# ANGOON AIRPORT

Wetland Delineation Report

#### **Prepared for**

August 2019

Alaska Department of Transportation & Public Facilities 6860 Glacier Hwy. P.O. Box 112506 Juneau, AK 99811-2506





### **Table of Contents**

A. LANDS	CAPE SETTING AND LAND USE 1
B. BACKG	ROUND
C. ALTERA	ATIONS INFLUENCING WATER RESOURCES 3
D. PRECIP	ITATION ANALYSIS 4
А. <b>R</b> В. Fi	DS
	ATED WATER RESOURCES
	2. Bog Woodland10
	3. Fen
	4. Salt Marsh 12
В.	Other Waters
	2. INTERTIDAL AREA14
С.	UPLANDS14
G. CONCL	USIONS15
H. DISCLA	IMER 18

- Appendix A: Maps
- Appendix B: Precipitation Analysis Data
- Appendix C: Wetland Determination Data Forms
- Appendix D: Ground Level Color Photographs
- Appendix E: Literature Cited
- List of Maps in Appendix A:

Figure 1	Location Map
Figure 2	Tax Lot Map
Figure 3	Survey Area Map
Figure 4	Topographic Map
Figure 5	National Wetlands Inventory Map
Figure 6	Water Resources Delineation Map

# A. LANDSCAPE SETTING AND LAND USE

The survey area is located within the city limits of Angoon, on Admiralty Island, in the Hoonah-Angoon Borough of Southeast Alaska (Appendix A, Figure 1). This site is on the western side of Admiralty Island, immediately north of Killisnoo Harbor (located adjacent to and outside the survey area) and southeast of Chatham Strait. Aukta Street, a maintained gravel road, forms the northeast boundary of the survey area, while Killisnoo Road forms the northwest boundary. The southern boundary is formed by a seemingly arbitrary line drawn from Aukta Street to the coast, and is located approximately two miles south of the junction of the two roads. The total survey area analyzed in this delineation report is 529 acres in size. Parcel ownership in the survey area includes private individuals, the City of Angoon, and Kootznoowoo, Inc. lands (Appendix A, Figure 2).

Land use in the survey area is primarily undeveloped natural forest with discrete areas of resource extraction and housing that are sporadically located around the perimeter. Human alterations and disturbance in and adjacent to the survey area include the presences of existing roads along the north and eastern borders, along with their associated maintenance activities; the existing Angoon City Dump, located just outside of the northeast corner, and its operations; and two recently expanded rock quarries – one along Killisnoo Road and the other along Aukta Street (Appendix A, Figure 3). Within each of these areas, vegetation, soil, and hydrology have all been substantially altered, causing the hydrology in adjacent areas to also become altered to some degree. The City Dump and two rock quarries ranged in size from 3 to 5 acres at the time of the 2018 survey. Stormwater from each of these altered features moves directly into the adjoining portion of the survey area, and may affect hydrology those areas. A few recreational cabins are located along the coast in the southwest-central portion of the survey area, and are situated in upland areas.

Outside of the survey area, land use is also mostly undeveloped natural forest with human-altered lands present in discrete locations. The City of Angoon is located approximately 1.5 miles to the north of the survey area, and the City's water reservoir, treatment plant, and pumping station are located approximately one mile southeast of the survey area, at the end of Aukta Street. The Angoon Ferry Terminal is located to the west of the survey area, at the end of Killisnoo Road. Low density development is present along both roads.

Although selective harvesting of trees has occurred in the survey area, logging does not appear to have altered the extent of wetlands or other water resources currently present. Anecdotal evidence and observations of spring-board notches indicate historical timber harvest occurred in the area, but no records have been identified that confirm the level of that harvest (Johnson 2013; SWCA 2012). The few trees that were observed being felled for firewood during the 2017 and 2018 surveys, were centuries old, according to growth rings, suggesting that if logging did occur, it was likely low-density and not widespread.

The topography of the survey area is diverse, with the western edge being formed by the coastline; areas of large, flat peat bogs are found throughout; and incised stream drainages and steep slopes leading up to small promontories are also present (Appendix A, Figure 4). Elevation rages from sea-level to a height of 212.8 feet Mean Sea-Level (msl). The average elevation of the survey area is 203.5 feet msl. In general, the survey area slopes downward from the northern end to the

southern end, and also from the eastern edge to the west (coast line), although microtopographic relief is varied throughout. Hydrology drains to the west and towards the coast.

The National Wetland Inventory (NWI) has mapped a mosaic of palustrine, emergent, and estuarine wetlands that cover the majority (408.1 acres) of the survey area (Appendix A, Figure 5) (USFWS 2018). The three wetland types specifically identified by NWI include: Freshwater Emergent Wetland (PSS4/EM1B), Freshwater Forested/Shrub Wetland (PFO4B), and Estuarine and Marine Wetland (E2AB1/USN) (Cowardin et al. 1979). At the time of this reporting, a soil survey map had not been developed for the survey area.

# **B. BACKGROUND**

Environmental Science Associates (ESA) was contracted by Alaska Department of Transportation & Public Facilities (ADOT&PF) to delineate wetlands and waters in support of permitting for the proposed land-based Angoon Airport (Airport). The purpose of this report is to describe the extent of likely jurisdictional wetlands and waters in and surrounding the proposed Airport footprint in order to later determine project impacts. The survey area encompasses the limits of disturbance expected for proposed construction activity surrounding the proposed Airport. This area has evolved through time and as a result of refinement in understanding of the site and constraints it presents the design. The development history of the current survey area is described below, as it pertains to this water resource delineation.

In September 2016, a final Environmental Impact Statement (FEIS) for the proposed Angoon Airport was prepared in accordance with the National Environmental Policy Act. At the completion of the FEIS, federal agencies documented a Record of Decision (ROD) and selected the alternative called; "Airport 12a with Access 12a" (FAA 2016), referred to in this report as "Airport 12a". In 2014, in support of the EIS process, wetlands and waters were delineated within the Airport 12a footprint to inform decision-making for assessing alternatives (SWCA 2014) (Appendix A, Figure 6). The U.S. Army Corps of Engineers (USACE) issued concurrence on the 2014 delineation on August 4, 2014 (POA 2009-1254), in which they took jurisdiction over 128.43 acres of wetlands and 1.31 acres of waters of the U.S. Because in 2014, the Airport 12a survey area was based on a preliminary design, ADOT&PF recognized the need for more refined water resource surveys to support permitting, once project design had advanced. In 2017, ADOT&PF commissioned an additional water resource delineation that surveyed the area surrounding what had been surveyed in 2014 (Appendix A, Figure 6). ESA performed the delineation of this area in 2017.

As of January 2017, the initial environmental analysis supporting the Airport project had advanced to the design phase and was formally presented in a *Scoping Report* developed for the project (ADOT&PF 2018). As part of this phase, ADOT&PF refined the Airport 12a alignment based on new detailed geotechnical information. The alignment that ADOT&PF selected to move forward with, "Echo", extends partially outside and to the north of the already delineated area. ADOT&PF commissioned an additional water resource delineation that surveyed the area to the north of what had been surveyed in 2014 and 2017, in order to account for the entire area that maybe effected by construction of Echo (Appendix A, Figure 6). ESA performed this survey in 2018.

The survey area assessed by this water resource delineation report includes all three survey areas identified above (i.e., 2014, 2017, and 2018). Consolidating the survey areas into a single report is intended to streamline the jurisdictional determination review process, as well as the subsequent permitting process. Despite the 2014 survey having received a jurisdictional determination, including its survey area in this analysis is also intended to reaffirm its findings prior to its expiration. The approach used for verifying the current accuracy of the 2014 findings, and for combining the three delineations, is described in the following sections.

## C.ALTERATIONS INFLUENCING WATER RESOURCES

The majority of survey area is undeveloped and consists of a matrix of undisturbed, mature bog forests and bog woodlands, and forested uplands. Site alterations that have affected the presence, location, or geographic boundaries of wetlands or other waters in the survey area include the following:

- Aukta Street, a maintained two-lane gravel road, defines the eastern boundary of the survey area. It is bordered on its west side (i.e.; the side of the road along the survey area) by electrical transmission lines and their corresponding, approximately 50-foot-wide utility right-of-way. The right-of-way is characterized by soils that have been disturbed and consists of compacted gravel fill overlying native soils. Vegetation in this area is disturbed and managed to maintain low growth. In some areas, a roadside drainage ditch is also present. As there are delineated wetlands that abut the survey area boundary formed by Aukta Street, the road and utility right-of-way have likely reduced the size of wetlands in this area. This road also provides the best access point for the reminder of the survey area, facilitating human access to cabins and harvesting firewood.
- **Killisnoo Road** is similar to Aukta Street in the type of alterations it has caused within the survey area. Killisnoo Road is a two-lane, paved road connecting the Angoon Ferry Terminal with the City of Angoon. It forms the northern boundary of the survey area. Some natural drainage features have been interrupted by its road prism, because of the relatively great topographic relief found in this portion of the survey area. At least one of these drainages has a culvert that collects hydrology from outside of the survey area, and shunts it into the survey area. A broad roadside drainage system spans along Killisnoo Road, along the survey area, and collects storm runoff from the road, the City Dump, and from some portions of the rock quarry located along the road. This hydrology drains directly into the survey area. The road itself, likely has displaced wetland, and the hydrology it concentrates likely increases stream flows and channelization, which increases drainage and further decreases the presences of wetland.
- The Angoon City Dump (located adjacent to the survey area, but not within it) and the two rock quarries (one located along Aukta Street and the other along Killisnoo Road) are each relatively large disturbance sites that act as catchments for stormwater, concentrating and sheeting surface hydrology to surrounding wetlands within the survey area. Each of these features ranges in size from 3 to 5 acres, and are characterized by extensive soil compaction and hardpan or bedrock exposed at the substrate surface, substantially increasing ponding of precipitation and runoff. Each of these features readily contributes sediment and/or contaminants to the increased stormflows, distributing them

into adjoining areas. These features likely have displaced wetland located within their footprints.

• A dirt all-terrain vehicle (ATV) trail, providing access to cabins located along the coast, extends northeast-to-southwest through the southeastern portion of the survey area. Although the area of the ATV trail is substantially disturbed, it maintains strong wetland characteristics. Wetlands are present throughout the length of the ATV trail. A parking lot fill-pad is present where the ATV trail adjoins Aukta Street. The fill-pad, composed of a prism of compacted gravel fill material, likely displaced wetland in the survey area when it was constructed in the 1980's.

# **D. PRECIPITATION ANALYSIS**

The climate in the southeast region of Alaska is influenced primarily by wet North Pacific storms and receives the greatest precipitation in the State. At low elevations, winter precipitation falls as rain and snow, and lowlands are covered with temperate rain forest. Higher elevations receive primarily snow that nourishes glaciers that reach tidewater. Other seasons (spring, summer, fall) tend to also be wet, with precipitation falling mainly as rain. Angoon is considered one of the warmer and dryer locations in southeast Alaska, where it resides in a rain-shadow created by the outer Alexander Archipelago Islands. However, because weather stations are not located near Angoon, this claim cannot be verified.

Historic precipitation records and climate data were acquired from the Juneau International Airport WETS Station (USDA 2018a, 2018b) (Appendix B, Table 1), which is the nearest station providing usable data. It is located 54 miles to the north of the survey area and is in a generally comparable geographic position. Data from this station important for understanding the precipitation context of water resources in the survey area is discussed below:

- Annual Precipitation: Annual precipitation ranges between 54.9 and 66.4 inches, and averages 61.1 inches per-year.
- **Growing Season**: Based on this station record, which ranges from 1971 to 2018, the local growing season is from April 16 through October 16, at the 50 percent interval.

This report summarizes three field delineations that occurred at different times. Precipitation analysis of each is provided below, and is broken out by time interval:

Delineation 1: Field investigation occurred August 19 to 22, 2013; September 14 to 16, 2013

• **3 Months Prior to Delineation:** Recorded precipitation for this period (May, June, July) totaled 12.97 inches, which was 1.47 inches above average for that interval (Appendix B, Table 1). Precipitation for the month of May, three months prior to the delineation, was above average and above the normal range. Precipitation for June, two months prior to the delineation, was below average and within the normal range. Precipitation for July, the month prior to the delineation, was below average and within the normal range.

- 2 Weeks Prior to Delineation: Precipitation fell during the two weeks prior to the delineation, and totaled 2.40 inches (Appendix B, Table 2); however, 1.18 inches of that total fell in a single day (18 Aug). Most of the two-week period was relatively dry.
- **During the Delineation**: Precipitation fell during around half of the days of the delineation; however, the largest daily total only reached 0.17 inch. Precipitation that fell was sporadic and light (Appendix B, Table 2).
- **Conclusion**: The timing of the field survey coincided with a relatively normal summer, following a somewhat normal spring. Most precipitation that fell during the year was rain. The two weeks prior to the delineation were relatively dry, although the day prior to the start was wet. Little precipitation fell during the delineation. It is for these reasons that **precipitation is not likely to have caused abnormal hydrologic conditions** during the 2014 delineation

#### **Delineation 2:** Field investigation occurred June 15 to 21, 2017

- **3 Months Prior to Delineation:** Recorded precipitation for this period (March, April, May) totaled 11.59 inches, which was 1.66 inches above average for that interval (Appendix B, Table 1). Precipitation for the month of March, three months prior to the delineation, was above average and above the normal range. Precipitation for April, two months prior to the delineation, was below average and below the normal range. Precipitation for May, the month prior to the delineation, was above average and above the normal range.
- 2 Weeks Prior to Delineation: Precipitation fell during the two weeks prior to the delineation, however, it totaled less than a half-inch (Appendix B, Table 3).
- **During the Delineation**: Precipitation fell during all but one day of the delineation; however, only one of the daily totals surpassed one-half of an inch. Precipitation that fell the remaining days was sporadic and light (Appendix B, Table 3).
- **Conclusion**: Although the timing of the field survey coincided with a wet, late spring, precipitation for the season was within the normal range, as was the recorded precipitation for the water year. Most precipitation that fell during this period was rain. The two weeks prior to the delineation were relatively dry, and little precipitation fell during the delineation, despite it being a mostly daily occurrence. It is for these reasons that **precipitation is not likely to have caused abnormal hydrologic conditions** during the 2017 delineation.

