most sensitive and sensible alternative that both honors the need for a reliable and safe airport for Angoon, plus protects the natural and cultural integrity of Admiralty Island National Monument and Wilderness.</p> <p>Furthermore, the FAA preferred alternative 12a is: the closest to Angoon; uses existing roads and utilities; minimizes environmental impacts; and is the least costly of the action alternatives.</p> <p>It sure seems to me that selecting the FAA's 12a preferred alternative should be the easiest, most compelling, and most cost-effective slam-dunk decision you could possibly make.</p> <p>In stark contrast to the FAA's alternative 12a, the Alaska Department of Transportation's proposed alternative 3a would cost twice as much as the FAA's alternative 12a; is the furthest from Angoon, has major impacts on fish and wildlife habitat and subsistence areas, and would require the construction and maintenance of 5 miles of new road, to boot. It must be noted that the FAA's proposed alternative locates the new airport right along the existing main road from the ferry terminal to the village of Angoon: this is the most practical place for this facility, and will cost the least amount of funding ---- something to very mindful about during these times of federal and state budgets being seriously stressed. Moreover, the wrong-headed AKDOT's proposed alternative 3a would take far longer to implement and construct ---- because under 3a the airport would be located (with serious impacts) within the Admiralty Island National Monument and Wilderness Area and therefore would require approval/special dispensation by the U.S. House and Senate and the President of the United States. (This could add many more years of delay to a project that has been delayed for a long time already.)</p> <p>Again, I strongly support the FAA preferred alternative 12a, and quite definitely oppose the AKDOT's alt. 3a.</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name              | Commenter Organization      | Comment Text Verbatim  |
|------------------|-----------|-----------------------------|-----------------------------|--|
| 66               | 1         | K.J. and Peggy Metcalf      | Public                      | <p>We, support the FAA's preferred alternative 12a over DOT's proposed action 3a for the following reasons:</p> <ul style="list-style-type: none"> <li>• More efficient and safer medivac Easier access</li> <li>• Greater convenience for community and traveling public Easier maintenance</li> <li>• More secure (less likely to be vandalized or broken into - closer to community) Clustered with ferry terminal and existing infrastructure</li> <li>• Minimizes impacts to National Monument and Wilderness Less impact to important subsistence area</li> <li>• Honors Angoon Elders who had advocate protection for Admiralty and especially Mitchell Bay</li> </ul> <p>We did live in Angoon for 18 years and are intimately familiar, having traveled and subsisted in this area extensively.</p> <p>We endorse the Friends of Admiralty Island response.</p> |
| 67               | 1         | Friends of Admiralty Island | Friends of Admiralty Island | <p>Please let us know that Friends of Admiralty Island comments have been received. They were sent earlier this date. Most email comments to agencies have an automatic response, since none was received in this case I need confirmation or I will fax a copy to assure our comments are considered. Thank you.</p>  |
| 68               | 1         | Kevin Proescholdt           | Wilderness Watch            | <p>As we mentioned in our earlier submission, Wilderness Watch is primarily concerned with protecting the integrity and wilderness character of the Kootznoowoo Wilderness on Admiralty Island, a world-class wilderness resource.</p> <p>But more broadly, the Angoon Airport Draft EIS and Title XI decisions require considering the following factors:</p> <ul style="list-style-type: none"> <li>• Impact to the conservation system unit (both the Kootznoowoo Wilderness and Admiralty Island National Monument)</li> <li>• Meeting the project purpose and need</li> <li>• Economics</li> <li>• Safety</li> </ul>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name                | Commenter Organization       | Comment Text Verbatim   |
|------------------|-----------|-------------------------------|------------------------------|---|
|                  |           |                               |                              | <p>Of the action alternatives, Alternative 12a best meets the first three criteria and meets the robust safety standards required for siting an airport. Alternative 12a would be located in town and not develop the Monument-Wilderness lands.</p> <p>Alternative 12a is most conveniently located for medical evacuations, for business purposes and for personal transportation needs. Alternative 12a is tens of millions of dollars cheaper than all of the other action alternatives. And Alternative 12a meets the stringent safety requirements for siting an airport.</p> <p>By contrast, the other action Alternatives significantly degrade the conservation system unit (the Kootznoowoo Wilderness), less-adequately meet the project purpose and need, and cost millions of dollars more for negligible safety differences. All of these factors must be considered together.</p> <p>Because of the impacts to the Kootznoowoo Wilderness from the other action alternatives, and because only Alternative 12a meets the four factors cited above, Wilderness Watch reiterates its support for either the No Action Alternative, or Alternative 12a with Access 12a.</p> |
| 68               | 2         | Kevin Proescholdt             | Wilderness Watch             | <p>We suggest that the Final EIS for this project be amended to clearly identify Alternative 12a as the only action Alternative that satisfies all of the 1966 Transportation Law Section 4(f) and ANILCA Title XI criteria. Alternatively, Alternative 12a can be clearly identified as best meeting the ANILCA Title XI criteria, with the other alternatives documented as incurring more degradation of the conservation system unit, more cost to the people and less effectively meeting the project purpose and need. If this latter expression is chosen, then the Final EIS must specifically note that the other (non 12a) action alternatives do not comply with Section 4(f) as required by both the 1966 Transportation Law and ANILCA (which requires applicable law be applied).</p>   |
| 69               | 1         | Butch Laughlin & Sarah Dunlap | Alaska Fly "N" Fish Charters | <p>As a floatplane pilot for the last 25 years in the Juneau area and owner of Alaska Fly "N" Fish Charters I really agree and concur with the Angoon Community Association that FAA's preferred alternative 12A best meets the stated purpose and the need and seems to best satisfy the community's desire for safety and ease of access. Also as a pilot I really feel the airport located in accordance with alternative 12A is way more in line with the prevailing wind direction for the runway. We would like to see 12A selected and put in place.</p>   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim  |
|------------------|-----------|---|---|--|
| 70               | 1         | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>The Federal Aviation Administration (FAA) and the Alaska State Department of Transportation (ADOT) differ as to preferred alternatives. The FAA has made Alternative 12a, the in-town project site, its preferred alternative. The ADOT proposes Alternative 3a with Access 2, the site furthest from town and furthest in the Monument-Wilderness, as Alaska DOT's preferred alternative. Federal law supports the FAA's preferred Alternative 12a.</p> <p>The Department of Transportation Act of 1966, Section 4(f), reads:</p> <p>The Secretary may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) [of the United States Code, "Federal Lands Highways Program"] requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if—</p> <ul style="list-style-type: none"> <li>(1) there is no prudent and feasible alternative to using that land; and</li> <li>(2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.</li> </ul> <p>Alternative 12a is a prudent and feasible alternative to using the Monument-Wilderness lands for Airports 3a and 4, and Access Roads 2 and 3. Additionally, the sites for Airports 3a and 4, and Access Roads 2 and 3 would all incur more than de minimis impacts to the Monument-Wilderness lands. These lands are protected for their ecological, wilderness and heritage values that would suffer significant impairment being logged, roaded, and built upon.</p> <p>The Alaska National Interest Lands Conservation Act of 1980, Section 1103 states:</p> <p>Except as specifically provided for in this title, applicable law shall apply with respect to the authorization and administration of transportation or utility systems.</p> <p>The Alaska National Interest Lands Conservation Act of 1980, Section 1104(g)(1) states, in part:</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim  |
|------------------|-----------|---|---|--|
|                  |           |   |   | <p>... with respect to any transportation or utility system, each Federal agency shall make a decision to approve or disapprove, in accordance with applicable law, each authorization that applies with respect to the system ....</p> <p>These two ANILCA provisions affirm that “applicable law” is in play and thus the Department of Transportation Act of 1966, Section 4(f) applies to the Angoon Airport project and the Admiralty Island National Monument and Kootznoowoo Wilderness lands.</p> <p>The Alaska National Interest Lands Conservation Act of 1980, Section 1104(g)(2)(B) establishes the following Title XI review criterion:</p> <p>alternative routes and modes of access, including a determination with respect to whether there is any economically feasible and prudent alternative to the routing of the system through or within a conservation system unit, national recreation area, or national conservation area ....</p> <p>The Federal Aviation Administration, the USDA Forest Service and the Army Corps of Engineers must adhere to the Department of Transportation Act of 1966, Section 4(f), and the ANILCA Title XI review and its expressed intent to minimize adverse impacts to conservation system units and to find economically feasible and prudent alternatives to adversely affecting conservation system units. The federal agencies must choose Alternative 12a and avoid needless impairment of Monument-Wilderness lands.</p> |
| 70               | 2         | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>Once built, the airport and access road will require regular operation and maintenance. These costs will be borne by residents of Alaska and American taxpayers. The differing layouts of the airports and the various lengths of the access roads will incur different costs to operate and maintain. The DEIS and the Title XI Review fail to quantify these costs. The economic feasibility of the various alternatives cannot be meaningfully assessed without these costs.</p> <p>The EIS and the Title XI Review should contain a table that includes the construction costs of the various airports and access routes and the annual operating &amp; maintenance costs, as well as the projected operating &amp; maintenance costs for periods of 25, 50 and 100 years, for each alternative.</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim  |
|------------------|-----------|---|---|--|
|                  |           |   |   | <p>Only with this complete cost information can the economic feasibility of the various alternatives be made.</p> <p>These costs need to be expressed in “Table ES-2 Comparison of characteristics and construction requirements for the action alternatives” (DEIS, ES 1-13) as well since costs are a primary consideration of any mega-construction project funded by public money.</p>   |
| 70               | 3         | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>The need for an Angoon Airport is to “improve the availability and reliability of aviation transportation services to and from Angoon” (DEIS, ES 1-4). Yet nowhere in the DEIS is there a comparison of the travel time between Angoon and the different airport sites along the various access roads. A table should address the travel time from a central location such as the Jessie Norma Jim Health Center, to each airport. This compares how well each alternative meets the community needs:</p> <ul style="list-style-type: none"> <li>• during emergency medical evacuations</li> <li>• for business transporting goods and clients</li> <li>• for personal travel needs</li> </ul> <p>Additionally, any anticipated difficulties of access due to lack of maintenance or snow/ice conditions, should be quantified in the table</p>   |
| 70               | 4         | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>DEIS Section 5.5.2 attempts to address the Title XI criterion established by ANILCA Section 1104(g)(2)(B), but it fails to do so. The DEIS states “Under ANILCA Section 1104(g)(2)(B), the FAA must consider alternatives outside the Monument–Wilderness Area” (DEIS, 717). The DEIS/Title XI review then notes that Alternative 12a “is not located in the Monument–Wilderness Area, and could be built using sound engineering and aviation principles” (DEIS, 717).</p> <p>ANILCA Section 1104(g)(2)(B) actually requires the Title XI Review to make “a determination with respect to whether there is any economically feasible and prudent alternative to the routing of the system through or within a conservation system unit ...” (ANILCA Sec. 1104(g)2(B)). Beneath the comprehensive cost comparison table and the comparative travel times table mentioned in the previous comment, there should be a clear expression of the requisite determination stating: “Alternative 12a is an economically feasible and prudent alternative to the routing of the airport and its access road through Admiralty Island National Monument and the Kootznoowoo Wilderness.” The</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim   |
|------------------|-----------|---|---|---|
| 70               | 5         | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>current DEIS fails to make this determination in clear language.</p> <p>ANILCA Section 1104(g)(2) requires federal agencies to make “detailed findings supported by substantial evidence, with respect to” eight criteria as part of the Title XI review. The DEIS fails to articulate “short- and long-term social, economic, and environmental impacts of national, State, or local significance” (ANILCA Section 1104(g)(2)(D)). Most of the DEIS pertains to local impacts. The EIS needs to identify which impacts are of national and State significance – especially such long-term impacts. Examples include:</p> <ul style="list-style-type: none"> <li>• Airports 3a and 4 both require ADOT to operate and maintain new roads. This creates a long-term economic impact to the State that should be quantified. Similarly, if the FAA will fund operating and maintaining the airport, and if the Department of Homeland Security will be required to administer the facility in some manner, then these are long-term national economic impacts. If the costs are difficult to ascertain, then the costs from similar-sized airport projects – such as can be found in Kake or Hoonah, Alaska – should be provided for comparison.</li> <li>• Another social-environmental-economic impact at the State and national level is the potential precedent of a Title XI approved airport in a highly-treasured conservation system unit. This is especially noteworthy when an economically feasible and prudent alternative exists outside of the conservation system unit and meets the expressed purpose and needs of the project. Two outcomes from this potential precedent are:             <ol style="list-style-type: none"> <li>1. State-national impact: The ADOT/State of Alaska will be emboldened to pursue additional costly Title XI projects within valued conservation system units to assert State rights even when more economic and less environmentally damaging options exist.</li> <li>2. State-national impact: World-class conservation system units that were designated in Alaska to preserve intact ecosystems and to proactively conserve valued lands and waters before they were subjected to civilization’s sprawl will be more vulnerable to the impact of encroaching development than before. This is especially so considering that Alternative 12a clearly meets the needs of the project with the least cost to the people and with the least impact to an esteemed conservation system unit, and yet the State is pressing on with its effort to build in Monument-Wilderness lands.</li> </ol> </li> </ul> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim   |
|------------------|-----------|---|---|---|
| 70               | 6         | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <ul style="list-style-type: none"> <li>Considering the previous point, it is especially urgent that the EIS addresses the long-term and nationally significant social-environmental impacts to the broadly supported values and purposes of Admiralty Island National Monument and Kootznoowoo Wilderness. This transcends the affected local acreage as documented in the DEIS. The EIS must clearly detail how:               <ul style="list-style-type: none"> <li>(a) The National Wilderness Preservation System, established by the Wilderness Act of 1964 designed to designate areas unoccupied and unmodified by civilization, would be blemished by expanding development – especially where Title XI is exercised when a non-wilderness alternative is viable.</li> <li>(b) The values and purposes of Alaskan conservation system units as expressed in ANILCA Sections 101(a)-(c) will be degraded. Note that this would also remedy a deficiency in the DEIS/Title XI review regarding fulfilling ANILCA Section 1104(g)(2)(F) by better addressing the broader wilderness values and purposes that will be affected beyond the locally impacted acres.</li> </ul> </li> </ul> |
| 70               | 7         | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | ANILCA Section 1104(g)(2)(F) requires a detailed finding supported by substantial evidence with respect to “any impacts that would affect the purposes for which the Federal unit or area concerned was established.” The DEIS and Title XI review examine the local impacts to Wilderness lands. As noted above, the State-national significant impacts should be detailed.  |
| 70               | 8         | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | Just as important, yet wholly ignored, are the expressed purposes for which the Monument was designated. These can be found in President Jimmy Carter’s Presidential Proclamation 4611, in ANILCA Section 503(c), and in the Admiralty Island National Monument Land Management Act of 1990 Section 202(1). The EIS must document how the alternatives impact these purposes.   |
| 70               | 9         | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>The Angoon Airport DEIS is intended to disclose for public review the impacts of various sites and access routes relating to a new airport for Angoon. The DEIS does a decent job of mapping where the sites and routes will occur, but it fails in a key aspect. The airport will not be a static development that will be abandoned once it is built. Rather, it will have planes landing and taking off, and the various alternatives feature different flight paths and impacts.</p> <p>To ensure proper understanding of how the various sites manifest different flight patterns, <u>all of the maps throughout the EIS</u> should have approach and take off arrows indicating the direction of plane traffic. This is not hard to do in that it would simply require adding a map layer with directional flight</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name                                    | Commenter Organization                            | Comment Text Verbatim  |
|------------------|-----------|---|---|--|
|                  |           |   |   | <p>arrows. It is not enough to have the flight path information somewhere within the 828 page DEIS/EIS or its supplemental materials: few if any of the public will read the massive document in its entirety and the FAA must strive to facilitate the best comprehension of the project and its possible alternatives. The simple step of adding flight path arrows to all maps will better empower the public to understand how each site will be used and affect the surrounding environment.</p>  |
| 70               | 10        | Forest Service Employees for Environmental Ethics | Forest Service Employees for Environmental Ethics | <p>The DEIS states “No significant effects to cultural resources were identified for any action alternative” (DEIS, 391). ... Insofar as Native Americans have lived in and around Angoon for centuries, it is unlikely that the clearing, grading, paving and operation of an airport would have no effect upon cultural or archaeological resources.</p> <p>The National Historic Preservation Act, Section 106 asserts:</p> <p>The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking.</p> <p>The Section 106 review requires consultation with the State Historic Preservation Officer (SHPO) where the activity “has the potential to cause effects on historic properties” (36 CFR § 800.3). Considering the rich history of Angoon, the cultural-heritage purposes for which Admiralty Island National Monument was designated and the likelihood that cultural-archaeological resources exist in the various project areas, please assure that you have conferred with the State Historic Preservation Office (SHPO) and that SHPO has concurred with the EIS findings regarding impacts of the various alternatives on cultural and archaeological resources, including findings of no significant effects. SHPO’s concurrence, or lack thereof, must be documented in the EIS.</p> |



Table 3. Individual comments identified in each response

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
| 71               | 1         | Ric Iannolino  | Public                 | <p>I am familiar with both proposed Angoon Airport sites. I have spent many years working, visiting friends and recreating in both Angoon, Favorite and surrounding areas. I clearly understand Favorite Bay and the surrounding areas are the major subsistence area near Angoon. I have reviewed the EIS documents.</p> <p>I strongly support the FAA 12A Angoon Airport Alternative. I will summarize many of the excellent comments offered by the residents of Angoon and the nearby communities that are consistent with my analysis.</p> <p>It is important the Angoon airport location be closer to the community of Angoon because <b><u>roads in Angoon are icy and hard to maintain in winter and because the cost of gas is high for both private vehicles and maintenance equipment travelling to and from the airport.</u></b></p> <p>The FAA 12A Option would be closer to the existing road system and therefore <b><u>more accessible.</u></b> There would be <b><u>less overall road to construct.</u></b> It would <b><u>provide a tailwind and southeast headwind.</u></b> It would provide <b><u>access to fresh water.</u></b> It would <b><u>not affect subsistence taking.</u></b> It would be <b><u>far less costly</u></b> to construct.</p> <p>The FAA 12A option would not impact the inside waterway and bays and inlets including:</p> <ul style="list-style-type: none"> <li>• Kootznookoo Inlet</li> <li>• Favorite Bay</li> <li>• Mitchell Bay</li> <li>• Salt Lake</li> <li>• Kanalku Bay</li> </ul> <p>These subsistence areas contain <b><u>their valued subsistence food sources that contain most, if not all, of the major foods Angoon residents use to survive.</u></b> (These foods are deer, crab, clams, shrimp, salmon, gumbots, bottom fish, waterfowl, bear, goose tongue, wild asparagus, blueberries,</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|------------------|------------------------|--|
|                  |           |                  |                        | <p>huckleberries, currants, and other traditional foods.</p> <p>In addition the current untouched wilderness at Favorite Bay provides more of a <b>benefit to tourism</b> because of its uniqueness.</p> <p><b>I am opposed to the Alaska DOT/PF the seven-mile road an option</b> Sites 3 and 3a that propose to construct a road on both the south and north shores of Favorite Bay with crossings over Favorite Creek because it would have a negative impact on an important salmon- spawning stream.</p> <p>The 3A option simply makes no sense other than another Alaska DOT/PF engineering project i.e. another, " Road to No Where".</p>   |
| 72               | 1         | Christopher Lish | Public                 | <p>I am pleased to learn that the Federal Aviation Administration (FAA) has rejected a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. I strongly support the No Action Alternative of the Angoon Airport Draft Environmental Impact Statement, although if an airport is going to be built, the best alternative is the FAA's recommendation of using a site where the lands are privately owned or owned by the local community (Airport 12a with Access 12a).</p> <p><i>"Our duty to the whole, including to the unborn generations, bids us to restrain an unprincipled present-day minority from wasting the heritage of these unborn generations. The movement for the conservation of wildlife and the larger movement for the conservation of all our natural resources are essentially democratic in spirit, purpose and method."</i><br/>- Theodore Roosevelt</p> <p>The remoteness of Admiralty Island National Monument led the Congress to pass legislation designating almost all of the monument as the Kootznoowoo Wilderness. A Wilderness designation is supposed to ensure that these lands will be permanently protected from development. The Airport 3a with Access 2 or 3 and Airport with Access 2 or 3 alternatives would result in the destruction of Wilderness lands and be contrary to the intent of the Congress for these lands. The FAA, if it adheres to the law, has no other options aside from the No Action Alternative or the Airport 12a with Access 12a</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|------------------|------------------------|---|
|                  |           |                  |                        | <p>alternative.</p> <p><i>“Every man who appreciates the majesty and beauty of the wilderness and of wild life, should strike hands with the farsighted men who wish to preserve our material resources, in the effort to keep our forests and our game beasts, game- birds, and game-fish—indeed, all the living creatures of prairie and woodland and seashore—from wanton destruction. Above all, we should realize that the effort toward this end is essentially a democratic movement.”</i><br/>           - Theodore Roosevelt</p> <p>Please spare the Kootznoowoo Wilderness from airport and road construction.</p> <p><i>“A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”</i><br/>           - Aldo Leopold</p> <p>Thank you for your consideration of my comments. Please do NOT add my name to your mailing list. I will learn about future developments on this issue from other sources.</p> |
| 74               | 2         | Christopher Lish | Public                 | <p>The community of Angoon is experiencing a difficult time with a declining population, high unemployment, high utility rates and diminishing state and federal funds for services and infrastructure.</p> <p>Angoon is in need of a reliable stable economic base for the health and wellbeing of the community.</p> <p>As the DEIS states, the Alaska Department of Transportation’s proposed action 3a would result in more income from taxes and several local hires during construction. It appears those gains are offset by the higher cost of daily access, maintaining the access road and maintaining airport facilities, security and safety.</p> <p>There was no indication of how Angoon’s long term economic plan would be benefited by alternatives 3a or 12a. In most cases there are economic benefits to grouping transportation facilities with existing infrastructure – roads and power, in Angoon’s case.</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
| 73               | 1         | Julie Koehler  | Public                 | <p>My name is Julie Koehler, and I live in Juneau, Alaska. I was fortunate to have lived in Angoon for almost a year, back in 1991. While I was there I was able to canoe in Favorite Bay and the back channel and into the wild heart of Admiralty Island National Monument and Wilderness. When I think about the best place to build an airport for Angoon, I dread the thought of an unnecessary road and bad location of the AKDOT's proposed alt 3a, knowing full well that the FAA's proposed alt. 12a makes the most sense in every possible way. Therefore, I want to emphatically state my strong support of the FAA's preferred alternative (12a) for the proposed Angoon Airport. I also want to support the comments submitted to you by Friends of Admiralty Island.</p> <p>Alternative 12a proposes the most sensitive and sensible alternative that both honors the need for a reliable and safe airport for Angoon, and protects the natural and cultural integrity of Admiralty Island National Monument and Wilderness.</p> <p>Furthermore, the FAA preferred alternative 12a is: the closest to Angoon; uses existing roads and utilities; minimizes environmental impacts; and is the least costly of the action alternatives.</p> <p>Clearly, selecting the FAA's 12a preferred alternative would and should be the easiest, most compelling, and most cost-effective, and wisest decision you could possibly make.</p> <p>In sharp contrast to the FAA's alternative 12a, the Alaska Department of Transportation's proposed alternative 3a would cost twice as much as the FAA's alternative 12a; is the farthest from Angoon, has major impacts on fish and wildlife habitat and subsistence areas, and would require the construction and maintenance of 5 miles of new road. It must be noted that the FAA's proposed alternative locates the new airport right along the existing main road from the ferry terminal to the village of Angoon: this is the most practical and logical place for this facility, and will cost the least amount of funding - something to be mindful about during these times of federal and state budgets being under duress. Moreover, the wrong-headed AKDOT's proposed alternative 3a would take far longer to implement and construct - because under alternative 3a the airport would be located (along with its serious impacts) within the Admiralty Island National Monument and Wilderness Area and therefore would require approval/special action by the full U.S. Congress and then the President of the United States. (This could add many more years of delay to a project that has been delayed for a long time already.)</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name              | Commenter Organization      | Comment Text Verbatim  |
|------------------|-----------|-----------------------------|-----------------------------|--|
|                  |           |                             |                             | <p>Lastly, I strongly support the FAA preferred alternative 12a, and quite definitely oppose the AKDOT's alt. 3a.</p>  |
| 74               | 1         | Friends of Admiralty Island | Friends of Admiralty Island | <p>Friends of Admiralty Island<sup>[1]</sup> have participated in the Angoon airport EIS process by commenting in the scoping phase, monitoring FAA's newsletters, meeting with FAA's EIS Planning Team, alerting our 400 plus membership base of FAA's progress, publicly testifying at the Juneau open house/hearing on the DEIS and now by these written comments on the DEIS.</p> <p>We have, throughout the process supported Angoon's desire to obtain a land- based airport that is safe, easily accessible and dependable maintained. We have also favored minimizing the intrusion and impacts to; subsistence and overall environmental effects, as well as and National Monument and Wilderness values. The community has consistently stated that safety by ease of medivac has been one of the primary desires for a land based airport</p> <p>We concur with the Angoon Community Association (the federally recognized Indian Tribe of Angoon) that FAA's preferred alternative 12a best meets the stated Purpose and Need and seems to best satisfy the community's desire for safety and ease of access.</p> <p>We have long advocated for Angoon to have a larger role in managing the National Monument and Wilderness. This seems especially important since the Angoon elders fought so hard to have Admiralty Island protected in some form of a reserve system, which resulted in the National Monument and Wilderness designations – which started with President Carter's 1978 presidential National Monument proclamation under the Antiquities Act.</p> <p>When the elders testified in Congressional hearings they emphasized the need to protect their cultural and subsistence values. Angoon's strong voices carried the day for presidential action and convinced congress to include Admiralty in the Alaska National Interest Lands Conservation Act of 1980 as a National Monument and Wilderness (ANILCA). The Angoon elders also prevailed to have their own village Native Corporation land selections (awarded as part of the 1971 Alaska Native Claims Settlement Act - ANSCA) moved from the Mitchell Bay area and off of the island and those of the Sitka</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter #        | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|-------------------------|-----------|----------------|------------------------|--|
|                         |           |                |                        | <p>Urban Native Corporation moved from Hood Bay lands, immediately adjacent to Angoon to lands originally selected by Juneau Urban Native Corporation in the Cube Cove area, some 20 miles north of Angoon. The rationale presented by the Angoon elders at congressional hearings was to protect the island from development, particularly at the time road building and logging. This history is well preserved in congressional hearing records and it is believed, by many that without the courageous action of the Angoon elders that President Carter nor congress would have acted to protect Admiralty Island.</p> <p>In the 1980's the Jimmie Johnson Native Land Allotment was approved in Favorite Bay (in the general location of Alternative 4) and was proposed to be logged. The community was very much opposed to that development, due to the impact that would occur to subsistence values and the allotment was purchased and incorporated into the National Monument.</p> <p>While the debate of the best location for Angoon's airport is complicated by the desperate need of Angoon to have a sustainable and solid economic foundation for the long-term the historic record would support the location of the airport at FAA's preferred alternative (12a) over the Department of Transportation's proposed alternative and access (3a).</p> <p>Again, friends of Admiralty Island strongly recommends the selection of Alternative 12a and believe it to be supported on the basis of construction and maintenance cost, convenience of access (especially in medivac cases), minimizes damage to fish and wildlife values and protection of the National Monument and Wilderness values.</p> <p><sup>[1]</sup> Established in 1997 as a non-profit corporation to promote those values that Admiralty Island National Monument and Wilderness were designated to protect. Currently we have a membership of over 400 members.</p> |
| 75<br>(duplicate of 71) | 1         | Ric Iannolino  | Public                 | I strongly support the FAA 12A Angoon Airport Alternative. I will summarize many of the excellent comments offered by the residents of Angoon and the nearby communities that are consistent with my analysis.   |



Table 3. Individual comments identified in each response

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | <p>It is important the Angoon airport location be closer to the community of Angoon because <b><u>roads in Angoon are icy and hard to maintain in winter and because the cost of gas is high for both private vehicles and maintenance equipment travelling to and from the airport.</u></b></p> <p>The FAA I 2A Option would be closer to the existing road system and therefore <b><u>more accessible.</u></b> There would be <b><u>less overall road to construct.</u></b> It would provide a <b><u>tailwind and southeast headwind.</u></b> It would provide <b><u>access to fresh water.</u></b> It would <b><u>not affect subsistence taking.</u></b> It would be <b><u>far less costly</u></b> to construct.</p> <p>The FAA I2A option would not impact the inside waterway and bays and inlets including:</p> <ul style="list-style-type: none"> <li>• Kootznoohoo Inlet</li> <li>• Favorite Bay</li> <li>• Mitchell Bay</li> <li>• Salt Lake</li> <li>• Kanalku Bay</li> </ul> <p>These subsistence areas contain <b><u>their valued subsistence food sources that contain most, if not all, of the major foods Angoon residents use to survive.</u></b> (These foods are deer, crab, clams, shrimp, salmon, gumboots, bottom fish, waterfowl, bear, goose tongue, wild asparagus, blueberries, huckleberries, currants, and other traditional foods).</p> <p>In addition the current untouched wilderness at Favorite Bay provides more of a <b><u>benefit to tourism</u></b> because of its uniqueness.</p> <p><b><u>I am opposed to the Alaska DOT/PF the seven-mile road an option</u></b> Sites 3 and 3a that propose to construct a road on both the south and north shores of Favorite Bay with crossings over Favorite Creek because it would have a negative impact on an important salmon-spawning stream.</p> <p>The 3A option simply makes no sense other than another Alaska DOT/PF engineering project i.e. another, " Road to No Where".</p> |
| 76               | 1         | Judith Maier   | Public                 | <p>The best option for the Angoon Airport is closest to town. It uses existing utilities and road. It requires less interference with the natural environment. It is the most accessible and the least expensive to visit. I have relatives from Angoon. Please select the FAA's preferred alternative, closest to Angoon village</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name         | Commenter Organization               | Comment Text Verbatim   |
|------------------|-----------|------------------------|--------------------------------------|---|
|                  |           |                        |                                      | site, thereby protecting and preserving the National Monument and Wilderness Lands. Thank you for your careful consideration of this matter.  |
| 77               | 1         | Quinn Sharkey          | Public                               | Please take this letter as my formal public comment on the Angoon Airport Proposal. As an Alaska resident, I have a keen interest in protecting the environment as much as possible while addressing critical infrastructure and transportation needs. Having traveled to Angoon many times, I have a sincere appreciation of the extraordinary place that island, and the community of Angoon represent, as well as there need for reliable air transportation (other than float planes). It is with that in mind, that I formally request that you reject the Alaska Department of Transportation's proposed alternative 3a and instead, <b>authorize and endorse the FAA's preferred alternative 12a</b> , which is closest to Angoon, utilizes existing utilities and road, minimizes environmental impacts and is the least costly. Please let me know if you have any questions and thank you for the opportunity to participate in the process.  |
| 78               | 1         | Christine B. Reichgott | U.S. Environmental Protection Agency | We believe that the selection of the preferred alternative (Alternative 1 2a with 12a Access) is environmentally preferable to the other airport locations and access roads in nearly all resource categories. In addition to avoiding designated Wilderness, it requires substantially less waterbody crossings, including no crossing of Favorite Creek. This alternative would result in less fill, less impervious surface, less terrain disturbance, and fewer culverts, stream diversions, truck trips and barge trips. We also note that it is the least costly alternative and is similar to other alternatives in instrument approach capability, minimums for visibility, and year-round availability. We note that although the Draft EIS concludes that none of the action alternatives would result in "unacceptable adverse impacts to non-wetland waters of the U.S. per Clean Water Act Section 404(b)(1) guidelines," only the Least Environmentally Damaging Practicable Alternative may be permitted by the U.S. Army Corps of Engineers. Based on the analysis in the EIS, there is substantial difference in impacts to aquatic resources between the preferred alternative and the other action alternatives, with the preferred alternative resulting in substantially fewer impacts to aquatic resources. We believe that overall, the preferred alternative is environmentally preferable because of the reasons listed above and because the preferred alternative will likely be the LEDPA, or will more closely resemble the LEDPA, compared to the other action alternatives. We support the selection of this alternative by the FAA in the Final EIS and Record of Decision. |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name         | Commenter Organization               | Comment Text Verbatim  |
|------------------|-----------|------------------------|--------------------------------------|--|
| 78               | 2         | Christine B. Reichgott | U.S. Environmental Protection Agency | We do have concerns, however, regarding the impact that the preferred alternative has on the amount and accessibility of Alaska Native Claims Settlement Act village corporation and private land, including native allotments, which are in close vicinity to the community. These lands are currently used for a variety of purposes, including subsistence activities. There is a trend in Alaska for private and corporation lands that are accessible to owners and shareholders to be utilized for public infrastructure projects. While these projects often provide benefits to residents, such as safer and more reliable air service, there is often a trade-off or loss of other uses. The loss of easily accessible subsistence areas is particularly detrimental for low-income and disabled residents. It is not clear if this was fully evaluated in the EIS. We recommend additional work to identify appropriate mitigation for these losses and monitoring to ensure that the mitigation being implemented is effective. |
| 78               | 3         | Christine B. Reichgott | U.S. Environmental Protection Agency | We are also concerned that, in comparison to the other action alternatives, the preferred alternative requires substantially more vegetation removal, resulting in a much more concentrated stream geomorphic effect and substantial loss of natural stream function for Stream I 0. We recommend that the FAA work closely with the Alaska Department of Transportation and Public Facilities and other stakeholders to determine if any additional avoidance or minimization can be included in the project design. For impacts that cannot be avoided or reduced, appropriate mitigation must be identified. For impacts that cannot be mitigated, compensation should be applied. We recommend that a robust draft compensation plan be included in the Final EIS.   |
| 78               | 4         | Christine B. Reichgott | U.S. Environmental Protection Agency | First, in the Executive Summary and Chapter 1, the access route for Alternative 3a is not identified. We recommend that this be corrected.   |
| 78               | 5         | Christine B. Reichgott | U.S. Environmental Protection Agency | while we recognize that information relating to Alaska National Interest Lands Conservation Act is very thorough, we believe it is important that the EIS also clearly articulate that agencies must also comply with other applicable laws and regulations. We recommend that this be clarified in the Final EIS.   |
| 79               | 1         | Matt Kookesh           | City of Angoon                       | First and Foremost is the Position of the Angoon City Council on Proposed Airport Sites around Angoon. The City of Angoon has chosen Site 3A, as the preferred site for our community.   |
| 79               | 2         | Matt Kookesh           | City of Angoon                       | I would like to point out on the Draft E.I.S. on Page 134, Land ownership in The Angoon area is primarily owned by both Kootznoowoo Inc. and the City of Angoon. If that is the case than why does this process not include the land owners in your draft EIS process? The City of Angoon and its  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | residents have been overlooked in the meeting and consultation process.  |
| 79               | 3         | Matt Kookesh   | City of Angoon         | We request that your next meeting be held at the City office so that all residents can be welcomed to participate. At the last meeting, every time someone got up to speak the local tribe would stand up and counter what was just said. This is very uncomfortable for the community to participate. Please don't have meetings at the tribe's office unless you're going to control the tribal chair from debating every testimony.   |
| 79               | 4         | Matt Kookesh   | City of Angoon         | The City of Angoon requests that you address the following pages and respond as to why your stating platted parks but yet not consulting us on 12 A as a detriment to our land ownership and our right to designate a parcel of land for future use. We look forward to your explanation of our platted park and why you are overriding this designation. List below are some pages we are concerned about:<br>On page 133, 4.3, figure lu2: it shows platted park as being directly affected by the airport site 12 A.<br>On page 134, 4.3, figure lu3, it shows City of Angoon land being directly affected, including the platted park and Auk Tah Lake (our drinking water source)<br>On page 136, 4.3.2.3.2, compatible I and use, no discussion of City of Angoon owned land in vicinity of 12 A airport site.<br>On page 133, table lu2: displays Killisnoo Lagoon parcel as Platted Park.<br>On page 141, 14.3.2.5.1 compatible land use, Angoon Peninsula: 73.18 acre area near Auk Tah Lake is designated as central park in our 14c3 reconveyance. 111.36 acres in the salt lagoon has been designated as City Park land. This area maybe contaminated from garbage dump runoff, so no berry picking in this area however between Auk Tah and the Salt lagoon over 18 deer was harvested by the community residents in 2014.<br>On page 153, 4.3.3.3.3 compatible land uses, affect land acquisition, right of ways, permits and or leases, figure lu11: notes that no city of Angoon land will be required for airport site 12 A, however 12a easement sits right on city park land or platted Park. |
| 79               | 5         | Matt Kookesh   | City of Angoon         | On page 162, 4.4.1.1 DOT 4 F determination summary, what is section 4 f and how does it apply to this project. Since The City owns, the platted Park and our residents use the area for recreation and it has significant values both locally and nationally.  |
| 79               | 6         | Matt Kookesh   | City of Angoon         | On page 163, 4.4.2.1.1 4 F determination summary is of significant interest to the City of Angoon. We want to know how you are going to determine 4 f resources without the City of Angoons input.   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name    | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|-------------------|------------------------|--|
|                  |           |                   |                        | On page 166, 4.4.2. 1.1 DOT 4 F determination summary this section makes a determination that the city park properties are not 4 F properties. How can you make this determination without true consultation with the City of Angoon?  |
| 79               | 7         | Matt Kookesh      | City of Angoon         | The City of Angoon cannot afford to relinquish any land within the Airport Site 12 A. Nor can we afford to have an outside federal or state agency condemn our platted Parks for the purpose of building an airport. Any relinquishment of lands given to the city under aboriginal claim or lands for future development of our community is unacceptable. Once we give up local land than we will never be able to replace those lands ever again. |
| 80               | 1         | Cynthia Ann Frank | Public                 | make sure it doesn't effect our subsistence food   |
| 80               | 2         | Cynthia Ann Frank | Public                 | is there road to airport location sight  |
| 80               | 3         | Cynthia Ann Frank | Public                 | the noise be a problem since so close to town  |
| 80               | 4         | Cynthia Ann Frank | Public                 | are people going to be trained to run a airport?   |
| 80               | 5         | Cynthia Ann Frank | Public                 | will the price be cheaper to Juneau  |
| 80               | 6         | Cynthia Ann Frank | Public                 | will this effect monument status?  |
| 80               | 7         | Cynthia Ann Frank | Public                 | will it be state operated?   |
| 80               | 8         | Cynthia Ann Frank | Public                 | who will be in charge of the airport.  |
| 80               | 9         | Cynthia Ann Frank | Public                 | will it effect ANILCA.   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment #                | Commenter Name   | Commenter Organization | Comment Text Verbatim  |
|------------------|--------------------------|------------------|------------------------|--|
| 81               | 1                        | Doris Williams   | Public                 | The main concern I have is...will the airport be near my property? Favorite Bay is where my lot is and I was trying to decide - do I want to relocate or keep it where it is at. The hold up is the location of the Airport...   |
| 81               | 2                        | Doris Williams   | Public                 | I am all for 3a, Access 3 - This would have the least effect on my lot :)  |
| 81               | 3                        | Doris Williams   | Public                 | Q. What is the time frame at this time? 2-3 yrs? 4-6 yrs? 7-10 yrs?  |
| 82               | 1<br>See Also<br>87(4-8) | Verne Skagerberg | Alaska DOT&PF          | <p>The State of Alaska has undertaken this project, the construction of an airport to serve the people of Angoon -the largest community in the state that has no access to a runway - in order to ensure their basic transportation needs are met. These include access to emergency and routine medical care, efficient transportation of goods to and from the community, and passenger service for cultural, recreational, and sundry purposes. The airport will also provide a significant improvement to the aviation system in the region and much improved access to Admiralty Island National Monument.</p> <p>Our proposed action, which is located within the Kootznoowoo Wilderness, was determined after an extensive planning process that included a thorough and detailed reconnaissance study and the development of an airport master plan. We remain convinced after the additional analysis conducted by the FAA that the airport site we have proposed is the best location aeronautically. We do agree that the site which the FAA has preliminarily identified as its preferred alternative is aeronautically acceptable, though somewhat less advantageous than what we've proposed. However, there are other compelling reasons for our reluctance to alter our proposed action and, hence, our filing of an application in accordance with the provisions of ANILCA Title XI.</p> <p>With the designation of over 100 million acres of conservation system units (CSUs) and other conservation designations across the State of Alaska in 1980 under the Alaska National Interest Lands Conservation Act (ANILCA), Congress' express intent in Title XI was to provide a single overarching process for consideration of transportation and utility systems in or across CSUs, including designated Wilderness. The law makes it clear that the Title XI process is to be fully completed before any other actions or determinations are made. The inclusion of eight specific criteria, which federal agencies must consider and "make detailed findings supported by substantial evidence" is an indication that Congress intended for federal agencies to not just rely on their own authorities but to more broadly</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | <p>consider the needs of Alaska and its people when evaluating proposed transportation and utility projects. The fact that Congress applied the process to designated Wilderness indicates that Congress also recognized the constraints the Wilderness Act places on the discretionary authority of federal agencies, and despite those constraints, ensured those projects would receive consideration by the President and Congress.</p> <p>The Draft EIS that was published on January 9<sup>th</sup> and is appended to our Title XI application has from the outset been intended to provide the information necessary to facilitate the agencies' review and development of preliminary recommendations as required under the law. While the DEIS includes certain determinations concerning the Section 4(f) status of the proposed action and preferred alternative, those determinations remain the subject of debate from our perspective but, in any event, have no preempting effect regarding the outcome of the Title XI process (Sec. 1104 (a)).</p> <p>Our assertion that Section 4(f) is not deterministic at this point in the process notwithstanding, it is our view that our proposed action is not precluded by that law even within the context of a conventional NEPA analysis. We say this because we find the analysis contained in the DEIS to be unconvincing in its dismissal of Section 4(f) implications regarding the FAA's preferred alternative. In short, we believe both alternatives to have 4(f) impacts and, therefore, that the circumstances require an analysis that weighs the relative merits and impacts of each.</p> <p>We also believe the DEIS to be incomplete with regard to the preliminary consideration of factors required by ANILCA. More specifically, Section 1104 (g)(2)(C) requires agencies consider whether there exists a feasible and prudent alternative to building on a CSU. The draft does identify the preferred alternative as being feasible -- a finding that we do not dispute -- but it does not address prudence.</p> <p>There are a number of considerations that, when taken in their cumulative effect, lead us to the conclusion that the preferred alternative is arguably imprudent. This must be resolved before the Title XI process is complete.</p> <p>For all of these reasons, we believe that our proposed action remains a viable solution to Angoon's</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment #                  | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|----------------------------|----------------|------------------------|--|
|                  |                            |                |                        | <p>aviation needs, and we anticipate that it may well be identified as the preferred action in the final analysis. Additionally, our determination to stay the course in that regard rests to a large extent on the fact that what we have proposed was developed through a lengthy process that included a great deal of Angoon's involvement. The community provided us with official concurrence in the form of supporting resolutions for the decisions made throughout the planning effort. It would not be appropriate for us to so significantly alter our proposed action without the community's input which we are just now receiving. With the resolution of the issues we have outlined, and with the explicit concurrence of the people of Angoon, we may find the FAA's alternative to be a satisfactory answer to the needs of the community. Until we have completed the ANILCA process, however, we are not prepared to make that determination.</p>  |
| 83               | 1<br>See Also<br>86(46-49) | Matt Kookesh   | City of Angoon         | <p>The Angoon City Council has chosen Site 3 A as the proposed site for the Angoon Airport.</p> <p>The City of Angoon does not want to give up any more land than what was given up in the Alaska Native Claims Act (ANCSA) and what was received by the City under 14 C 3 process. Kootznoowoo received 2000 acres in the Angoon Area, they received 6000 acres in the corridor lands and in return under 14c3, They gave the City 850 acres for future expansion. The City of Angoon and Kootznoowoo and its Residents cannot afford to give up any more land that was given to us under aboriginal claim, not Because of our aboriginal claim but because once we give up our land it will never be replaced. The Elders saw the future when they negotiated the right for us to get lands outside of City boundaries. We Strongly encourage using title 11so that we can use 237 .8 or 284.4 acres of monument land to build This airport. The City of Angoon is also in the process of securing funds for a utility corridor from Hood Bay Mountain so that we have a gravity fed water supply.</p> <p>The City of Angoon and The Tribe both have selected proposed airport sites that are in conflict with each Other. The Tribe voted to authorize me to put 12a and 3 a on the ballot in October general election.</p> <p>The City reserves the right to have an airport in Angoon and we want to be consulted before any more Money is put in this process and I would highly recommend that you start attending city council meeting Because we are in contact with our legislators and our congressional delegation. The city of Angoon</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | Needs true consultation since we are the land holder and land use planner of both public and private Lands  |
| 84               | 1         | Mark Rorick    | Sierra Club            | <p><b>The Department of Transportation Act of 1966 and the Alaska National Interest Lands Conservation Act of 1980 Both Compel Selection of an Alternative Outside of Conservation System Unit Lands</b></p> <p>The Department of Transportation Act of 1966, Section 4(1), asserts that the</p> <p><b>The Secretary may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) [of the United States Code, "Federal Lands Highways Program"] requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if-</b></p> <p><b>(1) there is no prudent and feasible alternative to using that land; and</b></p> <p><b>(2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.</b></p> <p>Alternative 12a is a prudent and feasible alternative to using the sites for Airports 3a and 4, and Access Roads 2 and 3. Additionally, the sites for Airports 3a and 4, and Access Roads 2 and 3 would all incur more than de minimis impacts to these valued Monument-Wilderness lands.</p> <p>The Alaska National Interest Lands Conservation Act of 1980, Section 1103 states:</p> <p><b>Except as specifically provided for in this title, applicable law shall apply with respect to the authorization and administration of transportation or utility systems.</b></p> <p>This means that the Department of Transportation Act of 1966 applies to the Angoon Airport project</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | <p>and Admiralty Island National Monument and the Kootznoowoo Wilderness per Section 4(f). ANILCA Section 1104g(l) repeats that applicable law applies.</p> <p>Complying with the ANILCA Title XI review, including the expressed intent to minimize adverse impacts to conservation system units and to find economically feasible and prudent alternatives to adversely affecting conservation system units as asserted in Sections 1101(c) and 1104(g)2(A)-(H) compel the Federal Aviation Administration, the USDA Forest Service and the Army Corps of Engineers to select Alternative 12a over other alternatives within Monument-Wilderness lands.</p>   |
| 84               | 2         | Mark Rorick    | Sierra Club            | <p><b>The Costs to the Public Between the Alternatives Need to More Prominently Displayed in Table ES-2 "Comparison of characteristics and construction requirement for the action alternatives"</b></p> <p>Currently the Executive Summary Table ES-2 on page E-1-13 compares construction materials and requirements across the alternatives. What are missing are the comparative costs, including construction costs and ongoing operations and maintenance costs. These costs should be added to this table as they are of primary consideration by the public when assessing if the cost of this project is worth it. This is especially true as the State of Alaska is running a \$3.5 billion budget deficit and as the federal tax dollars available for large-scale projects is diminishing over time. See following passage for what costs should include.</p>   |
| 84               | 3         | Mark Rorick    | Sierra Club            | <p><b>The Alternative Comparisons Are Missing Critical Information</b></p> <p>The DEIS alternative comparisons Section 3.5 is deficient in that critical comparative information pertinent to the professed need for the project and to the public costs of the project are missing. The professed need for the project includes providing emergency air service and improving access to the isolated community. In comparing the alternatives, there needs to be an expressed comparison of estimated travel times to the various airports via the various access roads from a central in-town location such as the tribal community center. This is especially important for the improved emergency air service need since timeliness is a critical factor in medically evacuating desperate cases. Receiving care within the first hour of a serious incident requiring medical attention increases the likelihood of survival. Considering that the flight from Angoon to Juneau will take up much of an hour, every minute of road travel to the airport will matter. The travel time to</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | the airport is also an important consideration for residents and businesses, especially tourism operations, who need to factor in the time and cost it takes to transport themselves, clients and goods on the access roads. The travel time should be realistic in terms of speed limits and potential hazards such as potholes, puddles, snow and ice.  |
| 84               | 4         | Mark Rorick    | Sierra Club            | <p>Another missing component to the alternatives comparison is the operation and maintenance costs of keeping the various access roads open. This is important because the alternatives vary significantly in regards to how many miles of access road are constructed and because the taxpayers will bear the costs of keeping the roads intact and open. Considering that the airport and access roads are permanent features, the operating and maintenance costs for each should be projected on an annual basis and outward for 25, 50 and 100 years. The costs must include filling potholes, maintaining culverts, snow plowing and sanding/icing the road, and incorporate inflation in their projection, to be realistic. This is especially pertinent now as the Alaska State Government faces a \$3.5 billion shortfall in the state budget with low oil prices and many infrastructure projects are being scaled back.</p> <p>The inclusion of these comparative elements is necessary for the EIS to inform the public as to how the alternatives meet the professed need for the project and as to how much each alternative will truly cost.</p> |
| 84               | 5         | Mark Rorick    | Sierra Club            | <p><b>The DEIS Does Not Adequately Address Impacts and Issues of National Significance</b></p> <p>The DEIS reduces the impacts to purposes and values of the Kootznoowoo Wilderness and Admiralty Island National Monument down to how many acres are affected in Tables WCS-13 (pp.651-672) and Table WCIS (pp.675-6) and local impacts in Table WC14 (pp.673-5). There is far more at stake that must be discussed in the EIS.</p> <p>The Monument-Wilderness lands have national significance as stated in:</p> <p>The Wilderness Act of 1964:</p> <p>§2(a) In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | <p>hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by the Congress as "wilderness areas," and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness; and no Federal lands shall be designated as "wilderness areas" except as provided for in the Act or by a subsequent Act.</p> <p>ANILCA:</p> <p>§101. (a) In order to preserve for the benefit, use, education and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values, and units described in the following titles are hereby established.</p> <p>(b) It is the intent of Congress in this Act to preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems, to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing fishing, and sport hunting, within large arctic and subarctic wildlands and on freeflowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems.</p> <p>(c) It is further the intent and purpose of this Act consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each conservation system</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | <p>unit is established, designated, or expanded by or pursuant to this Act, to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so.</p> <p>(d) This Act provides sufficient protection for the national interest in the scenic, natural, cultural and environmental values on the public lands in Alaska, and at the same time provides adequate opportunity for satisfaction of the economic and social needs of the State of Alaska and its people; accordingly, the designation and disposition of the public lands in Alaska pursuant to this Act are found to represent a proper balance between the reservation of national conservation system units and those public lands necessary and appropriate for more intensive use and disposition ....</p> <p>The Admiralty Island National Monument Land Management Act of 1990:</p> <p>§202 The Congress hereby finds that-</p> <p>(1) Admiralty Island National Monument, Alaska, is an area of unparalleled natural beauty containing multiple values including but not limited to, fish and wildlife, forestry, recreational, subsistence, educational, wilderness, historical, cultural, and scenic values of enduring benefit to the Nation and the Native peoples residing therein ....</p> <p>An assessment as to whether the alternatives degrade or uphold the following values, which are touted by the aforementioned laws repeatedly, must be presented: ecological; wildlife; geological; scientific; educational; historic; prehistoric; archeological; natural; scenic; cultural; subsistence; recreational; wilderness; conservation and environmental. 40 CFR 1508.27 defines the significant impacts that must be addressed and they include the broad public values nationally held by the American people. These values are encapsulated by terms such as:</p> <p>a National Wilderness Preservation System for "the permanent good of the whole people" and for the "use and enjoyment of the American people" [The Wilderness Act, title and Z(a)]</p> <p>"unrivalled scenic and geological values associated with natural landscapes" [ANILCA IOIb] "extensive</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | <p>unaltered coastal rainforest ecosystems" [ANILCA IOIb]<br/>           To be clear, there is no need to conduct additional studies, but there is a clear requirement to state the impacts of national significance and adverse effects to public values.</p> <p>40 CFR 1508.27 defines the significant impacts that must be addressed and they include the broad public values nationally held by the American people. These values are encapsulated by terms such as:</p> <p>a National Wilderness Preservation System for "the permanent good of the whole people" and for the "use and enjoyment of the American people" [The Wilderness Act, title and Z(a)]</p> <p>"unrivaled scenic and geological values associated with natural landscapes" [ANILCA IOIb] "extensive unaltered coastal rainforest ecosystems" [ANILCA 101b]<br/>           To be clear, there is no need to conduct additional studies, but there is a clear requirement to state the impacts of national significance and adverse effects to public values.</p>   |
| 84               | 6         | Mark Rorick    | Sierra Club            | <p>The Cumulative Effects Analysis Omits Significant Impacts to Monument-Wilderness Lands</p> <p>While the DEIS quantifies short-term project impacts to wilderness character, it fails to quantify long-term impacts to wilderness character and thus is insufficient in its cumulative effects analysis.</p> <p>Considering that the foundational purposes of the Monument-Wilderness lands are to preserve wilderness character, ecosystem integrity and the cultural legacy embedded in the land as artifacts and sacred sites, there is a particular need to describe long-term impacts and cumulative effects from future road and airport use for the in-Monument-Wilderness alternatives - especially projected road use. While ANILCA Title XI may provide for transportation facilities in wilderness, the Wilderness Act of 1964 specifically prohibits permanent roads in wilderness [4c] in order to preserve wilderness character. The language of the Wilderness Act and its legislative history make it clear that roads are primary agents facilitating development, extraction and modification and thus the Wilderness Act institutes a powerful check on roads. The EIS analysis needs to project long-term uses affiliated with the in-Monument-Wilderness road and airport alternatives and how they would affect wilderness</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | <p>character qualities and designated purposes. Specific impacts that must be quantified include:</p> <ul style="list-style-type: none"> <li>• projected traffic use/noise impacts from residents, visitors, airport and commercial operations</li> <li>• potential additional future infrastructure developments (transmission lines, water lines, further roads and structures)</li> <li>• potential increased ATV use due to increased access</li> <li>• increased trash and contaminants</li> <li>• increased hunting &amp; fishing pressure</li> </ul> <p>These impacts are reasonably foreseeable should the in-Monument-Wilderness access roads be built. Projections of such long-term effects should be available from other NEPA reviews where roads were introduced. This should be more of a research project than a need for new studies.</p> <p>Conclusion</p> <p>The DEIS makes a good attempt at quantifying local impacts of the Angoon Airport project. Our recommendations center primarily on the need to better address issues that have broader resonance, such as cost to taxpayers, long-term impacts and adverse effects to nationally cherished values of the " Monument-Wilderness lands.</p> |
| 85               | 1         | KJ Metcalf     | Friends of Admiralty   | We support the FAA's preferred alternative 12a. It's next to existing infrastructures, road, and water, electricity  |
| 85               | 2         | KJ Metcalf     | Friends of Admiralty   | and a more remote airport such as the one that is the preferred alternative for the proposed action from DOT is also one that would work but it would have an incredible impacts on those values that the monument was created for and that people have worked so hard for over the years, particularly those people from Angoon to protect those values.  |
| 85               | 3         | KJ Metcalf     | Friends of Admiralty   | And in the winter time when equipment breaks down and you have a 4-5 mile road and you have to drive to get to the airport and the plows aren't there or are not working. It could be a really serious situation if people need to be medevac'd out of town and gotten out of town as so often happens. Coast Guard comes in now and medevac's people but they are not always available e to do that.  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name  | Commenter Organization       | Comment Text Verbatim  |
|------------------|-----------|-----------------|------------------------------|--|
| 85               | 4         | KJ Metcalf      | Friends of Admiralty         | The other aspect of that alternative is that it's half the cost of the proposed action by DOT and it seems to fit so much better meeting the needs of the community as well as having all that infrastructure right next so, I think it will be far easier facility to maintain and operate than the more remote one.  |
| 86               | 1         | Maxine Thompson | Public                       | My biggest concern is is uh Angoon is being squished into a small area and all too often a lot of our projects face that as an obstacle. Because you know we need it right now. It's put right in our face. Good example is we've grown out of the dump now and then the sludge infill.  |
| 86               | 2         | Maxine Thompson | Public                       | And so but having said that my other concern is that the information that's put out there um veiled threat if we don't go with the best or the most available location right now we'll lose it. So I'm very concerned.   |
| 86               | 3         | Maxine Thompson | Public                       | But Angoon needs to have good infrastructure to service us way into the future. We can't do this we need it yesterday already. And I'm talking about yesterday meaning 98 when we voted for the airport. So we have a big dilemma here. We have an aging population. The baby boomers are right around the corner being medevac'd out. And you know for yourself that to make sure you got her for the meeting a lot of you went on the ferry.   |
| 86               | 4         | Maxine Thompson | Public                       | We need to have guaranteed service on and off the island coming and going. And if we had a runway you know we could be rest assured we can meet the needs to medevac someone out. It takes too long to medevac someone on the ferry. God forbid that we don't have ferry service anymore. My biggest concern is service for the residence and people   |
| 86               | 5         | Wally Frank     | Angoon Community Association | I know that there's some state people here. I hate to say this but the states been draining us on our subsistence life for many years. I hate to see the state's selection be thrown in or the tribes' subsistence. You know our on our charter and our bi laws the tribe has the right to do what's right for the native people of Angoon. What timber and water rights but the states been fighting us on water rights that the congress gave the different nations of Angoon.   |
| 86               | 6         | Wally Frank     | Angoon Community Association | Oversee (unintelligible) and all the native people use it (unintelligible) nation. I hope it hits them to some peoples take that if the state has to really have the airport on the other side I don't know if it will open up. And I was talking to Chad and I asked him about the timber rights. I remember sometime back when I think it was somebody was working that was working with the state a local said you'll even have to get permits for what we call (unintelligible) and I asked him if we had that airport on the other side of the bay a lot of people here are excited we are able to get timber off that land. I thought it was |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name  | Commenter Organization       | Comment Text Verbatim  |
|------------------|-----------|-----------------|------------------------------|--|
|                  |           |                 |                              | the wilderness and needed to be protected both for subsistence way of life   |
| 86               | 7         | Wally Frank     | Angoon Community Association | I know maybe 30-40 years back when we had the right to try hydro in favorite bay and everything looked good but people voted it down because that area was a subsistence area. Now were again, I hope, we're not fighting anyone. We're fighting for our people and our native rights. I've seen native people I guess you know what I mean. I know the state wants to even when they didn't have the power to regulate subsistence they were doing it with the subsistence permits and everything. So. We just have to be careful on what we do here and make sure that   |
| 86               | 8         | Joseph Thompson | Public                       | the main thing is I don't want anything to slow the airport down   |
| 86               | 9         | Joseph Thompson | Public                       | the thing that seems to me that would be important is that we look to the future of Angoon. And if I understand correctly what was said originally was that 12a is what the feds and the state is uh recommending. But 3a is what the community I thought voted for. 3a would be on the other side of Favorite Bay and it would require quite a bit of road way. To me it would open up an area and provide expansion. Look around Angoon right now we're all clustered up all tightly together. And uh, sometime in the future this community and this land will be really valuable uh, for everybody. And that opening up that small area, and it is small in comparison to everything else, uh, will be really important, |
| 86               | 10        | Joseph Thompson | Public                       | again I'd like to emphasize the most important thing is that we get an airport whether it's 3a or 12a,   |
| 86               | 11        | Joseph Thompson | Public                       | But, um, if you look to where the futures going, we need to expand and move away from just being all clustered up tight together and um, that's mainly what I have to say.   |
| 86               | 12        | Wally Frank     | Angoon Community Association | will we be able to expand in that area.  |
| 86               | 13        | Wally Frank     | Angoon Community Association | you just come in and say a few words and you leave.  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization       | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------------|---|
| 86               | 14        | Wally Frank    | Angoon Community Association | I'm talking about what the tribe voted on what we have resolution on. The one by the lake. I just say this because from the material that we get if you build it across the bay it will be 20 more years.   |
| 86               | 15        | Wally Frank    | Angoon Community Association | And I don't know how long our hydro took. For the natives peoples use. When you look at it, the airport, is being supported by Juneau, the State, the favorite bay site. So I think this is the last one.   |
| 86               | 16        | Wally Frank    | Angoon Community Association | I wish it was because in my mind I don't know how much money was spent on administration for that airport. I think it was 5 years, 6 years. That's a lot of money and I don't think my friend has too much longer.  |
| 86               | 17        | Wally Frank    | Angoon Community Association | Probably won't see the airport if it goes much longer. I can guarantee that uh, if you put it in wilderness it will probably take 10 more years to try to get through the permit system and congress.   |
| 86               | 18        | Mike Stedman   | Alaska Seaplanes             | I don't have the EIS in front of me but uh, I will speak to the fact that the airport um, the position over there by Kanalku, I believe it's 3a? In my 30 some years of flying in and out of Angoon I believe that's the best alternative, it's the safest alternative,   |
| 86               | 19        | Mike Stedman   | Alaska Seaplanes             | it gives you the most area to expand later on if you need to.   |
| 86               | 20        | Mike Stedman   | Alaska Seaplanes             | Uh with the proposal, proposed runway being pretty close in town there, I don't have the EIS in front of me so I don't have the number of the runway alternative, but the one that kinda runs parallel with the peninsula there. I don't think that would be a very good alternative for one for safety reasons um also the wind. You're landing and taking off right over the top of houses. Um, you know so I still sticking with the preferred first one. Uh, you know I've been involved with this from the very beginning and uh, that was the place that I had chosen right off the bat and the winds are the most favorable out there, your away from you know buildings and houses and uh, it would be a safer environment. |
| 86               | 21        | Carl Ramseth   | Alaska Seaplanes             | I understand the distance from town is greater and the road that would be necessary to get there is expensive.  |
| 86               | 22        | Carl Ramseth   | Alaska Seaplanes             | And by far the best alternative for safety and for approaches and IFR environment. The reliability of air service would be greatly increased cause the, ah position of the airport that Mr. Steadman mentioned, I'll apologize also for not having the map with the three alternatives, I'm having trouble finding it.  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization       | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------------|--|
| 86               | 23        | Wally Frank    | Angoon Community Association | I want to talk to someone face to face. And uh, the state has no right to try to force us to do something that we want. We were put down on the airport before like 40 or 30 years ago but it was some business people who put it down.  |
| 86               | 24        | Wally Frank    | Angoon Community Association | I hate to see that and uh I don't know how many times you guys flew here and you talk about favorable winds and need to define wind term (unintelligible) so I don't know what kind of winds they're talking about. That man that was talking should have been here. Said something about the weather you could jump on the ferry and save money.  |
| 86               | 25        | Pauline Jim    | Public                       | I've been on the health council for a good many years and we do need the transportation because our people's healths are involved. We need it because people have to get out of town to do what needs to be done that doesn't have to go to SEARCH.  |
| 86               | 26        | Pauline Jim    | Public                       | And I think the wind would have a big variant on it. I know because when were done on front street and we walk down this street it was nice and calm until you get to front street where I stay and you can really feel the wind there. So the wind has a variant on even walking, I could imagine what it is. I flew in from Juneau one time and it was pretty bad. So it is important as to see what the best location is for wind and in Angoon.  |
| 86               | 27        | Pauline Jim    | Public                       | If there was a resolution that came from Angoon, not everybody is always in full attendance for one reason or another because people aren't able to get up here or haven't been given ample notice.  |
| 86               | 28        | Pauline Jim    | Public                       | When I was just a pretty little girl that front street was our town. We can't say that we're not going to expand. Look at, we're all the way back here. And we're still going. We've gone up the road, we're out to where the dam is. We can't say there isn't going to be an expansion and this is minor stuff yet. I'm sure once the plane hits, an airport hits Angoon that there is going to be open opportunity for the community. Angoon has been shut down for too many years. We haven't been given the opportunity to do anything other than be confined to the streets we walk today.                                  |
| 86               | 29        | Frank Jim      | Public                       | And uh, speaking of subsistence, our people are having a lot of trouble with subsistence all the time. The things that communities in SE Alaska are looking at is a fish that are being caught out in the ocean. They put floatin canneries out there. They're already putting another one out there. And this is something that our community should have got together with all the southeast communities here they don't look at stuff like as floatin canneries that kill our fish. It used to take the boats seventeen days seven days coming in and seven days coming out and a few days to wrap up and fuel up. It used to |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | take that long for trawlers to run back and forth. Now they just troll right out there in the ocean. All the fisherman that fishes out in the ocean they don't come in no more. They're the ones that's killing our subsistence. Every time it comes to the point of something they want to build in Angoon they talk about our subsistence resolutions. And this is some kind of resolutions those canneries floating canneries that are being put out in the ocean. They need to stop that. Put an end to no more floating canneries out in the ocean. And that. That way maybe our airport will get build you know? They're the ones that's killing our fish, not anybody else. I've been watching news how many years and these things are the things that's coming up and uh. We asked for an airport I remember when I was still young when they were talking about it. Nobody turned it away. Just the people that were sitting here that people didn't even know they were having a meeting on any stuff like that. And all the sudden we come walking into a meeting like now and here we are talking again. It's really something when you start throwing resolutions around to people that's trying to help our people but uh, this is something I'm trying to tell them to get together with all southeast and then there's no more trouble with our subsistence issue with these floating canneries. |
| 86               | 30        | Frank Jim      | Public                 | I'm all for the airport to be put in cause I was flying home from down south one year and I missed the ferry so I called Hoonah and asked how much is it to fly to Hoonah and it was only like \$57 and Angoon here was \$100. Now I see the difference on coming to Angoon. Hoonah's just the same distance as Angoon they got the wheels on the airport and we got float planes it costs them a lot of money to keep the floatplanes running. That's why it's costing us so much money to fly in and out of Angoon. So I'm all for the airport be put in.   |
| 86               | 31        | Frank Jim      | Public                 | When you decide to put something in like the airport you have to think 20 years ahead of time. 20 years ahead, not today. When you're gonna build you don't think of today how you're gonna build it, you think of how you're gonna build it for the next 20 years of people that will be here the next 20 years from now. You're expansion will keep coming out and you're looking for some more money to extend on the airport and that's if you have to look at by just a small little runway it's not gonna really help Angoon, it will turn into dirt right away. And you have to think of a bigger airport then what we're thinking of now and you have people from outside that has the education on keeping up the planes here in Angoon. People need to go to school and stuff like that. Don't just run and do it any old way.  |
| 86               | 32        | Frank Jim      | Public                 | But uh, subsistence they have to look out in the ocean. They're the ones that's doing the damage. I've  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | been watching news up north and what they're doing to our people down in southeast here and people aren't seeing it here. Their just thinking of our tricks that's all. So do you want to talk about our subsistence those are things you have to put a stop to. Put a stop to our floating canneries that's going out in our ocean. That's all I have to say.  |
| 86               | 33        | Ed Gamble      | Public                 | Maybe the guys that's stuck in Juneau, if they let the locals put the airport where they want it to be they wouldn't be stranded in Juneau right now because the people that live in the local community have the most knowledge about what kinds of conditions you have and I see where we've been going through years and years of study.   |
| 86               | 34        | Ed Gamble      | Public                 | But the thing they were looking at was the location and I always make the comment that they have an EIS process. The EIS lets the whole country talk about an airport that's coming in Angoon. And who's gonna use the airport. The people in the community. So all we get to an airport. How we get to an airport or where the airport lands us on the returning. It's important to us.  |
| 86               | 35        | Ed Gamble      | Public                 | And the shorter the distance the better. When they first pointed out the preferred site. The preferred site was pointed out by a pilot for a pilot for an airline that wasn't even here. Wings of Alaska. He came and make a statement and he said he wanted the airport in that area. At that time I made the comment that we're gonna need another seaplane on the other side so we can get to our airport. If you look at the distance I work with the roads program with the Tribe. You look at the cost of building the roads. The airport no problem, you can put an airport anywhere around this area if you look at it it's a nice area to put an airport. But the location and the distance and we work with the Tribal government and the maintenance program. It's a costly thing the more distance you put into it the more maintenance you work it. And the road and if you got a road from here to the preferred site, you're building a whole heck of a long road and a long road to maintain. And how much funds you and how many people are going to be using it going in. |
| 86               | 36        | Ed Gamble      | Public                 | I spoke of a preferred site because at that time we had a young man that was the president of Kootznoowoo incorporated. And he found out that they wanted the airport near Kanalku. It's a nice place for fly casting and stuff like that. And there's a lot of people that work in the state of Alaska that have private planes. And they wanted an area where they can take a plane ride from Juneau and come to the community. HE said that's not an ideal situation. The airport wouldn't be there for the community of Angoon. The airport would be there for preferred people that work in the state of Alaska. There's a   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | lot of them, they're in Juneau. It's the capitol. So the impact would be in the place an area that has to do with quiet enjoyment. When you have language like that protecting a place like a little community like Angoon. It's hard for the agency people to find the definition of quite enjoyment. And you have to keep saying it over and over again. But we get the negative impact whenever someone wants to do something for the community of Angoon. Or something that we want to do. It gets voted out of either the State government or the federal. So those are the sentiments we look at we have when we look at the location of the airport. I say we need an airport. That would be my comment. And we need access to the airport also. That should be a high consideration. Not someone that's stuck in Juneau that has a preferred site. The preferred site for the community I think would be expressed by the local people and it should be something they have access to. It's a comment. Thank you and again thank you for being here. |
| 86               | 37        | Gilbert Fred   | Public                 | And I really appreciate and I wanted to go on record the comments that President of the tribe Ed Gambel stated. I believe he shares a lot of community sentiments with you people in regards to the airport and the preferred site and the site that would be most uh logical and beneficial to the community. I do share with him looking at the alternative sites there that the best sites available is utilizing and choosing the locale because I do know in Kanalku that the wind there, there's so much turbidity there and the way the mountains are funneled into that area that even when we're going to get, that place is always cold. I'm really concerned about white out conditions um, the possibility of a plane flying around the top of the community   |
| 86               | 38        | Gilbert Fred   | Public                 | and just exactly how accessible these proposed sites are and um in terms of um subsistence and other user groups and industries impacted by upland activities  |
| 86               | 39        | Gilbert Fred   | Public                 | I'm really concerned that we axed a program that was developed by a broad spectrum of the public industry and user groups called the Alaska coastal zone management program. Which is we have a federal coastal zone management program and I'm really concerned that Murkowski axed that and Cornell failed to fund it. This is a really really important document because it was quite extensive in its development and covered a broad spectrum of the public in its development, especially in the land use designation of areas and their importance to the community, also um, it lists areas meriting special attention to the community and we just shelved those. I understand that out of ANILCA there came 33 new landowners and it requires that there would be an integrated management plan in place one that  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | was favorable to adjacent land owners and user groups that's never been developed since ANILCA was written. We're still out of compliance with ANILCA. Now you know the only voice the only forum and venue we had available for discussion alternatives and development the Coastal zone program was axed and we don't have an integrated resource management plan, we're relying on NEPA. So I really really consider that we really take a good hard look as federal agencies at that Alaska coastal zone management plan. Especially when we are dealing with communities on a site specific basis. I think that the state of Alaska should still have copies. Communities should still have their individual copies and I really feel that it would be beneficial to reference those documents that are still there because it represents like I said quite a bit of time and money and public involvement over a vast spectrum of the public. People with different values got together and collaborated in its involvement and we just trashed it. I feel we took 8 steps forward and 16 steps back with that.  |
| 86               | 40        | Gilbert Fred   | Public                 | And it really concerns me and I'm kind of anxious that an IRMP hasn't even been developed yet and we've seen the land being carved up and just how Green's Creek was able to ride in on the coat tails of ANILCA and we had the mixing zone pipe on the Chatham straight side, gosh cause we didn't want to contaminate the waters for the canoers going from Juneau going on the Seymour Canal side. When we worked for the tribal EP we felt that mixing zone pipe from their tailings pond should have been shifted over to the east side of the island. But it seems like we were disturbing the recreational use of people living in the capital city. So we say it's okay to put the mixing zone in Chatham Straight so our tribe is concerned about going and do bio and water sampling because it could have the potential of impact on human health. And so you know we're sort of in a catch 22 we need to raise the quality and value of life here in the community but also if we just totally abandoned our traditional diets we start coming down with a whole host of diseases. Diabetes is one. Through search and earth study and our ability as native entities to go out and push resolutions as Frank was referencing to allow us to take our native foods into the hospitals and to the elderly homes that the elderly that were suffering and sickly their immune systems began to bounce back and they were able to knock diabetes out of their systems so we want to raise the quality of life, we want to enjoy a lot of the conveniences that modern society has but we can't abandon our traditional diet. So I think the balance in that for us from a local perspective is how do have the best of both worlds without adversely impacting our ability to go out there and traditional hunt and fish. |
| 86               | 41        | Gilbert Fred   | Public                 | And so I'm really concerned that in developing these alternative sites you know if we really referenced  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | some of those program documents that are out there like the coastal zone management program and we know we see areas that could be a source of contention.  |
| 86               | 42        | Gilbert Fred   | Public                 | I feel the best science should have been applied in designating those areas and the winter conditions. Have we even started a base line graph line on you know how accessible that are is in the winter time. What's the turbidity like in those areas you know there are times in these areas I've looked in these action alternatives and it was a complete white out in that area. The idea of a plane circling about our community is scary to me.  |
| 86               | 43        | Gilbert Fred   | Public                 | And so I really feel that we do need that airport. We really do. There's times when even the Alaska Marine Highway system has broken down because some of our vessels are so old they've depreciated to the point we'd be better off just buying a whole new one. And it's kind of disconcerting for me that we're you know facing a 9 million dollar budget cut on the Alaska Marine highway budget. And you know this is one of the things that makes Alaska unique. I really feel that we've seen a lot of things going on on the monument I really feel that we've been sort of left out of the loop on raising the quality of life. And it was a lot of our people that fought hard to turn this place into a national monument. We feel there's a lot of I don't think it's wrong for eco-tourism or fresh water tackle fishing going on on Admiralty provided it goes by the rules and that these people that are utilizing the area go through the proper hurdles like everybody else. And get the permits. I feel on that note we haven't even tapped into the eco-tourism potential of the island and people will pay just to go and track forest service track the salt water fish. And you know I really feel that you know if that's gonna go on then there ought to be some sort of liaison with the tribe and the forest service and state making sure that everybody that's on the island is playing by the rules and respecting the integrity of the sites where they are going . So I really support an airport here. |
| 86               | 44        | Gilbert Fred   | Public                 | There's times when even helicopters couldn't fly in to fly some of our patients out of here and there's times where the ferry was broken down and they had to wait for the weather to clear. If we just had an airport at that time, there was a short little window where a plane could have come in and flew that patient before the weather turned bad and so Murphy 's Law comes into play. We've faced situations where we live on an island here in Southeast and we were inaccessible at the time and we had somebody on the verge of dying here in the community and everybody was wringing their hands and biting their nails and people were praying for the families and stuff and supporting them and trying to   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | stay positive during a time of crisis. And that's the way are as a community. When something effects on of our community members it affects us all.   |
| 86               | 45        | Gilbert Fred   | Public                 | So in these areas where we're discussing Favorite Bay here some of these small pox epidemics and influenza epidemics and stuff there are so many people dying off that we still hear stories of the ones that were determined to have the virus and made a personal choice that they would rather go into favorite bay and die then contaminate the rest of the community so we have stories of them waving to their loved ones that were leaving so in a sense some of these areas are like a shrine to us. And we wanna respect the connection that our ancestors and people have historically with those places. So there's times where we have to really really hash it out at a local level, how can we best utilize these areas with the best intentions and respect the integrity of the historical connections that we have with those area.  |
| 86               | 46        | Matt Kookesh   | City of Angoon         | The Angoon City Council has chosen Site 3 A as the proposed site for the Angoon Airport. The City of Angoon does not want to give up any more land than what was given up in ANCSA and what was received by the City under 14 C3 process. Kootznoowoo only received 2000 acres around Angoon they received 6000 acres in the corridor lands and in return under 14c3, they gave the City 850 acres of land. So the point I'm trying to make is we have set amount of land here and for us to put all the pressure and put an airport on that set amount of land is something this community will never get back. It's not in the act. There's language on inholdings, but this would not qualify for that. The reason why we want to pick outside of the city boundaries is because our Elders have gone to DC and talked about ANSCA and ANILCA many times. And one of the things they have talked about is us building outside of what's been given to us. We have a proposed water line site coming down from hood Bay that's gonna have to come off the monument lands and we don't want to start shutting this door. We spend time with Don Young we spend time with Murkowski staff talking about getting back on to the monument. And I have no idea why we have to fight this battle. We're a community we need to grow. And we only have set amount of land to grow in |
| 86               | 47        | Matt Kookesh   | City of Angoon         | to put that airport right there in 12a would mean that our quiet enjoyment for the community would be affected. Because we'll have the airplanes flying right over the community to land at 12a. And I realize 3a, the site we picked that it will affect the quiet enjoyment of that area. But what do you chose. We live in both areas. I would rather have this community protected and once you start instrument, using   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization       | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------------|---|
|                  |           |                |                              | instruments to come into this community, they're not just going to come in during the day. They're also gonna come in at night.   |
| 86               | 48        | Matt Kookesh   | City of Angoon               | The City and the Tribe have both selected different areas. Different sites. We selected 12a, oh no, they selected 12a, we selected 3a and what the council voted on, the tribal council voted on was to authorize me to put this on the ballot in October. So I have to work on the language of that and I know that this is still early in the process and I don't know if it will have any credibility to this process. It may or may not.  |
| 86               | 49        | Matt Kookesh   | City of Angoon               | The City reserves the right to have an airport in Angoon and we want to be consulted before any more money is put in this airport and I would highly recommend that you start attending city council meeting. Because we are in contact with our legislators and our congressional delegation on this very subject. The city of Angoon needs true consultation since we are the land holder and land use planner even if it belongs to Kootznoowoo or the monument.   |
| 86               | 50        | Wally Frank    | Angoon Community Association | And watch over the lands which we don't have much of. And on the comment period on lands they wondered why corporations gave city lands when they weren't all natives and they never mentioned the tribes. Who are the people that gave up the most and I'm sorry if I hurt anybody, I know I did. But I speak for our native people. You hear people say that our lands was made for expansion by our Elders. Our elders went to DC to save this land for the use of the animals, not just fish, not just sockeye. So that's all I'm gonna say. I'm sorry if I hurt some people's feelings but I don't have too much more time in this world. I'm 78. I'm speaking for our children and our grandchildren.   |
| 86               | 51        | Wally Frank    | Angoon Community Association | I guarantee you that some people will get hurt or lose their lives if you fix a long road over there no matter how much they create it now. Terrible place to ride. If Angoon had the equipment like Juneau where you can spray the roads when it is 15 degrees then that would be good. Some people they don't even go riding but they want the long road. 2 and half [unintelligible talking] I think albert made a good comment. You know that the favorite bay area is a lot colder in the winter time and our roads, the road that goes to the lake is terrible in the winter. I think some of the people here wouldn't want to ride on it. I ride on it and I know what it's like. It's like glass. So I'll leave it up to folks whatever you want. But you know what our stance is as the tribe for our native people. |
| 86               | 52        | Frank Jim      | Public                       | I talked a little earlier about the airport you know mentioning you should think about 20 years ahead of it is because they made a mistake on Kake and Hoonah airport, it was short. People complain about  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name  | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|-----------------|------------------------|--|
|                  |           |                 |                        | the short runway they had. That's why I was saying think 20 years ahead of time. Make it longer then you expect to. I didn't ask for Alaska Airlines to land on our airport, but they could later on in the years to come. Our people need that airport.   |
| 86               | 53        | Frank Jim       | Public                 | It's pretty hard for us to be waiting for a plane. The cost of the pontoons is what ups our cost of paying on the plane. Get the wheels like I said and our prices will go down. And that's good for winter too.   |
| 86               | 54        | Maxine Thompson | Public                 | There's some good comments raised by different people but one of the things I wanted to state was that my parents were part of the three couples that went to DC to make this a national monument. They never envisioned that Angoon would be put in a poverty state. Which is what I see as a business owner. Because of the lack of space, because of the lack of expansion. We can't even get to our hydro site because of the monument. That's not the purpose of the monument.  |
| 86               | 55        | Maxine Thompson | Public                 | And I've asked before that the Forest Service stand by Angoon. To better the lives of our people. They ought to be ashamed looking at our community. Our business is depleting because of the high cost of electricity. And then the other thing is my father retired from Forest service and he said the same complaints they had about the ferry, the same threats, it's going to ruin us, and it's going to bring in these people. And now we're all in a state if the ferry doesn't come in. We have to get over that fear tactics. There's a runway in Mount Edgecumbe where do we go for our herring. If anything is changing it's because of the climate maybe. There's different fish going up in Barrow. We're going to have to adjust we're going to have to make choices. |
| 86               | 56        | Maxine Thompson | Public                 | Do we want to medevac our person at 11 at night or do we have to wait for 6 or 8 in the morning.   |
| 86               | 57        | Maxine Thompson | Public                 | And I believe, I trust that the wind studies that were done were for our safety. And that's what I believe we ought to support.  |
| 86               | 58        | Maxine Thompson | Public                 | I'm very concerned that people that have money can get a tailings expansion if they have the money to buy land and return it to the monument when we can't do that. Why don't they equate that land that's been returned to property that Angoon could use to better the lives of our people? That's all we're asking. Anybody that wants to protect the trees should live here and turn their lights on or turn them off as we do. Tlingit and Haida held an energy conservation training here. I said "you'd learn more from these people if you walked around and listened to them". You drive around and you're going to see the TV on, one lamp above the stove. That's all that's on. Because our electricity is too high. We need   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | Forest Service to stand by Angoon. On a projects that are needed. These aren't fluff projects. These aren't luxury projects. These are necessary. For our grandchildren, our great grandchildren that aren't here. We need to get brave, we need to stand up and speak for our people.   |
| 86               | 59        | Richard George | Public                 | On both ends that land is primary land for our growth. And the traffic that comes into that strip would interfere with our development. We can't have restrictions of the airport, we can't develop.   |
| 86               | 60        | Richard George | Public                 | It's extremely important to us, to you as Forest Service. I mean, envision if you will a road going around Favorite Bay into the wilderness. You talk about Admiralty Island being the jewel. We have a lot of pride in it. That's why we fought so hard in developing Angoon and putting, keeping it the way it is in its pristine state. We went, we made legislation in Washington DC. We don't have we didn't have the wherewithal to allow people to study for us. We just knew what we wanted was to protect this island. We even had to fight our relatives and our neighbors in the villages around Angoon. So you are responsible, Forest Service, for what is forever on this island. I don't want Angoon bunched up on this peninsula. It's a shame on you if you allow it to happen. Shame on you.   |
| 86               | 61        | Richard George | Public                 | You have the, it takes a stroke of a pen, as far as we're concerned when we look at the Forest Service you have an office in Washington D.C. You have the wherewithal to say okay we're going to expand on our areas of responsibility. Let's fix this place up. I travel around the United States. I see stuff that Forest Service is involved in. I see all the development that's taken place in other states. I don't want to be, listen to you hem and haw because you want to bunch everything up. Look around our town you see our post office, our city office, our clinic. It's all in one area. You don't do that in Juneau. You don't do that in Anchorage. You don't do that up north. Don't do that here. We sat at the table, I remember as Kootznoowoo. Developing this relationship. We knew that you had to be seated at the table. And we were open we had to change some of your job description, I said it before. I was there. What this will do to us if you keep the airport on the side of the road. It will impact our children. We need room to expand. And you people that came I want to thank you for coming. It's an important issue to us. But I'm like the speaker said a minute ago, you need to choose wisely. Because the end product can be a model in the whole United States. We've heard the feedback coming back on Kootznoowoo national monument. We've heard it. We have pride in it. And we're counting on your office to be our friend to this community. We don't want to be complaining to Washington about this box you put us in. I would like to hear that you're pushing the envelope trying to develop. |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
| 86               | 62        | Richard George | Public                 | Imagine if you will going from year to year. If the cost of the road is an issue then let's fund it from year to year until we get to that location. We've waited how many years? It's not going to make that much difference. I don't want to hear "it's going to cost too much"  |
| 86               | 63        | George Nelson  | Public                 | I know everybody sitting here knows I served on the fire department and EMS a long time ago. I was on a call when a plane crashed in favorite bay. I was the first guy to reach the pilot. A Petersburg plane flipped over. Three times. I reached, I got to the pilot and got out of the plane and the plane exploded. I do want an airport so hopefully this community will come together as one like I said I'll probably (unintelligible) by the time the first plane lands. I don't know why we spent so much money on it. I wasn't getting my social security when we first started this airport and now I'm getting social security and still never seen a plane land yet. I'd like to see something so hopefully I'll see one land before I get too old. I'm not going to talk forever. When that plane crashed from Petersburg I was down there. I knew the pilot real well too. Thank you. |
| 86               | 64        | Frank Jim      | Public                 | you guys should ask Ward Air they come out all summer long here. They come and fish here out of Angoon and they do a lot of flying in and out of here and they charter up Ward Air so it would be good for you guys to get comments from them too so get their comments too.   |