Delineation 3: Field investigation occurred June 13 to 19, 2018

• **3 Months Prior to Delineation:** Recorded precipitation for this period (March, April, May) totaled 10.95 inches, which was 1.00 inch above average for that interval (Appendix B, Table 1). Precipitation for the month of March, three months prior to the delineation, was below average but within the normal range. Precipitation for April, two months prior to the delineation, was above average and within the normal range. Precipitation for May, the month prior to the delineation, was above average and above the normal range.

- 2 Weeks Prior to Delineation: Precipitation fell during the two weeks prior to the delineation, and totaled 1.77 inches (Appendix B, Table 4). Only one day received more than one-half inch of rain.
- **During the Delineation**: Precipitation fell during all but two days of the delineation; however, the largest daily total only reached 0.16 inch. Precipitation that fell was sporadic and light (Appendix B, Table 4).
- **Conclusion**: The timing of the field survey coincided with a relatively normal spring, following a somewhat dry winter. Most precipitation that fell during the year was rain. The two weeks prior to the delineation were relatively dry, and little precipitation fell during the delineation, despite it being a mostly daily occurrence. It is for these reasons that **precipitation is not likely to have caused abnormal hydrologic conditions** during the 2018 delineation.

## E. METHODS

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) (Regional Supplement) (USACE 2007) and the Corps of Engineers Wetlands Delineation Manual (USACE 1987). Wetlands in the survey area were classified using the U.S. Fish and Wildlife Service (USFWS) National Wetlands and Deepwater Habitats Classification System (Cowardin Classification) (Cowardin et al. 1979), as well as the Hydrogeomorphic method (HGM Classification) (Powell et al. 2003).

Two levels of investigation were conducted for the analysis of wetlands in the survey area: 1) a review of existing information, and 2) a formal on-site field delineation. Methods and resources used for each are discussed below.

### a. Review of Existing Information

A review of existing reports, literature, maps, and other materials was conducted to identify site characteristics indicative of water resources in the survey area. Because the site has been the focus of study for multiple years, several insightful resources were available and referenced. These includes but are not limited to the following:

- Angoon Airport Final Environmental Impact Statement (FAA 2016), including Appendix S: Angoon Airport Wetland and Waters Preliminary Jurisdiction Delineation (SWCA 2014)
- Angoon Airport Scooping Report (ADOT&PF 2018)
- *Memorandum: Alternative 12a Stream 10 Realignment Feasibility Study* (ESA 2016)
- Angoon Airport Reconnaissance Study (R&M Engineering, Inc. 2004)
- Angoon Airport Master Plan (ADOT&PF 2007)
- Topographic contour lines derived from ADOT&PF LiDAR, collected in 2017

- Available aerial imagery (Google Earth Pro 2018)
- National Wetland Inventory (USFW 2018)

### b. Field Delineation

As stated prior, this delineation report summarizes findings from 3 separate delineation efforts. Organizational details of each delineation are presented in the Table 1, below:

Delineation	Field Dates	Conducted by	Submitted Individually for Jurisdictional Review?
1	August 19 to 22, 2013; September 14 to 16, 2013	SWCA Environmental Consultants	Yes (SWCA 2014)
2	June 15 to 21, 2017	Environmental Science Associates (ESA)	No
3	June 13 to 19, 2018	Environmental Science Associates (ESA)	No

Table 1. Summary of Three Water Resource Delineations Composing this Report

Some methods from the 2014 delineation (SWCA 2014) were either unexplained or differed from those followed in 2017 and 2018, and are listed here. Plant indicator status was determined with the 2013 National Wetland Plant List for the Alaska Region (Lichvar 2013). 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 guidance (USDA-NRCS 2005, 2010). Despite these differences, findings from the 2014 delineation remain comparable to those from the subsequent delineations.

Prior to the on-site wetland and waterway delineations undertaken in 2017 and 2018, ESA staff reviewed all previous studies and actions related to the Angoon Airport, and used these to inform the delineation study design and expectations of the physical landscape.

The survey area was traversed by two field teams of two, who worked in tandem to observe and document vegetation, soils, and hydrology at select sampling locations. These locations included those shown by NWI to be wetland, and/or where there were potential indicators of wetland. If wetland conditions were documented, a paired upland plot was established in a nearby location suitable to facilitate the identification of the wetland boundary. Characteristics of the wetland boundary were carefully documented, including all diagnostic transitions in vegetation, soils, hydrology, and/or topography. All sample plots and boundaries were carefully mapped in the field using resource grade GPS units. These units were also used to collect field data and photograph important features. The spatial findings from the 2014 delineation were field verified in 2017 and 2018 and were found to be mostly accurate, and in need of only minimal updating. No supplemental data was collected for the 2014 survey area.

Vegetation was assessed, identified, and rated using various applicable sources, including: *Flora of Alaska and Neighboring Territories: A Manual of the Vascular Plants* (Hulten 1968), Alaska

*Trees and Shrubs; Second Edition* (Viereck and Little 2007), *Flora of the Pacific Northwest* (Hitchcock and Cronquist 1976), and *The National Wetland Plant List: 2016 Wetland Ratings* (Lichvar et.al. 2016). Test pits were dug to a minimum of 16 inches, and soil color was quantified using Munsell Soil Color Charts (Munsell 2009). Soil texture and hydrology were assessed using guidance provided by the Regional Supplement (USACE 2007).

ESA also identified and delineated the ordinary high water mark (OHWM) of streams in the survey area to determine the extent of potentially jurisdictional water, following guidance established by USACE (USACE 2005).

### c. Mapping Method

Spatial data (survey points and boundaries) were collected in the field during the 2017 and 2018 surveys using a Bad Elf GNSS Surveyor bluetooth receiver tethered to a tablet data collector. This data was collected at a mapping grade accuracy of sub-meter and was digitized in real-time into GIS shapefiles using ArcGIS version 10.4.1. Shapefiles were used to produce maps and identify spatial locations presented in this delineation report. All background layers, including the survey boundary, were georeferenced using NAD 1983 State Plane, Alaska Zone 1, FIPS5001 (U.S. feet). Background imagery was provided by ADOT&PF.

# F. DELINEATED WATER RESOURCES

A total of 56 sample plots were recorded to document wetland and upland site conditions observed in 2013 (SWCA 2014), 44 sample plots (P100 to P126 and P200 to P218) were established during the 2017 field season, and 37 sample plots (P300 to P319 and P400 to P418) were established during the 2018 delineation. Jurisdictional determination datasheets for the sample plots collected during the 2017 and 2018 delineations are included in Appendix C.

Findings from the three delineations resulted in 4 wetland types being identified in the survey area, and 2 types of other waters. Each type of wetland and other waters are summarized in Table 2, below, and are discussed further in this section.

A total of 50 separate wetlands were delineated in the survey area, and 9 separate other waters were delineated. All water resources delineated in the survey area are summarized in Table 3, presented in *Section G. Conclusions*, and are mapped and presented in Appendix A, Figure 6.

Wet Habitat*	Cowardin Class	HGM Class	Delineated Size in Survey Area
	Wetland Type		
Bog Forest	Palustrine, Forested, Needle-Leaved Evergreen, Saturated (PFO4B)	Slope Forest	159.1 acres
Bog Woodland	Palustrine, Forested, Broad-Leaved Deciduous, Saturated (PFO1B)	Slope Bog	131.5 acres
Fen	Palustrine, Emergent, Persistent, Permanently Flooded (PEM1H)	Slope Tidal	1.2 acres
Salt Marsh	Estuarine, Intertidal, Emergent, Persistent, Regularly Flooded (E2EM1N)	Estuarine Fringe Tidal	2.1 acres
Total			294.0 acres
	Other Water Type		
Stream	Riverine, Lower Perennial, Unconsolidated Bottom (R2UB)	NA	8,825.6 linear feet
Intertidal Area	Estuarine, Subtidal, Unconsolidated Bottom (Tidal Pond), Regularly Flooded (E1UB1N)	NA	26.9 acres

Table 2. Wetland and Other Water Types Delineated in the Survey Area

\*Water resource names used by the FEIS (FAA 2016)

### a. Wetlands

### 1. Bog Forest

Bog forest is the predominant wetland type within the survey area. This wetland type covers 159.1 acres of the survey area and has a Cowardin class of *Palustrine, Forested, Needle-Leaved Evergreen, Saturated* (PFO4B), and a HGM class of *Slope Forest*. Multiple individual polygons of bog forest were delineated in the survey area (Table 3). This wetland is characterized by multiple vegetation strata including a canopy layer and a subcanopy that includes woody shrubs and herbaceous species. The shrub layer is relatively dense in some areas and excludes herbaceous growth. Tall woody cover (>5 feet) is generally more extensive than cover of herbaceous species, and patches of dense skunk cabbage (*Lysichiton americanus* – OBL) and oval-leaf blueberry (*Vaccinium ovalifolium* – FAC) are a typical feature of this wetland type.

The majority of bog forest wetland found within the survey area is situated on gentle slopes with a southwest aspect. These wetlands are interspersed by a mosaic of depressions and upland hummocks, and are often bordered by convex upland formations. Despite the presence of variable microtopography, slopes tend to be relatively shallow and range from a grade of 3 to 10 percent.

The majority of the bog forest wetland sample plots met the Dominance Test for hydrophytic vegetation indicators (Appendix C). A few sample plots did not meet the Dominance Test or the Prevalence Index, however, but in all of these cases, Problematic Hydrophytic Vegetation conditions were documented because FAC species occupied hydric soils. Dominant trees and shrubs of bog forest include western hemlock (*Tsuga heterophylla* – FAC), Sitka spruce (*Picea stichensis* – FACU), oval-leaf blueberry, Alaska blueberry (*Vaccinium alaskaense* – FAC), false azalea (*Menziesia ferrunginea* – FACU), and Devil's club (*Oplopanax horridus* – FACU). Buttressed Sitka spruce were common where they grew within bog forest, where they most often were associated to wetland/upland transitions on hummocks. Dominant emergent vegetation throughout the wetland consists of skunk cabbage and western lady fern (*Athyrium cyclosorum* –

FAC). Dominant vegetation observed in the herbaceous layer of the wetland include bogbean (*Menyanthes trifoliata* – OBL), field horsetail (*Equisetum arvense* – FAC), and two-leaved Soloman's seal (Maianthemum dilatatum – FAC).

The main source of hydrology in bog forest is high groundwater, which is perched by a restrictive layer of glacial till located at a depth of two to three feet below the surface. Numerous intermittent groundwater seeps and pockets of standing water were present throughout, but were not mapped separately because of their close integration with the wetland.

Most soils observed in bog forest consisted of saturated organic material and met the Histosol (A1) hydric soil indicator. Texture of the organic material varied throughout the soil profiles and included coarse or more fibric organics, mucky peat, and muck (dominated by sapric rather than fibric soil material). A few of the sample plots met the depth requirement (>16 inches) for a Histosol, but were not saturated for the entire profile during the field visit (Appendix C, sample plots 101 and 208). For these plots, the "Other" category was selected based on the expectation that the top 16 inches would be saturated earlier in the growing season. Two of the plots met the Histic Epipedon hydric soil indicator (sample plots 119 and 122). Hydrogen sulfide was the primary hydric soil indicator for sample plot 113 and was also detected at sample plot 122.

The transitions between wetlands and uplands were challenging to identify in certain portions of the survey area because upland hummocks were a common feature within these wetlands, and the seep-fed hydrology facilitates wetlands to span down slopes. In the northwest and northeast, slopes are steep and changes in topography are more distinct. The changes in landform along these wetland edges, such as near sample plot 202 and 208, generally coincide with a change in vegetation from hydrophytic-dominated understory in wetlands to a non-hydrophytic-dominated understory in uplands. In hilly patches of the east, southeast, and southwest portions of the survey area, such as near sample plots 123 and 112, several upslope groundwater seeps result in less correlation between topography and the hydrophytic-dominated understory. Near sample plot 124, in the west portion of the survey area, which leads into the coastal shoreline, wetland edges more closely coincide with the contours of the coastal drainages.

Bog forest wetland has received the most degradation from human use relative to the other wetlands delineated in the survey area. This is primarily due to it having the largest trees nearest to clearings (i.e.; bog woodland) of all wetland types. The trees are felled for firewood, and the adjacent clearing allows for relatively easy access. Firewood trees and pack-trails are typically located near the roads bordering the survey area, allowing ready access to vehicles. Bog forest also interfaces with the roads, City Landfill, and rock quarry along Killisnoo Road, and has been substantially altered in these areas. Four delineated wetlands have been altered by human activities in these areas; Wetlands B, J, L, and M.

Example photos of bog forest wetland are presented in Appendix D, and include Photos 6, 9, 10, 11, 12, 14, 25, and 30.

### 2. Bog Woodland

Bog woodland is the second wetland type observed, totaling 131.5 acres of the survey area. Bog woodland in the survey area has a Cowardin class of *Palustrine, Forested, Broad-Leaved Deciduous, Saturated* (PFO1B), and a HGM class of *Slope Bog*. Multiple individual polygons of

bog woodland were delineated in the survey area and are summarized in Table 3. Example sample plots for bog woodland include 56, 203, 205, and 214 (Appendix C).

Bog woodland in the survey area hosts extensive bryophyte cover (i.e., peat), which composes the dominant vegetative feature. This wetland type is distinguished from bog forest, in which it is often surrounded, by having less than 5 percent tree cover and less than 30 percent shrub cover, and having vegetation dominated by woody plants less than 20 feet tall. The most common plant species observed include Labrador tea (*Rhododendron groenlandicum* – FAC) and crowberry (*Empetrum nigrum* – FAC) (Appendix C). Other typical but less common species include cloudberry (*Rubus chamaemorus* – FACW), chamisso sedge (*Carex pachystachya* – FAC), shooting star (*Dodecatheon frigidum*, FACW), buck-bean (*Menyanthes trifoliate* – OBL), skunk cabbage, and bunch berry (*Cornus canadensis* – FACU), which occurs on hummocks and along the upland/wetland boundary. The most common coniferous species that are present along the edges include shore pine (*Pinus contorta* – FAC) and western hemlock (*Tsuga heterophylla* – FAC), which generally only grow to small, scraggly trees due to the nutrient-poor substrate of this wetland type. Broadleaf species of bog woodland including crabapple (*Malus fusca* – FACW) and dwarf birch (*Betula nana* – FAC).