| 86               | 65        | Gilbert Fred   | Public                 | We are discussing a road to access the airport and I really feel we can't close the door. The tribe has land down in Hood Bay it would be beneficial to the tribe to access their land holdings in the monument down in Hood Bay. And also the Kootznoowoo incorporated has the ROW to develop a hydro project up by Thayer creek. I really feel we have to get that ASAP. It should have been here a long time ago. In a rush to preserve the island I feel we closed the door to keep us in the state we're in right now. I really feel that whatever the forest service can do to ensure that Kootznoowoo and the Tribe are able to access their holdings and raise the quality of life with safe water and electricity. I would really appreciate that. Thank you.   |
| 86               | 66        | Albert Howard  | Public                 | A lot of the rights given to us as far as deciding our own future are embedded in the constitution. I say this because it seems to me we're being told what we should have and we know what we want. I tried to spend as much time as possible listening to community members and voicing their opinion on different things that concern them and I think this is part of that process. I'll agree with Mayor Kookesh when he talks about wanting 3a as our airport and to explain why. It leaves the rest of the area open for economic development and the possibility of expanding the airport in the future. So I think there seems  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | to be a lot we're always up against to try to accomplish what we need for our community.  |
| 86               | 67        | Albert Howard  | Public                 | Things that other communities already have and take for granted. I've listened to the elders speak. This process started years ago. I remember as I served as Mayor the EIS was supposed to be done now. I think it's important to listen to what our community members want because at the end of the day we have to live with the result.   |
| 86               | 68        | Albert Howard  | Public                 | It's for our public safety to get our patients in and out of Angoon when they have health problems. It gives us more options than what we have currently. And it's hard to actually explain it unless you live here and you live it like we do. We're given a right under Title XI for transportation utility corridors. The 1990 Act also gives us the right to be part of the process, which is a combination between the city, the Tribe, the corporation, and the Forest Service to co-manage the island. It's in written law. The 1990 Act also states for the betterment of the indigenous people. I'd like to think that's me.   |
| 86               | 69        | Albert Howard  | Public                 | So when you guys are debating over whether to build it on this side of Favorite Bay or the other side of Favorite Bay keep in mind who you are building it for. You're building it for us. We have to live with the end result.   |
| 86               | 70        | Albert Howard  | Public                 | There's conflicting laws on both sides of this issue. Organizations hands are tied by one law and I'm starting to wonder when our rights as citizens matter. If you get back to the US constitution and the State of Alaska constitution and build the airport around that instead of laws created after that we'd probably have an airport already.  |
| 86               | 71        | Albert Howard  | Public                 | I think it's important to hear what the community wants and serving on the Tribal council we passed a motion to have Mayor Kookesh put it on the ballot and let the community decide.   |
| 86               | 72        | Albert Howard  | Public                 | But I've always supported 3a cause that gives our community room to grow.   |
| 86               | 73        | Frank W. Sharp | Public                 | And Joe here, my friend, has told me that I was afraid they were going to select over on the Favorite Bay side. I don't favor that because if you remember our elders when we had the last native claims settlement act. WE first selected here and then decided to move off island because we want to have our subsistence way of life. And that area over there across Favorite Bay, whatever you call it the number, is it 3a? That's one of our favorite subsistence places for deer and just about everything there is there. And that to me our elders would turn over in their grave if they knew we were gonna mess it up. When it's rough out front, where do we go? We go inside so we can get deer and all the things up |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | there.   |
| 86               | 74        | Frank W. Sharp | Public                 | So I've always favored 12a since this progress. Which is, would affect me more than anybody in town. I live right on the beach below the high school and 12a is just down the beach and the air traffic coming across would affect noise. Would be more. So I know they probably would approach there.   |
| 86               | 75        | Frank W. Sharp | Public                 | I oppose the 3a because of our lifestyle. And I think our elders, like I said, would turn over in their graves if they knew. I hunt over there now. And there's flags all over where they surveyed.  |
| 86               | 76        | Frank W. Sharp | Public                 | I'm doubtful that an airport will ever be built here because I don't know if everyone knows it but the federal gov't is about over two hundred trillion dollars in the hole right now. Eighteen trillion on regular debt and then about a hundred and fifty six million trillion on social security and Medicare. So I don't know that the federal gov't. I was president of Kootznoowoo in 1986-1990. I've always favored. I'm sorry this is kind of off. I'm a little nervous, I haven't done this in a while. But anyway, I actually favored a strip rather than an airport. Joe and Maxine worked up in Barrow and all the villages up there have strips. And I would prefer if it was me that we build a strip on Kootznoowoo land. The reason for that is that if you have a state airport any one can land there. You can't stop people from landing there. And that again affects our subsistence lifestyle because when I was president of Kootznoowoo we had a survey and over 200 private pilots signed the thing saying they would use Angoon for hunting and fishing if there was an airport here. If it was on a strip, you can control a privately owned property you can control who lands there and who doesn't land there. |
| 86               | 77        | Frank W. Sharp | Public                 | I remember about 60 years ago, congress, over 200 congressmen said Alaska don't do what we did and pave it and everything. Keep it wild and in the end it will be more valuable than all of those things. I believe that today.  |
| 86               | 78        | Frank W. Sharp | Public                 | Since I got a chance here, I really think we're sitting on a gold mine and we're not using it. And that is our wildness. We're in the wilderness we are on the Admiralty Island national monument and people are just dying to see those kinds of things. And on our section of Admiralty, we didn't log. As you know Hoonah, Kake, Klawok, everybody logged right down to the village. From the cove south, it's just like it was a million years ago. It's wild. And I believe that with proper leadership we could be making a fortune and the people not taking anything. We have fish lodges now, two fish lodges, but what kind of income do they really bring to Angoon. They take, they take the fish but what money do they spend here. I think that our wilderness, and I told Peter Naroz this at the last annual meeting, he was CEO of  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | <p>Kootznoowoo, that you know where the value is? Is right here in Angoon for Kootznoowoo because of our wilderness. I know there's a lot of permits. I have an idea to sell silence. And when anyone says "you sold silence?" they want to know what it means. And I have an idea that you have no noise what so ever. No machines, any kind of noise. I even have the area picked out. My grandfather was a Canadian from New Brunswick and he came for mining. Didn't do well in mining and he ended up on Killisnoo. It used to be 1500 population there. It burnt down in I believe 1922, but anyway, I lost my train of thought there. But anyway. What it is is you wouldn't have any machinery what so ever that made a noise, my grandfather, that's what I was talking about! My grandfather had a ranch, it's known as Knudsen's ranch but it's actually Sharps ranch. Knudson never really owned it. I have all the history on it. My dad and the whole family, brothers and sisters were all born on the ranch when my grandfather had. Kootznoowoo has right now and this has nothing to do with the airport, sorry! I got an opportunity to talk to people. Kootznoowoo still has 70 acres to select right now under ANCSA. And the ranch is 58 acres and is the prettiest beach anywhere in this whole area. I'd say there's potential for a small hydroelectric there too cause there's a water fall that runs down on the hill behind. And I think if we really looked into this, and I realize it takes time. We don't have the infrastructure here for people to stay and all this sort of thing but anyway I'm glad to see that 12a is now a choice cause I think logically and that's the way I've operated all my life is I don't have an education, I only have a GED. I've traveled in 30 states. I was in Europe for 4 years in the air force. But education wise I'm not that smart. But I think I'm the Socrates of Angoon anyway. And the poet laureate which I'm gonna do one more time before I go. We have no economy here what so ever. I counted up and we have about 40 jobs in Angoon for the whole community. We are dying. When limited entry came in and IFQ for halibut and everything it killed all the villages in southeast basically. For fishing. So we have nothing. We weren't big takers of the resource we all had 19 foot skiffs we pulled by hand some guys had little motors. But when you lived here you didn't really look like white people do, 30 years down the line what's going to happen, it was right now, and through that winter and then next spring do this and it was always a continually thing. You only made a little money but it was enough and then what they used to ask me was what did you do in the winter time? I said I went home and made babies. It was a really relaxing thing. You didn't have to do a thing. So anyways. I don't figure I have much longer here. I'm looking forward to the adventure to find out what's on the other side. So I'm not afraid of that but I appreciate you coming here, listening, especially to this old guy. And thank you.</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name    | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|-------------------|------------------------|---|
| 86               | 79        | Randy Gamble      | Public                 | and it's difficult to know that you can't get someone out of town when it's necessary. I know there's been several times when we try to get Elder's out and we couldn't. So with an airport that would make a big difference. You know. If it's life and death. Sometimes coast guard won't come cause their main mission is search and rescue. Getting helicopters out here is sometimes it doesn't happen. So I think with an airport it gives us a broader section to get our, whatever you want to call it, to help this community out. |
| 86               | 80        | Randy Gamble      | Public                 | I oppose 12a. I would still go with 3a that what the majority of us want. I'm a council member here in Angoon, I'm also on the fire department/EMS/search and rescue. I'm pretty involved in this community. So I think I speak for those that can't speak. That can't be here today.   |
| 86               | 81        | Randy Gamble      | Public                 | Wanted the airport put in as soon as possible instead of 10 years down the road. Our economy is not that great like Frank said I know that the federal government doesn't have that much money I think the sooner the better.   |
| 86               | 82        | Donald Frank      | Public                 | We went through a process and we took all the things into considerations. Alternatives that you have posted up. Which one would meet the least amount of resistance. Which one we felt was doable. And some people are speaking against 3a but at the time when we finished we thought that would be the best alternative site.   |
| 86               | 83        | Donald Frank      | Public                 | I like the comment Frank made about the airstrip. I was born in Metlakatla. Which has the largest airstrip in the state today. And it's still strong. It's still usable. It's a lot less cost to build it.  |
| 86               | 84        | Donald Frank      | Public                 | One more comment. I support the alternative that guarantees we begin work tomorrow.   |
| 87               | 1         | Kevin Proescholdt | Wilderness Watch       | It is an incredible area and we believe that area needs to be protected as an intact wilderness in this whole process. Our organization either the preferred alternative airport 12a with access 12a or the no action alternative because we believe that those are the two alternatives that protect the wilderness.   |
| 87               | 2         | Kevin Proescholdt | Wilderness Watch       | We understand Title XI process under ANILCA and that can under certain circumstances allow for the placement of an airport within the boundaries of the designated wilderness. But we believe the 8 decision criteria that are part of Title XI process speak loudly to having an alternative chosen that does not site an airport within the wilderness boundaries.  |
| 87               | 3         | Kevin Proescholdt | Wilderness Watch       | As I mentioned, we submitted written comment with more detail. Wilderness Watch support either their preferred alternative, alternative 12E with access 12E or the no action alternative. As the only two that  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|------------------|------------------------|--|
|                  |           |                  |                        | will protect this fabulous world class resource. Thank you very much and I appreciate the chance to come and speak today.  |
| 87               | 4         | Verne Skagerberg | Alaska DOT&PF          | We remain convinced after additional analysis conducted by the FAA that the airport site we have proposed is the best location aeronautically. We do agree that the site which the FAA has preliminarily identified as its preferred alternative is aeronautically acceptable, though somewhat less advantageous than what we have proposed.   |
| 87               | 5         | Verne Skagerberg | Alaska DOT&PF          | However, there are other compelling reasons for our reluctance to alter our proposed action and, hence, our filing of an application in accordance with the provisions of ANILCA Title XI. With the designation of over 100 million acres of conservation system units and other conservation designations across the State of Alaska in 1980 under the Alaska National Interest Lands Conservation Act ( or ANILCA), Congress' express intent in Title XI was to provide a single overarching process for consideration of transportation and utility systems in or across CSUs, including designated Wilderness.   |
| 87               | 6         | Verne Skagerberg | Alaska DOT&PF          | Our assertion that Section 4(f) is not deterministic at this point in the process notwithstanding, it is our view that our proposed action is not precluded by that law even within the context of a conventional NEPA analysis. We say this because we find the analysis contained in the DEIS to be unconvincing in its dismissal of Section 4(f) implications regarding the FAA's preferred alternative. In short, we believe both alternatives to have 4(f) impacts and, therefore, that the circumstances require an analysis that weighs the relative merits and impacts of each.  |
| 87               | 7         | Verne Skagerberg | Alaska DOT&PF          | We also believe the DEIS to be incomplete with regard to the preliminary consideration of factors required by ANILCA. More specifically, Section 1104 (g)(2)(C) requires agencies consider whether there exists a feasible and prudent alternative to building on a CSU. The draft does identify the preferred alternative as being feasible-- a finding that we do not dispute-- but it does not address prudence. There are a number of considerations that, when taken in their cumulative effect, lead us to the conclusion that the preferred alternative is arguably imprudent. This must be resolved before the Title XI process is complete. For all of these reasons, we believe that our proposed action remains a viable solution to Angoon's aviation needs, and we anticipate that it may well be identified as the preferred action in the final analysis. |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|------------------|------------------------|---|
| 87               | 8         | Verne Skagerberg | Alaska DOT&PF          | Additionally, our determination to stay the course in that regard rests to a large extent on the fact that what we have proposed was developed through a lengthy process that included a great deal of Angoon's involvement. The community provided us with official concurrence in the form of supporting resolutions for the decisions made throughout the planning effort. It would not be appropriate for us to so significantly alter our proposed action without the community's input which we are just now receiving. With the resolution of the issues we have outlined, and with the explicit concurrence of the people of Angoon, we may find the FAA's alternative to be a satisfactory answer to the needs of the community. However, until we have completed the ANILCA process we are not prepared to make that determination.   |
| 88               | 1         | Verne Skagerberg | Alaska DOT&PF          | First and foremost of our concerns is that our early agreement to allow the NEPA process to advance to the DEIS stage before tendering an ANILCA Title XI application seems to have resulted in an inversion of the proper decision making sequence. This is most readily apparent in the U.S. Forest Service's response to our application. That letter makes it quite clear that the Forest Service, as a Cooperating Agency, believed that the FAA's determination of a non monument/wilderness preliminary preferred alternative on the basis of an arguably faulty §4(f) assessment essentially pre-empted our filing, or would result in our rescinding that application. That is directly counter to the requirements of ANILCA's §1104(a). Our determination to proceed with a Title XI application has never been in question. Our indicating that it might eventually be rescinded has always been inextricably tied to an unequivocal change in Angoon's position on the alternatives. Not having seen evidence that a change has occurred in their official view, we have no basis upon which to change ours. Our proposed action by its very nature made ANILCA an inevitable and overarching consideration for this project, and by the explicit language in §1104, it precludes other applicable law from having any effect prior to its provisions having been exhausted. |
| 88               | 2         | Verne Skagerberg | Alaska DOT&PF          | Although the DEIS undertakes to address the considerations required under §1104, the treatment of those concerns is somewhat cursory in general - largely making reference to other sections in the document -but significantly deficient regarding a few critical factors. Avoiding redundancy through reference helps to keep an already overlarge document from becoming more unwieldy; however, the approach used in this instance makes the ANILCA process appear to be an afterthought while leaving a weary reviewer with the impression that all of the issues have been comprehensively addressed elsewhere. That is not the case with regard to socioeconomic impacts, environmental justice, nor -most   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|------------------|------------------------|---|
|                  |           |                  |                        | importantly - the prudence of FAA's preferred alternative.  |
| 88               | 3         | Verne Skagerberg | Alaska DOT&PF          | The socioeconomic analysis of the alternatives is inadequate, largely because it takes an urban America view of the impacts despite the FAA's assertions to the contrary. Most of the analysis addresses the current socioeconomic status of the community and changes that are foreseeable from the various action alternatives. Much of section 4.12 deals with the minor and insignificant impacts on sales tax and the additional temporary construction jobs. For the uninformed reader, the statements in section 4.12.3 .3.1. Relocation of Residents lead to the conclusion that the impact of the preferred alternative is rather negligible. The ultimate sentence in the section says, "However, there are vacant homes in Angoon's town core that displaced residents could choose to purchase." The fact that a substantial portion of the town's commercial and residential potential is eliminated by the preferred alternative is glossed over with an analysis more appropriate for a suburban community whose future growth potential is less constrained by geography.                                     |
| 88               | 4         | Verne Skagerberg | Alaska DOT&PF          | Environmental justice considerations are given a very narrow treatment that seems a hunt for the easy and least problematic assessment of the facts. A more appropriate characterization of the situation would clearly identify the circumstances of a mostly native, largely impoverished community which stands to lose much of its long-term economic development potential because that is preferable to the national interest in preserving an exceedingly small portion of an exceedingly large wilderness - a portion that is on the boundary of the wilderness, essentially adjacent to the community, and likely visited by an exceedingly small number of people not from that community (though the document doesn't tell us that number). That view of the situation is not the entire story, nor does it make any particular conclusion inevitable, but it is a valid perspective that is buried in the narrative of the document. Angoon's situation is not analogous to that of the typical rural American town, and the document ought not to approach the environmental justice analysis as though it were. |
| 88               | 5         | Verne Skagerberg | Alaska DOT&PF          | Socioeconomic analysis and environmental justice are inseparable, yet the DEIS analysis of environmental justice does not include socioeconomics among the evaluated resources. This is contrary to DOT Order 5610.2(a) which requires the analysis of social and economic impacts to populations like Angoon' s. On the other hand it discusses, at some length, resources like wilderness which are not specifically identified in the Order yet have little to do with environmental justice per se.   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|------------------|------------------------|--|
| 88               | 6         | Verne Skagerberg | Alaska DOT&PF          | The combination of the socioeconomic and environmental justice analysis, if approached as they ought to be, would lead one to a conclusion that Alternative 12a may not be a prudent alternative to our proposed action.   |
| 88               | 7         | Verne Skagerberg | Alaska DOT&PF          | The arguments used to dismiss §4(f) implications, either current or potential, on lands that were conveyed under ANCSA §14(c)(3) for the city's use as parks, are not consistent with our application of the law. Our practice in preparing NEPA documents would be to consider those properties that are identified as platted park land on figure 4f1 in the DEIS as §4(f) properties even though there is not a formal management plan.   |
| 88               | 8         | Verne Skagerberg | Alaska DOT&PF          | Our experience with the distribution of cultural resources around village sites informs our position that the field work and analysis concerning the potential impact of the preferred alternative is significantly understated. We stand by our earlier comments on the Preliminary DEIS regarding the inadequacy of the cultural resource surveys that have been conducted thus far. SHPO has also raised concerns to FAA that the boundary of SIT-00169 had not been sufficiently defined and that it may be more extensive than what's reported in the current survey. FAA has not adequately researched the associations of site SIT-00169 relative to important historical persons or events and, therefore, has not offered an opinion on the eligibility of the site relative to A and B of the National Register Criteria. The archaeological testing should have been designed to delineate the boundary of SIT-00169 as was done on Site SIT-00302 (Alternative 3) which was a multi-component site similar to SIT-00169. Current archeological and ethnographical literature strongly suggests that site SIT-00169 had a prehistoric as well as historic component. The archaeological field work on SIT-00169 did not test the site, nor delineate the boundaries of the potential impacted site in relation to the projected construction footprint. Although it has obvious surface features including several pit features, the only testing was done in the purported Direct APE. This work was random with no consideration to the basic survey criteria of consistent testing covering a designated grid. The DEIS lacks discussion on potential cultural materials discovered between the site and the direct impact area, all of which figure predominantly in current Alaskan archaeological research. Ethnographic evidence references this area as an early occupation site before Killisnoo Island Village and the village of Angoon well beyond just an historic "wide place in the beach". Although the village is alluded to as only a minor historic Tlingit village, the prehistoric Killisnoo Harbor Village has the potential for as yet undiscovered information on the early lifeways and cultural utilization of the Killisnoo area. Intact cultural resources, typified by tribal native |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|------------------|------------------------|---|
|                  |           |                  |                        | burials, including potential Shamans or other leadership personalities, could be impacted by Alternative 12a, thereby warranting a more intensive cultural evaluation in this area.   |
| 88               | 9         | Verne Skagerberg | Alaska DOT&PF          | <p>The combination of these concerns leads us to our long-standing conclusion that Alternative 12a does indeed contain §4(f) resources -we identified them in our early planning documents. That does not preclude its use for the construction of an airport, but it does mean that it is not automatically a prudent alternative to our proposed action and that the relative merits of the alternatives need to be weighed in a more balanced fashion. Each of the items we have addressed is of some significance in its own right; however, the glaring omission from the DEIS, both in relation to NEPA and ANILCA, is a thorough analysis of the prudence of the preferred alternative which takes all of them into account regarding their cumulative effects. ANILCA and §4(t) require a determination of whether there exists a feasible and prudent alternative to the action we've proposed. The §4(t) prudence analysis does not exist in the DEIS because of FAA's determination that Alternative 12a has no §4(t) implications -we disagree as explained above. With regard to ANILCA, Chapter 5 of the DEIS makes a summary statement regarding the preferred alternative's feasibility - it is indisputably feasible - but no mention is made concerning its prudence. This is a fatal flaw in the document that must be corrected in order to provide the ". . . detailed findings supported by substantial evidence . . ."</p> <p>required by ANILCA §1104(g)(2). In making a determination of prudence, an approach we have found useful in the absence of its definition in ANILCA, is the one provided in FHWA guidance for §4(t): An alternative is not prudent if: 1. It compromises the project to a degree that it is unreasonable to proceed in light of the project's stated purpose and need (i.e., the alternative doesn't address the purpose and need of the project); 2. It results in unacceptable safety or operational problems; 3. After reasonable mitigation, it still causes severe social, economic, or environmental impacts; severe disruption to established communities; severe or disproportionate impacts to minority or low-income populations; or severe impacts to environmental resources protected under other Federal statutes; 4. It results in additional construction, maintenance, or operational costs of extraordinary magnitude; 5. It causes other unique problems or unusual factors; or 6. It involves multiple factors as outlined above that, while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.</p> <p>It is our opinion that a thorough, objective analysis of those considerations would lead one to the conclusion that Alternative 12a is not necessarily prudent -but we haven't seen that analysis yet. At the</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name   | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|------------------|------------------------|--|
|                  |           |                  |                        | risk of seeming redundant, we emphasize that this determination, supported by substantial evidence, is required for a complete ANILCA process and must, therefore, be included in the final document.  |
| 88               | 10        | Verne Skagerberg | Alaska DOT&PF          | In their letter of March 9, 2015, the U.S. Forest Service identified a number of deficiencies that it found during the adequacy review of our Title XI application. Because it was understood by all concerned that it was our intent to rely on the DEIS as the supporting document for the application, we view the deficiencies that the Forest Service identified as resulting from a misunderstanding among cooperating agencies during the document's preparation. Since the additional information in question properly belongs in the DEIS and we are excluded from participating in its formulation by FAA policy, we ask that the FAA coordinate with the Forest Service to ensure all those concerns are addressed. The US Army Corps of Engineers expressed similar concerns regarding our ANILCA application in their letters of January 9 and February 11, 2015. Although their difficulties seem to be related more to procedure than content, they also appear to result from misunderstandings with regard to the role of cooperating agencies in developing the DEIS and reviewing our application at this stage of the ANILCA Title XI process. Again, we ask the FAA to coordinate with the USACE to help resolve the issues they have identified. Additionally, we ask that this coordination include the FAA's providing both the USACE and the Forest Service with any necessary assurances pertaining thereto such that they are able to give us their determination that our application is complete. |
| 88               | 11        | Verne Skagerberg | Alaska DOT&PF          | Our objective throughout this lengthy process has been, and remains, to provide Angoon with an airport that meets the community's transportation needs. The sustainability of places like Angoon is largely dependent on people's ability to engage in commerce, cultural exchange, and enjoy access to basic services such as emergency medical care. The people of Angoon have occupied the area for a very long time and, the advent of airplanes and the internet notwithstanding, we assume that they envision doing so for much longer. In order to accommodate their future on the small piece of land they have available, the determination of where we should build their airport must be considered in that light as well as that of the many other things the law requires.  |
| 89               | 1         | Susan Magee      | State of Alaska        | While the DEIS is clear that FAA does not consider the identification of a preferred alternative as its final decision, it is also evident that the preliminary decision was made using incomplete information and before the National Environmental Policy Act (NEPA) process, which is part of the Title XI process, was complete. As noted above, the Title XI process requires federal agencies to consider public   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | comments on the DEIS and an analysis of all criteria in ANILCA Section 1104(g)(2) before rendering a decision on a proposed project.   |
| 89               | 2         | Susan Magee    | State of Alaska        | <p>ADOT&amp;PF's proposed action (i.e. Alternative 3a with Access 2) drives the Title XI process; however, the DEIS prematurely identifies a different NEPA preferred alternative. This appears to have caused confusion among participating federal agencies. For example, since the beginning of the EIS process, it was the intent and mutual understanding of both the FAA and ADOT&amp;PF that the DEIS would be relied upon as supporting information for the Title XI process; however, recent correspondence from both the USACE and the USFS indicates that the DEIS does not provide sufficient information to support ADOT&amp;PF's Title XI application.</p> <p>In particular, correspondence from USFS, Alaska Region to ADOT&amp;PF dated March 9, 2015 states that the recently revised and finalized Memorandum of Understanding (MOU) between the FAA and USFS (signed by the USFS on 10/31/14 and the FAA on 2/18/15) indicated that since the FAA identified a preferred alternative outside of designated Wilderness, the Title XI process would not be followed (page 8); therefore, the USFS's preliminary review of the DEIS did not evaluate the document in terms of its sufficiency as supporting documentation for ADOT&amp;PF's Title XI application. This conflicts with statements in the DEIS, which indicate that the DEIS would be the supporting information for ADOT&amp;PF's Title XI application (page ES 1-7).</p> <p>Correspondence from the USACE to ADOT&amp;PF dated January 29, 2015 and February 11, 2015 indicates that additional information is required to complete ADOT&amp;PF's Title XI application; however, subsequent correspondence from ADOT&amp;PF to the USACE dated February 20, 2015 identifies the specific locations in the DEIS where the requested information can be found.</p> <p>We request the FAA, as the lead federal agency for the Title XI process, assist ADOT&amp;PF in resolving any misperceptions or inaccuracies as represented in the correspondence from the USFS and the USACE to ADOT&amp;PF, as well as the MOU between the FAA and the USFS. We also request the FAA clarify in the final EIS that the preliminary identification of a preferred alternative in the DEIS is not intended to preempt the full completion of the Title XI process or influence the independent federal agency analyses and decisions, which are required under ANILCA Section 1104(g)(2).</p> |
| 89               | 3         | Susan Magee    | State of Alaska        | <p>The DEIS devotes considerable space to the effects of the proposed project and alternatives on wilderness character, and by extension the wilderness purposes of the Kootznoowoo Wilderness; however, the analysis provided is very limited. For example, the DEIS discloses the acreage of</p>   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | <p>designated Wilderness that will be affected by the airport footprint without providing a corresponding perspective on the amount of actual “on-the-ground” or anticipated uses that will be impacted or displaced in the area, or conversely, the uses and remaining acreage of the Kootznoowoo Wilderness that would remain unaffected by the airport.</p> <p>The resulting conclusion is that Alternatives 3a and 4, essentially due to the airport’s location and its incompatibility with wilderness character, cause significant impacts to the Kootznoowoo Wilderness. By the same measure, Alternative 12a, which is not located within the Kootznoowoo Wilderness, does not cause significant impacts (4.16.3.6.3, page 68—681). Since the impact analysis on wilderness character will be used to inform federal agencies’ (tentative) decisions and by extension, the President’s and, if applicable, Congress’ decisions, the analysis needs to provide more meaningful information as to the actual affects other than a generalized loss of Wilderness acreage and corresponding wilderness character.</p>   |
| 89               | 4         | Susan Magee    | State of Alaska        | <p>the emphasis in the DEIS on FAA’s inability to authorize a project that significantly affects Section 4(f) resources or properties (i.e. designated Wilderness) is inaccurate. The final EIS must also recognize that even though the FAA may be constrained by elements of the Transportation Act, just as the USFS may be constrained by the Wilderness Act, the final decision on this project rests with the President and Congress, who can authorize the proposed project regardless of the Section 4(f) impacts, if determined to be in the best interests of the community.</p>   |
| 89               | 5         | Susan Magee    | State of Alaska        | <p>both Section 4(f) of the Transportation Act and ANILCA Section 1104(g)(2) require the FAA to consider “feasible and prudent” alternatives to the proposed action. The EIS defines a “feasible” and “prudent” project in the context of Section 4(f) of the Transportation Act as “...one that can be built as a matter of sound engineering judgment” and does not compromise the project on a number of factors, including “...even with mitigation, still causes severe social, economic, or environmental impacts, disruption of established communities, disproportionate impacts to minority or low-income populations, or impacts to environmental resources protected under other federal statutes” (Page 162, emphasis added). While not identified in the DEIS, Department of Interior (DOI) implementing regulations for Title XI at 43 CFR 36.2(h) define an “economically feasible and prudent alternative route” as “...a route either within or outside an area that is based on sound engineering practices and is economically practicable, but does not necessarily mean the least costly alternative route” (Emphasis added).</p> <p>While FAA’s preferred alternative (Alternative 12a with Access 12a) may be feasible from a sound</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | <p>engineering standpoint, we question whether the DEIS adequately considered socio-economic factors in its determination that the preferred alternative was also “prudent” as defined in the DEIS and DOI regulations. As noted, Congress also intended for each federal agency to objectively and fully consider several criterion (Section 1104(g)(2)), including “feasible and prudent” alternatives and the positive and negative impacts of the proposed project (and alternatives) on the local community of Angoon.</p> <p>All of the alternatives appear to have a combination of positive and negative impacts for the community. For example, Alternatives 3a and 4 with either Access:</p> <ul style="list-style-type: none"> <li>· Provide increased access to subsistence resources.</li> <li>· Do not encroach into the community’s limited supply of available land.</li> <li>· Do not provide much room for expansion in the event new economic development opportunities arise and there is a need for additional airport capacity/facilities (as doing so would require expanding further into designated Wilderness).</li> <li>· Have higher initial costs.</li> <li>· Have greater ongoing costs associated with access maintenance, which could have the unintended consequence of reducing available resources for other community needs.</li> </ul> <p>Alternative 12a with Access 12a:</p> <ul style="list-style-type: none"> <li>· Provides easy and low-cost access.</li> <li>· Has the effect of dedicating much of the community’s available land to airport use.</li> <li>· Removes some of the limited supply of residential lots from inventory.</li> <li>· Reduces the availability of subsistence resources immediately adjacent to the existing community.</li> </ul> <p>Beyond the immediate transportation needs of the community and the impacts and opportunities associated with construction and operation of the airport, the DEIS needs to give greater consideration to the community’s long-term need to create viable economic opportunities. Improved access could be a catalyst for the community to develop new business enterprises, such as adventure tourism, seafood/mariculture and other areas that are not as yet foreseen. From an economic development perspective, ADOT&amp;PF’s proposed action provides for the transportation needs of the community while maintaining the existing inventory of available “private” land for future development, including residential use.</p> |
| 89               | 6         | Susan Magee    | State of Alaska        | We also request the FAA take a hard look at the limited socioeconomic analysis in the EIS as it relates  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | to Environmental Justice.  |
| 89               | 7         | Susan Magee    | State of Alaska        | The DEIS indicates the subsistence effects of all the alternatives did not rise to the level of the significance criteria identified in the EIS. Given the importance of subsistence to the community of Angoon (as recognized in the DEIS on page 538), we question the analysis that concludes that Alternative 12a with Access 12a, which causes a loss of land within the community that would no longer be readily available for subsistence use, does not create new access to subsistence resources (as does Alternatives 3a and 4 with either access), and increases competition for land-based subsistence resources, is of no consequence to the overall significance determination (page 569). It is interesting to compare the subsistence impact analysis to the wilderness impact analysis. Even though the airport footprint directly eliminates the availability and use of subsistence resources within the airport footprint, the impact is not considered significant because it only represents a percentage of the total resources available for use, while the direct impact of the airport on wilderness character causes significant impact even though it also only represents a percentage of the total wilderness acreage. We similarly request the FAA take a hard look at these analyses and corresponding conclusions relative to Environmental Justice. |
| 89               | 8         | Susan Magee    | State of Alaska        | When completing the analyses required under ANILCA Section 1104(g)(2), participating federal agencies must also take into consideration comments from the community that provide individual or collective perspectives on current and future socio-economic needs and the trade-offs associated with the various alternatives.   |
| 89               | 9         | Susan Magee    | State of Alaska        | Dolly Varden is a species of char not trout and the name is typically written Dolly Varden char.   |
| 89               | 10        | Susan Magee    | State of Alaska        | The following statement should be incorporated in the final EIS on marine sportfish use in the Angoon area:<br>Statewide Harvest Survey (SWHS) results for the saltwater shoreline of Admiralty Island near the community of Angoon indicate that during at least one year during the 1996-2013 period, sport fishing respondents to the SWHS reported catching and/or harvesting hardshell clams, Dungeness crab, Dolly Varden char, cutthroat trout, chum salmon, pink salmon and coho salmon (Alaska Sport Fishing Survey database [Intranet]. 1996–2013. Anchorage, AK: Alaska Department of Fish and Game, Division of Sport Fish cited February 5, 2015. Available from: <a href="https://intra.sf.adfg.state.ak.us/swhs_est/">https://intra.sf.adfg.state.ak.us/swhs_est/</a> ).  |
| 89               | 11        | Susan Magee    | State of Alaska        | Chapter 4, Existing Conditions and Project Effects, page 220, paragraph 5: Dolly Varden char is not  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | listed as a species present in Favorite Creek, but it is listed in the Anadromous Waters Catalog (AWC).  |
| 89               | 12        | Susan Magee    | State of Alaska        | Chapter 4, Existing Conditions and Project Effects, page 223, Figure AHAS3, bullet 3: Favorite Creek supports sculpins and at least three species of salmon (pink, chum, coho), cutthroat trout, and Dolly Varden char. One adult sockeye salmon was documented by SWCA Environmental Consultants in 2009, but there is not enough supporting documentation to conclude that Favorite Creek supports a population of sockeye salmon or if the one observed was a stray.  |
| 89               | 13        | Susan Magee    | State of Alaska        | Chapter 4, Existing Conditions and Project Effects, pages 237-246: Although mentioned elsewhere for each of the alternatives under stream habitat alterations, streams 112-67-10790(stream 3), 112-67-10780(stream 4), 112-67-10610(Stream 9D-G), and 112-67-10802(Stream 2) are left out of section titled "Reduction to aquatic resources and damage to aquatic habitats" and Favorite Creek is the only stream described as Class 1 that could be affected by additional harvest of aquatic species. These other streams all contain anadromous fish according to the AWC, as well as Class 1 habitat. Since there will be new or improved access to these streams, the possibility cannot be ruled out that these streams may have increased fishing and therefore more human use. |
| 89               | 14        | Susan Magee    | State of Alaska        | Chapter 7, Mitigation, page 737, bullet 4: Wording for "Time construction to minimize effects to aquatic species" should match page 229 so it reads May 15 to September 15.  |
| 89               | 15        | Susan Magee    | State of Alaska        | Chapter 7, Mitigation, page 741, bullet 6: We recommend using U.S. Forest Service preferred seed mix on U.S. Forest Service managed lands and non-U.S. Forest Service managed lands to ensure invasive plant control. It would be helpful to define weed-free and clarify whether weed-free applies to invasive plants such as reed canary grass.  |
| 90               | 1         | Jack Hession   | Public                 | <p>I am a former resident of Alaska. During my years there, I visited every region of the State. In SE Alaska, I have twice crossed Admiralty Island on the Admiralty Canoe Route east to west, to the community of Angoon. On another occasion, I traveled to Angoon via scheduled float plane service.</p> <p>I support an onshore airport for the community that would compliment the existing float plane dock in town.</p> <p>Of the EIS alternatives, 12a, the in-town alternative, is obviously the one most consistent with the purposes for which Congress set aside the national monument and the Kootznoowoo Wilderness.</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | <p>Compared with alternatives 2 and 3, alternative 12a has the advantage of lower road construction and maintenance costs because it is within the community. Most importantly it would have no adverse effect on the adjoining wilderness area.</p> <p>Alternatives 2 and 3 would be within the wilderness area, with alternative 3 having the worst impact on wilderness values due to its location near the network of channels and islands on the south side of Mitchell Bay that end in Favorite Bay. These channels and islands provide the best and for some paddlers the safest canoe/kayak approach to Angoon as opposed to the direct route through Mitchell Bay ( I have paddled both routes). Air traffic and airport operations of Alternative 3 would disrupt the solitude that is an integral part of the wilderness experience in this back channel route to Favorite Bay. Alternatives 2 and 3 roads looping around the southern end of Favorite Bay would also introduce noise into what is now an undisturbed and tranquil part of the Angoon community.</p> <p>Finally, as the FAA's preferred alternative is 12a, that should settle the the airport location issue.</p> |
| 91               | 1         | Beth Pendleton | U.S. Forest Service    | <p>General - Comments: <i>Procedural Requirement for the FS:</i><br/>           Prior to the Forest Service issuing a final ROD (should either 3a or 4 with either access selected), we must follow the Project-Level Predecisional Administrative Review Process (36 CFR 218) which requires that we allow any member of the public to object to a draft decision. Any person who commented in writing, either during scoping, this recent comment period, or who provided comments during any other designated opportunity for public participation, has “standing” to object. Should the decision on this project require a Forest Service-issued ROD, then we are required to first issue a draft ROD and allow for a 45-day objection period. Depending on the outcome of the objection period, there may be another 45-day period (with a possible additional 30-day extension) to resolve any objections prior to issuance of a final ROD.</p>   |
| 91               | 2         | Beth Pendleton | U.S. Forest Service    | <p>General - Comments: Throughout the DEIS, references are made that indicate adjustments to the selected alternative may be required during implementation of the project. If a selected alternative is located on NFS lands, then any adjustments made after the issuance of a ROD will require an interdisciplinary change analysis to determine whether the adjustment and its effects are within the range of effects disclosed in the FEIS and ROD, or whether additional NEPA will be required.</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
| 91               | 3         | Beth Pendleton | U.S. Forest Service    | Chapter 1 (p. 3): Suggest adding Section 707 of ANILCA to the discussion for why this proposal is being considered within a congressionally designated wilderness. The section notes that; "Except as otherwise expressly provided for in this Act wilderness designated by this Act shall be administered in accordance with applicable provisions of the Wilderness Act..." Adding this section could clarify the discussions for "how" could this project be considered within a wilderness.  |
| 91               | 4         | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 62-63, p. 717): The DEIS provides no annual operations and maintenance costs of each alternative, including the projected costs of occupancy of Forest Service lands in airports 3a and 4 and access 2 and 3. The Forest Service currently waives most fees to the state for occupancy on NFS lands through a 5-year Memorandum of Agreement. The waiver does not apply where "municipal utilities and cooperatives whose principal source of revenue from the authorized use is customer charges." Chapters 3.5.3 and 5.5.1 state that a portion of the ongoing operations and maintenance costs for the airport and access will be from fees for long-term apron and future hangar uses. Therefore, it is unclear whether the fee waiver will apply. A fee Comments: A discussion of the costs to own and operate similar airports such as those in Kake and Hoonah are therefore applicable and should be included in the FEIS. Also, the agreement is negotiated every five years and a waiver is not guaranteed in perpetuity. Providing this information will provide a more meaningful comparison of economic feasibility among alternatives. The Forest Service can assist with determining possible fees for airport and road right-of-ways and other potential use fees. |
| 91               | 5         | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 80), Table ALT5 - Cultural Resources: Until SHPO process completed this row of significant effects should state "Unknown" for all Alternatives. Same applies for 4.8.3.4 and 4.8.3.6.  |
| 91               | 6         | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 81), Table ALT 6: Since 3a and 4 alternatives include several more miles of access road the effects of additional construction equipment and future road traffic should be explained in more detail than de minimis explanation on p. 81 and pp. 122-3 (e.g., 50 cars/day X 4 miles X 4.7 mile road = ___/year and far below NAAQS assessment).  |
| 91               | 7         | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 82), Table ALT 7 - Land acquisition, rights-of-way, permits, and/or leases: It is unclear if the acreage for land acquisition includes the access roads. For example, "Airport 3a with Access 2" lists 210 acres of Forest Service lands impacted but this is the size of just the airport footprint and would seem to include no road acreage. Though fees may be waived for this access road, a right-of way and other land use rights including aviation easements (p. 110) from the Forest Service would   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
|                  |           |                |                        | still be required. For a meaningful comparison of the effects of each alternative, these effects should be listed in more detail possibly pulling from p. 93 Table ALT16 (acres of land committed and disturbed).  |
| 91               | 8         | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 92), <i>Table ALT15</i> : Focus should not be on only construction but also the long term effects of a road and airport built in a Wilderness Area. Visual effects on wilderness character of a road, airport and new vehicular traffic occurring in Wilderness (Airport 3a and 4 and access roads) are inherently higher than the Alternative with no proposed activities in Wilderness (Airport 12a). Since these effects are for the duration of road and airport operations they should not be described as “temporary.” Table ALT15 p. 92 should clearly differentiate less visual and solitude effects for Airport 12a (for further discussion see pp. 647-8 below). |
| 91               | 9         | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 101), <i>Table ALT22 Undeveloped</i> : For Airport 3a and 4 alternatives the 22-28 acres of development seems low given atleast a 3300’ runway (all in Wilderness) and up to 4.7 miles of road (a portion in Wilderness).  |
| 91               | 10        | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 103), <i>Table ALT22 Wilderness-Solitude-Noise from construction equipment and motor vehicles</i> : As mentioned above (p. 92), increases from long term effects of road and airport operations and maintenance need to be mentioned and are not temporary.<br><i>Opportunities for primitive and unconfined recreation</i> : As mentioned above (p. 101) the amount of fenced or paved area for a 3300-4000’ runway and up to 4.7 miles of road would seem to be more than 103 – 108 acres mentioned in Wilderness alternatives.  |
| 91               | 11        | Beth Pendleton | U.S. Forest Service    | Chapter 3 (p. 105), <i>Table ALT23</i> : Comparison of greenhouse gas emissions focuses on airplane traffic and ignores increased automobile emissions from alternatives with up to 4.7 miles of additional roads and all the resultant traffic that a new road will foster, including non-airport related trips (see discussion for p. 81).   |
| 91               | 12        | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 124-125), <i>4.2.3.3.1 Air Quality - Effects from construction</i> : Table AQ2 displays that the air emissions for construction will be the same for all action alternatives. It does not provide rationale to this conclusion as the access road length and the amount of cut/fill required in each action alternative is substantially different. One would tend to think that the longer the access road or the more cut/fill required would result in varying emissions among action alternatives. Please provide additional rationale that supports the conclusion that air emissions from each action alternative are the same.                                      |
| 91               | 13        | Beth Pendleton | U.S. Forest            | Chapter 4 (p. 127), <i>Section 4.3</i> : The DEIS does not contain adequate information to determine   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                | Service                | <p>whether the agency will satisfy the requirements of ANILCA sections 506(a)(3)(C)(i-iv), commonly known as the Kootznoowoo Inc. corridor lands.</p> <p>ANILCA Sections 506(a)(3)(C)(i-iv) give all rights, title and interest in certain lands within Favorite, Mitchell and Kanalku Bays to Kootznoowoo Inc. except those that are reserved to the United States. Reserved rights of the United States in those lands include:</p> <p><i>(i) All timber rights are reserved subject to subsistence uses consistent with title VIII of this Act.</i></p> <p><i>(ii) The right of public access and use within such area, subject to regulation by the Secretary of Agriculture to insure protection of the resources, and to protect the rights of quiet enjoyment of Kootznoowoo, Incorporated, granted by law, including subsistence uses consistent with title VIII of the Act.</i></p> <p><i>(iii) The subsurface estate.</i></p> <p><i>(iv) The development rights, except that the Secretary of Agriculture is authorized to permit construction, maintenance, and use of structures and facilities on said land which he determines to be consistent with the management of the Admiralty Island National Monument: Provided, that all structures and facilities so permitted shall be constructed of materials which blend and are compatible with the immediate and surrounding landscape.</i></p> <p>The DEIS contains sufficient information to adequately determine effects and satisfy provisions (i) and (iii).</p> <p>Provision (ii) reserves to the public the right of access and the rights of quiet enjoyment of Kootznoowoo Inc. The DEIS does provide adequate information to protect the right of public access, but fails to provide any substantive definition of quiet enjoyment and direct and indirect effects of the proposed alternatives on the rights of quiet enjoyment as defined by Kootznoowoo Inc., or to identify mitigation measures that may be necessary to ensure those rights are protected.</p> <p>Provision (iv) reserves to the United States the development rights of the corridor lands. Any development of infrastructure proposed in the DEIS on the corridor lands will require Forest Service authorization. In addition, this provision states that any structures and facilities on these lands need to be consistent with the management of the Admiralty Island National Monument and be constructed of</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | <p>materials which blend and are compatible with the immediate and surrounding landscape. Under section 506 of ANILCA the rights reserved to the United States within the corridor lands are managed part of the National Monument CSU and are subject to Title XI of the Act. The DEIS fails to disclose that the corridor lands are managed as part of the National Monument CSU. Furthermore, the DEIS lacks sufficient information to determine whether the structures and facilities are consistent with the management of Admiralty Island National Monument and their effects to the surrounding landscape.</p> <p>The Forest Service will need this information prior to issuing a Record of Decision and/or Title XI determination for any alternative located on NFS lands.</p> |
| 91               | 14        | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 134), <i>Section 4.3.2.3.1</i>: The DEIS incorrectly states that the Kootznoowoo Inc. corridor lands are located between the Monument-Wilderness Area and the shores of the bays, but they are outside the boundaries of the Monument-Wilderness Area. This statement needs to be corrected to say that the corridor lands are exempt from the Wilderness Act (ANILCA section 506(a)(3)(D)) but are managed as part of the National Monument. The property interests reserved to the United States in the corridor lands are managed as part of the Admiralty Island National Monument CSU (ANILCA section 506(a)(3)(C)(iv)).</p>  |
| 91               | 15        | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 137), <i>Section 4.3.2.3.5</i>: This needs to be corrected to state that the Admiralty Island National Monument was created in 1978. The National Monument status was affirmed and further designated wilderness by Congress in 1980 with the passage of ANILCA. Also, this section incompletely notes the property rights reserved to the United States in the Kootznoowoo Inc. corridor lands. In addition to the subsurface, the U.S. holds rights and title to timber, public access and development of the corridor lands. The U.S. is also required to protect Kootznoowoo Inc.'s property rights of quiet enjoyment.</p>  |
| 91               | 16        | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 153), <i>End of 3rd paragraph</i>: <i>Access 2 and Access 3 are currently routed through Auk'Tah Lake watershed...but may be rerouted prior to construction to avoid the property.</i><br/>           Comment: Any additional ground disturbing action on NFS lands would require coordination with The Admiralty Monument staff and could potentially require additional NEPA.</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
| 91               | 17        | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 363), <i>Section 4.8</i>: Heritage resource inventories and consultation on determination of effects with the State Historic Preservation Office (SHPO) have not been completed and, therefore, does not comply with section 106 of the National Historic Preservation Act.</p> <p>The Admiralty Island National Monument was originally designated by Presidential proclamation under the Antiquities Act in 1978. It was affirmed by Congress in 1980 under ANILCA section 503(c) to protect objects of ecological, cultural, geological, historical, prehistorical and scientific interest.</p> <p>The DEIS took a phased approach to analyzing effects to cultural resources in the area. The phased approach calls for further analysis on cultural resources if a particular alternative is chosen. Field surveys were not completed for areas of potential indirect effects for Airports 3a and 4 and their varying access routes. Finally, consultation with SHPO on the determination of effects to all alternative has not yet been completed.</p> <p>Completing the cultural analysis is necessary to determine the full extent of impacts to resources that directly support the purposes for which the National Monument was created. Also, this additional information will provide a meaningful comparison of alternatives within and outside the CSU.</p> <p>The Forest Service will need the NHPA section 106 process complete, including mitigations identified, prior to issuing a Record of Decision and/or Title XI determination for any alternative located on NFS lands.</p> |
| 91               | 18        | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 363), <i>Section 4.8</i>: Site SIT-00169 is only 17 meters outside the direct effect boundary of the proposed undertaking (airport 12a). The site is owned by the Kootznoowoo Village Corp and the Forest Service would like make sure the corporation is comfortable with the results of the archaeological investigation and the FAA's determination of effect. It is suggested that a monitor may be appropriate while ground disturbing activities occur in that area.</p>   |
| 91               | 19        | Beth Pendleton | U.S. Forest Service    | <p>Chapter 4 (p. 369), The document notes that the FAA is still consulting on a final determination of effect.</p> <p>Comment: Forest Service would like to be apprised of the results of the consultation on the undertaking's determination of effect and whether they agree with the FAA's determination.</p>  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim  |
|------------------|-----------|----------------|------------------------|--|
| 91               | 20        | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 379), Line 28 - <i>“Periodic monitoring of historic properties could be implemented...”</i><br>Comment: The Forest Service recommends that the monitoring is carried out.  |
| 91               | 21        | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 386), <i>“Note that additional field surveys are anticipated to be conducted for the preferred alternative, Airport 12a with Access 12a. If this fieldwork results in the discovery of additional historical or cultural resources, additional analysis would be conducted.”</i><br>Comment: The Forest Service would need to be apprised of the results of additional survey and if additional environmental analysis is required the Forest Service would like to continue to be a consulting agency.  |
| 91               | 22        | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 556, 563), 4.13.3.3.2: Focus on vegetative clearing and Turak et al. 1998 citation ignores long term impacts of paved surfaces on deer habitat particularly for forage that will not regenerate over time (not just inside perimeter fence but also road and fill footprint). Table SU4 and then ALT15 should calculate these effects in more detail possibly pulling from p. 93 Table ALT16 (acres of land committed and disturbed). Also no qualitative comparison of deer habitat acreage (i.e., muskegs in Airport 3a are an important traditional deer hunting area).   |
| 91               | 23        | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 623, 739-741), <i>Section 4.16</i> : The wilderness effects section lacks any substantive discussion on long-term effects of access 2 & 3 on illegal uses in wilderness, specifically ATVs. We would like to see a projection of anticipated illegal uses and propose mitigations that include engineered or natural barriers in the road design that deter illegal use at locations that could be susceptible to such activity (i.e. waysides, rock pits, temporary access corridors for construction, etc.). <i>Section 7.4.3</i> : Mitigations listed above.  |
| 91               | 24        | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 647-648), <i>Table WC3 &amp; 4.16.3.22 – Tables WC5-14, Figure WC11-19</i> : While Wilderness section does a nice job quantifying effects on wilderness character overall the long term effects of road and airport operations of Alternatives Airport 3a and 4 and their access roads are downplayed with a focus instead on temporary effects during construction. Specifically, Light emissions during operation should mention the continued visual effect from headlights of increased vehicular traffic with a road through Wilderness by employees, travelers, fuel and other delivery vehicles, snowplowing equipment, etc. Under Noise from construction equipment and motor vehicles, the increase will not be “temporary” but will be for the long term duration of the operations of a road and an airport that is now situated in Wilderness. |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | This problem is best exemplified by comparing display of effects on opportunities for solitude in Figure WC19 (Alternative 12a) and Figures WC12 and WC14 (Airport 3a Alternatives). Because of the focus on only effects from airplane traffic and not the effects of continued road and airport operations directly in Wilderness (as compared to outside Wilderness in 12a), it appears that Airport 3a and 4 alternatives would have a smaller degradation of opportunities for solitude, specifically less red shading. These figures should be amended to adequately display the increased effects on solitude of building, maintaining and operating a road and airport within the Wilderness boundary. If these effects are difficult to quantify numerically as mentioned in Table WC11 (p. 667) then statements that mention the disparity between Wilderness and non-Wilderness alternatives should be at least included in all Wilderness Character effects tables. |
| 91               | 25        | Beth Pendleton | U.S. Forest Service    | Chapter 4 (p. 677), Section 4.16.3.5.1 - Desired conditions for wilderness qualities if not specifically provided through an ANILCA exception, the resources within a designated Wilderness shall be administered in accordance with the applicable provisions of the Wilderness Act. Suggest referencing Section 707 of ANILCA to anchor this statement. Should cite Section 707 of ANILCA to anchor this statement.   |
| 91               | 26        | Beth Pendleton | U.S. Forest Service    | Chapter 5 (p. 718), Section 5.5.4: The DEIS needs additional information on effects to the national significance of the conservation system unit (Admiralty Island National Monument and Kootznoowoo Wilderness). This information is necessary in order to determine the scale of effects to the purposes of the National Monument and National Wilderness Preservation System.  |
| 91               | 27        | Beth Pendleton | U.S. Forest Service    | Chapter 5 (p. 719), Section 5.5.6: The DEIS does not identify the Admiralty Island National Monument as a conservation system unit subject to Title XI as provided for in ANILCA sections 503(b), (c), and (e). Nor does it provide adequate information as required by ANILCA section 1104(g)(2) on the effects to the purposes of the Admiralty Island National Monument. The Forest Service will need this analysis in order to issue a Record of Decision or Title XI determination for any alternative located on NFS lands.   |
| 91               | 28        | Beth Pendleton | U.S. Forest Service    | Chapter 6 (p. 740), Section 7.4.3: We would also like to incorporate by reference the BMPs contained in the National BMPs for Water Quality Management on NFS Lands (publication FS-990a, 2012) and Alaska Region BMPs.   |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name  | Commenter Organization                        | Comment Text Verbatim  |
|------------------|-----------|-----------------|---|--|
| 91               | 29        | Beth Pendleton  | U.S. Forest Service                           | <i>Section 7.4:</i> The proposed mitigations to reduce visual effects for airport 3a did not carry into this section. Please be sure that all suggested mitigations within the DEIS are accounted for in this section.   |
| 91               | 30        | Beth Pendleton  | U.S. Forest Service                           | Appendices (p. K-19), Site SIT-00169 is only 17 meters outside the direct effect boundary of the proposed undertaking. The site is owned by the Kootznoowoo Village Corp and the Forest Service would like make sure the corporation is comfortable with the results of the archaeological investigation and the FAA's determination of effect. As mentioned in 7.4.3 p. 740, a cultural resources monitor is needed for that area when ground disturbance activities are in the vicinity.   |
| 92               | 1         | Buck Lindekugel | Southeast Alaska Conservation Council (SEACC) | The Alaska Department of Transportation and Public Facilities (DOT&PF) is the project sponsor and proposed an airport site (Alternative 3a with Access 2) that is furthest from town and will have the most extensive impacts to the ecological, wilderness, and heritage values of the Admiralty Island National Monument & Kootznoowoo Wilderness ("Admiralty Monument-Wilderness"). In contrast, after multi-year planning process combined with extensive community engagement, the FAA identified a prudent and feasible alternative (Alternative 12a) that avoids any impacts to Admiralty Monument-Wilderness lands and is the least costly and most environmentally preferable alternative. SEACC supports improving the availability and reliability in transportation services to and from Angoon. In honor of the Angoon elders whose leadership resulted in the designation of the Admiralty Monument-Wilderness, we support approval of Alternative 12a, the FAA's preferred alternative. |
| 92               | 2         | Buck Lindekugel | Southeast Alaska Conservation Council (SEACC) | In the 1980 Alaska National Interest Lands Conservation Act (ANILCA), Congress established a process for consideration of whether to allow placement of transportation and utility systems in a conservation system unit like the Admiralty Monument-Wilderness. We appreciate the explanation provided in the DEIS relating to Title XI of ANILCA but wish to emphasize two additional points. First, Title XI allows approval of a transportation and utility system in a conservation system unit only if there is no economically feasible and prudent alternative for the proposed system. See Section 1104(g)(2)(B); 1106(a)(2)(specifying criteria for Presidential approval of Title XI application).  |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name  | Commenter Organization                        | Comment Text Verbatim   |
|------------------|-----------|-----------------|---|---|
| 92               | 3         | Buck Lindekugel | Southeast Alaska Conservation Council (SEACC) | Secondly, both sections 1103 and 1104 require compliance with all other applicable law. As required by the Clean Water Act and the Section 404(b)(1) Guidelines, the Corps of Engineers may only approve the Least Environmentally Damaging Practicable Alternative to aquatic resources. Based on the analysis contained in the DEIS, Alternative 12a results in substantially fewer impacts to aquatic resources than any of the other alternatives.  |
| 93               | 1         | Irene Alexakos  | Public  | As an Alaska who has been to Angoon many times, who has paddled the waters & walked the forests on Admiralty Island, I support the town airport site: Alternative 12a<br>This site is the only one that makes sense. It would cost taxpayers the least AND uphold the natural & cultural integrity of Admiralty Island.   |
| 94               | 1         | Randal Vigil    | U.S. Army Corps of Engineers                  | The DEIS indicates that the proposed Project would cause terrain disturbance or wetland alterations that would reduce wetland functions due to vegetation clearing and tree felling. We request that the Final EIS clearly identify what activities would take place under the various alternatives that would involve land clearing operations. This information would assist the Corps in determining which of those activities require DA permit authorization. Additionally, we request that the Final EIS quantify impacts from land clearing operations under all alternatives.   |
| 94               | 2         | Randal Vigil    | U.S. Army Corps of Engineers                  | The Corps is authorized to issue Section 404 permits only for projects that clearly demonstrate compliance with the Environmental Protection Agency's 404 (b)(1) Guidelines (Guidelines). The Corps will rely on the FEIS in reaching a decision whether to issue a Section 404 permit, and we request that the Final EIS include a Draft Guidelines evaluation. The Corps ultimately must make an independent finding that the proposed activity complies with the applicable standards in the Guidelines, and this information would help facilitate information needed to make our determination.<br><br>For informational purposes, we note that the following is information required by the Guidelines:<br><br>The Guidelines state that no discharge of dredged or fill material can be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, as long as the alternative does not have other significant adverse environmental consequences. In those cases where non-water dependant work is proposed in a "special aquatic site", (such as wetlands, vegetated shallows, mudflats, or riffle and pool complexes), practicable alternatives |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization       | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------------|---|
|                  |           |                |                              | <p>are presumed to exist unless clearly demonstrated otherwise by the applicant. Also, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise. Based on the information provided in the DEIS and available to us, we have determined that special aquatic sites occur within the proposed project area.</p> <p>An alternative is considered practicable if it is available and capable of being accomplished after taking into consideration costs, existing technology, and logistics in light of the overall project purpose. The least environmentally damaging practicable alternative may include construction in uplands, reducing the size of the proposal to the minimum discharge necessary for the project, or the inclusion of logistic and operational controls.</p>  |
| 94               | 3         | Randal Vigil   | U.S. Army Corps of Engineers | <p>Another requirement of the Guidelines is the sequential process of mitigation. The project should avoid and minimize impacts to aquatic resources, and then provide compensatory mitigation where necessary to offset unavoidable impacts. Compensatory mitigation is not considered until after all appropriate and practicable steps have been taken to first avoid and then minimize adverse impacts to the aquatic ecosystem. The mitigation regulations at 33 CFR Part 332 establishes standards and criteria for the use of appropriate and practicable compensatory mitigation for unavoidable functional losses of aquatic resources authorized by Corps permits.</p> <p>Avoidance measures are the planning strategies that entirely eliminate the discharge of fill material into the aquatic ecosystem to achieve the project purpose. A key requirement of compliance with the avoidance sequence of the Guidelines is to show whether or not an aquatic resource can be completely avoided. Minimization entails measures to reduce or diminish the impacts to aquatic resources. The fundamental objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts to waters of the United States authorized by DA permits.</p> <p>Although the burden of proof for satisfying these steps rests with the permit applicant, the Corps must rely upon its own analysis in making a finding of compliance or non-compliance with the Guidelines.</p> |



**Table 3. Individual comments identified in each response**

| Comment Letter # | Comment # | Commenter Name | Commenter Organization | Comment Text Verbatim   |
|------------------|-----------|----------------|------------------------|---|
|                  |           |                |                        | <p>The applicant must provide information that is sufficient to determine compliance, so the Corps can make a timely permit decision. The information provided in the mitigation section of the DEIS is not specific to the proposed work for the Corps' Guidelines analysis.</p> <p>The information provided in the DEIS state that it is unclear what might be required as compensatory mitigation, but outlines what components would be included in a compensatory mitigation plan to offset impacts, should it be required. The DEIS does not provide any information or analysis that explains how impacts to waters of the United States are to be compensated for or why compensatory mitigation should not be required for the proposed impacts.</p> <p>The compensatory mitigation regulations establish performance standards and criteria for permittee responsible and in-lieu fee compensatory mitigation in order to improve the quality and success of mitigation projects for proposed activities which would be authorization by a DA permit. In 33 CFR 332.3(b), the Corps and EPA have established a preference hierarchy for compensatory mitigation options (i.e., mitigation banks, in-lieu fee programs, and permittee-responsible mitigation). However, the potential for success may also justify as environmentally preferable a permittee responsible compensatory mitigation project that would restore or enhance an exceptional aquatic resource, based on robust scientific and technical analysis.</p> <p>Because the proposed Angoon Airport Project would result in the loss of waters of the United States, including special aquatic sites, we request that a draft compensatory mitigation plan be a component of the EIS. The Final EIS should include sufficient information about how the proposed compensatory mitigation relates to the individual and cumulative impacts to aquatic resources within the proposed project area, including an assessment to quantify debits and credits for aquatic resource impacts and compensation.</p> |



## **Attachment A.**

**Angoon Public DEIS Comment Letters**



**From:** [Anthony DiNardo](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Draft EIS - Public Comment Period  
**Date:** Monday, January 12, 2015 10:50:59 AM

---

Hello,

I have a question regarding the comment period for the Draft EIS. Do you accept public comment from anyone (i.e., I live in new york state) or just from the local citizens/Alaska residents?

Thanks,  
Tony

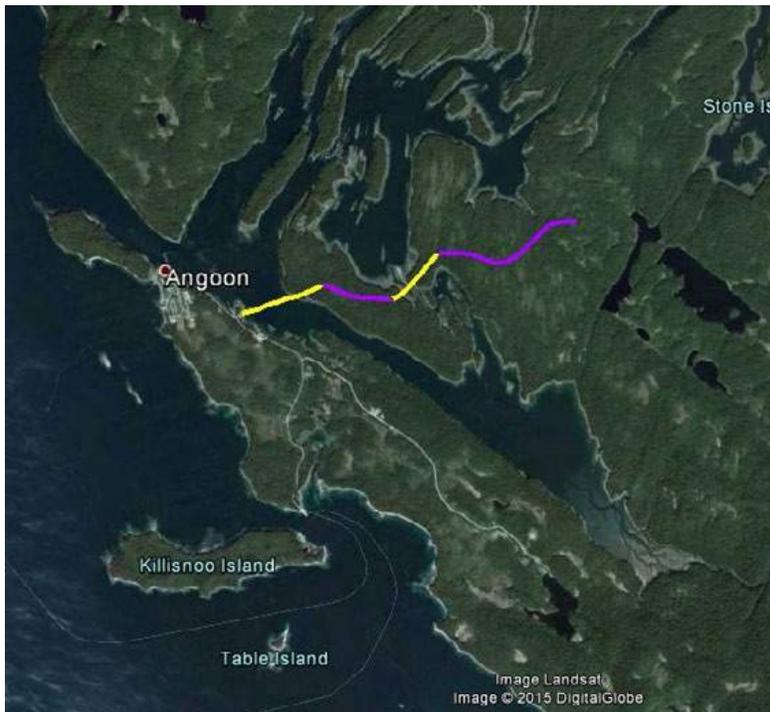
---

This email, including any attachment(s) to it, is confidential and intended solely for the use of the individual or entity to which it is addressed. If you have received this email in error, please notify the sender. Note that any views or opinions presented in this email are solely those of the author and do not represent those of O'Brien & Gere. O'Brien & Gere does not accept liability for any damage caused by any virus transmitted by this email. The recipient should check this email and any attachments for the presence of viruses.

---

**From:** [Concerned Alaskan](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport Draft EIS Comment  
**Date:** Thursday, January 22, 2015 12:49:25 PM

---



Has anyone considered building a tunnel (yellow on map) from the floatplane base across the entrance to Favorite Bay, come up above ground for about 2/3 mile (purple on map), start a tunnel again to for 2/3 mile, and finally an above ground road to the Site 3a location?

- A Concerned Alaskan

**From:** [Concerned Alaskan](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport Draft EIS Comment  
**Date:** Monday, February 02, 2015 2:26:33 PM

---

Good afternoon,

I am writing to express my concern that no consideration was given to a ship-based airport. Specifically, I propose towing a decommissioned aircraft carrier to Angoon and permanently docking the ship in Favorite Bay. The USS Constellation, a Kitty-Hawk class aircraft carrier, was recently decommissioned by the U.S. Navy and is awaiting dismantling in Brownsville, Texas. This cost of acquiring the ship and towing it to Angoon is far less than the construction of a new airport on Admiralty Island. Since the runway length of an aircraft carrier is under 1,000', aircraft flying to or from Angoon will require special modification to accommodate the initial slingshot propulsion. Alternatively, the USS Enterprise, another Kitty-Hawk class aircraft carrier, is scheduled for decommission later this year. If both ships were acquired, they could be attached at the end of the runways, effectively doubling the length. Thank you for considering this alternative. I look forward to your response.

- A Concerned Alaskan

**From:** [luke nelson](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport  
**Date:** Friday, February 06, 2015 12:25:14 PM

---

My only comment regarding the Airport Location selection, is that DOT would use Responsible Economics in making that selection. The State of Alaska is in serious Funding trouble regarding our Oil Revenues, and our nation is by now 18 Trillion dollars in debt.

If we spend moneys that are "not directly" related to building an airstrip, then other's that have Needs, will be without funding.

Lets just spend Responsibly.

Thank You,  
Luke Nelson

**From:** [Martha Jaegers](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Date:** Tuesday, February 10, 2015 1:22:28 PM

---

Dear FAA:

I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Please do not intrude into Wilderness areas.

Thank you.  
S. M. Jaegers

**From:** [Jamaka Petzak](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** RE: Kootznoowoo Wilderness  
**Date:** Tuesday, February 10, 2015 1:49:58 PM

---

To whom it may concern:

I support selection of the Alternative 12a with Access 12a (the Non-Wilderness location for the airport and road) or the No Action Alternative.

Thank you.

Jamaka N. Petzak  
1222 Graynold Ave.  
Glendale, CA 91202-2021  
jmuhjacat@att.net

**From:** [Sally Mattison](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport EIS  
**Date:** Tuesday, February 10, 2015 3:23:51 PM

---

As a concerned conservationist, I am very glad to hear that the FAA has rejected for now a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska, and has instead recommended a site where the lands are privately owned or owned by the local community.

I strongly support either the FAA's selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Thank you for your consideration.

Priscilla J. Mattison, Esq., LEED AP Homes

**From:** [Gene Whitaker](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Angoon Airport EIS  
**Date:** Tuesday, February 10, 2015 3:46:15 PM

---

I urge FAA to keep this airport out of the Wilderness Area and approve Alternative 12a with Access 12a or the No Action Alternative.

Thank you,  
Gene Whitaker

**From:** [Jared Brenner](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport Draft Environmental Impact Statement  
**Date:** Wednesday, February 11, 2015 8:30:25 AM

---

I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Sent from Alto - altomail.com

**From:** [Lyn Lowry](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** please spare the Kootznoowoo Wilderness  
**Date:** Wednesday, February 11, 2015 8:08:27 AM

---

Please follow the FAA's recommendation to build the new airport on privately owned lands or those of the local community. The Kootznoowoo Wilderness should not be marred by an airport and access road. This airport should be located elsewhere and our remaining wilderness areas should be protected from development.

Thank you for your attention.

Sincerely,  
Lyn Lowry

**From:** [Necia Refes](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** The Angoon Airport Draft Environmental Impact Statement  
**Date:** Wednesday, February 11, 2015 7:58:10 AM

---

It is of paramount importance that we keep and maintain our wild spaces as wild spaces with no invasion of any kind. These areas are important as they help off-set our environmental impact.

i am in total support of your selection of alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

**From:** [Debra.Ashton@bbh.com](mailto:Debra.Ashton@bbh.com)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Do not build an airport or road in the Kootznoowood Wilderness  
**Date:** Wednesday, February 11, 2015 7:24:14 AM

---

I am writing to tell you that I support the FAA's selection of Alternative 12a with Access 12a (non-wilderness location for the airport and the road) or the No Action Alternative. Under no circumstances do I want the airport/road to be built in the Kootznoowood Wilderness area on Admiralty Island. The wilderness must remain intact and unscathed by commercial development.

Thank you.

Debra and David Ashton  
610 Washington Street  
Hoboken, NJ 07030

\*\*\*\*\* IMPORTANT NOTE\*\*\*\*\*

The opinions expressed in this message and/or any attachments are those of the author and not necessarily those of Brown Brothers Harriman & Co., its subsidiaries and affiliates ("BBH"). There is no guarantee that this message is either private or confidential, and it may have been altered by unauthorized sources without your or our knowledge. Nothing in the message is capable or intended to create any legally binding obligations on either party and it is not intended to provide legal advice. BBH accepts no responsibility for loss or damage from its use, including damage from virus.