Soils in bog woodland contained thick layers of saturated organic peats (fibrous histosols). The water table was generally within 12 inches of the soil surface. A high proportion of soils had a sulfidic odor. Drainage from bog woodlands tended to become channelized and exit these wetlands at their lowest elevation around their perimeter, and discharge hydrology to perennial streams.

Wetland hydrology originates upslope of bog woodland and consists primarily of groundwater. Bog forest surrounding bog woodland contains groundwater seeps which contribute to the saturated water regime. Primary wetland hydrology indicators observed in the field included saturated soils and a high water table.

Bog woodland is somewhat degraded by human access and extraction, but not to the level of bog forest. Trees in bog woodland are smaller than those in bog forest, making them less desirable. However, because bog woodland provides a clear pathway to areas of larger trees, including those in bog forest, pack-trails are often established through these areas. Harvesting of other plants by local Tlinkit also occurs in bog woodland. As with bog forest, bog woodland close to roads receives the most disturbance by humans.

Example photos of bog woodland wetland are presented in Appendix D, and include Photos 1, 2, 13, 16, 18, and 28.

### 3. Fen

One fen was delineated (Wetland G8), totaling 1.2 acres in size. Fen in the survey area has a Cowardin class of *Palustrine, Emergent, Persistent, Permanently Flooded* (PEM1H), and a HGM class of *Slope Tidal*. It is located in the northcentral portion of the survey area, between the tidal marsh and bog woodland. A few additional fens were observed within portions of bog woodland, but were not delineated separately because of being very small and highly integrated into their larger, surrounding wetland. Details for the fen wetland are provided in Table 3.

The delineated fen had extensive surface water and emergent plants, primarily Lyngbye's sedge (*Carex lyngbyei* – OBL), which was growing in almost a monocrop along the open water edge of the fen (see Appendix C, sample plot 404).

No woody vegetation grows in the fen, but woody species are found along its perimeter, and drop material into this wetland, providing additional habitat structure. Soils were muck, and peat and coarse material were largely absent. The geomorphic position of the fen is between the toe of a steep slope and the upper-most reaches of a tidal inlet. It is hydrologically connected upslope to a large perennial seep draining a bog woodland (Wetland G6), and is hydrologically connected downslope to an estuarine wetland and intertidal area (Wetland A10 and Water 1, respectively). The constant input of freshwater into the fen largely dilutes ocean water salinity, yet the fen remains tidally influenced. An example photo of fen wetland is presented in Appendix D as Photo 34.

### 4. Salt Marsh

A fringe of salt marsh was delineated during the survey as several individual polygons (Wetlands A1 through A10) (Table 3), and total 2.1 acres in size. Salt marsh wetland in the survey area has a Cowardin class of Estuarine, Intertidal, Emergent, Persistent, Regularly Flooded (E2EM1N), and a HGM class of Estuarine Fringe Tidal. This wetland type was found in the upper reaches of the intertidal area (described below in Section b. Other Waters), where it is located at the highest relative elevation of the inlet and where sediments have formed a mudflat between upland slopes and mean elevation of the marine waters. This area also coincides with some of the largest inputs of freshwater from upland sources, including from the fen (Wetland G8) and several seep wetlands. Salt marsh wetland is likely to be inundated somewhat regularly, and during conditions when high-tide and large freshwater flows co-occur and swell the water surface to relatively high elevations (during extreme high water of spring tides). Vegetation is dominated by emergent herbaceous species, with extensive coverage of Lyngbye's sedge. The presences of marine algae largely delineates the boundary between salt marsh and the intertidal area. Sample plots were not established within areas of salt marsh because they were located below the OHWM of the marine waters. An example photo of salt marsh wetland is presented in Appendix D, and includes Photo 24, which captures the upland/wetland boundary edge.

### b. Other Waters

### 1. Streams

Streams are infrequent in the survey area, but occur predictably in areas topographically below wetlands, where they convey hydrology downslope towards the marine environment. A total of 8 streams were delineated in the survey area, and all have been classified as *Riverine, Lower Perennial, Unconsolidated Bottom* (R2UB), according to Cowardin.

#### Stream 10

The largest drainage within the survey area is Stream 10 (as it was named in the FEIS [FAA 2016]), which is a perennial stream. Diagnostic indicators of the OHWM of Stream 10 include bankfull benches, a distinct scour line, and transitions in soil character. Through most of its course within the survey area, its channel form is a single-thread, pool-riffle complex with an abundance of large woody debris and overhanging vegetation.

Stream 10 has two forks (Appendix A, Figure 6), which join within the survey area. The southernmost and largest fork (South Fork [SF]) originates upslope and outside of the survey area, and on the east side of Aukta Street. It enters the survey area through a 36 inch, corrugated bituminous metal culvert underlying the Aukta Street road prism. Once within the survey area, it meanders in a southwesterly direction. The reach located between the culvert outlet and confluence with the second fork, has an average bankfull width of 5 feet, with an average bankfull height of 3 feet. Its substrate is generally unconsolidated and composed of a mix of cobble and sediment. The second fork of Stream 10 originates in the northwest portion of the survey area, in bog woodland, where it is fringed by a thin, intermittent band of fen wetland. This fork flows south for approximately 2,000 feet before it joins the second fork. Example photos of Stream 10SF are presented in Appendix D, and include Photos 15 and 17.

The second fork of Stream 10 (the north fork [NF]) is a continuous and narrow, single-thread channel with an average bankfull width of 1.5 feet and an average bankfull height of 1 foot. Its substrate consists of sediment, muck, and organics from deposits of twigs, bark, and herbaceous litter. Habitat complexity is fairly low in the upper reaches of Stream 10, above the confluence of the forks, which is not unusual for a headwater stream with low sinuosity and flows. Example photos of Stream 10NF are presented in Appendix D, and include Photo 29.

Downstream of the confluence, Stream 10 widens and increases in depth. This lower reach is characterized by an average bankfull width of 8 feet with an average bankfull height of 2 feet. Substrate underling this reach is a mix of sand and medium-sized gravels with an interspersion of small cobbles (Appendix D, Photo 7). Instream habitat complexity is relatively high and includes the formation of point-bar deposits and a series of extended riffles.

Stream 10 reaches the marine environment of Killisnoo Harbor as subterranean flow through a barrier-bar formed along the coastal shoreline (Appendix B, Photo 26). This barrier bar is approximately 7-feet in height, composed of gravel, and completely plugs the mouth of the Stream 10. It is likely reworked annually by storm surge, as indicated by the lack of vegetation present. The gravel bar is a complete barrier to migratory fish.

#### Stream 11

Stream 11 originates from several small groundwater seeps within bog forest in the southwest portion of the survey area. It flows for approximately 800 feet before it enters Killisnoo Harbor. Stream 11 has an average bankfull width of 5 feet and an average bankfull height of 1.5 feet. Except for at its headwaters, Stream 11 is a continuous, single-thread channel form with frequent undercut banks and overhanging vegetation. Due to its short course and relatively flat gradient, substrate is relatively homogenous mix of fines and small gravels. Woody debris is extensive and diverse in Stream 11, and includes imbedded wood along the banks as well as a wide range of down wood in and across the channel. Indicators of the OHWM include a distinct sediment line impressed upon the stream banks, shelving, and a change in plant community dominated by skunk cabbage to bunch berry. An example photo of Stream 11 is presented in Appendix D, as Photo 3.

#### Streams 12, 13, 14, 15, 16

Streams 12, 13, 14, 15, and 16 are all small perennial waterways that originate from bog forest wetland, and are located on the western half of the survey area and low in the watershed. All emerge from subsurface sources and flow in a defined channel for their often short duration.

Stream 12 flows southwest from Wetland G15 for approximately 100 feet as a well-defined channel before it disappears into Wetland E. The average bankfull width is 2 feet with an average bankfull height of 1.5 feet. Indicators of the OHWM include scour marks, bank shelving, and a change in vegetation community from a hydrophytic plant community to upland. Stream 13 is the outflow from a small ponded area that drains subsurface to Killisnoo Harbor. The stream channel of Stream 13 averages 1-foot-wide and has a bankfull height of 0.5 foot. The primary OHWM indicators include scour marks and bank erosion. Streams 14, 15, and 16 are very similar to each other and to Streams 12 and 13. They all drain Wetland G15; flow through defined channels; have OHWM defined by scour marks, bank shelving, and vegetation community change; and all terminate by returning subsurface. Channels of each ranged from 1 to 2 feet bankfull width, to 0.5 to 1 foot bankfull height.

#### Stream 17

Stream 17 differs somewhat from the other streams in the survey area mainly because it flows down a steeper streambed gradient. In its short length of approximately 500 feet, it drops from an elevation of around 200 feet to sea-level – draining Wetlands G21 and G22 to the intertidal area (Waters 1). It is a perennial stream flowing through an incised, well defined channel. The average bankfull width is 2 feet with an average bankfull height of 2 feet. Indicators of the OHWM include scour marks, bank shelving, and an abrupt change in vegetation community from a hydrophytic plant community to upland.

### 2. Intertidal Area

The intertidal area within the survey area totals 26.9 acres in size, and is located topographically below the salt marsh (Wetlands A1 through A10). Although the intertidal area is a marine environment, a constriction across its inlet formed by raised bedrock disconnects it from waters of Killisnoo Harbor during tidal periods below high tide (Appendix D, Photo 33). While tidally disconnected, the relatively large volume of ocean water retained in the intertidal area allows it to maintain high salinity despite freshwater inputs from upslope sources, including the fen and other wetlands. The presences of marine algae, marine invertebrates, and halophytes at its upper edges such woody saltwort (*Salicornia depressa* – OBL) and goosetongue (*Plantago maritima* – FACW), are evidence that this feature is influenced more by marine conditions than freshwater conditions. An example photo of the intertidal area is presented in Appendix D, and includes Photo 33, which captures the site of tidal constriction.

### c. Uplands

Uplands within the survey area are characterized by a larger closed canopy forest and lack hydric soils and hydrology indicators. The two most distinct upland landforms in the survey area are an oval nob in the northeast portion near P207 and a westward slope on the west side of Aukta Street and the far east portion of the survey area near P211. Upland landforms in other portions of the survey area are less pronounced. Western hemlock is the dominant tree species throughout the upland forests. On steep slopes and hilltops, the dense tree canopy restricts the shrub and herbaceous layers.

In the northwest and northeast portions of the survey area, near P201 and P210, respectively, the dominant understory species are field horsetail and red huckleberry (*Vaccinium parvifolium* – FACU). The dominant herbaceous layer in this area is bunch berry. On gentle slopes and at lower

elevations in the southeast and southwest portions of the survey area, near P110 and P115, the dominant understory species are Sitka spruce, Alaska blueberry, and oval-leaf blueberry.

Soils within the first several inches of the upland forests consistently contain a thick layer of coniferous leaf litter and duff. Soils below the first several inches of broken down bark and organic material are a mix of coarse material and loams. Upland sample plots with less than 50 percent canopy cover, such as P 206 and P120, tend to have moist but not saturated soils. Example photos of uplands are presented in Appendix D, and includes Photos 14, 20, and 21.

# G.CONCLUSIONS

A total of 50 wetlands, 8 streams, and 1 intertidal area was identified and delineated within the proposed Angoon Airport survey area. Most of these water resources are anticipated to be considered Waters of the U.S. and regulated by the USACE under Section 404 of the Clean Water Act. All streams and the intertidal area are likely to be considered jurisdictional and Waters of the U.S. Of the wetlands, it is anticipated that all but 4 are likely to be considered jurisdictional.

Wetlands B, J, L, and M may not be jurisdictional because they are all highly altered and appear to be created in areas of upland, as is evident by their relatively high topographic positions on the top of a convex slopes. These water resources are also surrounded by upland.

Wetlands L and M are both isolated wetlands located within the rock quarry off of Killisnoo Road. Their presences are specifically due to the recent extraction of native rocky material below the water table elevation, causing the ponding of hydrology and deposition of sediments. Both features appeared to be newly created, had little vegetation at the time of the 2018 delineation, and had highly altered soils. Further, both features are less than a tenth-of-an-acre in size. Photos of each are presented in Appendix D as Photo 31 (Wetland M) and Photo 32 (Wetland L).

Wetlands B and J are both engineered roadside drainage ditches established in what was likely upland, as is indicated by the vegetation surrounding each to be nonhydrophytic, soils are not hydric, and wetland hydrology was absent. Vegetation in both is maintained, likely to ensure its stormwater drainage function, as well as to maintain a safety zone buffer for Killisnoo Road. Although Wetland B is isolated, Wetland J is not and is engineered to drain into the intertidal area near Wetland A3, forming a surface water connection to Waters of the U.S. The drainage, however, is too steep to allow passage of fish.

A summary of water resources delineated in the survey area, including their classification and likelihood of being jurisdictional, is provided in Table 3, below.

No fish were observed in any portion of the delineated streams, although Stream 10 has been reported to support Dolly Varden (*Salvelinus malma*) and resident coastal cutthroat trout (*Oncorhynchus clarkii*) (ESA 2016). No gradient measurements were taken of the streams during the delineation, but physical conditions are described in the *Memorandum: Alternative 12a Stream 10 Realignment Feasibility Study* (ESA 2016). Although some of the streams connect to marine or estuarine environments, they provide only limited habitat to anadromous fish. All streams that outflow to Killisnoo Harbor have obstructed outlets formed by gravel bars that have been built up and largely maintained by storm wave action. These streams, however, likely do gain

a surface water connection annually at seasonally high tide cycles or during storm surge. Although the streams that outlet to the estuarine waters of the intertidal area, drain freely, they are generally too steep to allow access by fish.

Water Resource Name	Delineated Size	Wet Habitat*	Cowardin Class	HGM Class	Extends Beyond Survey Area**	Likely Jurisdictional?
Wetlands						
A1	0.7 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
A10	0.1 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
A2	0.4 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
A3	0.1 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
A4	0.4 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
A5	0.1 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
A6	0.1 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
A7	0.1 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
A8	0.05 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
A9	0.1 acre	Salt Marsh	E2EM1N	Estuarine Fringe Tidal	No	Yes
В	0.1 acre	Bog Forest	PFO4B	Slope Forest	No	No
С	0.006	Bog Forest	PFO4B	Slope Forest	No	Yes
D	1.0 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
Е	0.2 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
G1	67.0 acres	Bog Woodland	PFO1B	Slope Bog	No	Yes
G10	0.3 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
G11	2.4 acres	Bog Forest	PFO4B	Slope Forest	No	Yes
G12	1.7 acres	Bog Forest	PFO4B	Slope Forest	No	Yes
G13	0.2 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
G14	0.2 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
G15	120.1 acres	Bog Forest	PFO4B	Slope Forest	Yes	Yes
G16	24.5 acres	Bog Woodland	PFO1B	Slope Bog	Yes	Yes
G17	0.7 acre	Bog Forest	PFO4B	Slope Forest	Yes	Yes
G18	0.3 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
G19	2.7 acres	Bog Forest	PFO4B	Slope Forest	No	Yes
G2	2.7 acres	Bog Forest	PFO4B	Slope Forest	No	Yes
G20	14.5 acres	Bog Woodland	PFO1B	Slope Bog	Yes	Yes

 Table 3. Water Resources Delineated in the Survey Area; Likelihood of Jurisdictional is

 Indicated

Water Resource Name	Delineated Size	Wet Habitat*	Cowardin Class	HGM Class	Extends Beyond Survey Area**	Likely Jurisdictional?
G21	10.1 acres	Bog Forest	PFO4B	Slope Forest	Yes	Yes
G22	1.5 acres	Bog Woodland	PFO1B	Slope Bog	No	Yes
G23	0.1 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
G24	0.6 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
G25	1.5 acres	Bog Forest	PFO4B	Slope Forest	No	Yes
G3	0.6 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
G4	0.2 acre	Bog Woodland	PFO1B	Slope Bog	No	Yes
G5	2.7 acres	Bog Forest	PFO4B	Slope Bog	No	Yes
G6	14.3 acres	Bog Woodland	PFO1B	Slope Bog	Yes	Yes
G7	9.6 acres	Bog Woodland	PFO1B	Slope Bog	No	Yes
G8	1.2 acres	Fen	PEM1H	Slope Tidal	No	Yes
G9	0.8 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
Ι	1.5 acres	Bog Forest	PFO4B	Slope Forest	Yes	Yes
J	0.5 acre	Bog Forest	PFO4B	Slope Forest	No	No
K	0.8 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
L	0.09 acre	Bog Forest	PFO4B	Slope Forest	No	No
М	0.04 acre	Bog Forest	PFO4B	Slope Forest	No	No
N	2.2 acres	Bog Forest	PFO4B	Slope Forest	No	Yes
0	0.02 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
Р	0.1 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
Q	1.2 acres	Bog Forest	PFO4B	Slope Forest	No	Yes
R	0.5 acre	Bog Forest	PFO4B	Slope Forest	No	Yes
S	3.0 acres	Bog Forest	PFO4B	Slope Forest	No	Yes
Other Wat	ters					
11	681.3 ft.	Stream	R2UB	NA	No	Yes
12	104.3 ft.	Stream	R2UB	NA	No	Yes
13	63.8 ft.	Stream	R2UB	NA	No	Yes
14	37.0 ft.	Stream	R2UB	NA	No	Yes
15	110.2 ft.	Stream	R2UB	NA	No	Yes
16	403.7 ft.	Stream	R2UB	NA	No	Yes
17	492.4 ft.	Stream	R2UB	NA	No	Yes
10MF	2,088.0	Stream	R2UB	NA	No	Yes
10NF	2,487.5	Stream	R2UB	NA	No	Yes
10SF	2,357.3	Stream	R2UB	NA	Yes	Yes
Water 1	26.85	Intertidal Area d by the FEIS (F	E1UB1N	NA	Yes	Yes

\* Water resource names used by the FEIS (FAA 2016)
\*\* Some water resources extend beyond the survey area boundary, in which case, only portions in the survey area were quantified

The findings of this water resource delineation deviates somewhat from the NWI established for the survey area, which indicates the presence of larger continuous areas of wetlands (Appendix A, Figure 4). Compared to the NWI wetland distribution, this survey delineated 114.2 fewer acres of wetland, and more stream. The primary reason for the difference is that forested wetlands (i.e.; bog forest and bog woodland) are difficult to accurately delineate from aerial imagery, resulting in them easily being inaccurately represented on NWI maps. In this case, it is very difficult to discern upland forest from bog forest on an aerial. Fen wetland is also more extensive in the NWI wetland distribution, which likely misidentified open areas of bog woodland as fen.

Most wetlands delineated in the survey area are not bound by topography and often extend both across and down slopes. The geology of the site, with the predominant influence being past glacial action, has resulted in a restrictive layer – usually bedrock – being located at varying depths. Where it is close to the surface, subsurface hydrology becomes perched and produces a seep wetland, which most wetlands in the survey areas can be classified as. Wetland polygons generally match topographic contours for some of their perimeter, but also extend across elevations.

# H. DISCLAIMER

This report documents the investigation, best professional judgement, and conclusions of the investigators. This should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and is not official until confirmed and approved by the appropriate regulatory agencies.

# APPENDIX A

### MAPS

Figure 1. Location Map



SOURCE: ESA, 2018; ADOT, 2016; USGS, 2006

YELLOW BEAR MOUNTAINS

ADMIRALTY ISLAND

MIDDLE MOUNTAIN

D150918.04 Angoon Airport Wetland Delineation

**Figure 1** Vicinity Angoon, AK

C Survey Area

Figure 2. Tax Lot Map



SOURCE: ESA, 2018; ADOT, 2016

D150918.04 Angoon Airport Wetland Delineation

Taxlots Angoon, AK Figure 3. Survey Area Map



SOURCE: ESA, 2017, 2018; ADOT, 2016; SWCA, 2014

D150918.04 Angoon Airport Wetland Delineation

**5** Survey Areas Angoon, AK Figure 4. Topographic Map



SOURCE: ESA, 2018; ADOT, 2016

D150918.04 Angoon Airport Wetland Delineation

Topographic Angoon, AK

#### Figure 5. National Wetlands Inventory Map



SOURCE: ESA, 2018; AKDOT, 2016; USFWS, 2018

D150918.04 Angoon Airport Wetland Delineation

National Wetland Inventory Angoon, AK Figure 6. Water Resource Delineation Map with Photo Point Locations



SOURCE: ESA, 2017, 2018; ADOT, 2016; SWCA, 2014

Wetland Delineation Angoon, AK

D150918.04 Angoon Airport Wetland Delineation

# APPENDIX B

# PRECIPITIATON ANALYSIS DATA

Table 1. WETS Table, Juneau International Airport Station

# WETS Station: JUNEAU AIRPORT, AK

### Requested years: 1971 -2018

Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall	
Jan	32.0	22.7	27.3	5.43	3.94	6.40	13	26.8	
Feb	34.8	24.0	29.4	3.96	2.43	4.80	10	16.4	
Mar	39.1	27.1	33.1	<mark>3.46</mark>	2.50	4.08	11	12.5	
Apr	48.2	33.0	40.6	<mark>3.06</mark>	<mark>2.10</mark>	<u>3.65</u>	9	1.4	
May	56.4	40.2	48.3	<mark>3.43</mark>	<mark>2.36</mark>	<b>4.09</b>	9	0.0	
Jun	61.8	46.4	54.1	<mark>3.48</mark>	2.62	4.06	9	0.0	
Jul	64.0	49.6	56.8	<mark>4.59</mark>	3.36	5.39	11	0.0	
Aug	63.0	48.8	55.9	<mark>5.84</mark>	<mark>4.19</mark>	6.89	13	0.0	
Sep	55.9	44.1	50.0	8.21	6.44	9.46	16	0.0	
Oct	47.1	37.5	42.3	8.26	6.47	9.53	17	1.0	
Nov	37.6	28.6	33.1	5.81	3.96	6.94	13	13.7	
Dec	33.3	24.6	29.0	5.55	3.73	6.63	13	19.4	
Annual:					54.85	66.44			
Average	47.8	35.5	41.7	-	-	-	-	-	
Total	-	-	-	<mark>61.08</mark>			145	91.2	

#### GROWING SEASON DATES

Years with missing data:	24 deg =	28 deg =	32 deg =
	1	1	1
Years with no occurrence:	24 deg =	28 deg =	32 deg =
	0	0	0
Data years used:	24 deg =	28 deg =	32 deg =
	47	47	47
Probability	24 F or	28 F or	32 F or
	higher	higher	higher
50 percent *	3/30 to	4/16 to	5/8 to
	11/6: 221	10/16:	10/1:
	days	183 days	146 days
70 percent *	3/23 to	4/11 to	5/3 to
	11/13:	10/22:	10/6:
	235 days	194 days	156 days

\* Percent chance of the growing season occurring between the Beginning and Ending dates.

STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1936									8. 52	20. 43	16. 10	6.12	51. 17
1937	5.57	2.97	4.14	2.73	3.00	5.01	6.34	8.43			3.63		41. 82
1938								4.92	13. 23	10. 63	12. 04	11. 68	52. 50
1939	10.17												10. 17
1940									M1. 01				1.01
1941	M1.10	0.54	3.86	2.41	1.93	3.79	4.58	1.09	4. 42		M5. 54	M2. 66	31. 92
1942	5.87	2.74	3.18	3.16	M1.45		M6.31		4. 59		M2. 28		29. 58
1943		M3.32	M0.77	M2.10			6.65	5.66	11. 24	9.26	6.50	9.86	55. 36

1944	4.55	1.76	5.75	3.65	4.27	3.04	3.72	4.71	3. 69	12. 39	7.52	4.43	59. 48
1945	3.49	3.17	4.54	2.82	1.33	4.66	7.76	4.17	7. 31	11. 05	2.43	2.57	55. 30
1946	4.24	2.03	3.50	3.11	1.25	1.08	6.61	5.52	4. 90	10. 52	7.31	2.47	52. 54
1947	4.76	2.18	5.80	4.33	3.25	4.77	2.01	8.47	11. 09	4.87	4.89	4.36	60. 78
1948	6.77	1.14	4.16	0.27	4.39	2.52	5.54	3.39	11. 51	M10. 94	10. 38	2.95	63. 96
1949	7.33	4.03	M1.83	4.32	3.38	5.34	3.97	3.52	7. 80	8.50	9.22	2.35	61 59
1950	0.94	2.22	1.29	2.09	3.38	1.08	7.07	4.95	7. 32	3.28	2.13	3.43	39 18
1951	2.09	2.31	3.75	3.54	2.12	4.06	2.67	2.76	3. 85	3.65	4.70	2.30	37 80
1952	3.50	2.85	3.32	3.72	6.19	2.44	3.71	5.90	10. 84	13. 29	7.11	2.86	65 73
1953	1.46	6.28	3.65	2.95	2.51	2.98	2.95	5.45	6. 17	12. 33	2.72	5.02	54 47
1954	2.01	4.22	1.49	1.95	2.98	1.48	3.50	1.11	5. 03	6.32	5.67	5.42	41
1955	4.03	3.30	4.72	2.46	4.89	2.22	2.37	6.53	5. 39	7.47	2.65	2.86	48
1956	2.83	4.05	4.69	3.00	4.83	3.42	2.96	9.99	4.	6.50	11. 22	9.89	67 97
1957	1.05	3.99	1.35	3.65	2.44	1.44	2.83	1.50	59 5.	3.94	8.55	3.76	40
1958	4.90	2.00	1.20	1.96	4.13	2.65	4.31	4.20	61 5.	9.39	4.31	7.45	1 51
1959	1.39	4.15	4.56	3.42	3.79	1.36	7.39	5.39	06 5.	6.04	6.82	5.88	50 55
1960	3.86	2.05	4.84	3.13	1.52	3.51	4.31	4.77	51 8.	8.95	4.97	7.39	57
1961	3.76	4.07	2.67	3.92	4.75	3.22	6.04	12.31	47 7.	10.	6.12	4.04	77 68
1962	6.99	0.96	5.00	1.99	2.85	4.75	4.75	5.21	01 9.	20 7.39	4.03	8.16	1 61
1963	6.55	6.03	3.69	3.85	2.02	4.53	5.22	1.20	75 8.	7.78	3.91	4.56	83 57
1964	3.19	8.48	4.38	4.04	4.35	3.37	6.94	3.48	05 2.	7.35	4.89	5.22	39 58
1965	7.75	5.10	1.66	3.33	4.45	3.11	2.26	4.17	59 2.	7.99	1.46	4.26	28 47
1966	4.34	3.13	6.36	2.08	6.33	1.74	3.91	6.37	34 8.	6.97	4.39	4.48	88 58
1967	4.04	4.74	1.34	1.12	2.94	2.87	4.26	5.46	20 8.	5.71	5.81	3.25	30 50
1968	3.25	5.30	3.85	3.25	1.45	1.95	4.60	2.39	53 10.	4.60	5.34	1.90	01 48
1969	0.94	0.68	4.17	1.74	3.38	2.41	7.88	7.54	14 5.	3.77		4.36	02 51
1970	2.37	3.35	4.08	3.69	3.92	2.97	5.01	7.47	44 9.	5.87		2.58	0 53
1971	5.56	3.93	3.33	2.44	4.30	1.74	1.67	6.89	86 5.	5.80	4.38	3.23	18
1972	3.73	2.71	4.19	3.62	4.03	3.98	1.15	8.62	36 6.	8.49		3.56	63 53
1973	4.37	3.94	3.01	2.41	4.09	2.80	3.65	6.64	24 4.	6.07		2.30	67 45
1973	2.37	6.23	1.15	2.41	1.66	4.92	3.12	5.78	4. 95 5.	15.		7.03	40 86 63
								2.78	5. 96 7.	25		5.81	85
1975	4.10	3.76	2.17	3.04	3.59	2.48	4.96		25	3.55			46
1976	8.19	4.82	3.61	2.14	3.42	3.37	2.48	3.16	8. 32	6.19		5.56	56 41
1977	4.59	4.56	3.31	4.02	1.56	3.47	3.19	3.03	5. 57	7.14	4.58	2.16	47 18