\*\*\*\*\*

**From:** [dsprovance](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport  
**Date:** Wednesday, February 11, 2015 7:06:06 AM

---

I support the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Sincerely,  
Donna Provance

**From:** [David Batty](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** COMMENTS ON ACCESS 12A  
**Date:** Wednesday, February 11, 2015 6:41:28 AM

---

RE: COMMENTS ON ACCESS

Access 12A

The Federal Aviation Administration (FAA) has rejected for now a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. The FAA has instead recommended a site where the lands are privately owned or owned by the local community

FAA Comments on Kootznoowoo Wilderness

PLEASE REGISTER ON SUPPORT OF ACCESS 12A AND REJECTION OF NO ACTION.

SINCERELY,

DAVID AND BETTY BATTY

1320 TALBOTT CIRCLE

AVON PARK, FLORIDA, 33825-9721

Phone: 863-452-9705

EMAIL ADDRESS: [myownpiper@yahoo.com](mailto:myownpiper@yahoo.com)

**From:** [SUE MCHENRY](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** airport and road construction in wilderness  
**Date:** Wednesday, February 11, 2015 6:12:16 AM

---

I oppose any construction in a wilderness area on Admiralty Island.  
Thanks for the chance to comment. Sue McHenry

**From:** [Yahoo!](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Request  
**Date:** Wednesday, February 11, 2015 4:08:21 AM

---

FAA:

I support either the selection of Alternative 12a with Access 12a (non-wilderness location for airport and road) or the No Action Alternative.

Sincerely,  
Michelle Macy  
A Concerned citizen

**From:** [Francis Mauer](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Angoon DEIS comments  
**Date:** Tuesday, February 10, 2015 8:25:41 PM

---

Please accept my following comments regarding the Angoon airport Draft Environmental Impact Statement:

I am pleased to learn that the FAA has selected alternative 12a which would keep the airport out of designated Wilderness lands. I support this decision because it allows for development of the airport, but leaves the Wilderness lands alone, as they were intended to be.

Thank you for the opportunity to comment and for selecting the best alternative.

Sincerely,

Fran Mauer  
791 Redpoll Ln  
Fairbanks, AK 99712

**From:** [Rosenblums\(pol1\)](mailto:Rosenblums(pol1)@angoonairporteis.com)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** DEIS for Angoon Airport  
**Date:** Tuesday, February 10, 2015 8:09:11 PM

---

I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Stephen Rosenblum  
Palo Alto, California

**From:** [Heather Payne](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Angoon Airport EIS  
**Date:** Tuesday, February 10, 2015 7:48:06 PM

---

To Whom It May Concern:

Thank you for the opportunity to comment on the Angoon Airport EIS. I support either the selection of Alternative 12a with Access 12a or the No Action Alternative. Both these would continue to support wilderness.

Regards,  
Heather Payne

**From:** [Bob Brister](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** DEIS comment  
**Date:** Tuesday, February 10, 2015 7:10:48 PM

---

Thank you for rejecting a proposal from the State of Alaska to build a new airport and access road in the Kootznoowoo Wilderness on Admiralty Island. We have too few designated wilderness areas. Existing wilderness like Kootznoowoo should never be degraded.

Sincerely,

Bob Brister  
1102 S 800 E #A  
Salt Lake City, UT 84105



This email has been checked for viruses by Avast antivirus software.

[www.avast.com](http://www.avast.com)

**From:** [Sybil E Schlesinger](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport Draft Environmental Impact Statement  
**Date:** Tuesday, February 10, 2015 5:47:50 PM

---

I am writing to urge support for either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Sincerely,  
Sybil Schlesinger  
22 Rockland Street  
Natick, MA 01760

**From:** [Kristin](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** support for alternative 12a  
**Date:** Tuesday, February 10, 2015 4:52:12 PM

---

I am writing to register my support for keeping the Kootznoowoo Wilderness intact, and moving the proposed airport and access roads to privately or community owned lands as per Alternative 12a and Access 12a. If these fail to pass I would support the No Action Alternative.

Thank you,  
Kristin Vyhna

----- sponsored link: yahoo recommended -  
<http://msn.medsplacex.com> -----

**From:** [Bonnie MacRaith](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Spare Kootznoowoo Wilderness From Airport and Road Construction  
**Date:** Wednesday, February 11, 2015 10:44:22 AM

---

Dear FAA,

I support either your selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Thanks,

Bonnie MacRaith=

**From:** [Larry Stalnaker](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** airport  
**Date:** Wednesday, February 11, 2015 11:46:53 AM

---

Thank you, FAA, for rejecting the proposal from Alaska to build a new airport & access road in the Kootznoowoo Wilderness. I support either Alternative 12a with Access 12a (the non-Wilderness location) or the No Action Alternative.

Let us leave the wild to wilderness because once humans invade it, it slowly disappears. When it is gone, it is gone forever with all its wildlife.

Thank you for considering my comments.

Marilyn Evenson

Tacoma, WA 98445

**From:** [cecelia Samp](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport  
**Date:** Wednesday, February 11, 2015 12:51:25 PM

---

It makes sense to use land that is privately owned or community owned for the Angoon Airport rather than take land from the Kootznoowoo Wilderness on the Admiralty Island. Logic dictates preserving the wilderness and take advantage of other opportunities for this airport.

Cecelia Samp

**From:** [Carol Ohlendorf](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Airport  
**Date:** Wednesday, February 11, 2015 1:20:47 PM

---

Please spare the Kootznoowoo Wilderness from Airport and road construction. I support either your selection of Alternative 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Thank you for caring about our future.

Sincerely,

Carol Ohlendorf

**From:** [Betty J. Van Wicklen](mailto:Betty.J.Van.Wicklen)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Spare Kootznoowoo Wilderness From Airport and Road Construction  
**Date:** Wednesday, February 11, 2015 3:23:18 PM

---

Dear Reviewer,

I am writing to submit my comments on the FFA proposal for airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. I urge you to protect the wilderness areas of Kootznoowoo by selecting Alternative 12a with access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative

Alaska has some of the best and last of our true wilderness areas, and even the FAA, in its proposal, has recognized this by proposing the least invasive way to complete the access to the airport. Particularly, in this time of changing climate, we must do all we possibly can to preserve the unique and very fragile wilderness areas of Alaska in order to provide as much a chance as possible to provide havens for animals which would not survive in other conditions or food sources, particularly when we have ready alternatives.

Thank you for your consideration.

Sincerely,

Betty J. Van Wicklen  
41 Lake Shore Dr. #2B  
Watervliet, NY 12189-2915

[g10121@care2.com](mailto:g10121@care2.com)

**From:** [vocewing@aol.com](mailto:vocewing@aol.com)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Koontzoonoo Wilderness  
**Date:** Wednesday, February 11, 2015 4:45:45 PM

---

Please protect the Koontzoonoo Wilderness - I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Sincerely,

Jim Ewing  
1039 Bedford Avenue  
Palm Beach Gardens, FL 33403  
561-598-9314  
[VocEwing@aol.com](mailto:VocEwing@aol.com)

**From:** [Marilyn Snyder](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon airport on Admiralty Island  
**Date:** Wednesday, February 11, 2015 4:36:39 PM

---

I support selection of Alternative 12A with access 12A (the non-Wilderness location for the airport or road) or the No Action alternative.

Thank You,  
Marilyn Snyder  
5121 Lindell Rd Unit 206  
Las Vegas , NV 89118  
702-876-9789  
Partyferrett@aol.com

Sent from my iPad=

**From:** [sirquickwit@aol.com](mailto:sirquickwit@aol.com)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** No roads or airport State of Alaska, no airport or roads. State of alaska acting recklessly  
**Date:** Thursday, February 12, 2015 8:50:22 AM

---

HI,

FAA, we support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Take an run down area in a city or a property that has already been "developed" that is abandoned and build there but not in a wilderness area or anywhere near it.

ty  
Vince

**From:** [Joe Ginsburg](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Angoon Airport EIS  
**Date:** Thursday, February 12, 2015 12:55:33 AM

---

**To Whom it may Concern:**

**I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.**

**Thank you for excellent work and your attention to my comment**

**Sincerely,**

**Joe Ginsburg  
12210 Densmore Ave. N.  
Seattle WA 98133**

**From:** [Sherry Olson](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Comments on airport in Kootznoowoo Wilderness  
**Date:** Wednesday, February 11, 2015 8:46:19 PM

---

Please reconsider construction of the airport in the Kootznoowoo Wilderness.

The Federal Aviation Administration (FAA) has rejected for now a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. The FAA has instead recommended a site where the lands are privately owned or owned by the local community. The FAA's recommendation is contained in the *Angoon Airport Draft Environmental Impact Statement* released in early January.

Thank you,  
Sherry Olson

**From:** [Mark Waltzer](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Kootznoowoo Wilderness  
**Date:** Wednesday, February 11, 2015 6:54:03 PM

---

I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Dr. Mark Waltzer  
1509 Squire Lane  
Cherry Hill, NJ 08003

**From:** [Sandra Maar](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Kootznawoo Wilderness  
**Date:** Thursday, February 12, 2015 9:26:26 AM

---

The Alaskan Wilderness areas must be protected from development not only to ensure that these areas and the wildlife that thrives within them will be there for subsequent generations to enjoy but also to aid in balancing global warming trends and related pollution.

An airport through any Federally protected area is contrary to the Wilderness act and would not be in the best interest of the American People.

Therefore, I ask that you support either the Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Sincerely,

Sandra Maar

**From:** [Wally Elton](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport DEIS  
**Date:** Thursday, February 12, 2015 3:35:21 PM

---

I am writing to comment on the Angoon Airport Draft Environmental Impact Statement.

As both a supporter of designated Wilderness and one who has visited Southeast Alaska several times, I oppose siting the airport on land designated as Wilderness. Furthermore, I do not believe that every village requires or can have an airport. In my view, Angoon does not need one. Even located outside Wilderness lands, the activity at an airport would seriously intrude on the very qualities the Wilderness designation was intended to protect and erode Wilderness values that people like me pay to come and enjoy. As you note, "Airport 12a would degrade opportunities for solitude in the wilderness area as a result of light emissions during construction and operation, overhead aircraft noise, and temporary construction noise."

Therefore, I support the No Action Alternative first. If an airport is to be built, then it must be outside designated Wilderness and I support Airport 12A with Access 12A. I oppose Airport 3A and 4 with either access.

Thank you for the opportunity to comment.

Wallace M. Elton  
36 Curt Blvd  
Saratoga Springs, NY 12866

**From:** [LegalSandy@aol.com](mailto:LegalSandy@aol.com)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport  
**Date:** Thursday, February 12, 2015 4:27:37 PM

---

Dear FAA:

I support either FAA's selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Sandra Walters

345 N. Stateline Rd.

Driggs, ID 83422

**From:** [Wyberg, Bryan](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** I Support Alternative 12a with Access 12a  
**Date:** Friday, February 13, 2015 8:56:41 AM

---

Angoon Airport EIS  
1220 SW Morrison  
Suite 700  
Portland, Oregon 97205

Dear Sirs:

I am writing to express my support of the Alternative 12a with Access 12a or the No Action Alternative. Please ensure that the final record of decision is for a non-wilderness location for the airport and road.

I think it would be a tragedy for future generations if the wilderness area protected by Congress were diminished by the development of an airport on its lands. There is certainly plenty of private land that can be used for this purpose. There is no justification for reducing wilderness acreage for the purpose of building an airport or road.

Again, please ensure that political pressure does not influence the final record of decision. Make sure that the sound reasoning that led to the preferred alternative of 12a is maintained. Or better yet, chose the no action alternative.

Thank you,  
Bryan

Bryan Wyberg  
12854 Raven Street NW  
Coon Rapids, MN 55448

**From:** [K. L. Naiman](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Commenting on the Angoon Airport EIS  
**Date:** Monday, February 16, 2015 11:19:24 AM

---

I am against any airport/road being built.

Sincerely,

Karen L. Naiman

**From:** [Sarah Stewart](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Comment on the Angoon Airport Draft Environmental Impact Statement  
**Date:** Monday, February 16, 2015 9:27:10 AM

---

I am writing to comment on the Angoon Airport Draft Environmental Impact Statement.

I am pleased that there is an FAA Plan that would spare Kootznoowoo Wilderness from airport and road construction.

I am writing to say that I support either the selection of Alternative 12a with Access 12a (the non-wilderness location for the airport and road) or the No Action Alternative.

Thank you for your attention to my comments.  
Sincerely, Sarah Stewart, 302 Granite Street, Gardiner, MT 59030

**From:** [Sally H](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport Draft Environmental Impact Statement  
**Date:** Sunday, February 15, 2015 4:11:41 PM

---

I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative for the Angoon Airport.

Sally Hayati

Redondo Beach, CA 90277

**From:** [jean public](#)  
**To:** [comments@angoonairports.com](#); [vicepresident@whitehouse.gov](#)  
**Cc:** [foe@foe.org](#); [The Pew Charitable Trusts](#); [Kieran Suckling](#)  
**Subject:** public comment on airport - dont put it in a wilderness area  
**Date:** Sunday, February 15, 2015 4:50:42 AM

---

put that airport in the town on private land. the faa recommendation is the way to go. why turn wilderness into crap like everything else in this world. save and protect nature. this comment is for the public record. please receipt. jean publi [jeanpublic1@yahoo.com](mailto:jeanpublic1@yahoo.com)

**From:** [Lydia Garvey](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Alter.12a(with acc.12a) or No Action!  
**Date:** Saturday, February 14, 2015 8:08:08 PM

---

I strongly urge you support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Do your job- Protect Our Public lands, waters, wildlife, health & future! You work for citizens, not industry!

Your attention to this most urgent matter would be much appreciated by all present & future generations of all species.

Thank you

Lydia Garvey Public Health Nurse  
429 S 24th st Clinton OK 73601

**From:** [James Woods](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Wilderness  
**Date:** Saturday, February 14, 2015 8:09:23 AM

---

Dear Sir:

I write to request the Federal Aviation Administration reject any and all proposals to construct airports within a wilderness area.

Wilderness does not have roads and airports . . . period.

Please select alternative 12a of the Angoon Airport DEIS as the action alternative. Otherwise, No Action.

Thank you for reading my comment and carrying out my request.

Sincerely,

James Woods  
P.O. Box 1837  
20 Carrie Ann Lane  
Penn Valley, CA 95946

Ph. 530 432 1969

[jwoods1945@yahoo.com](mailto:jwoods1945@yahoo.com)

**From:** [Steve Hylton](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport  
**Date:** Friday, February 13, 2015 8:32:02 PM

---

Thanks for letting me comment, as for the airport I prefer the No Action Alternative. Reason being is there are enough airports already and they are to noisy 24/7 and Im especially opposed to having it built adjacent to a wilderness as this ruins wilderness character. Alaskas wildlands are to valuable to have anything like an airport being built

Thanks, Steve

**From:** [Diana Artemis](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Angoon Airport EIS  
**Date:** Friday, February 13, 2015 1:46:19 PM

---

I support your selection of Alternative 12a with Access 12a, the non-Wilderness location for the airport and road.

Sincerely,  
Diana Artemis  
2930 Marshall St., Falls Church VA 22042

**From:** [Jeremy](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Public comments on the Angoon Airport EIS  
**Date:** Monday, February 16, 2015 2:14:56 PM

---

To whom it may concern,

In regards to the request for public comments on the EIS for the Kootznoowoo Wilderness Angoon Airport, I am writing to express my support of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative. Thank you for your consideration.

Best,

Dr. Jeremy Rossman

**From:** [Michael Garitty](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** re: public comments on the Angoon Airport DEIS  
**Date:** Tuesday, February 17, 2015 1:29:18 PM

---

I support either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Michael Garitty  
13088 vista Knolls  
Nevada City, CA 95959

**From:** [Judy Ann Cohen](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport  
**Date:** Wednesday, February 18, 2015 8:08:36 AM

---

**Gentlemen:**

**Please note that I support** either the selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Thank you for consideration of my letter.

**Judy Ann Cohen**  
**Tel: +972 - 2 - 6514392**  
**Jerusalem, ISRAEL**



**"Please consider your environmental responsibility before printing this e-mail"**

**From:** [Cynthia Patterson](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Angoon Airport Draft Environmental Impact Statement  
**Date:** Thursday, February 19, 2015 11:42:38 AM

---

Please accept these comments regarding the DEIS for a proposed airport in the Kootznoowoo Wilderness, on Admiralty Island, Alaska.

I agree the airport should be built on privately owned and community owned land and NOT in the wilderness area.

I support Alternative 12a with Access 12a or the No Action Alternative.

Thank you.  
Cynthia Patterson  
Atlanta, GA

**From:** [Robert Havrilla](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Angoon Airport EIS  
**Date:** Thursday, February 19, 2015 5:52:16 PM

---

Dear Sirs:

With regard to the subject EIS, I support and request that the FAA support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Sincerely,  
Robert Havrilla  
1501 Monterey Street  
Pittsburgh, PA 15212

**From:** [Marcus Lanskey](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Don't compromise the Kootznoowoo Wilderness  
**Date:** Friday, February 20, 2015 2:57:24 PM

---

The Kootznoowoo Wilderness must be compromised by airport construction within the wilderness. I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative.

Sincerely  
Marcus J. Lanskey  
3867 Potter Street, Eugene, OR 97405

**From:** [Karen Wilson](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport comments  
**Date:** Tuesday, March 03, 2015 9:25:55 PM

---

To Whom It May Concern:

We are writing in support of the FAA's preferred alternative 12a for the Angoon airport location. 12a makes the best sense by far, due to its close proximity to Angoon and its lower cost. The use of utilities and a road already in existence not only play into the lower cost, but will also help to keep environmental impact at a minimum.

In our travels between Juneau and Tenakee, we often visit Angoon by ferry or float plane. We highly value the wilderness setting and subsistence lifestyle of Angoon, and want to see that lifestyle and the fish and wildlife habitat protected as much as possible. The DOT proposed alternative 3a would have very negative impacts on both environment and finances...we can't afford that.

Please support alternative 12a to provide the best possible airport for Angoon while honoring and protecting the standards of the Admiralty Island Wilderness and National Monument.

Thank you!

Sincerely,

Jeff and Karen Wilson

Juneau & Tenakee Springs

**From:** [killik@gci.net](mailto:killik@gci.net)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Angoon Airport Draft EIS  
**Date:** Sunday, March 08, 2015 6:08:51 PM

---

To Whom It May Concern

This is to support the FAA's preferred alternative 12a, for the site of an airport runway and facility in Angoon, Alaska.

I am very familiar with Angoon, having travelled there for work and pleasure over the course of a 47 year residency in Southeast Alaska.

The village is confined to a very narrow stretch of land, with a single short road leading to the ferry terminal area.

This allows easy access for village residents.

A small airport off this existing road, as specified in the FAA alternative, would be the most convenient for the most people, many of whom have very limited resources and no access to a vehicle.

I see 5 main reasons for rejecting Alternative 3a: (1) constructing a new road several miles longer would mean more expense and trouble for people to travel back and forth to the village; (2) the weather is more stable in the flatter land closer to Chatham Straits. As a part time resident of Funter bay, to the north of Angoon on Admiralty, I know that the closer you get to the hills and mountains of the island, the more the winds impact air travel; (3) It is much a much more expensive alternative when there is already a road and infrastructure in place from the village to the ferry terminal at the present time; (4) there would be unnecessary and harmful impacts to wildlife resources if a road and runway were constructed in an area that has not had previous development; and (5) locating a road and airport in a National Monument Wilderness is an unacceptable precedent and impact to lands recognized by Congress for their national values.

I urge adoption of the FAA preferred alternative 12a.

Yours sincerely,

Joel Bennett  
15255 Point Louisa Rd  
Juneau, AK 99801  
907-789-1718=

**From:** [Andy Romanoff](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** SUPPORT for FAA Alternative 12A  
**Date:** Sunday, March 08, 2015 5:01:14 PM

---

Hi,

I am writing in regards to the draft EIS for the proposed Angoon Airport. I feel strongly that the FAA's Airport Alternative 12A is the most appropriate plan for Angoon. This alternative offers a facility that is close to town, near existing transportation, road and power installations, would require the least amount of winter and annual maintenance, does not require the construction of a road and the associated expenses and impacts to wilderness values.

The alternatives offered by DOT make very little economic sense and offer an approach that is wasteful and unnecessary. This is an airport project, not a road building project.

Thank you,

Andy Romanoff  
4456 Mountainside Drive  
Juneau, Alaska  
907.723.6382 =

**From:** [Amanda Childs](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Fwd: Scanned image from MX-C402SC  
**Date:** Sunday, March 08, 2015 4:35:41 PM  
**Attachments:** [sharonlove65@gmail.com\\_20150303\\_181709.pdf](#)  
[ATT00001.htm](#)

---

Amanda

Begin forwarded message:

**From:** <[Leslie.Grey@faa.gov](mailto:Leslie.Grey@faa.gov)>  
**Date:** March 8, 2015 at 2:02:24 PM PDT  
**To:** <[achilds@swca.com](mailto:achilds@swca.com)>  
**Subject:** FW: Scanned image from MX-C402SC

-----Original Message-----

From: sharonlove65@ [mailto:[sharonlove65@gmail.com](mailto:sharonlove65@gmail.com)]  
Sent: Tuesday, March 03, 2015 2:17 PM  
To: Grey, Leslie (FAA); [verne.skagerberg@alaska.gov](mailto:verne.skagerberg@alaska.gov)  
Subject: Scanned image from MX-C402SC  
Reply to: [sharonlove65@gmail.com](mailto:sharonlove65@gmail.com) <[sharonlove65@gmail.com](mailto:sharonlove65@gmail.com)> Device Name:  
Sharp-Kootznoowoo Device Model: MX-C402SC  
Location: Kootznoowoo Plaza  
File Format: PDF (Medium)  
Resolution: 200dpi x 200dpi  
Attached file is scanned image in PDF format.  
Use Acrobat(R)Reader(R) or Adobe(R)Reader(R) of Adobe Systems Incorporated  
to view the document.  
Adobe(R)Reader(R) can be downloaded from the following URL:  
Adobe, the Adobe logo, Acrobat, the Adobe PDF logo, and Reader are registered  
trademarks or trademarks of Adobe Systems Incorporated in the United States  
and other countries.  
<http://www.adobe.com/>

**From:** [ritchie.dorrier](mailto:ritchie.dorrier)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport comments  
**Date:** Saturday, March 07, 2015 10:45:35 PM

---

To whom it may concern:

Please consider this comment on the Draft Environmental Impact Statement (DEIS) regarding the location of the Angoon Airport.

I support alternative 12a. This location is closest to the town of Angoon, and has minimal impact on the beautiful and pristine natural environment. This alternative utilizes existing infrastructure, and has the lowest cost.

The AK Dept of Transportation's favored alternative, 3A, has the potential for huge negative impacts on the Admiralty Island National Monument and Wilderness. The Monument and Wilderness has a significant ecosystem that will be more affected by alternative 3A.

Thank you for the opportunity to comment on this important project.

Catharine Ritchie Dorrier  
15222 Point Louisa Rd  
Juneau, AK 99801  
907-321-1542=

**From:** [Forrest Netzel](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Kootznoowoo Wilderness Airport  
**Date:** Saturday, March 07, 2015 6:58:00 PM

---

To whom it may concern:

I am writing to express my displeasure with the idea of building an airport and road in the **Kootznoowoo Wilderness**. There are alternatives available outside the wilderness which should be used instead. I support either its selection of Alternative 12a with Access 12a (the non-Wilderness location for the airport and road) or the No Action Alternative. Thank you for considering my comments.

Forrest Netzel

**From:** [Kevin Proescholdt](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Wilderness Watch comments on Angoon Airport DEIS  
**Date:** Thursday, March 05, 2015 11:59:10 AM  
**Attachments:** [Angoon Airport DEIS comments.pdf](#)

---

Dear FAA Staff,

Attached as a pdf document are comments from Wilderness Watch on the Angoon Airport DEIS.

Sincerely,

--

Kevin Proescholdt  
Conservation Director  
Wilderness Watch  
2833 43rd Avenue South  
Minneapolis, MN 55406  
612-201-9266  
[www.wildernesswatch.org](http://www.wildernesswatch.org)

**From:** [Karla Hart](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Angoon Airport EIS  
**Date:** Thursday, March 05, 2015 9:18:30 AM

---

I strongly support the FAA preferred option of 12A for the following reasons:

- Lower costs over the DOT preferred alternative.
- Less road to maintain (and improve).
- No bridge to build, maintain and some day replace.
- A roadway with shoulders will better allow the community to walk and bike safely along the roadway to access the airport or simply get exercise.
- Shorter travel distance to/from the airport will make already expensive air travel a bit more affordable by reducing taxi and other transportation costs for residents and visitors. Travel time will also be a bit less.
- Shorter construction time.
- No intrusion into the wilderness area.
- Less environmental impacts in so many ways, from amounts of hardened surface and fill to resources for construction to surface disturbance to number of streams impacted.
- Less roadway for the City of Angoon to patrol and provide emergency medical services for the inevitable accidents and incidents.
- Reduces transport of invasive plants into the wilderness area along the roadway corridor.
- Protects wildlife from habitat fragmentation, increased roadway access for hunting and poaching, and roadkill.

I am a Juneau resident whose family has owned property on Killisnoo Island since about 1973. I have traveled to Angoon by air and ferry and recreate in Mitchell Bay.

Regards,

Karla Hart  
4950 Wren Drive  
Juneau, AK 99801

**From:** [Cochon, Grace](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Cc:** [Philip Johnson](#)  
**Subject:** Angoon Airport EIS comments  
**Date:** Tuesday, March 10, 2015 10:58:05 AM  
**Attachments:** [ER 15-0021 Angoon Airport 4\(f\) - DOI Comments.pdf](#)

---

Hello Mr. Lomen,

Attached is a comment letter from the U.S. Department of the Interior for the Draft EIS and Section 4(f) Evaluation for the Proposed Angoon Airport. Our office would very much appreciate it if you could please confirm when you have received this message.

Thank you very much,  
Grace

--

Grace Cochon  
Regional Environmental Protection Assistant  
U.S. Department of the Interior  
Office of Environmental Policy and Compliance  
1689 C Street, Room 119  
Anchorage, Alaska 99501  
Work: 907-271-5011  
Cell: 907-227-3781  
Fax: 907-271-5930  
<http://www.doi.gov/pmb/oepc/anchorage.cfm>

**From:** [harold frank](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** FW: Scanned image from MX-C402SC  
**Date:** Tuesday, March 10, 2015 12:57:41 PM  
**Attachments:** [sharonlove65@gmail.com\\_20150304\\_150023.pdf](#)

---

To whom it may concern:

Kootznoowoo, Inc. formally submitted in the mail. We are submitting the scanned letter for the sake of redundancy.

Thank you for your consideration.

Harold Frank, Jr., M.S.  
Land and Environmental Planner  
Kootznoowoo, Inc.

Phone: 907-209-9029.

**From:** [harold frank](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Kootznoowoo"s Comments on latest Angoon Airport EIS  
**Date:** Tuesday, March 10, 2015 1:17:27 PM  
**Attachments:** [sharonlove65@gmail.com\\_20150304\\_150023.pdf](#)

---

To whom it may concern:

In the spirit of redundancy, I resubmit Kootznoowoo, Inc.'s latest comments on the Angoon Airport EIS. There should be a hard copy forthcoming, but just in case, here is a scanned copy.

Harold Frank, Jr., M.S.  
Land and Environmental Planner  
Kootznoowoo, Inc.

Phone: 907-209-9029.

**From:** [Heather Best](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon airport option 12A  
**Date:** Thursday, March 12, 2015 10:12:22 AM

---

I support the option of location 12A for building an airport for the community of Angoon. Having a site near town makes the most sense in terms of easy of maintenance, building costs, and convenience of access for the local population. Please select the more reasonable choice, 12A.

Thanks,  
Heather Best  
Fairbanks, AK

**From:** [Frank and Sally Rue](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** support for alternative 12a  
**Date:** Thursday, March 12, 2015 8:18:12 PM

---

To whom it may concern, I support the FAA's preferred alternative (12a) for the Angoon airport. The FAA alternative is preferred because it is closest to town, is safe, uses existing infrastructure, has the best access for people, does not require road maintenance for a long road around Favorite Bay, AND does not compromise National monument values that the DOT alternatives do compromise. I have spent a lot of time in Angoon, Favorite Bay and Mitchell Bay and I know that the FAA alternative is the best for all of the reasons FAA has stated and that I have mentioned here.

Thank you for considering my comments.

Sincerely,  
Frank Rue  
7083 Hendrickson Rd  
Juneau, Alaska  
99801

**From:** [Bart Koehler](mailto:comments@angoonairports.com)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com); [Bart Koehler](#); [KJ METCALF](#)  
**Subject:** I support FAA's preferred Alt. 12a for the proposed Angoon Airport  
**Date:** Saturday, March 14, 2015 11:35:14 AM

---

Dear Decision-maker:

I want to personally go on record in strong support of the FAA's preferred alternative (12a) for the proposed Angoon Airport. I also want to endorse any and all comments submitted to you by Friends of Admiralty Island.

Alternative 12a proposes the most sensitive and sensible alternative that both honors the need for a reliable and safe airport for Angoon, plus protects the natural and cultural integrity of Admiralty Island National Monument and Wilderness. Furthermore, the FAA preferred alternative 12a is: the closest to Angoon; uses existing roads and utilities; minimizes environmental impacts; and is the least costly of the action alternatives.

It sure seems to me that selecting the FAA's 12a preferred alternative should be the easiest, most compelling, and most cost-effective slam-dunk decision you could possibly make.

In stark contrast to the FAA's alternative 12a, the Alaska Department of Transportation's proposed alternative 3a would cost twice as much as the FAA's alternative 12a; is the furthest from Angoon, has major impacts on fish and wildlife habitat and subsistence areas, and would require the construction and maintenance of 5 miles of new road, to boot. It must be noted that the FAA's proposed alternative locates the new airport right along the existing main road from the ferry terminal to the village of Angoon: this is the most practical place for this facility, and will cost the least amount of funding ---- something to very mindful about during these times of federal and state budgets being seriously stressed. Moreover, the wrong-headed AKDOT's proposed alternative 3a would take far longer to implement and construct -- -- because under 3a the airport would be located (with serious impacts) within the Admiralty Island National Monument and Wilderness Area and therefore would require approval/special dispensation by the U.S. House and Senate and the President of the United States. (This could add many more years of delay to a project that has been delayed for a long time already.)

Again, I strongly support the FAA preferred alternative 12a, and quite definitely oppose the AKDOT's alt. 3a.

Thanks for your time and attention regarding this important matter.

Bart Koehler

**From:** [KJ METCALF](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport  
**Date:** Thursday, March 19, 2015 8:40:01 AM

---

TO: FAA Decision Maker

We, support the FAA's preferred alternative 12a over DOT's proposed action 3a for the following reasons:

- More efficient and safer medivac
- Easier access
- Greater convenience for community and traveling public
- Easier maintenance
- More secure (less likely to be vandalized or broken into - closer to community)
- Clustered with ferry terminal and existing infrastructure
- Minimizes impacts to National Monument and Wilderness
- Less impact to important subsistence area
- Honors Angoon Elders who had advocate protection for Admiralty and especially Mitchell Bay

We did live in Angoon for 18 years and are intimately familiar, having traveled and subsisted in this area extensively.

We endorse the Friends of Admiralty Island response.

Thank you for a most complete, informative, easy to understand and comprehensively crafted DEIS.

Sincerely,  
K.J. and Peggy Metcalf  
PO Box 20221  
Juneau, AK 99802

**From:** [Friends Admiralty Island](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** confirm comments received  
**Date:** Wednesday, March 18, 2015 6:25:58 PM

---

Please let us know that Friends of Admiralty Island comments have been received. They were sent earlier this date. Most email comments to agencies have an automatic response, since none was received in this case I need confirmation or I will fax a copy to assure our comments are considered. Thank you.

**From:** [Kevin Proescholdt](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Cc:** [George Nickas](#)  
**Subject:** Supplemental comments from Wilderness Watch  
**Date:** Thursday, March 19, 2015 11:37:43 AM  
**Attachments:** [Angoon Airport Suppl 2015-03-19.pdf](#)

---

Dear FAA Staff,

Attached as a pdf document are supplemental comments from Wilderness Watch on the Draft Environmental Impact Statement for the Angoon Airport.

Sincerely,  
Kevin Proescholdt

--

Kevin Proescholdt  
Conservation Director  
Wilderness Watch  
2833 43rd Avenue South  
Minneapolis, MN 55406  
612-201-9266  
[www.wildernesswatch.org](http://www.wildernesswatch.org)

**From:** [Butch Laughlin](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Comments for the EIS on the Angoon Airport  
**Date:** Thursday, March 19, 2015 8:19:59 PM

---

As a floatplane pilot for the last 25 years in the Juneau area and owner of Alaska Fly "N" Fish Charters I really agree and concur with the Angoon Community Association that FAA's preferred alternative 12A best meets the stated purpose and the need and seems to best satisfy the community's desire for safety and ease of access. Also as a pilot I really feel the airport located in accordance with alternative 12A is way more in line with the prevailing wind direction for the runway. We would like to see 12A selected and put in place. Thank you for reading this.  
Butch Laughlin owner Alaska Fly "N" Fish Charters

Butch Laughlin & Sarah Dunlap  
9604 Kelly Court, Juneau AK 99801  
ph/fax: (907) 790-2120

**From:** [strixowl@gmail.com](mailto:strixowl@gmail.com) on behalf of [Andy Stahl](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** comments on Angoon Airport DEIS  
**Date:** Thursday, March 19, 2015 3:49:26 PM  
**Attachments:** [FSEEE DEIS Comments.docx](#)

---

Please consider the attached comments.

---

Andy Stahl, Executive Director  
Forest Service Employees for Environmental Ethics  
PO Box 11615  
Eugene, OR 97440  
(541) 484-2692

---

**From:** [Ric Iannolino](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** Angoon Airport EIS public comment  
**Date:** Thursday, March 05, 2015 10:16:48 AM  
**Attachments:** [Backup of Angoon Airport Ric's Comment 2\\_5\\_2015.dat](#)

---

March 5, 2015

Leslie Grey

AAL 614

FAA Project Manager

Angoon Airport EIS

222 W. 7<sup>th</sup> Ave.

Box# 14

Anchorage, CA 99513-7587

I am familiar with both proposed Angoon Airport sites. I have spent many years working, visiting friends and recreating in both Angoon, Favorite and surrounding areas. I clearly understand Favorite Bay and the surrounding areas are the major subsistence area near Angoon. I have reviewed the EIS documents.

I strongly support the FAA 12A Angoon Airport Alternative. I will summarize many of the excellent comments offered by the residents of Angoon and the nearby communities that are consistent with my analysis.

It is important the Angoon airport location be closer to the community of Angoon because

**roads in Angoon are icy and hard to maintain in winter and because the cost of gas is high for both private vehicles and maintenance equipment travelling to and from the airport.**

The FAA 12A Option would be closer to the existing road system and therefore **more accessible**. There would be **less overall road to construct**. It would **provide a tailwind and southeast headwind**. It would provide **access to fresh water**. It **would not affect**

subsistence taking. It would be far less costly to construct.

The FAA 12A option would not impact the inside waterway and bays and inlets including:

- Kootznoohoo Inlet
- Favorite Bay
- Mitchell Bay
- Salt Lake
- Kanalku Bay

These subsistence areas contain **their valued subsistence food sources that contain most, if not all, of the major foods Angoon residents use to survive.** (These foods are deer, crab, clams, shrimp, salmon, gumboots, bottom fish, waterfowl, bear, goose tongue, wild asparagus, blueberries, huckleberries, currants, and other traditional foods.

In addition the current untouched wilderness at Favorite Bay provides more of a **benefit to tourism** because of its uniqueness.

**I am opposed to the Alaska DOT/PF the seven-mile road an option** Sites 3 and 3a that propose to construct a road on both the south and north shores of Favorite Bay with crossings over Favorite Creek because it would have a negative impact on an important salmon-spawning stream.

The 3A option simply makes no sense other than another Alaska DOT/PF engineering project i.e. another, “ Road to No Where”.

Sincerely yours,

Ric Iannolino

12175 Mendenhall Loop Rd.

Juneau, AK 99801

**From:** [Chris Lish](mailto:Chris.Lish)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Please Spare Kootznoowoo Wilderness From Airport and Road Construction -- Angoon Airport Draft Environmental Impact Statement  
**Date:** Sunday, March 15, 2015 7:31:45 PM

---

Sunday, March 15, 2015

Angoon Airport EIS  
1220 SW Morrison, Suite 700  
Portland, Oregon 97205

Subject: Please Spare Kootznoowoo Wilderness From Airport and Road Construction  
-- *Angoon Airport Draft Environmental Impact Statement*

Dear FAA Administrator Huerta,

I am pleased to learn that the Federal Aviation Administration (FAA) has rejected a proposal from the State of Alaska to build a new airport and access road in the million-acre Kootznoowoo Wilderness on Admiralty Island in southeast Alaska. I strongly support the No Action Alternative of the *Angoon Airport Draft Environmental Impact Statement*, although if an airport is going to be built, the best alternative is the FAA's recommendation of using a site where the lands are privately owned or owned by the local community (Airport 12a with Access 12a).

*"Our duty to the whole, including to the unborn generations, bids us to restrain an unprincipled present-day minority from wasting the heritage of these unborn generations. The movement for the conservation of wildlife and the larger movement for the conservation of all our natural resources are essentially democratic in spirit, purpose and method."*

-- Theodore Roosevelt

The remoteness of Admiralty Island National Monument led the Congress to pass legislation designating almost all of the monument as the Kootznoowoo Wilderness. A Wilderness designation is supposed to ensure that these lands will be permanently protected from development. The Airport 3a with Access 2 or 3 and Airport with Access 2 or 3 alternatives would result in the destruction of Wilderness lands and be contrary to the intent of the Congress for these lands. The FAA, if it adheres to the law, has no other options aside from the No Action Alternative or the Airport 12a with Access 12a alternative.

*"Every man who appreciates the majesty and beauty of the wilderness and of wild life, should strike hands with the farsighted men who wish to preserve our material resources, in the effort to keep our forests and our game beasts, game-birds, and game-fish—indeed, all the living creatures of prairie and woodland and seashore—from wanton destruction. Above all, we should realize that the effort toward this end is essentially a democratic movement."*

-- Theodore Roosevelt

Please spare the Kootznoowoo Wilderness from airport and road construction.