46 08	4.46	3.90	13. 00	3. 07	4.39	3.98	3.18	2.86	2.19	1.84	1.50	1.71	1978
49 29	7.73	8.36	9.06	4. 89	0.56	5.44	2.74	2.45	0.98	3.98	0.91	2.19	1979
61 88	2.27	7.10	11. 26	7. 91	5.61	6.49	4.37	2.53	5.32	2.75	2.83	3.44	1980
54 33	2.24	6.93	6.18	11. 61	6.19	4.25	2.44	3.27	2.11	1.88	2.57	4.66	1981
41 12	1.17	2.10	7.97	5. 10	5.97	1.73	1.86	5.10	2.44	2.52	1.42	3.74	1982
41 5	0.49	1.15	4.24	6. 13	9.52	3.16	2.69	5.37	2.52	0.59	1.69	4.00	1983
5 6	5.10	5.99	6.69	M3. 39	6.26	6.92	4.17	1.84	2.11	3.75	M5.40	6.06	1984
6 2	8.33	1.54	4.85	4. 81	3.53	3.28	4.07	4.09	3.96	4.67	7.00	10.13	1985
60 9	6.42	5.87	M12. 33	2. 40	6.89	2.38	2.76	2.54	2.98	6.08	3.25	7.00	1986
5 7	5.32	7.17	10. 36	8. 92	4.54	2.54	6.02	2.60	2.08	2.12	3.13	3.99	1987
6 7	4.75	8.62	9.71	5. 46	5.53	5.21	2.05	3.91	2.25	4.15	6.55	2.58	1988
	6.78	6.23	6.37	7. 29	2.82	3.81	1.10	3.44	0.87	1.33	0.07	6.77	1989
5 3	6.03	4.89	6.59	10. 63	5.35	4.65	3.32	1.72	1.06	4.86	4.54	3.72	1990
	9.32	9.63	8.63	15. 14	9.60	4.85	3.41	4.72	4.73	4.41	6.55	4.16	1991
7 3	5.73	7.91	5.90	11. 45	5.02	5.18	2.98	9.20	3.63	6.37	7.24	8.69	1992
	7.89	11. 06	9.00	8. 44	3.20	2.25	4.92	2.19	1.94	3.50	8.09	9.11	1993
6 8	6.22	9.57	9.15	11. 17	2.68	4.32	1.83	4.20	3.68	6.50	2.52	7.05	1994
4	4.58	2.93	6.04	7. 43	5.01	4.36	3.45	2.85	2.08	3.01	2.76	1.94	1995
6 4	4.73	2.75	6.20	10. 68	7.91	3.16	6.22	1.80	2.19	4.12	8.43	2.26	1996
7 6	13. 61	4.63	7.85	8. 26	3.93	10.36	3.51	3.25	4.41	3.91	8.17	2.73	1997
	5.45	1.72	12. 13	6. 17	6.80	4.95	2.50	2.21	3.12	3.71	1.90	2.54	1998
7	10. 30	5.77	12. 19	10. 62	6.77	4.10	2.69	5.69	7.48	2.58	2.66	8.14	1999
6 9	4.17	6.37	10. 11	10. 05	6.12	6.65	5.72	3.25	4.40	5.75	1.56	4.82	2000
5	4.49	3.62	7.80	8. 37	3.66	7.26	1.65	5.19	2.19	3.33	4.40	7.43	2001
6 2	5.86	7.95	10. 69	6. 08	10.50	4.72	3.40	2.37	0.47	1.33	5.62	3.28	2002
5- 1	5.92	6.21	4.44	11. 41	4.53	3.44	3.74	2.90	0.86	3.56	1.44	5.68	2003
6 2	10. 67	8.38	7.18	9. 23	2.51	3.54	1.30	0.84	4.43	5.59	5.66	5.89	2004
	6.74	13. 38	9.12	9. 92	6.58	5.25	3.00	0.89	2.94	4.18	6.12	5.90	2005
	9.37		11. 78	13. 01	11.02	4.43	5.93	4.56	4.24	1.55	2.07	2.93	2006
	3.75	3.15	11. 67	9. 09	2.35	6.71	1.85	4.27	2.99	4.81	3.00	6.25	2007
	3.92	5.89	15. 05	10. 84	5.33	8.25	1.68	3.87	4.79	4.00	4.92	4.91	2008
	3.95	7.20	5.65	8. 92	7.30	2.35	2.83	2.67	2.17	2.95	3.89	9.38	2009
	1.90	7.87	8.84	6. 24	4.30	3.86	4.05	1.25	3.08	6.16	1.53	4.79	2010
	7.44	7.68	7.39	8. 58	10.72	3.51	4.50	2.82	1.83	1.28	5.65	5.26	2011
2012	6.43	3.10	2.82	1.68	5.73	6.69	5.37	7.59	11. 02	3.50	4.59	4.92	63. 44
------	-------	------	------	------	------	------	-------	-------	-----------	-----------	-----------	------	-----------
2013	7.70	6.61	2.36	6.37	5.33	3.19	4.45	4.90	7. 53	10. 09	6.69	8.52	73. 74
2014	10.15	1.98	3.45	2.67	1.67	7.48	8.26	8.53	9. 31	7.46	4.44	3.29	68. 69
2015	11.98	3.62	4.52	7.18	0.52	4.66	10.40	8.92	11. 51	7.21	12. 02	2.42	84. 96
2016	6.53	3.26	2.17	5.16	5.67	3.48	4.28	5.97	11. 64	2.59	6.55	6.73	64. 03
2017	6.27	4.31	4.44	1.96	5.19	3.86	7.04	8.46	8. 30	9.33	2.34	8.07	69. 57
2018	5.70	2.35	2.53	3.15	5.27	3.07	2.78	M4.10					28. 95

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2016-07-22

# Table 2. Precipitation Summary for 2014 Delineation

#### Climatological Data for JUNEAU AIRPORT, AK - August 2013

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2013-08-01	76	52	64.0	24	14	0.00	0.0	0
2013-08-02	74	50	62.0	22	12	0.00	0.0	0
2013-08-03	70	52	61.0	21	11	0.00	0.0	0
2013-08-04	59	55	57.0	17	7	0.55	0.0	0
2013-08-05	65	53	59.0	19	9	0.17	0.0	0
2013-08-06	71	51	61.0	21	11	0.00	0.0	0
2013-08-07	75	50	62.5	23	13	0.00	0.0	0
2013-08-08	62	56	59.0	19	9	0.24	М	0
2013-08-09	67	49	58.0	18	8	0.00	0.0	0
2013-08-10	69	46	57.5	18	8	0.00	М	0
2013-08-11	72	47	59.5	20	10	0.00	0.0	0
2013-08-12	78	49	63.5	24	14	0.00	0.0	0
2013-08-13	72	49	60.5	21	11	0.00	0.0	0
2013-08-14	72	56	64.0	24	14	0.00	0.0	0
2013-08-15	73	52	62.5	23	13	0.37	0.0	0
2013-08-16	62	53	57.5	18	8	0.25	0.0	0
2013-08-17	60	53	56.5	17	7	0.19	0.0	0
2013-08-18	56	50	53.0	13	3	1.18	0.0	0
2013-08-19	60	49	54.5	15	5	0.11	0.0	0
2013-08-20	57	52	54.5	15	5	0.11	0.0	0
2013-08-21	59	51	55.0	15	5	0.07	0.0	0
2013-08-22	60	50	55.0	15	5	Т	0.0	0
2013-08-23	59	52	55.5	16	6	0.00	0.0	0
2013-08-24	56	52	54.0	14	4	0.40	0.0	0
2013-08-25	60	50	55.0	15	5	0.04	0.0	0
2013-08-26	65	47	56.0	16	6	0.07	0.0	0
2013-08-27	68	45	56.5	17	7	0.00	0.0	0
2013-08-28	68	47	57.5	18	8	0.00	0.0	0
2013-08-29	68	43	55.5	16	6	0.00	0.0	0
2013-08-30	57	46	51.5	12	2	0.14	0.0	0
2013-08-31	57	54	55.5	16	6	1.01	0.0	0
Average Sum	65.4	50.4	57.9	562	252	4.90	0.0	0.0

#### Climatological Data for JUNEAU AIRPORT, AK - September 2013

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2013-09-01	57	54	55.5	16	6	1.30	0.0	0
2013-09-02	69	51	60.0	20	10	0.00	0.0	0
2013-09-03	67	49	58.0	18	8	0.04	0.0	0
2013-09-04	56	53	54.5	15	5	0.74	0.0	0
2013-09-05	60	53	56.5	17	7	0.04	0.0	0
2013-09-06	60	52	56.0	16	6	0.10	0.0	0
2013-09-07	63	56	59.5	20	10	0.74	0.0	0
2013-09-08	61	49	55.0	15	5	0.33	0.0	0
2013-09-09	62	46	54.0	14	4	0.00	0.0	0
2013-09-10	56	43	49.5	10	0	0.30	0.0	0
2013-09-11	64	51	57.5	18	8	Т	0.0	0
2013-09-12	62	50	56.0	16	6	0.06	0.0	0
2013-09-13	61	42	51.5	12	2	Т	0.0	0
2013-09-14	61	44	52.5	13	3	0.00	0.0	0
2013-09-15	64	39	51.5	12	2	0.10	0.0	0
2013-09-16	58	50	54.0	14	4	0.17	0.0	0
2013-09-17	53	49	51.0	11	1	0.35	0.0	0
2013-09-18	53	48	50.5	11	1	0.17	0.0	0
2013-09-19	50	46	48.0	8	0	0.91	0.0	0
2013-09-20	56	48	52.0	12	2	1.05	0.0	0
2013-09-21	51	47	49.0	9	0	0.42	0.0	0
2013-09-22	53	45	49.0	9	0	0.10	0.0	0
2013-09-23	56	46	51.0	11	1	Т	М	0
2013-09-24	55	37	46.0	6	0	0.00	0.0	0
2013-09-25	53	32	42.5	3	0	0.07	0.0	0
2013-09-26	49	47	48.0	8	0	0.25	0.0	0
2013-09-27	49	45	47.0	7	0	0.20	0.0	0
2013-09-28	52	42	47.0	7	0	0.08	0.0	0
2013-09-29	52	39	45.5	6	0	Т	0.0	0
2013-09-30	60	37	48.5	9	0	0.01	0.0	0
Average Sum	57.4	46.3	51.9	363	91	7.53	0.0	0.0

# Table 3. Precipitation Summary for 2017 Delineation

#### Climatological Data for JUNEAU AIRPORT, AK - June 2017

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2017-06-01	62	48	55.0	15	5	0.01	0.0	0
2017-06-02	66	48	57.0	17	7	0.01	0.0	0
2017-06-03	58	40	49.0	9	0	0.00	0.0	0
2017-06-04	61	36	48.5	9	0	0.02	0.0	0
2017-06-05	53	46	49.5	10	0	0.06	0.0	0
2017-06-06	64	49	56.5	17	7	0.01	0.0	0
2017-06-07	68	52	60.0	20	10	Т	0.0	0
2017-06-08	73	52	62.5	23	13	0.00	0.0	0
2017-06-09	60	49	54.5	15	5	0.02	0.0	0
2017-06-10	56	49	52.5	13	3	0.01	0.0	0
2017-06-11	52	47	49.5	10	0	0.06	0.0	0
2017-06-12	53	45	49.0	9	0	0.12	0.0	0
2017-06-13	55	43	49.0	9	0	0.02	0.0	0
2017-06-14	63	41	52.0	12	2	0.06	0.0	0
2017-06-15	56	46	51.0	11	1	0.22	0.0	0
2017-06-16	50	43	46.5	7	0	0.39	0.0	0
2017-06-17	50	45	47.5	8	0	0.50	0.0	0
2017-06-18	67	49	58.0	18	8	0.00	0.0	0
2017-06-19	61	49	55.0	15	5	0.23	0.0	0
2017-06-20	55	48	51.5	12	2	0.63	0.0	0
2017-06-21	59	49	54.0	14	4	0.08	0.0	0
2017-06-22	63	45	54.0	14	4	0.09	0.0	0
2017-06-23	67	41	54.0	14	4	Т	0.0	0
2017-06-24	60	51	55.5	16	6	0.43	0.0	0
2017-06-25	58	49	53.5	14	4	0.13	0.0	0
2017-06-26	54	50	52.0	12	2	0.17	0.0	0
2017-06-27	59	50	54.5	15	5	Т	0.0	0
2017-06-28	65	50	57.5	18	8	0.00	0.0	0
2017-06-29	64	51	57.5	18	8	0.34	0.0	0
2017-06-30	56	50	53.0	13	3	0.25	0.0	0
Average Sum	59.6	47.0	53.3	407	116	3.86	0.0	0.0

# Table 4. Precipitation Summary for 2018 Delineation

#### Climatological Data for JUNEAU AIRPORT, AK - June 2018

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2018-06-01	64	39	51.5	12	2	Т	0.0	0
2018-06-02	58	41	49.5	10	0	0.07	0.0	0
2018-06-03	62	36	49.0	9	0	Т	0.0	0
2018-06-04	50	46	48.0	8	0	0.64	0.0	0
2018-06-05	62	44	53.0	13	3	Т	0.0	0
2018-06-06	61	45	53.0	13	3	0.01	0.0	0
2018-06-07	59	42	50.5	11	1	0.06	0.0	0
2018-06-08	61	43	52.0	12	2	0.04	0.0	0
2018-06-09	57	42	49.5	10	0	0.44	0.0	0
2018-06-10	52	44	48.0	8	0	0.22	0.0	0
2018-06-11	58	47	52.5	13	3	0.13	0.0	0
2018-06-12	64	47	55.5	16	6	0.00	0.0	0
2018-06-13	67	48	57.5	18	8	0.16	0.0	0
2018-06-14	52	48	50.0	10	0	0.11	0.0	0
2018-06-15	63	48	55.5	16	6	0.00	0.0	0
2018-06-16	56	49	52.5	13	3	0.15	0.0	0
2018-06-17	61	53	57.0	17	7	0.05	0.0	0
2018-06-18	74	54	64.0	24	14	Т	0.0	0
2018-06-19	81	50	65.5	26	16	0.00	0.0	0
2018-06-20	85	55	70.0	30	20	0.00	0.0	0
2018-06-21	73	57	65.0	25	15	0.00	0.0	0
2018-06-22	68	54	61.0	21	11	0.00	0.0	0
2018-06-23	62	49	55.5	16	6	0.01	0.0	0
2018-06-24	61	51	56.0	16	6	0.02	0.0	0
2018-06-25	64	49	56.5	17	7	0.00	0.0	0
2018-06-26	59	49	54.0	14	4	0.09	0.0	0
2018-06-27	61	49	55.0	15	5	0.01	0.0	0
2018-06-28	61	50	55.5	16	6	Т	0.0	0
2018-06-29	58	51	54.5	15	5	0.83	0.0	0
2018-06-30	62	50	56.0	16	6	0.03	0.0	0
Average Sum	62.5	47.7	55.1	460	165	3.07	0.0	0.0