*“A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”*

*-- Aldo Leopold*

Thank you for your consideration of my comments. Please do NOT add my name to your mailing list. I will learn about future developments on this issue from other sources.

Sincerely,  
Christopher Lish  
Olema, CA

**From:** [Bart Koehler](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com); [Julie Koehler](#); [KJ METCALF](#)  
**Subject:** Fw: Please approve FAA's preferred Alt. 12a for the proposed Angoon Airport  
**Date:** Saturday, March 14, 2015 11:51:40 AM

---

Dear EIS comment reviewer:

My name is Julie Koehler, and I live in Juneau, Alaska. I was fortunate to have lived in Angoon for almost a year, back in 1991. While I was there I was able to canoe in Favorite Bay and the back channel and into the wild heart of Admiralty Island National Monument and Wilderness. When I think about the best place to build an airport for Angoon, I dread the thought of an unnecessary road and bad location of the AKDOT's proposed alt 3a, knowing full well that the FAA's proposed alt.12a makes the most sense in every possible way. Therefore, I want to emphatically state my strong support of the FAA's preferred alternative (12a) for the proposed Angoon Airport. I also want to support the comments submitted to you by Friends of Admiralty Island.

Alternative 12a proposes the most sensitive and sensible alternative that both honors the need for a reliable and safe airport for Angoon, and protects the natural and cultural integrity of Admiralty Island National Monument and Wilderness. Furthermore, the FAA preferred alternative 12a is: the closest to Angoon; uses existing roads and utilities; minimizes environmental impacts; and is the least costly of the action alternatives.

Clearly, selecting the FAA's 12a preferred alternative would and should be the easiest, most compelling, and most cost-effective, and wisest decision you could possibly make.

In sharp contrast to the FAA's alternative 12a, the Alaska Department of Transportation's proposed alternative 3a would cost twice as much as the FAA's alternative 12a; is the farthest from Angoon, has major impacts on fish and wildlife habitat and subsistence areas, and would require the construction and maintenance of 5 miles of new road. It must be noted that the FAA's proposed alternative locates the new airport right along the existing main road from the ferry terminal to the village of Angoon: this is the most practical and logical place for this facility, and will cost the least amount of funding ---- something to be mindful about during these times of federal and state budgets being under duress. Moreover, the wrong-headed AKDOT's proposed alternative 3a would take far longer to implement and construct -- -- because under alternative 3a the airport would be located (along with its serious impacts) within the Admiralty Island National Monument and Wilderness Area and therefore would require approval/special action by the full U.S. Congress and then the President of the United States. (This could add many more years of delay to a project that has been delayed for a long time already.)

Lastly, I strongly support the FAA preferred alternative 12a, and quite definitely oppose the AKDOT's alt. 3a.

Letter #73

Thanks for your time and attention regarding this important matter.

Julie Koehler

**From:** [Amanda Childs](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** FW: Friends of Admiralty Comments  
**Date:** Thursday, March 19, 2015 11:06:49 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[FOA Response to DEIS 3.17.15.docx](#)

---

**From:** Leslie.Grey@faa.gov [mailto:Leslie.Grey@faa.gov]  
**Sent:** Thursday, March 19, 2015 10:55 AM  
**To:** [angkjm@yahoo.com](mailto:angkjm@yahoo.com)  
**Cc:** Amanda Childs; Leslie.Grey@faa.gov  
**Subject:** RE: Friends of Admiralty Comments

Hi KJ,

I appreciate your concern and desire to get confirmation of FAA's receipt of Friends of Admiralty Comments. Consider your comments received. Thanks so much and it was great to see you again!  
Best regards, Leslie

**Leslie Grey**

Environmental Program Manager  
FAA Airports, Alaskan Region  
907.271.5453

---

**From:** KJ METCALF [mailto:[angkjm@yahoo.com](mailto:angkjm@yahoo.com)]  
**Sent:** Thursday, March 19, 2015 7:09 AM  
**To:** Grey, Leslie (FAA)  
**Subject:** Fw: Friends of Admiralty Comments

Leslie, sorry to clog your email with our response to the DEIS. I could not get a confirmation that the "response" address had received our email - had a bad experience with the FS on a EIS response and we missed the deadline, so please disregard this if we are already in the system. Thanks, KJ

On Wednesday, March 18, 2015 7:48 AM, Friends Admiralty Island <[admiralty\\_friends@yahoo.com](mailto:admiralty_friends@yahoo.com)> wrote:



DEFENDERS AND FRIENDS OF ADMIRALTY ISLAND  
AND  
TONGASS WILDLANDS WATCH

P.O. Box 20791  
Juneau, AK 99802  
Ph/fax (907)586-6738  
[www.friendsofadmirty.org](http://www.friendsofadmirty.org)  
[Admiralty\\_friends@Yahoo.com](mailto:Admiralty_friends@Yahoo.com)

March 18, 2015

Comments to Angoon Airport Draft Environmental Impact Statement

Emailed to [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)

To: FAA Decision Maker

Friends of Admiralty Island [1] have participated in the Angoon airport EIS process by commenting in the scoping phase, monitoring FAA's newsletters, meeting with FAA's EIS Planning Team, alerting our 400 plus membership base of FAA's progress, publicly testifying at the Juneau open house/hearing on the DEIS and now by these written comments on the DEIS.

We have, throughout the process supported Angoon's desire to obtain a land-based airport that is safe, easily accessible and dependable maintained. We have also favored minimizing the intrusion and impacts to; subsistence and overall environmental effects, as well as and National Monument and Wilderness values. The community has consistently stated that safety by ease of medivac has been one of the primary desires for a land based airport

We concur with the Angoon Community Association (the federally recognized Indian Tribe of Angoon) that FAA's preferred alternative 12a best meets the

stated Purpose and Need and seems to best satisfy the community's desire for safety and ease of access.

The community of Angoon is experiencing a difficult time with a declining population, high unemployment, high utility rates and diminishing state and federal funds for services and infrastructure.

Angoon is in need of a reliable stable economic base for the health and wellbeing of the community.

As the DEIS states, the Alaska Department of Transportation's proposed action 3a would result in more income from taxes and several local hires during construction. It appears those gains are offset by the higher cost of daily access, maintaining the access road and maintaining airport facilities, security and safety.

There was no indication of how Angoon's long term economic plan would be benefited by alternatives 3a or 12a. In most cases there are economic benefits to grouping transportation facilities with existing infrastructure – roads and power, in Angoon's case.

We have long advocated for Angoon to have a larger role in managing the National Monument and Wilderness. This seems especially important since the Angoon elders fought so hard to have Admiralty Island protected in some form of a reserve system, which resulted in the National Monument and Wilderness designations – which started with President Carter's 1978 presidential National Monument proclamation under the Antiquities Act.

When the elders testified in Congressional hearings they emphasized the need to protect their cultural and subsistence values. Angoon's strong voices carried the day for presidential action and convinced congress to include Admiralty in the Alaska National Interest Lands Conservation Act of 1980 as a National Monument and Wilderness (ANILCA). The Angoon elders also prevailed to have their own village Native Corporation land selections (awarded as part of the 1971 Alaska Native Claims Settlement Act - ANSCA) moved from the Mitchell Bay area and off of the island and those of the Sitka Urban Native Corporation moved from Hood Bay lands, immediately adjacent to Angoon to lands originally selected by Juneau Urban Native Corporation in

the Cube Cove area, some 20 miles north of Angoon. The rationale presented by the Angoon elders at congressional hearings was to protect the island from development, particularly at the time road building and logging. This history is well preserved in congressional hearing records and it is believed, by many that without the courageous action of the Angoon elders that President Carter nor congress would have acted to protect Admiralty Island.

In the 1980's the Jimmie Johnson Native Land Allotment was approved in Favorite Bay (in the general location of Alternative 4) and was proposed to be logged. The community was very much opposed to that development, due to the impact that would occur to subsistence values and the allotment was purchased and incorporated into the National Monument.

While the debate of the best location for Angoon's airport is complicated by the desperate need of Angoon to have a sustainable and solid economic foundation for the long-term the historic record would support the location of the airport at FAA's preferred alternative (12a) over the Department of Transportation's proposed alternative and access (3a).

Again, friends of Admiralty Island strongly recommends the selection of Alternative 12a and believe it to be supported on the basis of construction and maintenance cost, convenience of access (especially in medivac cases), minimizes damage to fish and wildlife values and protection of the National Monument and Wilderness values.

In closing, Friends of Admiralty Island wishes to acknowledge FAA's outstanding job of creating such a well written, well researched and comprehensive DEIS. This draft should serve as a template for other agencies to follow in their decision making.

Thank you for considering our comments.

A handwritten signature in black ink that reads "K.J. Metcalf". The signature is written in a cursive, flowing style.

K.J. Metcalf, President

---

[1] Established in 1997 as a non-profit corporation to promote those values that Admiralty Island National Monument and Wilderness were designated to protect. Currently we have a membership of over 400 members.

Received

MAR 17 2015

SWCA Portland

March 5, 2015

Angoon Airport EIS  
1220 SW Morrison, Suite 700  
Portland, Oregon 97205

I am familiar with both proposed Angoon Airport sites. I have spent many years working, visiting friends and recreating in both Angoon, Favorite and surrounding areas. I clearly understand Favorite Bay and the surrounding areas are the major subsistence area near Angoon. I have reviewed the EIS documents.

I strongly support the FAA 12A Angoon Airport Alternative. I will summarize many of the excellent comments offered by the residents of Angoon and the nearby communities that are consistent with my analysis.

It is important the Angoon airport location be closer to the community of Angoon because

**roads in Angoon are icy and hard to maintain in winter and because the cost of gas is high for both private vehicles and maintenance equipment travelling to and from the airport.**

The FAA 12A Option would be closer to the existing road system and therefore **more accessible**. There would be **less overall road to construct**. It would **provide a tailwind and southeast headwind**. It would provide **access to fresh water**. It **would not affect subsistence taking**. It would be **far less costly** to construct.

The FAA 12A option would not impact the inside waterway and bays and inlets including:

- Kootznoohoo Inlet
- Favorite Bay
- Mitchell Bay
- Salt Lake
- Kanalku Bay

These subsistence areas contain **their valued subsistence food sources that contain most, if not all, of the major foods Angoon residents use to survive**. (These foods are deer, crab, clams, shrimp, salmon, gumbots, bottom fish, waterfowl, bear, goose tongue, wild asparagus, blueberries, huckleberries, currants, and other traditional foods).

In addition the current untouched wilderness at Favorite Bay provides more of a **benefit to tourism** because of its uniqueness.

**I am opposed to the Alaska DOT/PF the seven-mile road an option Sites 3 and 3a that propose to construct a road on both the south and north shores of Favorite Bay with**



Received  
MAR 17 2015  
SWCA Portland

Angoon Airport EIS  
1220 SW Morrison, Suite 700  
Portland, Oregon 97205



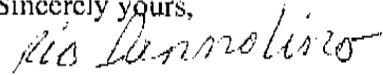
POSTNET  
9720582226 0012

9720582226 0012

crossings over Favorite Creek because it would have a negative impact on an important salmon-spawning stream.

The 3A option simply makes no sense other than another Alaska DOT/PF engineering project i.e. another, " Road to No Where".

Sincerely yours,

A handwritten signature in cursive script that reads "Ric Iannolino".

Ric Iannolino  
12175 Mendenhall Loop Rd.  
Juneau, AK 99801

To whom it may concern,

March 10, 2015

The best option for the Angoon Airport is closest to town. It uses existing utilities and road. It requires less interference with the natural environment. It is the most accessible & the least expensive to visit. I have relatives from Angoon,

Please select the FAA's preferred alternative, closest to Angoon village site, thereby protecting and preserving the National Monument and Wilderness Lands

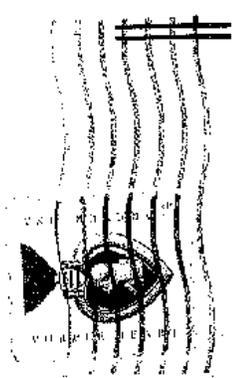
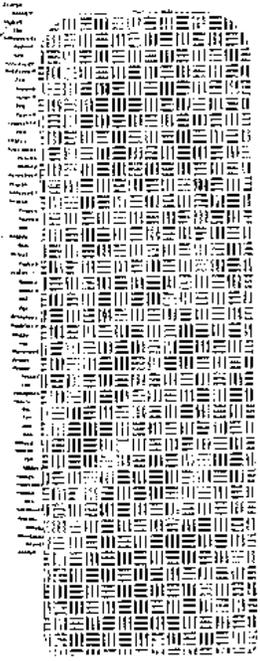
Thank you for your careful consideration of this matter,

Sincerely, Judith Maier  
16 995 Glacier Hwy  
Juneau, Alaska  
99801

FROM:

Judith Naiser  
16995 Clavier Hwy  
Juneau Alaska 99801

9720582000



Received

MAR 17 2015

SIACIA Porting

PO Box 230033  
Anchorage, Alaska 99523

March 3, 2015

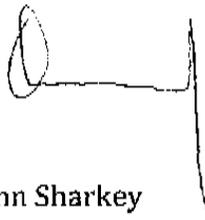
Angoon Airport EIS  
1220 SW Morrison, Suite 700  
Portland, Oregon 97205

Dear Angoon Airport EIS,

Subject: Angoon Airport Proposals - Public Comment

Please take this letter as my formal public comment on the Angoon Airport Proposal. As an Alaska resident, I have a keen interest in protecting the environment as much as possible while addressing critical infrastructure and transportation needs. Having traveled to Angoon many times, I have a sincere appreciation of the extraordinary place that island, and the community of Angoon represent, as well as there need for reliable air transportation (other than float planes). It is with that in mind, that I formally request that you reject the Alaska Department of Transportation's proposed alternative 3a and instead, **authorize and endorse the FAA's preferred alternative 12a**, which is closest to Angoon, utilizes existing utilities and road, minimizes environmental impacts and is the least costly. Please let me know if you have any questions and thank you for the opportunity to participate in the process.

Cordially,

A handwritten signature in black ink, appearing to read 'Quinn Sharkey'. The signature is written in a cursive style with a long horizontal stroke extending to the right, ending in a vertical line.

Quinn Sharkey

Letter #77

Mr. Quinn Sharkey  
PO Box 230033  
Anchorage, AK 99523

ANCHORAGE AK 995  
04 MAR 2015 PM 1 L

Received

MAR 17 2015

SWCA Portland

ANKOODS AIRPORT E15  
1220 SW MCKINSON, SUITE 700  
PORTLAND, OREGON 97205

97205#2226

97205#2226





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10

1200 Sixth Avenue, Suite 900  
Seattle, WA 98101-3140

OFFICE OF  
ECOSYSTEMS, TRIBAL AND  
PUBLIC AFFAIRS

March 10, 2015

Ms. Leslie A. Grey  
Environmental Protection Specialist AAL-614  
Federal Aviation Administration  
Alaskan Region, Airports Division  
222 W. 7<sup>th</sup> Avenue, #14  
Anchorage, Alaska 99513-7587

Dear Ms. Grey:

We have reviewed the Federal Aviation Administration Draft Environmental Impact Statement and Section 4(f) Evaluation for the Angoon Airport (EPA Project # 08-057-FAA) in Angoon, Alaska. Our review was conducted in accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act. Based on our review, we have assigned a rating of EC-1 (Environmental Concerns-Adequate Information) to the preferred alternative. For your reference, a copy of the rating system we used to conduct our review is enclosed.

We believe that the selection of the preferred alternative (Alternative 12a with 12a Access) is environmentally preferable to the other airport locations and access roads in nearly all resource categories. In addition to avoiding designated Wilderness, it requires substantially less waterbody crossings, including no crossing of Favorite Creek. This alternative would result in less fill, less impervious surface, less terrain disturbance, and fewer culverts, stream diversions, truck trips and barge trips. We also note that it is the least costly alternative and is similar to other alternatives in instrument approach capability, minimums for visibility, and year-round availability.

We note that although the Draft EIS concludes that none of the action alternatives would result in "unacceptable adverse impacts to non-wetland waters of the U.S. per Clean Water Act Section 404(b)(1) guidelines," only the Least Environmentally Damaging Practicable Alternative may be permitted by the U.S. Army Corps of Engineers. Based on the analysis in the EIS, there is substantial difference in impacts to aquatic resources between the preferred alternative and the other action alternatives, with the preferred alternative resulting in substantially fewer impacts to aquatic resources. We believe that overall, the preferred alternative is environmentally preferable because of the reasons listed above and because the preferred alternative will likely be the LEDPA, or will more closely resemble the LEDPA, compared to the other action alternatives. We support the selection of this alternative by the FAA in the Final EIS and Record of Decision.

We also believe the Draft EIS does a satisfactory job of analyzing a range of reasonable alternatives for a land-based airport in or near the community of Angoon. It is clear that your agency went through an extensive alternative analysis screening process and involved many stakeholders in this process. In addition, the document and electronic version (as an interactive Adobe .pdf file) is very reader friendly and useful to interested stakeholders, particularly the sidebar boxes, hyperlinks and navigation buttons.

We do have concerns, however, regarding the impact that the preferred alternative has on the amount and accessibility of Alaska Native Claims Settlement Act village corporation and private land, including native allotments, which are in close vicinity to the community. These lands are currently used for a variety of purposes, including subsistence activities. There is a trend in Alaska for private and corporation lands that are accessible to owners and shareholders to be utilized for public infrastructure projects. While these projects often provide benefits to residents, such as safer and more reliable air service, there is often a trade-off or loss of other uses. The loss of easily accessible subsistence areas is particularly detrimental for low-income and disabled residents. It is not clear if this was fully evaluated in the EIS. We recommend additional work to identify appropriate mitigation for these losses and monitoring to ensure that the mitigation being implemented is effective.

We are also concerned that, in comparison to the other action alternatives, the preferred alternative requires substantially more vegetation removal, resulting in a much more concentrated stream geomorphic effect and substantial loss of natural stream function for Stream 10. We recommend that the FAA work closely with the Alaska Department of Transportation and Public Facilities and other stakeholders to determine if any additional avoidance or minimization can be included in the project design. For impacts that cannot be avoided or reduced, appropriate mitigation must be identified. For impacts that cannot be mitigated, compensation should be applied. We recommend that a robust draft compensation plan be included in the Final EIS.

Finally, we have two specific recommendations that we hope will provide more clarity for the reader. First, in the Executive Summary and Chapter 1, the access route for Alternative 3a is not identified. We recommend that this be corrected. Second, while we recognize that information relating to Alaska National Interest Lands Conservation Act is very thorough, we believe it is important that the EIS also clearly articulate that agencies must also comply with other applicable laws and regulations. We recommend that this be clarified in the Final EIS.

Thank you for the opportunity to review this Draft EIS. We look forward to participating in discussions related to mitigation for project impacts as the project moves forward. If you have questions about our comments, please contact me at (206) 553-1601 or by electronic mail at [reichgott.christine@epa.gov](mailto:reichgott.christine@epa.gov), or you may contact Jennifer Curtis of my staff in Anchorage at (907) 271-6324 or by electronic mail at [curtis.jennifer@epa.gov](mailto:curtis.jennifer@epa.gov).

Sincerely,



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

Enclosure:

1. U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

**U.S. Environmental Protection Agency Rating System for  
Draft Environmental Impact Statements  
Definitions and Follow-Up Action\***

**Environmental Impact of the Action**

**LO – Lack of Objections**

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

**EC – Environmental Concerns**

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

**EO – Environmental Objections**

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

**EU – Environmentally Unsatisfactory**

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

**Adequacy of the Impact Statement**

**Category 1 – Adequate**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

**Category 2 – Insufficient Information**

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

**Category 3 – Inadequate**

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

To: Angoon Airport E.I.S. Final comments

City of Angoon  
PO Box 189  
Angoon, AK 99820-0189

From: Matt Kookesh, City of Angoon

First and Foremost is the Position of the Angoon City Council on Proposed Airport Sites around Angoon. The City of Angoon has chosen Site 3 A, as the preferred site for our community.

I would like to point out on the Draft E.I.S, on Page 134, Land ownership in The Angoon area is primarily owned by both Kootznoowoo Inc. and the City of Angoon. If that is the case than why does this process not include the land owners in your draft EIS process? The City of Angoon and its residents have been overlooked in the meeting and consultation process. We request that your next meeting be held at the City office so that all residents can be welcomed to participate. At the last meeting, every time someone got up to speak the local tribe would stand up and counter what was just said. This is very uncomfortable for the community to participate. Please don't have meetings at the tribe's office unless you're going to control the tribal chair from debating every testimony.

The City of Angoon requests that you address the following pages and respond as to why your stating platted parks but yet not consulting us on 12 A as a detriment to our land ownership and our right to designate a parcel of land for future use. We look forward to your explanation of our platted park and why you are overriding this designation. List below are some pages we are concerned about:

On page 133, 4.3, figure lu2: it shows platted park as being directly affected by the airport site 12 A.

On page 134, 4.3, figure lu3, it shows City of Angoon land being directly affected, including the platted park and Auk Tah Lake (our drinking water source)

On page 136, 4.3.2.3.2, compatible land use, no discussion of City of Angoon owned land in vicinity of 12 A airport site.

On page 133, table lu2: displays Killisnoo Lagoon parcel as Platted Park.

On page 141, 4.3.2.5.1 compatible land use, Angoon Peninsula: 73.18 acre area near Auk Tah Lake is designated as central park in our 14c3 reconveyance. 111.36 acres in the salt lagoon has been designated as City Park land. This area maybe contaminated from garbage dump runoff, so no berry picking in this area however between Auk Tah and the Salt lagoon over 18 deer was harvested by the community residents in 2014.

On page 153, 4.3.3.3.3 compatible land uses, affect land acquisition, right of ways, permits and or leases, figure lu11: notes that no city of Angoon land will be required for airport site 12 A, however 12a easement sits right on city park land or platted Park.

On page 162, 4.4.1.1 DOT 4 F determination summary, what is section 4 f and how does it apply to this project. Since The City owns , the platted Park and our residents use the area for recreation and it has significant values both locally and nationally.

On page 163, 4.4.2.1.1 4 F determination summary is of significant interest to the City of Angoon. We want to know how you are going to determine 4 f resources without the City of Angoons input.

City of Angoon  
PO Box 189  
Angoon, AK 99820-0189

On page 166, 4.4.2.1.1 DOT 4 F determination summary this section makes a determination that the city park properties are not 4 F properties. How can you make this determination without true consultation with the City of Angoon?

The City of Angoon cannot afford to relinquish any land within the Airport Site 12 A. Nor can we afford to have an outside federal or state agency condemn our platted Parks for the purpose of building an airport. Any relinquishment of lands given to the city under aboriginal claim or lands for future development of our community is unacceptable. Once we give up local land than we will never be able to replace those lands ever again.



MAYOR, CITY OF ANGOON

3/13/15

PO Box 189 Angoon, AK 99820 Phone: 786-3653 Fax: 907-786-3821



# Fax

To: Angoon Airport EIS From: Matthew Koukesh Jr Mayor  
 Fax: (503) 224-1851 Pages: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Date: 3/13/15  
 Re: Letter CC: \_\_\_\_\_

Urgent     For Review     Please Comment     Please Reply     Please Recycle

● Comments:



# ANGOON AIRPORT

## Environmental Impact Statement



I have the following comments regarding the  
FAA's Angoon Airport Draft EIS

1. make sure it doesn't affect our subsistence food.
2. is there road to airport location sight,
3. the noise be a problem since so close to town.
4. are people going to be trained to run a airport?
5. will the price be cheaper, to gunnau,
6. will this affect monument status?
7. Will it be state operated?
8. who will be in charge of the airport.
9. will it affect ANILCA
10. AMS A plan

\* OWH

All submissions from organizations or businesses will be made available for public review in their entirety. Individuals may request confidentiality with respect to their name, address and phone number. If you wish to have your name or street address withheld from public review, under the Freedom of Information Act, the first line of the comment should start with the words "CONFIDENTIALITY REQUESTED" in uppercase letters. Such requests will be honored to the extent allowed by law. Comment contents will not be kept confidential.

**Additional comments and information can be sent separately to the address provided on the front of this form.**

Comments MUST BE RECEIVED by  
March 20, 2015

**Thank you for providing  
your comments!**

Your Contact Information:

Your Name Cynthia Ann Frank  
 Organization Box 214  
 Address Angoon, AR 72822  
 City/State/Zip \_\_\_\_\_  
 E-mail Address \_\_\_\_\_  
 Phone Number \_\_\_\_\_

Please keep me informed of the project through updates:

- Yes
- No

Comments can be submitted in the following ways:

By Email: [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
 By Fax: (503) 224-1851  
 By Mail:  
 Angoon Airport EIS  
 1220 SW Morrison, Suite 700  
 Portland, Oregon 97205

**Comments will be accepted through  
March 20, 2015.**

To fill this form in this folder, making sure to display the mailer portion on the outside. Please tape and affix the correct postage.

.....  
 .....  
 .....

Angoon Airport EIS  
 1220 SW Morrison, Suite 700  
 Portland, Oregon 97205

|   |
|---|
| <p>Please<br/>Affix<br/>First Class<br/>Postage</p> |
|---|

You are invited  
to provide input on  
the  
Federal Aviation  
Administration's

# Angoon Airport Environmental Impact Statement (EIS) Project



# ANGOON AIRPORT

## Environmental Impact Statement



I have the following comments regarding the  
FAA's Angoon Airport Draft EIS

The main concern I have is ... will the airport be near my property? Favorite Bay is where my lot is and I was trying to decide - do I want to relocate or keep it where it is at - The hold up is the location of the Airport ...

I am all for 3a, Access 3 - This would have the least effect on my lot. 

(D) What is the time frame at this time? 2-3 yrs? 4-6 yrs? 7-10 yrs?

All submissions from organizations or businesses will be made available for public review in their entirety. Individuals may request confidentiality with respect to their name, address and phone number. If you wish to have your name or street address withheld from public review, under the Freedom of Information Act, the first line of the comment should start with the words "CONFIDENTIALITY REQUESTED" in uppercase letters. Such requests will be honored to the extent allowed by law. Comment contents will not be kept confidential.

**Additional comments and information can be sent separately to the address provided on the front of this form.**

Comments MUST BE RECEIVED by  
March 20, 2015

**Thank you for providing  
your comments!**

Your Contact Information:

Your Name Doris Williams  
 Organization Community Member  
 Address Pc Box 118  
 City/State/Zip Angoon AK 99800  
 E-mail Address dorisa@angoonakhotels.com  
 Phone Number (907) 723 3481

Please keep me informed of the project through updates:

- Yes
- No

Comments can be submitted in the following ways:

By Email: [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
 By Fax: (503) 224-1851  
 By Mail:  
 Angoon Airport EIS  
 1220 SW Morrison, Suite 700  
 Portland, Oregon 97205

**Comments will be accepted through  
March 20, 2015.**

Hold this form in thirds, making sure to display the mailer portion on the outside. Please tape and affix the correct postage.

.....  
 .....  
 .....

Angoon Airport EIS  
 1220 SW Morrison, Suite 700  
 Portland, Oregon 97205

Please  
 Affix  
 First Class  
 Postage

**Alaska Department of Transportation and Public Facilities****Testimony regarding Alaska's ANILCA Title XI application and the FAA's Draft Environmental Impact Statement concerning the proposed Angoon Airport**

Presented in Washington, D.C., March 10, 2015

The State of Alaska has undertaken this project, the construction of an airport to serve the people of Angoon – the largest community in the state that has no access to a runway – in order to ensure their basic transportation needs are met. These include access to emergency and routine medical care, efficient transportation of goods to and from the community, and passenger service for cultural, recreational, and sundry purposes. The airport will also provide a significant improvement to the aviation system in the region and much improved access to Admiralty Island National Monument.

Our proposed action, which is located within the Kootznoowoo Wilderness, was determined after an extensive planning process that included a thorough and detailed reconnaissance study and the development of an airport master plan. We remain convinced after the additional analysis conducted by the FAA that the airport site we have proposed is the best location aeronautically. We do agree that the site which the FAA has preliminarily identified as its preferred alternative is aeronautically acceptable, though somewhat less advantageous than what we've proposed. However, there are other compelling reasons for our reluctance to alter our proposed action and, hence, our filing of an application in accordance with the provisions of ANILCA Title XI.

With the designation of over 100 million acres of conservation system units (CSUs) and other conservation designations across the State of Alaska in 1980 under the Alaska National Interest Lands Conservation Act (ANILCA), Congress' express intent in Title XI was to provide a single overarching process for consideration of transportation and utility systems in or across CSUs, including designated Wilderness. The law makes it clear that the Title XI process is to be fully completed before any other actions or determinations are made. The inclusion of eight specific criteria, which federal agencies must consider and "make detailed findings supported by substantial evidence" is an indication that Congress intended for federal agencies to not just rely on their own authorities but to more broadly consider the needs of Alaska and its people when evaluating proposed transportation and utility projects. The fact that Congress applied the process to designated Wilderness indicates that Congress also recognized the constraints the Wilderness Act places on the discretionary authority of federal agencies, and despite those constraints, ensured those projects would receive consideration by the President and Congress.

The Draft EIS that was published on January 9<sup>th</sup> and is appended to our Title XI application has from the outset been intended to provide the information necessary to facilitate the agencies' review and development of preliminary recommendations as required under the law. While the DEIS includes certain determinations concerning the Section 4(f) status of the proposed action and preferred alternative, those determinations remain the subject of debate from our perspective but, in any event, have no preempting effect regarding the outcome of the Title XI process (Sec. 1104 (a)).

Our assertion that Section 4(f) is not deterministic at this point in the process notwithstanding, it is our view that our proposed action is not precluded by that law even within the context of a conventional NEPA analysis. We say this because we find the analysis contained in the DEIS to be unconvincing in its dismissal of Section 4(f) implications regarding the FAA's preferred alternative. In short, we believe both alternatives to have 4(f) impacts and, therefore, that the circumstances require an analysis that weighs the relative merits and impacts of each.

We also believe the DEIS to be incomplete with regard to the preliminary consideration of factors required by ANILCA. More specifically, Section 1104 (g)(2)(C) requires agencies consider whether there exists a feasible and prudent alternative to building on a CSU. The draft does identify the preferred alternative as being feasible -- a finding that we do not dispute -- but it does not address prudence. There are a number of considerations that, when taken in their cumulative effect, lead us to the conclusion that the preferred alternative is arguably imprudent. This must be resolved before the Title XI process is complete.

For all of these reasons, we believe that our proposed action remains a viable solution to Angoon's aviation needs, and we anticipate that it may well be identified as the preferred action in the final analysis. Additionally, our determination to stay the course in that regard rests to a large extent on the fact that what we have proposed was developed through a lengthy process that included a great deal of Angoon's involvement. The community provided us with official concurrence in the form of supporting resolutions for the decisions made throughout the planning effort. It would not be appropriate for us to so significantly alter our proposed action without the community's input which we are just now receiving. With the resolution of the issues we have outlined, and with the explicit concurrence of the people of Angoon, we may find the FAA's alternative to be a satisfactory answer to the needs of the community. Until we have completed the ANILCA process, however, we are not prepared to make that determination.

To: Airport site project

From: Matt Kookesh, Mayor of Angoon

Subject: Proposed Airport Site in Angoon

The Angoon City Council has chosen Site 3 A as the proposed site for the Angoon Airport.

The City of Angoon does not want to give up any more land than what was given up in the Alaska Native Claims Act (ANCSA) and what was received by the City under 14 C 3 process. Kootznooowoo received 2000 acres in the Angoon Area, they received 6000 acres in the corridor lands and in return under 14c3, They gave the City 850 acres for future expansion. The City of Angoon and Kootznooowoo and its Residents cannot afford to give up any more land that was given to us under aboriginal claim, not Because of our aboriginal claim but because once we give up our land it will never be replaced. The Elders saw the future when they negotiated the right for us to get lands outside of City boundaries. We Strongly encourage using title 11 so that we can use 237.8 or 284.4 acres of monument land to build This airport. The City of Angoon is also in the process of securing funds for a utility corridor from Hood Bay Mountain so that we have a gravity fed water supply.

The City of Angoon and The Tribe both have selected proposed airport sites that are in conflict with each Other. The Tribe voted to authorize me to put 12a and 3 a on the ballot in October general election.

The City reserves the right to have an airport in Angoon and we want to be consulted before any more Money is put in this process and I would highly recommend that you start attending city council meeting Because we are in contact with our legislators and our congressional delegation. The city of Angoon Needs true consultation since we are the land holder and land use planner of both public and private Lands



Subject: Angoon Airport EIS

March 3, 2015

1220 SW Morrison  
Suite 700  
Portland, Oregon 97205

From: Tongass Group Sierra Club

To Whom It May Concern:

This comment is submitted by the Tongass Group of the Sierra Club (formally the Juneau Group) that is part of the National Sierra Club. The Sierra Club has been involved in protecting Alaskan lands for well over a hundred years. The Alaska Chapter Sierra Club took the lead in identifying the lands to be protected under ANILCA (named the map on the floor group) getting the request to the Secretary and seeing that the bill got passed and signed by the president. TGSC was in created in 1968 to protect Admiralty Island from the proposed Champion Plywood Inc. Pulp Mill and the 50 year 8.75 billion board foot timber sale contract that would have supplied it with timber, mostly from Admiralty Island and the Berners Bay area.

BRIEF HISTORY OF SIERRA CLUB PUBLIC INVOLVMENT ON ADMIRALTY ISLAND

1879-90- John Muir, future founder of the Sierra Club, travels throughout SE Alaska with Reverend S. Hall Young (Young Glacier and perhaps Young Bay on Admiralty Island named after him).

1892-John Muir founds the Sierra Club.

1931-Stewart E. White proposed to the National Park Service that Admiralty Island be established as a National Park. S White influenced by the writing of John Muir about SE AK.

1932-Sierra Club urged the National Park Service to investigate Admiralty Island for a National Park.

1942-Congress requests another study on Admiralty Island being established as a National Park.

1947-Tongass Timber Act established three sales areas, which includes: Ketchikan Unit 8.25 BBF, Sitka Unit 4.8 BBF, and the Juneau Unit 8.75 BBF.

1964-Multiple Use Guide for the Tongass National Forest commits 98.4% of the commercial timber lands to intensive logging practices including Admiralty Island.

1966-67 Stellar Society, later to become the Juneau Group of the Sierra Club, recommends to the USFS all of Admiralty Island to be considered Wilderness.

1969-US Champion Plywood Inc. (US Champion International) is awarded the Juneau Unit sale, which includes Admiralty Island and constitutes the largest timber sale in US Forest Service history.

1970-Sierra Club sues USFS/US Champion Plywood to halt the Admiralty Island Timber sale.

1971-Judge Plummer rules against the Sierra Club and in favor of US Champion International/USFS.

1971-Decision is appealed to 9th Circuit Court.

1974-Anchorage District Court told to consider the 1971 motion of the Sierra Club to consider a new trial on new evidence of logging on deer habitat. New evidence to be considered and Judge Plummer reopens case.

1975-US Champion International withdraws from long-term contract with the USFS. Judge Plummer never rules on second trial after being over ruled by 9th Circuit.

Post-1971 enactment of the Alaska Native Claims Settlement Act (ANCSA)-The Goldbelt village corporation, Sealaska corporation, and the Shee Atika corporation filed land selections on Admiralty. Again, with the full support of the people of Angoon, the Juneau Group (now the Tongass Group) and the Sierra Club nationally, challenged the selections as not consistent with ANCSA in federal court and in Congress. Ultimately, Sealaska and Goldbelt relinquished their selections in Mitchell Bay. Unfortunately, Shee Atika's selections and subsequent clear-cutting at three lake-stream watershed systems vital to Angoon's subsistence economy were upheld by the court.

1977-Rep. Morris Udall introduces a d-2 Bill that establishes Admiralty Island, except the Kootznoowoo (Angoon Village) selection, into a Wilderness area, HR 39(S.500). The Sierra Club worked with Angoon on this along with numerous other groups both national and local.

1977-80 The opportunity arose to achieve permanent protection for Admiralty Island and Angoon's subsistence resources when Congress considered, drafted and ultimately enacted a bill, the Alaska National Interest Lands Conservation Act (ANILCA), that set aside the national interest lands in Alaska. The late Sterling Bolima and Ed Gambel of Angoon, on behalf of the people of Angoon, cooperated closely with the Sierra Club during the successful lobbying campaign to designate Admiralty a National Monument and to designate Kootznoowoo Wilderness. In addition, our joint effort succeeded in authorizing a land exchange in which Angoon's Mitchell Bay lands were added to the wilderness area.

1978-Admiralty Island National Monument and Misty Fiords National Monument is established under the Antiquities Act by President Jimmy Carter after much grass work campaigning and lobbying by the Sierra Club and the Alaska Coalition members.

1980-Alaska National Interest Lands Conservation Act (ANILCA) was enacted which made the Admiralty Island National Monument a Wilderness area. HR 39. Sierra Club President Dr. Ed

Wayburn was the lead lobbyist that with other Sierra Club members (Jack Hession, Doug Scott) and the Alaskan Collation members that got the bill passed.

The Tongass Group of the Sierra Club (TGSC) is a part of the National Sierra Club, a grassroots organization with approximately 600,000 members nationwide. In the late 1960's the Alaska Chapter of the Sierra Club and the Tongass Group of the Sierra Club were incorporated as a part of the National Sierra Club. The Alaska Chapter of the Sierra Club has approximately 1700 members with about 300 of them residing in S.E. Alaska under the banner of JGSC. Our members use the Tongass National Forest for recreation, commercial and recreational fishing, wilderness, subsistence, wildlife viewing, and other activities. The Sierra Club has advocated for the protection of Tongass Wildlands and the values therein since 1892 when the club was created by John Muir. TGSC has been active in creating, opposing, or supporting Tongass land management actions for 45 years. These efforts include helping to secure the final passage of the Tongass Timber Reform Act (TTRA), commenting on successive Tongass National Forest Plans, advocating for the inclusion of the Tongass National Forest in the Roadless Area Conservation Rule (RAC), advocating for the designation of Tongass Inventoried Roadless Areas (IRA's) as Wilderness during the 'Supplemental Environmental Impact Statement (SEIS) for Roadless Area Evaluation for Wilderness Recommendations', and commenting on numerous individual timber sale's Environmental Impact Statements (EIS's) and other projects on S.E. Alaskan public lands. The Sierra Club has been co-plaintiffs in many Tongass related litigations, including NRDC vs. USDA which resulted in the making of the 2008 Tongass Forest Plan, and ongoing litigation opposing the Tongass Exemption from the National Roadless Rule (State of Alaska et al vs. USDA).