# APPENDIX C

# WETLAND DETERMINATION DATA FORMS

**2017 Wetland Delineation** 

Project/Site: Angoon Airport		E	Borough/City:	Hoonah / A	Angoon	Sampling Date		17
Applicant/Owner: ADOT & PF						Sampling Poir	nt: 10	0
Investigator(s): J.Barna, S.Hartung, L.Jo	hnson, L.Mark	L	andform (hill:	side, terrace	e, hummocks, etc.):	F	lummocks	
Local relief (concave, convex, none): <u>Co</u>	ncave	5	Slope (%): 3	3-5				
Subregion: Southeast Alaska		Lat: 57.474	1984 		Long: -134.55851	5 D	atum: NAD 8	3
Soil Map Unit Name: None					NWI classif	ication:		
Are climatic / hydrologic conditions on th	e site typical fo	r this time of	year? Yes	X No	(If no, explain	in Remarks.)		
	•••	ignificantly di	-		mal Circumstances"	present' Yes	<b>x</b> No	
	lrology n				d, explain any answ	-		
SUMMARY OF FINDINGS – At								ires, e
Hydric Soil Present?	Yes 0	No X	Is the	Sampled A	rea			
Vetland Hydrology Present?	Yes 0	No x		a Wetland		No	x	
Remarks:								
VEGETATION – Use scientific	names of p	lants. Lis	t all specie		plot.			
			Dominant	Indicator	Dominance Test v	worksheet:		
Tree Stratum			Species?	Status	Number of Dersing	nt Chooice		
1. Tsuga heterophylla 2.		65	1		Number of Domina That Are OBL, FAC		2	(A)
0				0	That Ale Obl, FAC		Z	_ (A)
3 4.				0	Total Number of D	ominant		
	Total Cover:	65			Species Across All		3	(B)
50% of total cover:	32.5	20% of tot	al cover:	13				
Sapling/Shrub Stratum					Percent of Domina	nt Species		
1. Vaccinium ovalifolium		70	1	FAC	That Are OBL, FAC	CW, or FAC:	0.67	(A/B)
2. Menziesia ferruginea		5		FACU	Prevalence Inde			
3				0	Total % Cover		Multiply by:	_
4				0	OBL species	0 x 1		-
5				0	FACW species	0 x 2		_
6		75		0	FAC species	<u>0</u> x 3		-
FOO/ of total accurate	Total Cover:	75		15	FACU species	0 x 4 0 x 5		-
50% of total cover: Herb Stratum	37.5	20% of tot	ai cover:	15	UPL species Column Totals:	0 x 5 0 (A)	= 0	(B)
1. Cornus canadensis		60	1	FACU		<u> </u>	0	_(D)
2.			· · · · · · · · · · · · · · · · · · ·	0	Prevalence In	dex = B/A =	#DIV/0!	
3.				0	Hydrophytic Veg			
4.				0		Test is >50%	010.	
5.				0		Index is ≤3.0		
6.				0		cal Adaptations <sup>1</sup>	(Provide sur	portina
7.				0		Remarks or on a		-
8.				0		c Hydrophytic Ve		
9.				0			.goutton (2/	(p.u)
0.				0	<sup>1</sup> Indicators of hyd	dric soil and wet	and hydrolog	v must
···	Total Cover:	60			be present, unles			,
50% of total cover:	30	20% of tot	al cover:	12	Hydrophytic		iobioinatio.	
Plot size (radius, or length x width)	5 ft radius	% B	are Ground		Vegetation	Yes X	No	
% Cover of Wetland Bryophytes			of Bryophytes	6	Present?			
(Where applicable)	<u> </u>		, .p.,					
Remarks:					-			
JS Army Corps of Engineers							Alaska V	ersion 2

oling Point:	10
--------------	----

SOIL								Sampling Point:	100
Profile Des	scription: (Describe to	the depth	needed to documen	t the indicat	or or co	nfirm th	e absence of i	indicators.)	
Depth	Matrix			ox Features				/	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-8	10R 2.5/2	100					Organics	Decompose	
8-12	10R 3/2	100					Organics	with 25% s	ílt
12-20	10R 3/4	100					Organics	Decompose	d
	Concentration, D=Deple				-	and Grair		Location: PL=Pore Lin	-
Hydric Soil	Indicators:	Inc	licators for Problem	natic Hydric	Soils':		Indicators fo	r Problematic Hydric	Soils <sup>3</sup> :
Histoso	ol or Histel (A1)		Alaska Color Chang	e (TA4) <sup>4</sup>			Alaska Gl	eyed Without Hue 5Y	or Redder
Histic E	Epipedon (A2)		Alaska Alpine Swale	s (TA5)			Underlyin	a Laver	
	jen Sulfide (A4)		Alaska Redox With 2	. ,			-	plain in Remarks)	
	Dark Surface (A12)							, ,	
	Gleyed (A13)								
	Redox (A14)	<sup>3</sup> O	ne indicator of hydror	hytic vegets	ation one	- nrimarv	indicator of we	etland hydrology	
	Gleyed Pores (A15)	0		, 0				isturbed or problemation	c.
		<sup>4</sup> G	ve details of color ch					ieranoea er problemaa	
		0			anto.				
	Layer (if present):								
Туре:									
Depth	(inches)				Hyd	Iric Soil	Present?	Yes <u>No</u>	X
Remarks:									
HYDROLO	DGY								
Wetland Hy	drology Indicators:								
Primary Inc	dicators (any one indica	tor is sufficie	ent)			S	Secondary India	cators (2 or more requ	red)
0 Surface	e Water (A1)		Inundation Visible or	n Aerial Imag	jery (B7)		Water-Staine	d Leaves (B9)	
0 High W	/ater Table (A2)		Sparsely Vegetated	Concave Su	rface (B8	3)	Drainage Pat	terns (B10)	
0 Satura	tion (A3)		Marl Deposits (B15)				Oxidized Rhiz	cospheres along Living	Roots (C3)
Water	Marks (B1)		Hydrogen Sulfide Od	dor (C1)			Presence of F	Reduced Iron (C4)	
Sedime	ent Deposits (B2)		Dry-Season Water T	able (C2)			Salt Deposits	(C5)	
Drift De	eposits (B3)		Other (Explain in Re	marks)			Stunted or St	ressed Plants (D1)	
Algal M	lat or Crust (B4)						Geomorphic I	Position (D2)	
Iron De	eposits (B5)						Shallow Aquit	tard (D3)	
Surface	e Soil Cracks (B6)						Microtopogra	phic Relief (D4)	
							FAC-Neutral	Test (D5)	
First Of									
Field Obse			V Denth ()						
	ater Present? Yes _ le Present? Yes	No No							
	-	No	· ·			Motio	nd Hydrology	Brocont? Voc	No Y
Saturation		No	x Depth (In	unes). > 10	, 	vvetiar	iu nyurology	Present? Yes	No x
	apillary fringe) Recorded Data (stream	nauna moni	oring well aerial abo	tos previou	e inepect	ione) if a	available		
Remarks:									

Project/Site: Angoon Airport			Borough/City	: Hoonah /	Angoon		ate: <u>16-Jun-2017</u>	
Applicant/Owner: ADOT & PF						Sampling Po	pint: P101	
Investigator(s): J.Barna, S.Hartung, L.	Johnson, L.Mark		Landform (hil	lside, terrace	e, hummocks, etc.):		hummocks	
Local relief (concave, convex, none):	none		Slope (%):	2%				
Subregion: Southeast Alaska		Lat: 57.47	5006		Long: -134.55853	36	Datum: NAD 83	
Soil Map Unit Name: None				_	NWI classi	fication:		
Are climatic / hydrologic conditions on	the site typical for	r this time o	f year? Yes	s <u>X</u> No	(If no, explair	n in Remarks.)		
	lydrology si			Are "Nor	rmal Circumstances"	' present' Yes	<b>x</b> No	
Are Vegetation Soil or H	ydrologyna	aturally prob	lematic?	(If neede	ed, explain any answ	/ers in Remark	s.)	
					locationa tram	aaata imm	automt faatuura	
SUMMARY OF FINDINGS -	Allach sile m	ap snow	ing sampi	ing point	locations, tran	isects, imp	ortant leature	is, et
Hydrophytic Vegetation Present?	Yes x	No 0						
Hydric Soil Present?	Yes X	No 0	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes X	No 0	withi	n a Wetland	? Yes )	<u>k</u> No_		
Remarks: 30 foot tree stratum radio	us problematic ve	egetation: w	etland hydrol	oav present	for dominant FAC ve	edetation types	3	
Saturated and very dark,		-		-9) procent		genanen ijper		
,	, ,	0 0	I					
VEGETATION – Use scientifi	c names of p	lants I is	t all speci	es in the	nlot			
			Dominant	Indicator	Dominance Test	worksheet:		
Tree Stratum		% Cover	Species?	Status				
1. Tsuga heterophylla		80	1	FAC	Number of Domina			
2				0	That Are OBL, FA	CW, or FAC:	2 (	(A)
3				0	Total Number of D	ominant		
4	Total Cover:	80		0	Total Number of D Species Across A		4 (	(B)
50% of total cove			tal cover:	16	Species Acioss A	il Ollala.	(	(0)
Sapling/Shrub Stratum					Percent of Domina	ant Species		
1. Vaccinium ovalifolium		50	1	FAC	That Are OBL, FA	CW, or FAC:	0.50 (A	4∕B)
2. Menziesia ferruginea		20	1	FACU	Prevalence Inde	ex worksheet:		
3				0	Total % Cove	r of:	Multiply by:	
4				0	OBL species		1= 0	
5				0	FACW species		2= 0	
6		70		0	FAC species		3= <u>390</u>	
E0% of total approx	Total Cover: r: 35	70 20% of to	tal anyor:	11	FACU species		4 = 160 5 = 0	
50% of total cove Herb Stratum	. 35	20% 01 10	tal cover:	14	Column Totals:	170 (A)	5= 0 550 (E	3)
1. Moneses uniflora		20	1	FACU			(1	•)
2.				0	Prevalence Ir	ndex = B/A =	<u>3.235294118</u>	
3.				0	Hydrophytic Ve			
4.				0		e Test is >50%		
5.				0	Prevalence	e Index is ≤3.0		
6.				0	Morpholog	ical Adaptatior	ns <sup>1</sup> (Provide suppo	orting
7.				0			n a separate shee	
8				0	x Problemati	c Hydrophytic	Vegetation <sup>1</sup> (Expla	ain)
9				0				
10				0	' Indicators of hy	dric soil and w	etland hydrology n	nust
	Total Cover:	20			be present, unle	ss disturbed o	r problematic.	
50% of total cove	r: 10	20% of to	tal cover:	4	Hydrophytic			
Plot size (radius, or length x width)	) 5 ft radius	% E	are Ground	0	Vegetation	Yes x	No	
% Cover of Wetland Bryophytes		Total Cover	of Bryophyte	s	Present?			
(Where applicable)								
Remarks: 30 foot tree stratum ra	idius, problematic	vegetation:	wetland hydr	rology prese	nt for dominant FAC	vegetation typ	bes	
LIS Army Corpo of Engineers							Alooka Mar-	nion 0 (
US Army Corps of Engineers							Alaska Vers	5011 Z.

npling Point:	P10
---------------	-----

		onfirm the channes of indicators )
Profile Description: (Describe to t	he depth needed to document the indicator or c	commune absence of mulcators.)
Depth Matrix	Redox Features	
(inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-18 10YR2/1	100	Drganic - pea
	on, RM=Reduced Matrix, CS=Covered or Coated S Indicators for Problematic Hydric Soils <sup>3</sup>	
ydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redde
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	x Other (Explain in Remarks)
Thick Dark Surface (A12)		
Alaska Gleyed (A13)		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, or	ne primary indicator of wetland hydrology,
Alaska Gleyed Pores (A15)		nust be present unless disturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.	
estrictive Layer (if present):		
Type: Depth (inches) Remarks: Saturated and very dark	, actively decomposing organic peat. al to 16 inches earlier in the growing season.	rdric Soil Present? Yes X No
Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ	, actively decomposing organic peat.	rdric Soil Present? Yes <u>X</u> No
Type: Depth (inches) Remarks: Saturated and very dark	, actively decomposing organic peat.	rdric Soil Present? Yes <u>X</u> No
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ YDROLOGY Vetland Hydrology Indicators:	, actively decomposing organic peat. al to 16 inches earlier in the growing season.	rdric Soil Present? Yes X No
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicato	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient)	Secondary Indicators (2 or more required)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ <b>/DROLOGY</b> <b>fetland Hydrology Indicators:</b> Primary Indicators (any one indicato 0 Surface Water (A1)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (B	Secondary Indicators (2 or more required)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ (DROLOGY etland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient)	Secondary Indicators (2 or more required)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (Bi Sparsely Vegetated Concave Surface (I	<u>Secondary Indicators (2 or more required)</u> 7)Water-Stained Leaves (B9) 38)Drainage Patterns (B10)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ <b>/DROLOGY</b> <b>retiand Hydrology Indicators:</b> Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (Bi Sparsely Vegetated Concave Surface (I Marl Deposits (B15)	Secondary Indicators (2 or more required) 7) Water-Stained Leaves (B9) 38) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ <b>YDROLOGY</b> <b>retiand Hydrology Indicators:</b> Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. <u>r is sufficient)</u> Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	<ul> <li>Secondary Indicators (2 or more required)</li> <li>Water-Stained Leaves (B9)</li> <li>Drainage Patterns (B10)</li> <li>Oxidized Rhizospheres along Living Roots (C</li> <li>Presence of Reduced Iron (C4)</li> </ul>
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C Presence of Reduced Iron (C4) Salt Deposits (C5)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ <b>YDROLOGY</b> <b>retland Hydrology Indicators:</b> Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required)         7)       Water-Stained Leaves (B9)         38)       Drainage Patterns (B10)         Oxidized Rhizospheres along Living Roots (C         Presence of Reduced Iron (C4)         Salt Deposits (C5)         Stunted or Stressed Plants (D1)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ <b>/DROLOGY</b> <b>felland Hydrology Indicators:</b> Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required)         7)       Water-Stained Leaves (B9)         38)       Drainage Patterns (B10)         Oxidized Rhizospheres along Living Roots (C         Presence of Reduced Iron (C4)         Salt Deposits (C5)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required)         7)       Water-Stained Leaves (B9)         38)       Drainage Patterns (B10)         Oxidized Rhizospheres along Living Roots (C         Presence of Reduced Iron (C4)         Salt Deposits (C5)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ <b>/DROLOGY</b> <b>fetland Hydrology Indicators:</b> Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required)         7)       Water-Stained Leaves (B9)         38)       Drainage Patterns (B10)         Oxidized Rhizospheres along Living Roots (C         Presence of Reduced Iron (C4)         Salt Deposits (C5)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations:	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (Bi Sparsely Vegetated Concave Surface (f Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	Secondary Indicators (2 or more required)         7)       Water-Stained Leaves (B9)         38)       Drainage Patterns (B10)         Oxidized Rhizospheres along Living Roots (C         Presence of Reduced Iron (C4)         Salt Deposits (C5)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (Bi Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No X Depth (Inches): NA	Secondary Indicators (2 or more required)         7)       Water-Stained Leaves (B9)         38)       Drainage Patterns (B10)         Oxidized Rhizospheres along Living Roots (C         Presence of Reduced Iron (C4)         Salt Deposits (C5)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes Water Table Present? Yes X	Actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (Bi Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No X Depth (Inches): NA No Depth (Inches): 11.5	Secondary Indicators (2 or more required)         7)       Water-Stained Leaves (B9)         38)       Drainage Patterns (B10)         Oxidized Rhizospheres along Living Roots (C         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)
Type: Depth (inches) Remarks: Saturated and very dark ect saturation of greater than or equ YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes	, actively decomposing organic peat. al to 16 inches earlier in the growing season. r is sufficient) Inundation Visible on Aerial Imagery (Bi Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No X Depth (Inches): NA	Secondary Indicators (2 or more required)         7)       Water-Stained Leaves (B9)         38)       Drainage Patterns (B10)         Oxidized Rhizospheres along Living Roots (C         Presence of Reduced Iron (C4)         Salt Deposits (C5)         Stunted or Stressed Plants (D1)         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)

US Army Corps of Engineers

Alaska Version 2.0

Project/Site: Angoon Airport			Borough/City	: Hoonah / J	Angoon	Sampling Dat	te: <u>16-Jun-2</u>	017
Applicant/Owner: ADOT & PF						Sampling Poi	int: 1	102
Investigator(s): J.Barna, S.Hartung, L.Jo	hnson, L.Mark		Landform (hil	lside, terrace	e, hummocks, etc.):		hillside	
Local relief (concave, convex, none): nor	ıe		Slope (%):	5				
Subregion: Southeast Alaska		Lat: 57.47	4253		Long: 134.554381	<u> </u>	Datum: NAD	83
Soil Map Unit Name:					NWI classif	ication:		
Are climatic / hydrologic conditions on th	e site typical for	r this time o	f year? Yes	s X No	(If no, explain	in Remarks.)		
Are Vegetation Soil or Hyd	lrology si	ignificantly d	listurbed?	Are "Nor	mal Circumstances"	present' Yes	<b>x</b> No	
Are Vegetation Soil or Hyd	rology n	aturally prob	lematic?	(If neede	ed, explain any answe	ers in Remarks	.)	
					lesstings trans		utaut faat	
SUMMARY OF FINDINGS - A	tach site m	ap snow	ing sampi	ing point	locations, trans	sects, impo	ortant reat	ures, et
Hydrophytic Vegetation Present?	Yes 0	No X						
Hydric Soil Present?	Yes 0	No x	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes 0	No x	withi	n a Wetland	? Yes	No	x	
Remarks:								
Soil is moist to very moist b	ut not saturated	d						
<b>VEGETATION – Use scientific</b>	names of p	lants. Lis	t all speci	es in the	plot.			
		Absolute	Dominant	Indicator	Dominance Test v	vorksheet:		
Tree Stratum			Species?	Status				
<ol> <li>Tsuga heterophylla</li> <li>Picea sitchensis</li> </ol>		40	1	FAC	Number of Domina		0	(A)
3.		40	1	FACU 0	That Are OBL, FAC	w, or FAC:	2	(A)
4.				0	Total Number of Do	ominant		
	Total Cover:	80			Species Across All		4	(B)
50% of total cover:	40	20% of to	tal cover:	16		-		_ ` `
Sapling/Shrub Stratum					Percent of Domina	nt Species		
1. Tsuga heterophylla		10		FAC	That Are OBL, FAC		0.50	(A/B)
2. Oplopanax horridus		15		FACU	Prevalence Index			
3. Vaccinium ovalifolium		<u>50</u>	1	FAC FACU	Total % Cover		Multiply by:	_
4. Menziesia ferruginea 5.		5			OBL species FACW species	0 x <sup>2</sup> 0 x 2		—
6.				0	FAC species		3= 300	—
0	Total Cover:	80			FACU species		4= 440	—
50% of total cover:	40	20% of to	tal cover	16	UPL species	0 x 5		—
Herb Stratum		20/0 0.10			Column Totals:	210 (A)	740	(B)
1. Cornus canadensis		50	1	FACU				
2.				0	Prevalence In	.dex = B/A =	3.52380952	4
3.				0	Hydrophytic Veg	etation Indica	tors:	
4				0	Dominance	Test is >50%		
5				0		Index is ≤3.0		
6				0		cal Adaptations		
7				0		Remarks or on	•	,
8				0	Problematic	c Hydrophytic V	'egetation' (E	=xplain)
9				0	1		41 I I I	
10		50		0	<sup>1</sup> Indicators of hyc		-	
50% of total cover:	Total Cover: 25	50 20% of to	tal cover:	10	be present, unles Hydrophytic	s disturbed or	problematic.	
			-	10				
Plot size (radius, or length x width)	5 ft radius		are Ground		Vegetation	Yes	No	X
% Cover of Wetland Bryophytes		Total Cover	of Bryophyte	s	Present?			
(Where applicable) Remarks:					l			
NGHIdINS.								
US Army Corps of Engineers							Alaska	Version 2.

ling Point:	1	(
-------------	---	---

SOIL								Sampling Point:	102
Profile Des	cription: (Describe to	the depth	needed to document th	e indicator	or conf	irm th	e absence of i	ndicators.)	
Depth	Matrix			Features				· · · · · · · · · · · · · · · · · · ·	
(inches)	Color (moist)	%	Color (moist)	% T	ype <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-9	10YR 2/2	100					organic/duff		
9-20	10YR 2/1	100					silt loam w/	30% peat	
<sup>1</sup> Type: C=	Concentration, D=Deple	tion, RM=R	educed Matrix, CS=Cov	ered or Coat	ted San	d Grair	ıs. <sup>2</sup> L	ocation: PL=Pore Lin	ing, M=Mat
Hydric Soil	Indicators:	Inc	licators for Problemati	c Hydric So	oils <sup>3</sup> :		Indicators for	Problematic Hydric	Soils <sup>3</sup> :
Histos	ol or Histel (A1)		Alaska Color Change (1	ΓA4) <sup>4</sup>			Alaska Gle	eyed Without Hue 5Y	or Redder
	Epipedon (A2)		Alaska Alpine Swales (	,			Underlying	-	
	en Sulfide (A4)		Alaska Redox With 2.5					plain in Remarks)	
	Dark Surface (A12)			i ilue				Sidin in Romanoy	
	Gleyed (A13)								
	Redox (A14)	<sup>3</sup> O	ne indicator of hydrophy	tio vogotatio	n ono r	rimony	indicator of wo	tland hydrology	
	Gleyed Pores (A15)	0	and an appropriate land						c
	Gleyeu Foles (A15)	<sup>4</sup> C	ive details of color change			t be pr			0.
		0			NS.				
Restrictive	Layer (if present):								
Type:									
Depth	(inches)				Hydri	c Soil	Present? Y	res No	x
Remarks:									
HYDROLO	DGY								
	drology Indicators:								
	dicators (any one indicat	tor is sufficie	ent)			S	econdary Indic	ators (2 or more requ	ired)
0 Surface	e Water (A1)		Inundation Visible on A	erial Imager	v (B7)		Water-Stained	Leaves (B9)	
	/ater Table (A2)		Sparsely Vegetated Co				Drainage Patte	. ,	
0 Satura			Marl Deposits (B15)		( )		-	ospheres along Living	Roots (C3)
	Marks (B1)		Hydrogen Sulfide Odor	(C1)			-	Reduced Iron (C4)	
Sedime	ent Deposits (B2)		Dry-Season Water Tab				Salt Deposits	(C5)	
Drift De	eposits (B3)		Other (Explain in Rema	rks)			Stunted or Str	essed Plants (D1)	
Algal M	lat or Crust (B4)						Geomorphic F	Position (D2)	
Iron De	eposits (B5)						Shallow Aquita	ard (D3)	
Surface	e Soil Cracks (B6)						Microtopograp	ohic Relief (D4)	
							FAC-Neutral T	ēst (D5)	
Field Obse	ervations:								
	ater Present? Yes	No	x Depth (Inche	s): NA					
	le Present? Yes	No		,	-				
Saturation		No		,	-   -	Wetlar	nd Hydrology F	Present? Yes	No x
(includes c	apillary fringe)								
Describe F	Recorded Data (stream g	jauge, moni	toring well, aerial photos	, previous in	spectio	ns), if a	available:		
Remarks:	Soil is moist to very mo	pist but not s	aturated						

Project/Site: Angoon Airport	Borough/City:	Hoonah / Angoon	Sampling Date: <u>17-Jun-2017</u>
Applicant/Owner: ADOT & PF			Sampling Point: P103
Investigator(s): J.Barna, S.Hartung, L.Johnson, L.Mark	Landform (hills	ide, terrace, hummocks, etc.	): Slope w/hummocks
Local relief (concave, convex, none): Concave	Slope (%): 3-	5%	
Subregion: Southeast Alaska	Lat: 57.474265	Long: -134.554	4 Datum: NAD 83
Soil Map Unit Name: None		NWI clas	sification:
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes	X No (If no, expla	ain in Remarks.)
Are Vegetation Soil or Hydrology si	gnificantly disturbed?	Are "Normal Circumstance	es" present′ Yes 🛛 🗴 No
Are Vegetation Soil or Hydrology na	aturally problematic?	(If needed, explain any an	swers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap snowing samplir	ng point locations, tra	insects, important features, etc
Hydrophytic Vegetation Present? Yes X	No 0		
Hydric Soil Present? Yes X	No 0 Is the S	ampled Area	
Wetland Hydrology Present? Yes X	No 0 within a	a Wetland? Yes	<u>X No</u>
Remarks: 30 foot tree stratum radius			
Expect greater than or equal to 16 inches of	of saturation earlier in the c	rowing season.	
		0	
VEGETATION – Use scientific names of p	lants. List all specie	s in the plot.	
	Absolute Dominant	Indicator   Dominance Tes	st worksheet:
Tree Stratum	% Cover Species?	Status	
1. Tsuga heterophylla	$\frac{40}{20}$ 1	FAC Number of Dom	•
2. Picea sitchensis 3.	20 1	FACU That Are OBL, F	FACW, or FAC: <u>4</u> (A)
4		0 Total Number of	Dominant
Total Cover:	60	Species Across	
50% of total cover: 30	20% of total cover:	12	()
Sapling/Shrub Stratum		Percent of Domi	nant Species
1. Tsuga heterophylla	30 1	FAC That Are OBL, F	
2. Vaccinium ovalifolium	40 1		dex worksheet:
3		0 Total % Cov 0 OBL species	
4 5.		0 OBL species 0 FACW species	$\begin{array}{c} 0 \\ 0 \\ x \\ 2 = \\ \end{array} $
5 6.		0 FAC species	$\frac{0}{0}$ x 3= 0
Total Cover:	70	FACU species	0   x 4= 0
50% of total cover: 35	20% of total cover:	14 UPL species	$\frac{0}{0}$ x 5= 0
Herb Stratum		Column Totals:	<u>    0    (</u> A) <u>   0    (</u> B)
1. Lysichiton americanus	10 1	OBL	
2. Cornus canadensis	1		e Index = B/A = <u>#DIV/0!</u>
3			egetation Indicators:
4			ice Test is >50%
5			ice Index is $\leq 3.0$
6			ogical Adaptations <sup>1</sup> (Provide supporting in Remarks or on a separate sheet)
7 8.			IN Remarks or on a separate sheet) atic Hydrophytic Vegetation <sup>1</sup> (Explain)
8 9.			atternytrophytic vegetation (Expidin)
9 10.			hydric soil and wetland hydrology must
Total Cover:	11		less disturbed or problematic.
50% of total cover: 5.5	20% of total cover:	2.2 Hydrophytic	
Plot size (radius, or length x width) 5 ft radius	% Bare Ground	0 Vegetation	Yes X No
· · · · · ·	Total Cover of Bryophytes		
(Where applicable)		100 Present?	
Remarks: 30 foot tree stratum radius		I	
US Army Corps of Engineers			Alaska Version 2.