The Tongass Group of the Sierra Club expresses the following concerns regarding the Angoon Airport Draft Environmental Impact Statement (DEIS):

**The Department of Transportation Act of 1966 and the Alaska National Interest Lands Conservation Act of 1980 Both Compel Selection of an Alternative Outside of Conservation System Unit Lands**

The Department of Transportation Act of 1966, Section 4(f), asserts that the

The Secretary may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) [of the United States Code, "Federal Lands Highways Program"] requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if—

- (1) there is no prudent and feasible alternative to using that land; and
- (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Alternative 12a is a prudent and feasible alternative to using the sites for Airports 3a and 4, and Access Roads 2 and 3. Additionally, the sites for Airports 3a and 4, and Access Roads 2 and 3 would all incur more than *de minimis* impacts to these valued Monument-Wilderness lands.

The Alaska National Interest Lands Conservation Act of 1980, Section 1103 states:

Except as specifically provided for in this title, applicable law shall apply with respect to the authorization and administration of transportation or utility systems.

This means that the Department of Transportation Act of 1966 applies to the Angoon Airport project and Admiralty Island National Monument and the Kootznoowoo Wilderness per Section 4(f). ANILCA Section 1104g(1) repeats that applicable law applies.

Complying with the ANILCA Title XI review, including the expressed intent to minimize adverse impacts to conservation system units and to find economically feasible and prudent alternatives to adversely affecting conservation system units as asserted in Sections 1101(c) and 1104(g)2(A)-(H) compel the Federal Aviation Administration, the USDA Forest Service and the Army Corps of Engineers to select Alternative 12a over other alternatives within Monument-Wilderness lands.

**The Costs to the Public Between the Alternatives Need to More Prominently Displayed in Table ES-2 "Comparison of characteristics and construction requirement for the action alternatives"**

Currently the Executive Summary Table ES-2 on page E-1-13 compares construction materials and requirements across the alternatives. What are missing are the comparative costs, including construction costs and ongoing operations and maintenance costs. These costs should be added to this table as they are of primary consideration by the public when assessing if the cost of this project is worth it. This is especially true as the State of Alaska is running a \$3.5 billion budget deficit and as the federal tax dollars available for large-scale projects is diminishing over time. See following passage for what costs should include.

**The Alternative Comparisons Are Missing Critical Information**

The DEIS alternative comparisons Section 3.5 is deficient in that critical comparative information pertinent to the professed need for the project and to the public costs of the project are missing.

The professed need for the project includes providing emergency air service and improving access to the isolated community. In comparing the alternatives, there needs to be an expressed comparison of estimated travel times to the various airports via the various access roads from a central in-town location such as the tribal community center. This is especially important for the improved emergency air service need since timeliness is a critical factor in medically evacuating desperate cases. Receiving care within the first hour of a serious incident requiring medical attention increases the likelihood of survival. Considering that the flight from Angoon to Juneau will take up much of an hour, every minute of road travel to the airport will matter. The travel time to the airport is also an important consideration for residents and businesses, especially tourism operations, who need to factor in the time and cost it takes to transport themselves, clients and goods on the access roads. The travel time should be realistic in terms of speed limits and potential hazards such as potholes, puddles, snow and ice.

Another missing component to the alternatives comparison is the operation and maintenance costs of keeping the various access roads open. This is important because the alternatives vary significantly in regards to how many miles of access road are constructed and because the

4

taxpayers will bear the costs of keeping the roads intact and open. Considering that the airport and access roads are permanent features, the operating and maintenance costs for each should be projected on an annual basis and outward for 25, 50 and 100 years. The costs must include filling potholes, maintaining culverts, snow plowing and sanding/icing the road, and incorporate inflation in their projection, to be realistic. This is especially pertinent now as the Alaska State Government faces a \$3.5 billion shortfall in the state budget with low oil prices and many infrastructure projects are being scaled back.

The inclusion of these comparative elements is necessary for the EIS to inform the public as to how the alternatives meet the professed need for the project and as to how much each alternative will truly cost.

### **The DEIS Does Not Adequately Address Impacts and Issues of National Significance**

The DEIS reduces the impacts to purposes and values of the Kootznookoo Wilderness and Admiralty Island National Monument down to how many acres are affected in Tables WC5-13 (pp.651-672) and Table WC15 (pp.675-6) and local impacts in Table WC14 (pp.673-5). There is far more at stake that must be discussed in the EIS.

The Monument-Wilderness lands have national significance as stated in:

The Wilderness Act of 1964:

§2(a) In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by the Congress as "wilderness areas," and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness; and no Federal lands shall be designated as "wilderness areas" except as provided for in the Act or by a subsequent Act.

ANILCA:

§101. (a) In order to preserve for the benefit, use, education and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values, and units described in the following titles are hereby established.

(b) It is the intent of Congress in this Act to preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems, to protect the resources related to

subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing fishing, and sport hunting, within large arctic and subarctic wildlands and on freeflowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems.

(c) It is further the intent and purpose of this Act consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each conservation system unit is established, designated, or expanded by or pursuant to this Act, to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so.

(d) This Act provides sufficient protection for the national interest in the scenic, natural, cultural and environmental values on the public lands in Alaska, and at the same time provides adequate opportunity for satisfaction of the economic and social needs of the State of Alaska and its people; accordingly, the designation and disposition of the public lands in Alaska pursuant to this Act are found to represent a proper balance between the reservation of national conservation system units and those public lands necessary and appropriate for more intensive use and disposition ....

The Admiralty Island National Monument Land Management Act of 1990:

§202 The Congress hereby finds that-

(1) Admiralty Island National Monument, Alaska, is an area of unparalleled natural beauty containing multiple values including but not limited to, fish and wildlife, forestry, recreational, subsistence, educational, wilderness, historical, cultural, and scenic values of enduring benefit to the Nation and the Native peoples residing therein ....

An assessment as to whether the alternatives degrade or uphold the following values, which are touted by the aforementioned laws repeatedly, must be presented: ecological; wildlife; geological; scientific; educational; historic; prehistoric; archeological; natural; scenic; cultural; subsistence; recreational; wilderness; conservation and environmental.

40 CFR 1508.27 defines the significant impacts that must be addressed and they include the broad public values nationally held by the American people. These values are encapsulated by terms such as:

a National Wilderness Preservation System for "the permanent good of the whole people" and for the "use and enjoyment of the American people" [The Wilderness Act, title and 2(a)]

"unrivaled scenic and geological values associated with natural landscapes" [ANILCA 101b]

"extensive unaltered coastal rainforest ecosystems" [ANILCA 101b]

To be clear, there is no need to conduct additional studies, but there is a clear requirement to state the impacts of national significance and adverse effects to public values.

### **The Cumulative Effects Analysis Omits Significant Impacts to Monument-Wilderness Lands**

While the DEIS quantifies short-term project impacts to wilderness character, it fails to quantify long-term impacts to wilderness character and thus is insufficient in its cumulative effects analysis.

6.

Considering that the foundational purposes of the Monument-Wilderness lands are to preserve wilderness character, ecosystem integrity and the cultural legacy embedded in the land as artifacts and sacred sites, there is a particular need to describe long-term impacts and cumulative effects from future road and airport use for the in-Monument-Wilderness alternatives – especially projected road use. While ANILCA Title XI may provide for transportation facilities in wilderness, the Wilderness Act of 1964 specifically prohibits permanent roads in wilderness [4c] in order to preserve wilderness character. The language of the Wilderness Act and its legislative history make it clear that roads are primary agents facilitating development, extraction and modification and thus the Wilderness Act institutes a powerful check on roads. The EIS analysis needs to project long-term uses affiliated with the in-Monument-Wilderness road and airport alternatives and how they would affect wilderness character qualities and designated purposes. Specific impacts that must be quantified include:

- projected traffic use/noise impacts from residents, visitors, airport and commercial operations
- potential additional future infrastructure developments (transmission lines, water lines, further roads and structures)
- potential increased ATV use due to increased access
- increased trash and contaminants
- increased hunting & fishing pressure

These impacts are reasonably foreseeable should the in-Monument-Wilderness access roads be built. Projections of such long-term effects should be available from other NEPA reviews where roads were introduced. This should be more of a research project than a need for new studies.

### **Conclusion**

The DEIS makes a good attempt at quantifying local impacts of the Angoon Airport project. Our recommendations center primarily on the need to better address issues that have broader resonance, such as cost to taxpayers, long-term impacts and adverse effects to nationally cherished values of the Monument-Wilderness lands.

The Tongass Group of the Sierra Club may add further comments later in the public comment period. Thank you for taking these comments to heart.

Sincerely,

Mark Rorick 907-789-5472 [vivalanuit@gci.net](mailto:vivalanuit@gci.net)

Chair of the Tongass Group of the Sierra Club

1055 Mendenhall Peninsula RD Juneau AK 99801

## Angoon Airport Hearing

Juneau, Alaska

*This is the Angoon Airport EIS Public Hearing – Juneau, March 5*

Hello my name is Leslie Grey I'm with the Department of Transportation Federal Aviation Administration. I'd like to welcome everybody here today and open the public hearing at 6:45 on March 3, 2015 for comments on the Angoon Airport project Draft Environmental Impact Statement, including the Alaska National Interest Lands Conservation Act (ANILCA) Title XI process, 810 Evaluation, and Department of Transportation Section 4(f) Evaluation. The draft Environmental Impact Statement has been prepared pursuant to applicable laws and regulations for the proposed land-based airport near Angoon, Alaska. The official comment period closes on March 11, however, because the public hearings are scheduled later in the comment period and per FAA Order 5050.4b, the FAA will accept comments through March 20, 2015. Comments can be submitted verbally to the FAA during this meeting. And other options for commenting include mailing, emailing, or faxing your comments. There are comment submission forms on the table and they contain information on how to submit comments.

The FAA is the lead federal agency responsible for preparation of the Draft Environmental Impact Statement. Cooperating Agencies assisting the Federal Aviation Administration, include – U.S. Forest Service, and the U.S. Army Corps of Engineers.

The proposed project is a land based airport in Angoon, Alaska. The airport would accommodate small, wheeled aircraft and would include a single 3,300 foot long and 75 foot wide paved runway, with future expansion to 4,000 feet. A new access road for the airport would be need to be constructed.

The FAA has identified five alternatives, including the State of Alaska Department of Transportation proposed action that would meet the purpose and need. The FAA has identified Airport 12a with Access 12a as our preferred alternative. The Alaska DOT&PF has submitted a Title XI ANILCA application (Public Law 96-487) for their proposed action, Airport 3a with Access 2.

So we have provided a handout for you to take with you that includes frequently asked questions about the project as well as print outs of the posters we have hanging around the room. In addition there are CDs and draft available for those that still need a copy for review. They are located on the back table. Um, if you'd like to speak, one speaker this evening so far, please go to the back or we'll have you raise your hands if you want to give comments and that's it. Sue?

Good evening I'm Sue Wilmot with SWCA Environmental Consultants. I'll be serving as the public hearing officer today so I get to be the one that calls your name and let you know when you are done. The public hearing is open now so if you'd like to provide comments, we'd love to hear them. The FAA will not be responding to questions at this time but everything you say in the hearing will be recorded and will be provided in a transcript from these hearings in the public record. At the close of the comment period the FAA will provide responses to comments and include those in the final EIS. Well, right now we have KJ as our one person for comments. We ask to keep comments to 3-5 minutes, it's a small crowd so, we'd like to hear what you have to say. When KJ is done if anyone else would like to speak raise your hand and we will have you come up and talk. If you have additional comments to make after the hearing we'd be happy to hear those as well. We'll be here after. Reminder when you provide comments, please provide your name. I think that's probably fine for tonight's setting, little bit less formal.

I appreciate the opportunity to be here this evening and share some thoughts. My name is KJ Metcalf. I'm a resident of Juneau and the president of Friends of Admiralty. My comments tonight are primarily those of Friends of Admiralty but also some personal reflections. And may I just say Friends of Admiralty was an organization that was created in 97 and the specific purpose of Friends of Admiralty was to promote those values that the wilderness and monument were created around. Admiralty is indeed a unique island. It is the largest stand of old growth temperate rain forest in the world that's left. So it is indeed a gift for current generations and generations to come. My experience was, I was the first ranger and manager for Admiralty when it was proclaimed a National Monument by President Carter using the Antiquities Act. And then subsequent to my employment with forest service I lived for 18 years in Angoon and so very familiar with the village and the people there and certainly keep in touch with them and have some awareness of their needs. And I can say that Angoon is really deserving of an airport that is safe and accessible and manageable. We support the FAA's preferred alternative 12a. It's next to existing infrastructures, road, and water, electricity and a more remote airport such as the one that is the preferred alternative for the proposed action from DOT is also one that would work but it would have an incredible impacts on those values that the monument was created for and that people have worked so hard for over the years, particularly those people from Angoon to protect those values. And in the winter time when equipment breaks down and you have a 4-5 mile road and you have to drive to get to the airport and the plows aren't there or are not working. It could be a really serious situation if people need to be medevac'd out of town and gotten out of town as so often happens. Coast Guard comes in now and medevac's people but they are not always available e to do that. So while we will send in our detailed comments I wanted to just give you a brief overview of kind of how we are looking at things. And I delighted to see the Angoon Tribe favors FAA's preferred alternative. The other aspect of that alternative is that it's half the cost of the proposed action by DOT and it seems to fit so much better meeting the needs of the community as well as having all that infrastructure right next so, I think it will be far easier facility to maintain and operate than the more remote one. I just, I think in closing I just want to comment on the process. My 20 some years with the USFS I was involved in a number of EISs and I have to say that this one has been so well done, in fact it's the best EIS statement that I think I've ever come across and I appreciate the amount of effort that has gone into it and the public involvement and the opportunity for Angoon to be a significant player and stakeholder in this. We will be sending in more comments by the 20<sup>th</sup> and again thank you.

Anybody else want to make comments at this time, if not we will pause until we have anyone else.

*Recording paused*

The public hearing has ended. It is 9:00. Thank you for coming and sharing your comments with us.

## Angoon Airport Hearing

### Angoon, Alaska

My name is Leslie Grey I work for the DOT and PF...I work for the DOT FAA. I don't know what happened there. I'd like to welcome everybody here today and open the public hearing at 3:20 on March 5, 2015 for comments on the Angoon Airport project Draft Environmental Impact Statement, including the Alaska National Interest Lands Conservation Act (ANILCA) Title XI process, 810 Evaluation, and Department of Transportation Section 4(f) Evaluation. The draft Environmental Impact Statement has been prepared pursuant to applicable laws and regulations for the proposed land-based airport near Angoon, Alaska. The official comment period closes on March 11, however, because the public hearings are scheduled later in the comment period and per FAA Order 5050.4b, the FAA will accept comments through March 20, 2015. Comments can be submitted verbally to the FAA during this meeting. And other options for commenting include mailing, emailing, or faxing your comments and there are forms on the table and we hope you do that, we are happy to help you do that.

The Federal Aviation Administration is the lead federal agency responsible for preparation of the Draft Environmental Impact Statement. Cooperating Agencies assisting the Federal Aviation Administration, include – U.S. Forest Service, and the U.S. Army Corps of Engineers all of whom are represented here today.

The proposed project is a land based airport in Angoon, Alaska. The airport would accommodate small, wheeled aircraft and would include a single 3,300 foot long and 75 foot wide paved runway, with future expansion to 4,000 feet. A new access road for the airport would be needed to be constructed.

The FAA has identified five alternatives, including the State of Alaska Department of Transportation DOT&PF's proposed action that would meet the purpose and need. The FAA has identified Airport 12a and Access 12a as our preferred alternative. The Alaska DOT&PF has submitted a Title XI ANILCA application (Public Law 96-487) for their proposed action, Airport 3a with Access 2.

Um, as noted we are happy to help. If you don't provide comments verbally there's other ways to provide your comments, we have forms and we have documents. All those things are on the table over there. And we'll help you out should you need to carry that book home with you. We'll walk it to your house even.

Hello my name is Sue Wilmot and I'm on the consulting team helping FAA with this. I'll be serving as the public hearing officer today I just want to give you good information on how the hearing's gonna work um so that you know what's going on. Obviously if you'd like to make public comments you are more than welcome and encourage to do so at the hearing today. The FAA will not be responding to questions during this hearing but everything that is provided the testimony that's provided will be in the administrative record to prepare responses to and make sure they are provided in the final EIS. We do have a sign-up sheet for those that want to provide testimony. We'll call you in the order it's provided. If you didn't sign up and you want to provide comment, just raise your hand and come up and provide comments at that time. We'll do it that way. Additionally if you don't want to provide comments formally, we are happy to hear your comments when the hearing has been paused or closed. Give those comments to Leslie or the team. When you provide comments state your name clearly at the beginning. With that we are good to go. Maxine you signed up first.

You're starting with the comments? You're not doing any presentation? This is it? Is that correct?

Yes.

Okay.

My name is Maxine Thompson. Um. The airport issue for Angoon is a recurrent issue and the second go around the first time Angoon lost out because of location. And it was put on the ballot for the voters in 98 I believe it was. When the voters in Angoon said they wanted an airport. Um. My biggest concern is uh Angoon is being squished into a small area and all too often a lot of our projects face that as an obstacle. Because you know we need it right now. It's put right in our face. Good example is we've grown out of the dump now and then the sludge infill. And so but having said that my other concern is that the information that's put out there um veiled threat if we don't go with the best or the most available location right now we'll lose it. So I'm very concerned. Those are my two concerns. Angoon has been here for centuries and we have less than 6 miles of road. So let's put to rest right away that we're not out there chopping down trees, roads here roads there roads everywhere. But Angoon needs to have good infrastructure to service us way into the future. We can't do this we need it yesterday already. And I'm talking about yesterday meaning 98 when we voted for the airport. So we have a big dilemma here. We have an aging population. The baby boomers are right around the corner being medevac'd out. And you know for yourself that to make sure you got her for the meeting a lot of you went on the ferry. So the other thing I'm concerned about is the financial situation of our state. We need to have guaranteed service on and off the island coming and going. And if we had a runway you know we could be rest assured we can meet the needs to medevac someone out. It takes too long to medevac someone on the ferry. God forbid that we don't have ferry service anymore. My biggest concern is service for the residence and people so I hope and I'm going to pray that we get 3a because we need we have three projects as a community that we need. Out tribe has land at hood bay and we had already done three studies on the Mt. Hood water source. And those are very good for Angoon for looking to the future so that we can become financially independent and take care of ourselves. We're not asking for something unreasonable. And um we also need Thayer so. Dual access roads are not out of the question. They are logical approaches to meet the needs of our community.

Thank you Maxine

I'm Wally Frank. I'm president of the Tribe . And uh. I know that there's some state people here. I hate to say this but the states been draining us on our subsistence life for many years. I hate to see the state's selection be thrown in or the tribes' subsistence. You know our on our charter and our bi laws the tribe has the right to do what's right for the native people of Angoon. What timber and water rights but the states been fighting us on water rights that the congress gave the different nations of Angoon. Oversee (unintelligible) and all the native people use it (unintelligible) nation. I hope it hits them to some peoples take that if the state has to really have the airport on the other side I don't know if it will open up. And I was talking to Chad and I asked him about the timber rights. I remember sometime back when I think it was somebody was working that was working with the state a local said you'll even have to get permits for what we call (unintelligible) and I asked him if we had that airport on the other side of the bay a lot of people here are excited we are able to get timber off that land. I thought it was the wilderness and needed to be protected both for subsistence way of life I know maybe 30-40 years back when we had the right to try hydro in favorite bay and everything looked good but people voted it down because that area was a subsistence area. Now were again, I hope, we're not fighting anyone. We're

fighting for our people and our native rights. I've seen native people I guess you know what I mean. I know the state wants to even when they didn't have the power to regulate subsistence they were doing it with the subsistence permits and everything. So. We just have to be careful on what we do here and make sure that. I never saw too many reports on people's point of views on the parts that they sent us from the airport studies. Thank you.

[Joseph Thompson] the main thing is I don't want anything to slow the airport down but I think following what both Wally said and Max said the thing that seems to me that would be important is that we look to the future of Angoon. And if I understand correctly what was said originally was that 12a is what the feds and the state is uh recommending. But 3a is what the community I thought voted for. 3a would be on the other side of Favorite Bay and it would require quite a bit of road way. To me it would open up an area and provide expansion. Look around Angoon right now we're all clustered up all tightly together. And uh, sometime in the future this community and this land will be really valuable uh, for everybody. And that opening up that small area, and it is small in comparison to everything else, uh, will be really important, uh, again I'd like to emphasize the most important thing is that we get an airport weather it's 3a or 12a, whichever one comes thru. But, um, if you look to where the futures going, we need to expand and move away from just being all clustered up tight together and um, that's mainly what I have to say.

[Jamie Young] We have Alaska seaplanes on line 1 so I'm gonna put them in. (speaking to see if caller is on the phone).

[Wally Frank] can I ask a question. Jim said something about a road and I'm not sure what road. And I need to know – will we be able to expand in that area.

[Leslie Grey] for the EIS process there is no vote through this EIS process

[Wally Frank] you just come in and say a few words and you leave. I'm talking about what the tribe voted on what we have resolution on. The one by the lake. I just say this because from the material that we get if you build it across the bay it will be 20 more years. And I don't know how long our hydro took. For the natives peoples use. When you look at it, the airport, is being supported by Juneau, the State, the favorite bay site. So I think this is the last one. I wish it was because in my mind I don't know how much money was spent on administration for that airport. I think it was 5 years, 6 years. That's a lot of money and I don't think my friend has too much longer. Probably won't see the airport if it goes much longer. I can guarantee that uh, if you put it in wilderness it will probably take 10 more years to try to get through the permit system and congress.

Okay, I'm not sure who's all there. This is Mike Steadman speaking. We were gonna fly down there but the weather was pretty bad in Juneau so that's why we're doing telecom. I don't have the EIS in front of me but uh, I will speak to the fact that the airport um, the position over there by Kanalku, I believe it's 3a? In my 30 some years of flying in and out of Angoon I believe that's the best alternative, it's the safest alternative, uh, it gives you the most area to expand later on if you need to. Uh with the proposal, proposed runway being pretty close in town there, I don't have the EIS in front of me so I don't have the number of the runway alternative, but the one that kinda runs parallel with the peninsula there. I don't think that would be a very good alternative for one for safety reasons um also the wind. You're landing and taking off right over the top of houses. Um, you know so I still sticking with the preferred first one. Uh, you know I've been involved with this from the very beginning and uh, that was the place that I had

chosen right off the bat and the winds are the most favorable out there, your away from you know buildings and houses and uh, it would be a safer environment.

[Sue Wilmot] Anything else you want to provide at this time?

[Mike Steadman] um. I guess not at this point. I'm sure Carl is here I don't know if he wants to speak to it or not.

[Carl Ramseth] I'm the general manager at Alaska Seaplanes um, I understand the distance from town is greater and the road that would be necessary to get there is expensive. And by far the best alternative for safety and for approaches and IFR environment. The reliability of air service would be greatly increased cause the, ah position of the airport that Mr. Steadman mentioned, I'll apologize also for not having the map with the three alternatives, I'm having trouble finding it.

May I ask who all is there in attendance right now? This is Mike Steadman again.

Well, this is Leslie Grey with FAA, we have a team of consultants, FS, USACE is here, several members of the community, the department, the DOT is here, so we have a, we're in the ACA um, room facility, so.

[Mike Steadman] Okay, I just want to make sure you all understand what alternative I'm speaking to. It's 3 or 3a that's out there more toward Kanalku that needs to have the road developed to the proposal.

[Leslie Grey] Okay, yup, thank you.

[Mike Steadman] Who else has spoken, I'm sorry we're not there, but uh, have you had many other comments or other people speak to it

[Sue Wilmot] we're going through a formal hearing process and the community started. I think you're about um, 4<sup>th</sup> in that process.

[Wally Frank] I want to talk to someone face to face. And uh, the state has no right to try to force us to do something that we want. We were put down on the airport before like 40 or 30 years ago but it was some business people who put it down. I hate to see that and uh I don't know how many times you guys flew here and you talk about favorable winds and need to define wind term (unintelligible) so I don't know what kind of winds they're talking about. That man that was talking should have been here. [Leslie tries to interrupt] Said something about the weather you could jump on the ferry and save money.

Leslie: So that's, we appreciate all the comments. As Sue mentioned this is a formal hearing, the FAA we don't, we want to hear your comments but we won't be answering your questions, we'll be taking your comments and answering them, but we will provide some feedback later on and in the EIS this is more about hearing what you have to say and making sure everyone has the opportunity to provide input for the transcript.

Sue: that being said, Mike and Carl if you didn't have any other comments, we're going to let you go at this time. But we appreciate you calling in.

We appreciate you letting us comment, thank you.

Thank you.

[Pauline Jim]: I really appreciate you guys coming out as much as you have through the many years. It's been quite exciting for us. I've been on the health council for a good many years and we do need the transportation because our people's healths are involved. We need it because people have to get out of town to do what needs to be done that doesn't have to go to SEARCH. We know the expenses that it will cost on the proposed site but the money is not dried up and blown in the wind. We should advantage of it. And I think the wind would have a big variant on it. I know because when were done on front street and we walk down this street it was nice and calm until you get to front street where I stay and you can really feel the wind there. So the wind has a variant on even walking, I could imagine what it is. I flew in from Juneau one time and it was pretty bad. So it is important as to see what the best location is for wind and in Angoon. If there was a resolution that came from Angoon, not everybody is always in full attendance for one reason or another because people aren't able to get up here or haven't been given ample notice. So there are many reasons why people are not here today. One of them, our kids are in Sitka. I'm sure if these great guys could have made in, they would have. If we had our airport I think that would be a quick turnaround and they would have come in. There was a time when Alaska Seaplane couldn't come cause the weather once it's 50 you can't land in Angoon. The pontoons freeze up. And that has a lot of baring on it. We need the airport because unless we're planning to open up a place to repair pontoons and do some quick repairs for planes then we should be able to deny what's being presented by other people in this whole community as we know of the expansion and we talk about it many times. It didn't just happen today. When I was just a pretty little girl that front street was our town. We can't say that we're not going to expand. Look at, we're all the way back here. And we're still going. We've gone up the road, we're out to where the dam is. We can't say there isn't going to be an expansion and this is minor stuff yet. I'm sure once the plane hits, an airport hits Angoon that there is going to be open opportunity for the community. Angoon has been shut down for too many years. We haven't been given the opportunity to do anything other than be confined to the streets we walk today. If there had been repairs that were made I'd like to see them. Thank you.

My name is Frank Jim. I've been a resident here all my life. And uh, speaking of subsistence, our people are having a lot of trouble with subsistence all the time. The things that communities in SE Alaska are looking at is a fish that are being caught out in the ocean. They put floatin canneries out there. They're already putting another one out there. And this is something that our community should have got together with all the southeast communities here they don't look at stuff like as floatin canneries that kill our fish. It used to take the boats seventeen days seven days coming in and seven days coming out and a few days to wrap up and fuel up. It used to take that long for trawlers to run back and forth. Now they just troll right out there in the ocean. All the fisherman that fishes out in the ocean they don't come in no more. They're the ones that's killing our subsistence. Every time it comes to the point of something they want to build in Angoon they talk about our subsistence resolutions. And this is some kind of resolutions those canneries floating canneries that are being put out in the ocean. They need to stop that. Put an end to no more floating canneries out in the ocean. And that. That way maybe our airport will get build you know? They're the ones that's killing our fish, not anybody else. I've been watching news how many years and these things are the things that's coming up and uh. We asked for an airport I remember when I was still young when they were talking about it. Nobody turned it away. Just the people that were sitting here that people didn't even know they were having a meeting on any stuff like that. And all the sudden we come walking into a meeting like now and here we are talking again. It's really something when you start throwing resolutions around to people that's trying to help our people but uh, this is something I'm trying to tell them to get together with all southeast and then there's no

more trouble with our subsistence issue with these floating canneries. I'm all for the airport to be put in cause I was flying home from down south one year and I missed the ferry so I called Hoonah and asked how much is it to fly to Hoonah and it was only like \$57 and Angoon here was \$100. Now I see the difference on coming to Angoon. Hoonah's just the same distance as Angoon they got the wheels on the airport and we got float planes it costs them a lot of money to keep the floatplanes running. That's why it's costing us so much money to fly in and out of Angoon. So I'm all for the airport be put in. When you decide to put something in like the airport you have to think 20 years ahead of time. 20 years ahead, not today. When you're gonna build you don't think of today how you're gonna build it, you think of how you're gonna build it for the next 20 years of people that will be here the next 20 years from now. You're expansion will keep coming out and you're looking for some more money to extend on the airport and that's if you have to look at by just a small little runway it's not gonna really help Angoon, it will turn into dirt right away. And you have to think of a bigger airport then what we're thinking of now and you have people from outside that has the education on keeping up the planes here in Angoon. People need to go to school and stuff like that. Don't just run and do it any old way. But uh, subsistence they have to look out in the ocean. They're the ones that's doing the damage. I've been watching news up north and what they're doing to our people down in southeast here and people aren't seeing it here. Their just thinking of our tricks that's all. So do you want to talk about our subsistence those are things you have to put a stop to. Put a stop to our floating canneries that's going out in our ocean. That's all I have to say.

[Ed Gamble] First uh, let me thank you for coming out here. And giving us the opportunity to make a statement. I appreciate the fact that you came on the ferry. Uh, a lot of the times that things happen within the community like this were always (unintelligible) but never served. Maybe the guys that's stuck in Juneau, if they let the locals put the airport where they want it to be they wouldn't be stranded in Juneau right now because the people that live in the local community have the most knowledge about what kinds of conditions you have and I see where we've been going through years and years of study. I was a younger person when the mayor of Angoon and now a days they always make the remark that when they first voted down the airport location. We didn't vote the location down. I think I can bring the sentiment forward that at that time we were talking that in pro. Pro-airport. We wanted the airport. We have a lot of services here and a lot of the times it doesn't come in. We had extreme cold weather in those days and the planes couldn't land and take off from the water. No matter what kind of defined conditions you have. So everybody was pro-airport. But the thing they were looking at was the location and I always make the comment that they have an EIS process. The EIS lets the whole country talk about an airport that's coming in Angoon. And who's gonna use the airport. The people in the community. So all we get to an airport. How we get to an airport or where the airport lands us on the returning. It's important to us. And the shorter the distance the better. When they first pointed out the preferred site. The preferred site was pointed out by a pilot for a pilot for an airline that wasn't even here. Wings of Alaska. He came and make a statement and he said he wanted the airport in that area. At that time I made the comment that we're gonna need another seaplane on the other side so we can get to our airport. If you look at the distance I work with the roads program with the Tribe. You look at the cost of building the roads. The airport no problem, you can put an airport anywhere around this area if you look at it it's a nice area to put an airport. But the location and the distance and we work with the Tribal government and the maintenance program. It's a costly thing the more distance you put into it the more maintenance you work it. And the road and if you got a road from here to the preferred site, you're building a whole heck of a long road and a long road to maintain. And how much funds you and how

many people are going to be using it going in. The reason I made the comment that I am glad you came on the ferry is the fact that we're talking about an airport right now and talking about expansion. But there's a group of people on the regional side that has us on the low on the list when it comes to new ferry and the ferry service. We may not get that service from the Alaska Marine Highway the way things are looking. They're building the new ferry and we're gonna be out in the cold. And the, what does that do. Does that mean that there's gonna be more traffic on the plane and maybe they'll build a bigger airport? I don't think so. Not for Angoon. I spoke of a preferred site because at that time we had a young man that was the president of Kootznoowoo incorporated. And he found out that they wanted the airport near Kanalku. It's a nice place for fly casting and stuff like that. And there's a lot of people that work in the state of Alaska that have private planes. And they wanted an area where they can take a plane ride from Juneau and come to the community. HE said that's not an ideal situation. The airport wouldn't be there for the community of Angoon. The airport would be there for preferred people that work in the state of Alaska. There's a lot of them, they're in Juneau. It's the capitol. So the impact would be in the place an area that has to do with quiet enjoyment. When you have language like that protecting a place like a little community like Angoon. It's hard for the agency people to find the definition of quite enjoyment. And you have to keep saying it over and over again. But we get the negative impact whenever someone wants to do something for the community of Angoon. Or something that we want to do. It gets voted out of either the State government or the federal. So those are the sentiments we look at we have when we look at the location of the airport. I say we need an airport. That would be my comment. And we need access to the airport also. That should be a high consideration. Not someone that's stuck in Juneau that has a preferred site. The preferred site for the community I think would be expressed by the local people and it should be something they have access to. It's a comment. Thank you and again thank you for being here. My name is Ed Gambel.

My name is Gilbert Fred and um, my father was a part of forest service management team of the monument. And I really appreciate and I wanted to go on record the comments that President of the tribe Ed Gambel stated. I believe he shares a lot of community sentiments with you people in regards to the airport and the preferred site and the site that would be most uh logical and beneficial to the community. I do share with him looking at the alternative sites there that the best sites available is utilizing and choosing the locale because I do know in Kanalku that the wind there, there's so much turbidity there and the way the mountains are funneled into that area that even when we're going to get, that place is always cold. I'm really concerned about white out conditions um, the possibility of a plane flying around the top of the community and just exactly how accessible these proposed sites are and um in terms of um subsistence and other user groups and industries impacted by upland activities um, I'm really concerned that we axed a program that was developed by a broad spectrum of the public industry and user groups called the Alaska coastal zone management program. Which is we have a federal coastal zone management program and I'm really concerned that Murkowski axed that and Cornell failed to fund it. This is a really really important document because it was quite extensive in its development and covered a broad spectrum of the public in its development, especially in the land use designation of areas and their importance to the community, also um, it lists areas meriting special attention to the community and we just shelved those. I understand that out of ANILCA there came 33 new landowners and it requires that there would be an integrated management plan in place one that was favorable to adjacent land owners and user groups that's never been developed since ANILCA was written. We're still out of compliance with ANILCA. Now you know the only voice the only forum and venue we had available for discussion alternatives and development the Coastal zone program was axed

and we don't have an integrated resource management plan, we're relying on NEPA. So I really really consider that we really take a good hard look as federal agencies at that Alaska coastal zone management plan. Especially when we are dealing with communities on a site specific basis. I think that the state of Alaska should still have copies. Communities should still have their individual copies and I really feel that it would be beneficial to reference those documents that are still there because it represents like I said quite a bit of time and money and public involvement over a vast spectrum of the public. People with different values got together and collaborated in its involvement and we just trashed it. I feel we took 8 steps forward and 16 steps back with that. And it really concerns me and I'm kind of anxious that an IRMP hasn't even been developed yet and we've seen the land being carved up and just how Green's Creek was able to ride in on the coat tails of ANILCA and we had the mixing zone pipe on the Chatham straight side, gosh cause we didn't want to contaminate the waters for the canoers going from Juneau going on the Seymour Canal side. When we worked for the tribal EP we felt that mixing zone pipe from their tailings pond should have been shifted over to the east side of the island. But it seems like we were disturbing the recreational use of people living in the capital city. So we say it's okay to put the mixing zone in Chatham Straight so our tribe is concerned about going and do bio and water sampling because it could have the potential of impact on human health. And so you know we're sort of in a catch 22 we need to raise the quality and value of life here in the community but also if we just totally abandoned our traditional diets we start coming down with a whole host of diseases. Diabetes is one. Through search and earth study and our ability as native entities to go out and push resolutions as Frank was referencing to allow us to take our native foods into the hospitals and to the elderly homes that the elderly that were suffering and sickly their immune systems began to bounce back and they were able to knock diabetes out of their systems so we want to raise the quality of life, we want to enjoy a lot of the conveniences that modern society has but we can't abandon our traditional diet. So I think the balance in that for us from a local perspective is how do we have the best of both worlds without adversely impacting our ability to go out there and traditional hunt and fish. And so I'm really concerned that in developing these alternative sites you know if we really referenced some of those program documents that are out there like the coastal zone management program and we know we see areas that could be a source of contention. Problematic areas. I feel the best science should have been applied in designating those areas and the winter conditions. Have we even started a base line graph line on you know how accessible that area is in the winter time. What's the turbidity like in those areas you know there are times in these areas I've looked in these action alternatives and it was a complete white out in that area. The idea of a plane circling about our community is scary to me. And so I really feel that we do need that airport. We really do. There's times when even the Alaska Marine Highway system has broken down because some of our vessels are so old they've depreciated to the point we'd be better off just buying a whole new one. And it's kind of disconcerting for me that we're you know facing a 9 million dollar budget cut on the Alaska Marine highway budget. And you know this is one of the things that makes Alaska unique. I really feel that we've seen a lot of things going on on the monument I really feel that we've been sort of left out of the loop on raising the quality of life. And it was a lot of our people that fought hard to turn this place into a national monument. We feel there's a lot of I don't think it's wrong for eco-tourism or fresh water tackle fishing going on on Admiralty provided it goes by the rules and that these people that are utilizing the area go through the proper hurdles like everybody else. And get the permits. I feel on that note we haven't even tapped into the eco-tourism potential of the island and people will pay just to go and track forest service track the salt water fish. And you know I really feel that you know if that's gonna go on then there ought to be some

sort of liaison with the tribe and the forest service and state making sure that everybody that's on the island is playing by the rules and respecting the integrity of the sites where they are going . So I really support an airport here. There's times when even helicopters couldn't fly in to fly some of our patients out of here and there's times where the ferry was broken down and they had to wait for the weather to clear. If we just had an airport at that time, there was a short little window where a plane could have come in and flew that patient before the weather turned bad and so Murphy 's Law comes into play. We've faced situations where we live on an island here in Southeast and we were inaccessible at the time and we had somebody on the verge of dying here in the community and everybody was wringing their hands and biting their nails and people were praying for the families and stuff and supporting them and trying to stay positive during a time of crisis. And that's the way are as a community. When something effects on of our community members it affects us all. So in these areas where we're discussing Favorite Bay here some of these small pox epidemics and influenza epidemics and stuff there are so many people dying off that we still hear stories of the ones that were determined to have the virus and made a personal choice that they would rather go into favorite bay and die then contaminate the rest of the community so we have stories of them waving to their loved ones that were leaving so in a sense some of these areas are like a shrine to us. And we wanna respect the connection that our ancestors and people have historically with those places. So there's times where we have to really really hash it out at a local level, how can we best utilize these areas with the best intentions and respect the integrity of the historical connections that we have with those area. So I appreciate you guys coming and coming here and taking testimony from us. I really think that's great and wonderful. I'm really appreciative. You're gonna get varying variations of opinions from the public but I'm sure that majority that you will here is in favor of an airport. My name is Gilbert Fred and I'm testifying as a concerned citizen. I have worked with the municipal government as a consistency coordinator for the Alaska coastal zone management act I've worked with the tribe and the EPA with region 10 and so um, I have quite a bit of extensive work. I worked with forest service for a few years to. And I wanted you to know that I worked with the young adult conservation corps. It opened my eyes to taken ownership of the lands that we live in and how you know our managerial skill would be able to leave something for the children down the road. So I just wanna leave you guys with letting you know I really appreciate seeing all of you here. And I'm really glad to have the opportunity to share comments with you.

Anybody else?

Hello everybody. Name is Matt Kookesh. Representing the city of Angoon. Also the Mayor of Angoon. The Angoon City Council has chosen Site 3 A as the proposed site for the Angoon Airport. The City of Angoon does not want to give up any more land than what was given up in ANCSA and what was received by the City under 14 C3 process. Kootznoowoo only received 2000 acres around Angoon they received 6000 acres in the corridor lands and in return under 14c3, they gave the City 850 acres of land. So the point I'm trying to make is we have set amount of land here and for us to put all the pressure and put an airport on that set amount of land is something this community will never get back. It's not in the act. There's language on inholdings, but this would not qualify for that. The reason why we want to pick outside of the city boundaries is because our Elders have gone to DC and talked about ANSCA and ANILCA many times. And one of the things they have talked about is us building outside of what's been given to us. We have a proposed water line site coming down from hood Bay that's gonna have to come off the monument lands and we don't want to start shutting this door. We spend time with Don Young we spend time with Murkowski staff talking about getting back on to the monument. And I have no idea

why we have to fight this battle. We're a community we need to grow. And we only have set amount of land to grow in and to put that airport right there in 12a would mean that our quiet enjoyment for the community would be affected. Because we'll have the airplanes flying right over the community to land at 12a. And I realize 3a, the site we picked that it will affect the quiet enjoyment of that area. But what do you chose. We live in both areas. I would rather have this community protected and once you start instrument, using instruments to come into this community, they're not just going to come in during the day. They're also gonna come in at night. The City and the Tribe have both selected different areas. Different sites. We selected 12a, oh no, they selected 12a, we selected 3a and what the council voted on, the tribal council voted on was to authorize me to put this on the ballot in October. So I have to work on the language of that and I know that this is still early in the process and I don't know if it will have any credibility to this process. It may or may not. The City reserves the right to have an airport in Angoon and we want to be consulted before any more money is put in this airport and I would highly recommend that you start attending city council meeting. Because we are in contact with our legislators and our congressional delegation on this very subject. The city of Angoon needs true consultation since we are the land holder and land use planner even if it belongs to Kootznoowoo or the monument. Thank you.

On the tribe's side I stated [Wally Frank, tribal president] I don't think the tribe will try to fight against the city and what will happen when you vote on the area we selected our area I don't think we need to vote on it any more. You know what our area is as the native people so just scratch that off. Yeah. The city serves the Caucasians and blacks and the Filipinos and every other group that comes through here egregious of our native people. I've heard comments about subsistence I'm sorry if I hurt anybody but it's just the way I am when I speak for our native people. We were given the, through congress we were given the authority to speak on behalf of our native people. And watch over the lands which we don't have much of. And on the comment period on lands they wondered why corporations gave city lands when they weren't all natives and they never mentioned the tribes. Who are the people that gave up the most and I'm sorry if I hurt anybody, I know I did. But I speak for our native people. You hear people say that our lands was made for expansion by our Elders. Our elders went to DC to save this land for the use of the animals, not just fish, not just sockeye. So that's all I'm gonna say. I'm sorry if I hurt some people's feelings but I don't have too much more time in this world. I'm 78. I'm speaking for our children and our grandchildren. What scares me. I guarantee you that some people will get hurt or lose their lives if you fix a long road over there no matter how much they create it now. Terrible place to ride. If Angoon had the equipment like Juneau where you can spray the roads when it is 15 degrees then that would be good. Some people they don't even go riding but they want the long road. 2 and half [unintelligible talking] I think albert made a good comment. You know that the favorite bay area is a lot colder in the winter time and our roads, the road that goes to the lake is terrible in the winter. I think some of the people here wouldn't want to ride on it. I ride on it and I know what it's like. It's like glass. So I'll leave it up to folks whatever you want. But you know what our stance is as the tribe for our native people.

My name Frank Jim. I talked a little earlier about the airport you know mentioning you should think about 20 years ahead of it is because they made a mistake on Kake and Hoonah airport, it was short. People complain about the short runway they had. That's why I was saying think 20 years ahead of time. Make it longer then you expect to. I didn't ask for Alaska Airlines to land on our airport, but they could later on in the years to come. Our people need that airport. Like I said earlier, I feel bad because we have to fly on pontoons and we see Kake and Hoonah on these fancy planes to their homes late in the

evening times. We're on a tight schedule. One plane a day or two planes a day. It's pretty embarrassing if Tenakee has a landing pad and we don't. We still got a long way to catch up with Tenakee I guess. It's pretty hard for us to be waiting for a plane. The cost of the pontoons is what ups our cost of paying on the plane. Get the wheels like I said and our prices will go down. And that's good for winter too. Really appreciate you guys coming out. I came to watch a game, yet here I am talking again. Thanks for listening to us. I appreciate you guys. Thank you very much.

[Maxine Thompson] There's some good comments raised by different people but one of the things I wanted to state was that my parents were part of the three couples that went to DC to make this a national monument. They never envisioned that Angoon would be put in a poverty state. Which is what I see as a business owner. Because of the lack of space, because of the lack of expansion. We can't even get to our hydro site because of the monument. That's not the purpose of the monument. And I've asked before that the Forest Service stand by Angoon. To better the lives of our people. They ought to be ashamed looking at our community. Our business is depleting because of the high cost of electricity. And then the other thing is my father retired from Forest service and he said the same complaints they had about the ferry, the same threats, it's going to ruin us, and it's going to bring in these people. And now we're all in a state if the ferry doesn't come in. We have to get over that fear tactics. There's a runway in Mount Edgecumbe where do we go for our herring. If anything is changing it's because of the climate maybe. There's different fish going up in Barrow. We're going to have to adjust we're going to have to make choices. Do we want to medevac our person at 11 at night or do we have to wait for 6 or 8 in the morning. And I believe, I trust that the wind studies that were done were for our safety. And that's what I believe we ought to support. I'm very concerned that people that have money can get a tailings expansion if they have the money to buy land and return it to the monument when we can't do that. Why don't they equate that land that's been returned to property that Angoon could use to better the lives of our people? That's all we're asking. Anybody that wants to protect the trees should live here and turn their lights on or turn them off as we do. Tlingit and Haida held an energy conservation training here. I said "you'd learn more from these people if you walked around and listened to them". You drive around and you're going to see the TV on, one lamp above the stove. That's all that's on. Because our electricity is too high. We need Forest Service to stand by Angoon. On a projects that are needed. These aren't fluff projects. These aren't luxury projects. These are necessary. For our grandchildren, our great grandchildren that aren't here. We need to get brave, we need to stand up and speak for our people.

My name is Richard George. I've been around here since the issue first came to Angoon. And that was Kootznoowoo and I was on the board at that time. I think I served, I was serving as corporate secretary. Ivan Gamble was the president. At that time we turned the airport away because it was in an area of the garbage dump. On both ends that land is primary land for our growth. And the traffic that comes into that strip would interfere with our development. We can't have restrictions of the airport, we can't develop. So we told the state we don't want it. They took the airport money and went to Kake. No engineering, no study. They constructed it. Those people in Kake say welcome. Look at our Angoon airport. They know things that happened. Things that are the hoops that we jump through are not the same as our neighbor and uh, it's extremely important to us to have the airport across Favorite Bay. It's extremely important to us, to you as Forest Service. I mean, envision if you will a road going around Favorite Bay into the wilderness. You talk about Admiralty Island being the jewel. We have a lot of pride in it. That's why we fought so hard in developing Angoon and putting, keeping it the way it is in its pristine state. We went, we made legislation in Washington DC. We don't have we didn't have the

wherewithal to allow people to study for us. We just knew what we wanted was to protect this island. We even had to fight our relatives and our neighbors in the villages around Angoon. So you are responsible, Forest Service, for what is forever on this island. I don't want Angoon bunched up on this peninsula. It's a shame on you if you allow it to happen. Shame on you. You have the, it takes a stroke of a pen, as far as we're concerned when we look at the Forest Service you have an office in Washington D.C. You have the wherewithal to say okay we're going to expand on our areas of responsibility. Let's fix this place up. I travel around the United States. I see stuff that Forest Service is involved in. I see all the development that's taken place in other states. I don't want to be, listen to you hem and haw because you want to bunch everything up. Look around our town you see our post office, our city office, our clinic. It's all in one area. You don't do that in Juneau. You don't do that in Anchorage. You don't do that up north. Don't do that here. We sat at the table, I remember as Kootznoowoo. Developing this relationship. We knew that you had to be seated at the table. And we were open we had to change some of your job description, I said it before. I was there. What this will do to us if you keep the airport on the side of the road. It will impact our children. We need room to expand. And you people that came I want to thank you for coming. It's an important issue to us. But I'm like the speaker said a minute ago, you need to choose wisely. Because the end product can be a model in the whole United States. We've heard the feedback coming back on Kootznoowoo national monument. We've heard it. We have pride in it. And we're counting on your office to be our friend to this community. We don't want to be complaining to Washington about this box you put us in. I would like to hear that you're pushing the envelope trying to develop. Imagine if you will going from year to year. If the cost of the road is an issue then let's fund it from year to year until we get to that location. We've waited how many years? It's not going to make that much difference. I don't want to hear "it's going to cost too much" Those are my words. I appreciate you coming to hear our concerns. The thing that the last thought I want is. The City office has made this a priority across Favorite bay. Is it 3a? Yeah, 3a is a priority as far as location is concerned. I hope you'll follow and push and represent Angoon as we expect you to. Thank you.

[Wally Frank] he said they are through taking comments. I think what I'm trying to say is that we're all common and the same ones that make comments all the time. Again, I just like to thank you for coming I'm going to take her home now.

[George Nelson] I know everybody sitting here knows I served on the fire department and EMS a long time ago. I was on a call when a plane crashed in favorite bay. I was the first guy to reach the pilot. A Petersburg plane flipped over. Three times. I reached, I got to the pilot and got out of the plane and the plane exploded. I do want an airport so hopefully this community will come together as one like I said I'll probably (unintelligible) by the time the first plane lands. I don't know why we spent so much money on it. I wasn't getting my social security when we first started this airport and now I'm getting social security and still never seen a plane land yet. I'd like to see something so hopefully I'll see one land before I get too old. I'm not going to talk forever. When that plane crashed from Petersburg I was down there. I knew the pilot real well too. Thank you.

[Frank Jim] you guys should ask Ward Air they come out all summer long here. They come and fish here out of Angoon and they do a lot of flying in and out of here and they charter up Ward Air so it would be good for you guys to get comments from them too so get their comments too.

I have a final comment [Gilbert Fred] I really appreciate all the comments that I heard. Pretty hard to disagree with everything that I've heard. We are discussing a road to access the airport and I really feel

we can't close the door. The tribe has land down in Hood Bay it would be beneficial to the tribe to access their land holdings in the monument down in Hood Bay. And also the Kootznoowoo incorporated has the ROW to develop a hydro project up by Thayer creek. I really feel we have to get that ASAP. It should have been here a long time ago. In a rush to preserve the island I feel we closed the door to keep us in the state we're in right now. I really feel that whatever the forest service can do to ensure that Kootznoowoo and the Tribe are able to access their holdings and raise the quality of life with safe water and electricity. I would really appreciate that. Thank you.

[Sue Wilmot] Anybody else? Comments? Testimony? If so we can take a break and reconvene in a bit. Great. Grab some cookies!

[Leslie Grey] We are going to reopen the hearing now and hear additional testimony. Please state your name.

Afternoon my name is Albert Howard. I'm on the tribal council and on the city council and also the regional school board. A lot of the rights given to us as far as deciding our own future are embedded in the constitution. I say this because it seems to me we're being told what we should have and we know what we want. I tried to spend as much time as possible listening to community members and voicing their opinion on different things that concern them and I think this is part of that process. I'll agree with Mayor Kookesh when he talks about wanting 3a as our airport and to explain why. It leaves the rest of the area open for economic development and the possibility of expanding the airport in the future. So I think there seems to be a lot we're always up against to try to accomplish what we need for our community. Things that other communities already have and take for granted. I've listened to the elders speak. This process started years ago. I remember as I served as Mayor the EIS was supposed to be done now. I think it's important to listen to what our community members want because at the end of the day we have to live with the result. And everyone here in this community is citizens of this country. A bunch of them have served in wars for this country. It bothers me to sit and have to beg to have what everybody else already has and then. I won't fight with my own people for it. But it, it's a given right you give to everyone else and we still don't have it. It's for our public safety to get our patients in and out of Angoon when they have health problems. It gives us more options than what we have currently. And it's hard to actually explain it unless you live here and you live it like we do. We're given a right under Title XI for transportation utility corridors. The 1990 Act also gives us the right to be part of the process, which is a combination between the city, the Tribe, the corporation, and the Forest Service to co-manage the island. It's in written law. The 1990 Act also states for the betterment of the indigenous people. I'd like to think that's me. So when you guys are debating over whether to build it on this side of Favorite Bay or the other side of Favorite Bay keep in mind who you are building it for. You're building it for us. We have to live with the end result. I'd like to see it done in my lifetime. And a lot of the people have spent their lifetime waiting for this to happen. There's conflicting laws on both sides of this issue. Organizations hands are tied by one law and I'm starting to wonder when our rights as citizens matter. If you get back to the US constitution and the State of Alaska constitution and build the airport around that instead of laws created after that we'd probably have an airport already. I think it's important to hear what the community wants and serving on the Tribal council we passed a motion to have Mayor Kookesh put it on the ballot and let the community decide. But I've always supported 3a cause that gives our community room to grow. Thank you for allowing me to be a part of the process.

[Sue Wilmot] Pausing hearing. Let's go on break.

[Leslie Grey] Whenever you are ready, we're recording, we're opening the hearing again. State your name

I think almost everybody in here knows me, I'm Frank W. Sharp. I'm one of the Nelson family. My grandmother was married to a Nelson. So anyway. I'm real passionate about this issue. And Joe here, my friend, has told me that I was afraid they were going to select over on the Favorite Bay side. I don't favor that because if you remember our elders when we had the last native claims settlement act. WE first selected here and then decided to move off island because we want to have our subsistence way of life. And that area over there across Favorite Bay, whatever you call it the number, is it 3a? That's one of our favorite subsistence places for deer and just about everything there is there. And that to me our elders would turn over in their grave if they knew we were gonna mess it up. When it's rough out front, where do we go? We go inside so we can get deer and all the things up there. So I've always favored 12a since this progress. Which is, would affect me more than anybody in town. I live right on the beach below the high school and 12a is just down the beach and the air traffic coming across would affect noise. Would be more. So I know they probably would approach there. Anyway. I had all kinds I was gonna say. I oppose the 3a because of our lifestyle. And I think our elders, like I said, would turn over in their graves if they knew. I hunt over there now. And there's flags all over where they surveyed. I'm doubtful that an airport will ever be built here because I don't know if everyone knows it but the federal gov't is about over two hundred trillion dollars in the hole right now. Eighteen trillion on regular debt and then about a hundred and fifty six million trillion on social security and Medicare. So I don't know that the federal govt. I was president of Kootznoowoo in 1986-1990. I've always favored. I'm sorry this is kind of off. I'm a little nervous, I haven't done this in a while. But anyway, I actually favored a strip rather than an airport. Joe and Maxine worked up in Barrow and all the villages up there have strips. And I would prefer if it was me that we build a strip on Kootznoowoo land. The reason for that is that if you have a state airport any one can land there. You can't stop people from landing there. And that again affects our subsistence lifestyle because when I was president of Kootznoowoo we had a survey and over 200 private pilots signed the thing saying they would use Angoon for hunting and fishing if there was an airport here. If it was on a strip, you can control a privately owned property you can control who lands there and who doesn't land there. And I'm 83 years old now, I've had a massive heart attack. In 2012 I only have 35-50 percent of my heart function I think I'm going to be going on a new adventure here pretty soon as you know I'm pretty adventurous. Walking around in the woods in the freezing cold for three days, sinking in the Gulf of Alaska, bear attacks and everything like that. I'm old. I'm not going to be around long. But I have a real concern for this place, not only the airport, but for the city and for Kootznoowoo because we have no economy here. I remember about 60 years ago, congress, over 200 congressmen said Alaska don't do what we did and pave it and everything. Keep it wild and in the end it will be more valuable than all of those things. I believe that today. Since I got a chance here, I really think we're sitting on a gold mine and we're not using it. And that is our wildness. We're in the wilderness we are on the Admiralty Island national monument and people are just dying to see those kinds of things. And on our section of Admiralty, we didn't log. As you know Hoonah, Kake, Klawok, everybody logged right down to the village. From the cove south, it's just like it was a million years ago. It's wild. And I believe that with proper leadership we could be making a fortune and the people not taking anything. We have fish lodges now, two fish lodges, but what kind of income do they really bring to Angoon. They take, they take the fish but what money do they spend here. I think that our wilderness, and I told Peter Naroz this at the last annual meeting, he was CEO of Kootznoowoo, that you know where the value is? Is right here in Angoon for Kootznoowoo because of our wilderness. I know

there's a lot of permits. I have an idea to sell silence. And when anyone says "you sold silence?" they want to know what it means. And I have an idea that you have no noise what so ever. No machines, any kind of noise. I even have the area picked out. My grandfather was a Canadian from New Brunswick and he came for mining. Didn't do well in mining and he ended up on Killisnoo. It used to be 1500 population there. It burnt down in I believe 1922, but anyway, I lost my train of thought there. But anyway. What it is is you wouldn't have any machinery what so ever that made a noise, my grandfather, that's what I was talking about! My grandfather had a ranch, it's known as Knudsen's ranch but it's actually Sharps ranch. Knudson never really owned it. I have all the history on it. My dad and the whole family, brothers and sisters were all born on the ranch when my grandfather had. Kootznoowoo has right now and this has nothing to do with the airport, sorry! I got an opportunity to talk to people. Kootznoowoo still has 70 acres to select right now under ANCSA. And the ranch is 58 acres and is the prettiest beach anywhere in this whole area. I'd say there's potential for a small hydroelectric there too cause there's a water fall that runs down on the hill behind. And I think if we really looked into this, and I realize it takes time. We don't have the infrastructure here for people to stay and all this sort of thing but anyway I'm glad to see that 12a is now a choice cause I think logically and that's the way I've operated all my life is I don't have an education, I only have a GED. I've traveled in 30 states. I was in Europe for 4 years in the air force. But education wise I'm not that smart. But I think I'm the Socrates of Angoon anyway. And the poet laureate which I'm gonna do one more time before I go. We have no economy here what so ever. I counted up and we have about 40 jobs in Angoon for the whole community. We are dying. When limited entry came in and IFQ for halibut and everything it killed all the villages in southeast basically. For fishing. So we have nothing. We weren't big takers of the resource we all had 19 foot skiffs we pulled by hand some guys had little motors. But when you lived here you didn't really look like white people do, 30 years down the line what's going to happen, it was right now, and through that winter and then next spring do this and it was always a continually thing. You only made a little money but it was enough and then what they used to ask me was what did you do in the winter time? I said I went home and made babies. It was a really relaxing thing. You didn't have to do a thing. So anyways. I don't figure I have much longer here. I'm looking forward to the adventure to find out what's on the other side. So I'm not afraid of that but I appreciate you coming here, listening, especially to this old guy. And thank you.

[Wilmot] Is there anyone else that wants to make comments?

[Sharp] I wanted to do a poem when we are through

[Wilmot] if no more comments, you can do your poem. Any further comments?

It's important to have an airport here in Angoon. My name is Randy Gambel for the record. I've lived here my entire life and it's difficult to know that you can't get someone out of town when it's necessary. I know there's been several times when we try to get Elder's out and we couldn't. So with an airport that would make a big difference. You know. If it's life and death. Sometimes coast guard won't come cause their main mission is search and rescue. Getting helicopters out here is sometimes it doesn't happen. So I think with an airport it gives us a broader section to get our, whatever you want to call it, to help this community out. It would benefit this community greatly. I oppose 12a. I would still go with 3a that what the majority of us want. I'm a council member here in Angoon, I'm also on the fire department/EMS/search and rescue. I'm pretty involved in this community. So I think I speak for those that can't speak. That can't be here today. Wanted the airport put in as soon as possible instead of 10

years down the road. Our economy is not that great like Frank said I know that the federal government doesn't have that much money I think the sooner the better. Thank you.

My name is Donald Frank, I work for the Forest Service as a Tribal relations specialist. Tribal liaison. I support the idea of an airport in Angoon. It was 2003 I believe it was we worked at the city office with several leaders in the community involved in what goes on here in Angoon. We went through a process and we took all the things into considerations. Alternatives that you have posted up. Which one would meet the least amount of resistance. Which one we felt was doable. And some people are speaking against 3a but at the time when we finished we thought that would be the best alternative site. But now listening to some of the comments, I really support the building of an airport here. I like the comment Frank made about the airstrip. I was born in Metlakatla. Which has the largest airstrip in the state today. And it's still strong. It's still usable. It's a lot less cost to build it. Now today I'm kind of confused as to where we are going with this because I feel like we're starting a process that began long ago. And we're still talking about it. One more comment. I support the alternative that guarantees we begin work tomorrow.

[Sue Wilmot] anyone else? We can put it back on pause see if...

[Leslie Grey] We're here until 7:00. If people trickle in we can do the same thing again.

Pause in transcription

[Leslie Grey] The Angoon airport EIS hearing is closed. It's 7 PM on March 5<sup>th</sup>.

### **Frank Sharp Poem**

We each live in different little worlds

Filled with problems all our own

If each little world would take the time, to understand his fellow man

We'd be fine

When the road of life is full of woe

And there seems no place to go

If each little world would extend a hand,

We'd be fine

The creed of man should always be

Love thy neighbor tenderly

If each little world would obey that command

We'd be fine

So starting here with you and me

Let's form a friendly family tree

One with arms all entwined

And love one another all the time.

- Frank Sharp

## Angoon Airport Hearing

Washington D.C.

We're going to go ahead and get this hearing started. Hello my name is Leslie Grey I'm with the Department of Transportation Federal Aviation Administration. I'd like to welcome everybody here today and open the public hearing at 2:30 on March 10, 2015 for comments on the Angoon Airport project Draft Environmental Impact Statement, including the Alaska National Interest Lands Conservation Act (ANILCA) Title XI process, 810 Evaluation, and Department of Transportation Section 4(f) Evaluation. The draft Environmental Impact Statement has been prepared pursuant to applicable laws and regulations for the proposed land-based airport near Angoon, Alaska. The official comment period closes on March 11, however, because the public hearings are scheduled later in the comment period and per FAA Order 5050.4b, the FAA will accept comments through March 20, 2015. Comments can be submitted verbally to the FAA during this meeting. And other options for commenting include mailing, emailing, or faxing your comments. There are comment submission forms on the table and they contain information on how to submit comments.

The FAA is the lead federal agency responsible for preparation of the Draft Environmental Impact Statement. Cooperating Agencies assisting the Federal Aviation Administration, include – U.S. Forest Service, and the U.S. Army Corps of Engineers.

The proposed project is a land based airport in Angoon, Alaska. The airport would accommodate small, wheeled aircraft and would include a single 3,300 foot long and 75 foot wide paved runway, with future expansion to 4,000 feet. A new access road for the airport would be need to be constructed.

The FAA has identified five alternatives, including the State of Alaska Department of Transportation proposed action that would meet the purpose and need. The FAA has identified Airport 12a with Access 12a as our preferred alternative. The Alaska DOT&PF has submitted a Title XI ANILCA application (Public Law 96-487) for their proposed action, Airport 3a with Access 2.

So we have provided a handout for you to take with you that includes frequently asked questions about the project as well as print outs of the posters we have hanging around the room. In addition there are CDs and draft available for those that still need a copy for review. They are located on the front table and there's a sign in sheet for public testimony. With that I'll hand it over to our hearing officer Amanda Childs.

My name is Amanda Childs, I'm with SWCA Environmental Consultants. I will be serving as the hearing officer for today. Individuals wanting to make public comments are welcome to do so now. The FAA will not be responding to comments or questions during this hearing. We'll collect comments and provide them in the public record. After the close of the comment period, the FAA will prepare responses to comments received and those will be included in the Final EIS.

We will call individuals that indicated that they would like to provide comments in the order signed in. We originally had 3-5 minutes each for comments but we only have two people signed up so feel free to take 6 minutes if you want. Other than that, when you stand up please direct your comments to Leslie, state your name as you begin. And as a reminder, please silence your cell phones. We'll start with Kevin.

Thank you very much my name is Kevin Proescholdt, I'm the conservation director for wilderness watch. Wilderness watch is a national nonprofit wilderness conservation organization with offices in Moscow, Idaho, Missoula, Montana and Minneapolis. I appreciate the chance to come today and speak to the about the Angoon airport DEIS. Our primary concern in this process is the protection of this fabled wilderness area that lies on the outskirts of Angoon. We believe that the wilderness is really a world class resource as an intact wilderness. As you know it is the home of the highest density of brown bears in the United States. The island itself stretches about a hundred miles, from north to south. Huge massive Sitka spruce forest and western hemlock dominate the forest. It is an incredible area and we believe that area needs to be protected as an intact wilderness in this whole process. Our organization either the preferred alternative airport 12a with access 12a or the no action alternative because we believe that those are the two alternatives that protect the wilderness. We understand Title XI process under ANILCA and that can under certain circumstances allow for the placement of an airport within the boundaries of the designated wilderness. But we believe the 8 decision criteria that are part of Title XI process speak loudly to having an alternative chosen that does not site an airport within the wilderness boundaries. As I mentioned, we submitted written comment with more detail. Wilderness Watch support either their preferred alternative, alternative 12E with access 12E or the no action alternative. As the only two that will protect this fabulous world class resource. Thank you very much and I appreciate the chance to come and speak today.

Thank you for the opportunity. My name is Verne Skageberg I'm an aviation planner with the Alaska Department of Transportation and Facilities, South Coast region. The State of Alaska has undertaken this project, the construction of an airport to serve the people of Angoon- which is the largest community in the state that has no access to a runway- in order to ensure their basic transportation needs are met. These include access to emergency and routine medical care, efficient transportation of goods to and from the community, and passenger service for cultural, recreational, and sundry purposes. The airport will also provide a significant improvement to the aviation system in the region and much improved access to Admiralty Island National Monument. Our proposed action, which is located within the Kootznoowoo Wilderness, was determined after an extensive planning process that included a thorough and detailed reconnaissance study and the development of an airport master plan. We remain convinced after additional analysis conducted by the FAA that the airport site we have proposed is the best location aeronautically. We do agree that the site which the FAA has preliminarily identified as its preferred alternative is aeronautically acceptable, though somewhat less advantageous than what we have proposed. However, there are other compelling reasons for our reluctance to alter our proposed action and, hence, our filing of an application in accordance with the provisions of ANILCA Title XI. With the designation of over 100 million acres of conservation system units and other conservation designations across the State of Alaska in 1980 under the Alaska National Interest Lands Conservation Act ( or ANILCA), Congress' express intent in Title XI was to provide a single overarching process for consideration of transportation and utility systems in or across CSUs, including designated Wilderness. The law makes it clear that the Title XI process is to be fully completed before any other actions or determinations are made. The inclusion of eight specific criteria, which federal agencies must consider and make detailed findings supported by substantial evidence is an indication that Congress intended for federal agencies to not just rely on their own authorities but to more broadly consider the needs of Alaska and its people when evaluating proposed transportation and utility projects. The fact that Congress applied the process to designated Wilderness indicates that Congress also recognized the constraints the Wilderness Act places on the discretionary authority of federal agencies, and despite

those constraints, ensured those projects would receive consideration by the President and Congress. The Draft EIS that was published on January 9 and is appended to our Title XI application has from the outset been intended to provide the information necessary to facilitate the agencies' review and development of preliminary recommendations as required under the law. While the DEIS includes certain determinations concerning the Section 4(f) status of the proposed action and preferred alternative, those determinations remain the subject of debate from our perspective but, in any event, have no preempting effect regarding the outcome of the Title XI process (Sec. 1104 (a)). Our assertion that Section 4(f) is not deterministic at this point in the process notwithstanding, it is our view that our proposed action is not precluded by that law even within the context of a conventional NEPA analysis. We say this because we find the analysis contained in the DEIS to be unconvincing in its dismissal of Section 4(f) implications regarding the FAA's preferred alternative. In short, we believe both alternatives to have 4(f) impacts and, therefore, that the circumstances require an analysis that weighs the relative merits and impacts of each. We also believe the DEIS to be incomplete with regard to the preliminary consideration of factors required by ANILCA. More specifically, Section 1104 (g)(2)(C) requires agencies consider whether there exists a feasible and prudent alternative to building on a CSU. The draft does identify the preferred alternative as being feasible-- a finding that we do not dispute-- but it does not address prudence. There are a number of considerations that, when taken in their cumulative effect, lead us to the conclusion that the preferred alternative is arguably imprudent. This must be resolved before the Title XI process is complete. For all of these reasons, we believe that our proposed action remains a viable solution to Angoon's aviation needs, and we anticipate that it may well be identified as the preferred action in the final analysis. Additionally, our determination to stay the course in that regard rests to a large extent on the fact that what we have proposed was developed through a lengthy process that included a great deal of Angoon's involvement. The community provided us with official concurrence in the form of supporting resolutions for the decisions made throughout the planning effort. It would not be appropriate for us to so significantly alter our proposed action without the community's input which we are just now receiving. With the resolution of the issues we have outlined, and with the explicit concurrence of the people of Angoon, we may find the FAA's alternative to be a satisfactory answer to the needs of the community. However, until we have completed the ANILCA process we are not prepared to make that determination. Thank you and I have provided written comments as well.

That's all we have on the sign-up sheet. Unless we have anyone else. We will go on pause until anyone comes. We will be here until 5.

The hearing has ended. It is 5:00.

**From:** [Amanda Childs](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** FW: Angoon Airport Draft EIS Comments  
**Date:** Friday, March 20, 2015 3:15:43 PM  
**Attachments:** [DEIS Comment letter.pdf](#)

---

-Amanda

---

**From:** Skagerberg, Verne R (DOT) [mailto:verne.skagerberg@alaska.gov]  
**Sent:** Friday, March 20, 2015 3:12 PM  
**To:** Skagerberg, Verne R (DOT)  
**Subject:** Angoon Airport Draft EIS Comments

The attached letter provides the DOT&PF comments to FAA concerning the draft EIS for the Angoon Airport project. Please contact me if you have any questions.

Regards,  
Verne

*Verne R. Skagerberg, MPA  
Airport Planner  
AK DOT&PF, Southcoast Region  
PO Box 112506  
Juneau, AK 99811-2506  
(907) 465-4477*

**From:** [Amanda Childs](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Subject:** FW: Angoon Airport DEIS  
**Date:** Friday, March 20, 2015 3:43:35 PM  
**Attachments:** [15\\_03\\_20\\_Angoon\\_Airport\\_DEIS\\_SOA.pdf](#)

---

-Amanda

---

**From:** Leslie.Grey@faa.gov [mailto:Leslie.Grey@faa.gov]  
**Sent:** Friday, March 20, 2015 3:32 PM  
**To:** Amanda Childs  
**Subject:** FW: Angoon Airport DEIS

**From:** Magee, Susan E (DNR) [susan.magee@alaska.gov]  
**Sent:** Friday, March 20, 2015 2:04 PM  
**To:** Grey, Leslie (FAA)

**Cc:** [bpendleton@fs.fed.us](mailto:bpendleton@fs.fed.us); [linda.speerstra@usace.army.mil](mailto:linda.speerstra@usace.army.mil); [rob.campbell@alaska.gov](mailto:rob.campbell@alaska.gov); Knudson, Kip C (GOV); [verne.skagerberg@alaska.gov](mailto:verne.skagerberg@alaska.gov)  
**Subject:** Angoon Airport DEIS

Leslie,

Attached are the State's comments on the Angoon Airport DEIS, with the exception of comments

from ADOT&PF, which are being submitted separately. Please let me know if you have any questions.

Sue

*Sue Magee*

State ANILCA Program Coordinator  
Office of Project Management & Permitting  
(907) 269-7529  
[susan.magee@alaska.gov](mailto:susan.magee@alaska.gov)

**From:** [Jack Hession](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Comment on Angoon Airport EIS  
**Date:** Friday, March 20, 2015 4:18:03 PM

---

To whom it my concern:

I am a former resident of Alaska. During my years there, I visited every region of the State. In SE Alaska, I have twice crossed Admiralty Island on the Admiralty Canoe Route east to west, to the community of Angoon. On another occasion, I traveled to Angoon via scheduled float plane service.

I support an onshore airport for the community that would compliment the existing float plane dock in town.

Of the EIS alternatives, 12a, the in-town alternative, is obviously the one most consistent with the purposes for which Congress set aside the national monument and the Kootznoowoo Wilderness. Compared with alternatives 2 and 3, alternative 12a has the advantage of lower road construction and maintenance costs because it is within the community. Most importantly it would have no adverse effect on the adjoining wilderness area.

Alternatives 2 and 3 would be within the wilderness area, with alternative 3 having the worst impact on wilderness values due to its location near the network of channels and islands on the south side of Mitchell Bay that end in Favorite Bay. These channels and islands provide the best and for some paddlers the safest canoe/kayak approach to Angoon as opposed to the direct route through Mitchell Bay ( I have paddled both routes). Air traffic and airport operations of Alternative 3 would disrupt the solitude that is an integral part of the wilderness experience in this back channel route to Favorite Bay. Alternatives 2 and 3 roads looping around the southern end of Favorite Bay would also introduce noise into what is now an undisturbed and tranquil part of the Angoon community.

Finally, as the FAA's preferred alternative is 12a, that should settle the the airport location issue.

Thank you for considering my views.

Jack Hession

**From:** [Orr, Marilyn N -FS](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Cc:** [Birk, Roger -FS](#); [VanOrmer, Chad M -FS](#)  
**Subject:** Comments on the Angoon Airport Draft EIS  
**Date:** Friday, March 20, 2015 4:28:13 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[Angoon Airport DEIS Letter 1 Signature.docm](#)  
[fs\\_angoon\\_airport\\_deis\\_comments\\_3\\_19\\_15.docx](#)

---

Attached please find the cover letter from Beth Pendleton, Regional Forester of the Alaska Region, and the enclosure for that letter.



**Marilyn Orr**  
**Administrative Support Assistant**

**Forest Service**  
**Region 10 Regional Office, Recreation, Lands, and Minerals,**  
**Ecosystem Planning and Budget, and Information Management**

p: 907-586-7893  
f: 907-586-7866

[marilynorr@fs.fed.us](mailto:marilynorr@fs.fed.us)

709 West 9th Street, Room 535B  
P. O. Box 21628  
Juneau, AK 99802

[www.fs.fed.us](http://www.fs.fed.us)



**Caring for the land and serving people**

**From:** [Buck Lindekugel](#)  
**To:** [leslie.grey@faa.gov](mailto:leslie.grey@faa.gov); [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** SEACC comments on DEIS  
**Date:** Friday, March 20, 2015 5:30:18 PM  
**Attachments:** [SEACC on Angoon Airport DEIS 3\\_20\\_15.pdf](#)

---

Howdy Leslie! Please accept these comments on the Angoon Airport DEIS. Thank you.

--

Buck Lindekugel  
Grassroots Attorney  
[Southeast Alaska Conservation Council](#)  
224 Gold Street  
Juneau, AK 99801

[buck@seacc.org](mailto:buck@seacc.org)

Become a member of SEACC today -- [www.seacc.org](http://www.seacc.org)

phone: (907) 586-6942 \*23

fax: (907) 463-3312

cell: (907) 957-9940

**CONFIDENTIAL & PRIVILEGED**

This message is sent by a legal department and may contain information that is privileged and confidential. This transmission is protected by the Electronic Communications Privacy Act, 18 U.S.C. Sections 2510-2521 and intended to be delivered only to the named addressee(s) and the information contained in this email is intended only for the personal and confidential use of the recipient(s) named above. If you have received this email in error you are hereby notified that any dissemination, distribution, or copying of this email or any of its attachments are strictly prohibited. Please immediately notify the sender of any such error in transmission by sending a reply email. Please also delete the email message or any attachments.

**From:** [Irene Alexakos](#)  
**To:** [comments@angoonairports.com](mailto:comments@angoonairports.com)  
**Date:** Friday, March 20, 2015 8:32:26 PM

---

As an Alaska who has been to Angoon many times, who has paddled the waters & walked the forests on Admiralty Island, I support the town airport site: Alternative 12a

This site is the only one that makes sense. It would cost taxpayers the least AND uphold the natural & cultural integrity of Admiralty Island.

Irene Alexakos  
Box 727  
Haines, AK 99827

**From:** [Amanda Childs](#)  
**To:** [comments@angoonairporteis.com](mailto:comments@angoonairporteis.com)  
**Subject:** Fwd: Angoon Airport DEIS USACE Comments (UNCLASSIFIED)  
**Date:** Tuesday, March 24, 2015 6:14:56 PM  
**Attachments:** [USACE DEIS Comments.pdf](#)  
[ATT00001.htm](#)

---

Amanda

Begin forwarded message:

**From:** "Vigil, Randal P POA" <[Randal.P.Vigil@usace.army.mil](mailto:Randal.P.Vigil@usace.army.mil)>  
**Date:** March 24, 2015 at 5:21:06 PM PDT  
**To:** "[Leslie.Grey@faa.gov](mailto:Leslie.Grey@faa.gov)" <[Leslie.Grey@faa.gov](mailto:Leslie.Grey@faa.gov)>  
**Cc:** "[achilds@swca.com](mailto:achilds@swca.com)" <[achilds@swca.com](mailto:achilds@swca.com)>, "Vigil, Randal P POA" <[Randal.P.Vigil@usace.army.mil](mailto:Randal.P.Vigil@usace.army.mil)>  
**Subject:** Angoon Airport DEIS USACE Comments (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hi Leslie,

Here are our comment on the DEIS. Please contact me directly by email at [randal.p.vigil@usace.army.mil](mailto:randal.p.vigil@usace.army.mil) or by phone at (907) 790-4491 for any questions.

Randy

Classification: UNCLASSIFIED

Caveats: NONE