Sampling Point:	P103
Sampling Fount.	F 103

Depth Matrix (inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks
0-8 10YR2/1		Peat	
8-20 10YR2/1		Gr. slt loam	With organics
<sup>1</sup> Type: C=Concentration D=Depleti	on, RM=Reduced Matrix, CS=Covered or Coated Sa	and Grains <sup>2</sup> l o	cation: PL=Pore Lining, M=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :		Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gley	yed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying	Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	X Other (Expl	ain in Remarks)
Thick Dark Surface (A12)			
Alaska Gleyed (A13)	3		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	. ,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Alaska Gleyed Pores (A15)	and an appropriate landscape position mu <sup>4</sup> Give details of color change in Remarks.	ust de present uniess dis	turbed of problematic.
	0		
Restrictive Layer (if present):	Ű		
Туре:			
Depth (inches)		ric Soil Present? Ye	es <u>X</u> No
Type: Depth (inches)	Hyd		es <u>X</u> No
Type: Depth (inches) Remarks: Expect greater than or e	Hyd		98 <u>X</u> No
Type: Depth (inches) Remarks: Expect greater than or en	Hyd	season.	es <u>X</u> No tors (2 or more required)
Type: Depth (inches) Remarks: Expect greater than or en <b>TYDROLOGY</b> Wetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7)	season. <u>Secondary Indica</u> Water-Stained	tors (2 or more required) Leaves (B9)
Type: Depth (inches) Remarks: Expect greater than or end TYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8	season <u>Secondary Indica</u> Water-Stained 3)Drainage Patte	tors (2 or more required) Leaves (B9) rns (B10)
Type: Depth (inches) Remarks: Expect greater than or end TYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15)	Season.  Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3)
Type: Depth (inches) Remarks: Expect greater than or end AYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicators) 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Season.  Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3)
Type: Depth (inches) Remarks: Expect greater than or end tyDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Season.  Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ((	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3) educed Iron (C4) C5)
Type: Depth (inches) Remarks: Expect greater than or end AYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	season. <u>Secondary Indica</u> Water-Stained Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stree	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3) educed Iron (C4) C5) ssed Plants (D1)
Type: Depth (inches) Remarks: Expect greater than or end tyDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Season.  Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ((	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3) educed Iron (C4) C5) ssed Plants (D1) osition (D2)
Type: Depth (inches) Remarks: Expect greater than or end AYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	season. <u>Secondary Indica</u> Water-Stained Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (( Stunted or Stre Geomorphic Po	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3) educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3)
Type: Depth (inches) Remarks: Expect greater than or end AYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	season. <u>Secondary Indica</u> Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (( Stunted or Stre Geomorphic Po Shallow Aquita	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3) educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) nic Relief (D4)
Type: Depth (inches) Remarks: Expect greater than or end AYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Hyd qual to 16 inches of saturation earlier in the growing r is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	season. <u>Secondary Indica</u> Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (I Stunted or Stre Geomorphic Po Shallow Aquitat Microtopograph	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3) educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) nic Relief (D4)
Type: Depth (inches) Remarks: Expect greater than or end tyDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes	Hyd         qual to 16 inches of saturation earlier in the growing         r is sufficient)         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)	season. <u>Secondary Indica</u> Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (I Stunted or Stre Geomorphic Po Shallow Aquitat Microtopograph	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3) educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) nic Relief (D4)
Type: Depth (inches) Remarks: Expect greater than or end AYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes Water Table Present? Yes X	Hyd         qual to 16 inches of saturation earlier in the growing         r is sufficient)         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)	season. <u>Secondary Indica</u> Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (( Stunted or Stre Geomorphic Pc Shallow Aquitar Microtopograph FAC-Neutral Te	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3) educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) nic Relief (D4) est (D5)
Type: Depth (inches) Remarks: Expect greater than or end tyDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes	Hyd         qual to 16 inches of saturation earlier in the growing         r is sufficient)         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)	season. <u>Secondary Indica</u> Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (I Stunted or Stre Geomorphic Po Shallow Aquitat Microtopograph	tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3) educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) nic Relief (D4) est (D5)

Project/Site: Angoon Airport		Borough/City	: Hoonah /	Angoon	Sampling Da	ate: <u>16-Jun-2017</u>	
Applicant/Owner: ADOT & PF					Sampling Po	oint: P104	
Investigator(s): J.Barna, S.Hartung, L.	Johnson, L.Mark	Landform (hi	llside, terrac	e, hummocks, etc.):		Hillside	
Local relief (concave, convex, none):	Concave	Slope (%):	7				
Subregion: Southeast Alaska	1	Lat: 57.472645		Long: -134.55414	9	Datum: NAD 83	
Soil Map Unit Name: None				NWI classif	ication:	-	
Are climatic / hydrologic conditions or	the site typical fo	r this time of year? Ye	s X No	(If no, explain	in Remarks.)		
Are Vegetation Soil or H	lydrology s	ignificantly disturbed?	Are "No	mal Circumstances"	present' Yes	x No	
Are Vegetation Soil or H	lydrology n	aturally problematic?	(If neede	ed, explain any answe	ers in Remark	.s.)	
			lina naint	locations tran	aaata imm	automt facture	
SUMMARY OF FINDINGS –	Attach site m	ap snowing samp	ing point	locations, trans	sects, imp	ortant reatures	s, etc
Hydrophytic Vegetation Present?	Yes x	No 0					
Hydric Soil Present?	Yes X	No 0 Is the	e Sampled A	rea			
Wetland Hydrology Present?	Yes X	No <u>0</u> withi	n a Wetland	? Yes X	No		
Remarks: Problematic vegetation:	also azalea (M. fe	erruginea) is rooted on hi	ummocks and	d doesn't reflect wetla	and conditions		
Plot is concave and has							
	, ,	, , , , , , , , , , , , , , , , , , ,					
VEGETATION – Use scientif	c names of n	lants. List all spec	ies in the	nlot			
		Absolute Dominant	Indicator	Dominance Test v	vorksheet:		
Tree Stratum		% Cover Species?	Status				
1. Tsuga heterophylla		60 1	FAC	Number of Domina		,	
2. Picea sitchensis		20 1	FACU 0	That Are OBL, FAC	SW, or FAC:	(/	A)
3.		·	0	Total Number of Do	ominant		
-T	Total Cover:	80		Species Across All		4 (E	B)
50% of total cove		20% of total cover:	16		o li di di		_,
Sapling/Shrub Stratum				Percent of Domina			
1. Menziesia ferruginea		20 1	FACU	That Are OBL, FAC	CW, or FAC:	0.00 (A	/B)
2. Vaccinium alaskaense		40 1	FAC	Prevalence Index			
3		·	0	Total % Cover		Multiply by:	
4		·	0	OBL species		1= 0	
5 6			0	FACW species FAC species	-	2= 0 3= 0	
0	Total Cover:	60		FACU species			
50% of total cove		20% of total cover:	12	UPL species		4= <u>0</u> 5= 0	
Herb Stratum				Column Totals:	0 (A)	0 (B)	5)
1.			0				,
2.			0	Prevalence In	dex = B/A =	<u>#DIV/0!</u>	
3.			0	Hydrophytic Veg	etation Indic	ators:	
4.			0	Dominance	Test is >50%	i -	
5		· ·	0		Index is ≤3.0		
6		·	0		-	ns <sup>1</sup> (Provide suppor	-
7		·	0			n a separate sheet	,
8		· ·	0	X Problematio	; Hydrophytic	Vegetation <sup>1</sup> (Explai	in)
9		· ·	0	1 matter of the	1	and have the second	
10			0	-		etland hydrology m	IUST
50% of total cove	Total Cover: er: 0	0 20% of total cover:	0	be present, unles	s disturbed o	r problematic.	
Plot size (radius, or length x width				Vegetation	Yes x	No	
% Cover of Wetland Bryophytes	,	Total Cover of Bryophyte	25	Present?			—
(Where applicable)							
	1: saturatured con	ditions for FAC species					
		•					
US Army Corps of Engineers						Alaska Versi	ion 2.0

Sampling Doint:	D101
Sampling Point:	P104

Depth Matrix (inches) Color (moist)	% Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup> Textu	re Remarks	
0-7 10YR 2/1	100	ус турс	Pea		e
7-16 10YR 2/1	100	·	Pea		
· · _ · _ · _ · _ · _ · _ · _					
1 <del></del>				2	
<sup>1</sup> Type: C=Concentration, D=Deple lydric Soil Indicators:	etion, RM=Reduced Matrix, CS= Indicators for Probler			<sup>2</sup> Location: PL=Pore Lining, ors for Problematic Hydric Soi	
X Histosol or Histel (A1)	Alaska Color Chang	$(TA4)^4$	Alae	ka Gleyed Without Hue 5Y or R	Poddor
X Histosol or Histel (A1)	_	,		•	Vennei
Histic Epipedon (A2)	Alaska Alpine Swal	. ,		erlying Layer er (Explain in Remarks)	
Hydrogen Sulfide (A4) Thick Dark Surface (A12)	Alaska Redox With	2.51 Hue			
Alaska Gleyed (A13)					
	<sup>3</sup> One indicator of hydro	anhutia varatatian and		of watland budgeless.	
Alaska Redox (A14) Alaska Gleyed Pores (A15)				ess disturbed or problematic.	
Alaska Gleyed Foles (A15)	<sup>4</sup> Give details of color c		ust be present uni	ess disturbed of problematic.	
		nange in Remarks.			
Restrictive Layer (if present):					
• • • •					
Туре:					
• • • •		Hyd	ric Soil Present?	Yes <u>X</u> No	_
Type: Depth (inches) Remarks:		Hyd	ric Soil Present?	Yes <u>X</u> No	
Type: Depth (inches) Remarks: YDROLOGY		Hyd	ric Soil Present?	Yes X No	_
Type: Depth (inches) Remarks: YDROLOGY Wetland Hydrology Indicators:	tor is sufficient)	Hyd			
Type: Depth (inches) Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indica			Secondary	/ Indicators (2 or more required)	 )
Type: Depth (inches) Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indica X_Surface Water (A1)	Inundation Visible of	on Aerial Imagery (B7)	<u>Secondary</u> Water-S	/ Indicators (2 or more required) itained Leaves (B9)	)
Type: Depth (inches) Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicators (any one indicators (any one indicators (any one indicators)) X Surface Water (A1) X High Water Table (A2)	Inundation Visible of Sparsely Vegetated	on Aerial Imagery (B7) d Concave Surface (B6	<u>Secondary</u> Water-S 3)Drainag	/ Indicators (2 or more required) itained Leaves (B9) e Patterns (B10)	<u></u>
Type: Depth (inches) Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicators) X Surface Water (A1) X High Water Table (A2) X Saturation (A3)	Inundation Visible c Sparsely Vegetated Marl Deposits (B15	on Aerial Imagery (B7) d Concave Surface (B8 )	<u>Secondary</u> Water-S 3)Drainag Oxidized	/ Indicators (2 or more required) itained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roo	<u></u>
Type: Depth (inches) Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indica X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	Inundation Visible c Sparsely Vegetated Marl Deposits (B15 Hydrogen Sulfide C	on Aerial Imagery (B7) d Concave Surface (B8 ) )dor (C1)	<u>Secondary</u> Water-S 3)Drainag Oxidized Presend	/ Indicators (2 or more required) itained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roo e of Reduced Iron (C4)	<u></u>
Type: Depth (inches) Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicators) X Surface Water (A1) X High Water Table (A2) X Saturation (A3)	Inundation Visible c Sparsely Vegetated Marl Deposits (B15	on Aerial Imagery (B7) d Concave Surface (B8 ) Odor (C1) Table (C2)	Secondary Water-S Drainag Oxidized Presenc Salt Dep	/ Indicators (2 or more required) itained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roo	<u></u>
Type: Depth (inches) Remarks: PTDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicators) X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Inundation Visible c Sparsely Vegetated Marl Deposits (B15 Hydrogen Sulfide C Dry-Season Water	on Aerial Imagery (B7) d Concave Surface (B8 ) Odor (C1) Table (C2)	Secondary Water-S Drainag Oxidized Presenc Salt Dep Stunted	/ Indicators (2 or more required) itained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roc e of Reduced Iron (C4) posits (C5)	<u></u>
Type: Depth (inches) Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indica X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Inundation Visible c Sparsely Vegetated Marl Deposits (B15 Hydrogen Sulfide C Dry-Season Water	on Aerial Imagery (B7) d Concave Surface (B8 ) Odor (C1) Table (C2)	Secondary Water-S Drainag Oxidized Presenc Salt Dep Stunted Geomor	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roc ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1)	<u></u>
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indica X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Inundation Visible c Sparsely Vegetated Marl Deposits (B15 Hydrogen Sulfide C Dry-Season Water	on Aerial Imagery (B7) d Concave Surface (B8 ) Odor (C1) Table (C2)	Secondary Water-S Drainag Oxidized Presenc Salt Dep Stunted Geomor Shallow	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Rod ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2)	<u></u>
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indica X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible c Sparsely Vegetated Marl Deposits (B15 Hydrogen Sulfide C Dry-Season Water	on Aerial Imagery (B7) d Concave Surface (B8 ) Odor (C1) Table (C2)	Secondary Water-S Drainag Oxidized Presend Salt Dep Stunted Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Rod ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3)	<u> </u>
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indica X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible c Sparsely Vegetated Marl Deposits (B15 Hydrogen Sulfide C Dry-Season Water	on Aerial Imagery (B7) d Concave Surface (B8 ) Odor (C1) Table (C2)	Secondary Water-S Drainag Oxidized Presend Salt Dep Stunted Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Rod ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4)	<u></u>
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indicators) X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Inundation Visible of Sparsely Vegetateo Marl Deposits (B15 Hydrogen Sulfide C Dry-Season Water Other (Explain in Re	on Aerial Imagery (B7) d Concave Surface (B8 ) odor (C1) Table (C2) emarks)	Secondary Water-S Drainag Oxidized Presend Salt Dep Stunted Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Rod ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4)	<u></u>
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indica X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) <b>Field Observations:</b>	Inundation Visible of Sparsely Vegetateo Marl Deposits (B15 Hydrogen Sulfide C Dry-Season Water Other (Explain in Ro Other (Explain in Ro	on Aerial Imagery (B7) d Concave Surface (B8 ) Odor (C1) Table (C2) emarks)	Secondary Water-S Drainag Oxidized Presend Salt Dep Stunted Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Rod ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4)	<u></u>
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indica X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) <b>Field Observations:</b> Surface Water Present? Yes 2	Inundation Visible of Sparsely Vegetateo Marl Deposits (B15 Hydrogen Sulfide C Dry-Season Water Other (Explain in Re Other (Explain in Re	on Aerial Imagery (B7) d Concave Surface (B8 ) Odor (C1) Table (C2) emarks) nches): 1 nches): 4	Secondary Water-S Drainag Oxidized Presend Salt Dep Stunted Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Rod ee of Reduced Iron (C4) bosits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) bographic Relief (D4) utral Test (D5)	bots (C3
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indicators) Primary Indicators (any one indicators) X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes 2 Water Table Present? Yes 2	Inundation Visible of Sparsely Vegetated Marl Deposits (B15 Hydrogen Sulfide C Dry-Season Water Other (Explain in Re Other (Explain in Re No Depth (In No Depth (In	on Aerial Imagery (B7) d Concave Surface (B8 ) odor (C1) Table (C2) emarks) nches): <u>1</u> nches): <u>4</u> nches): <u>0</u>	Secondary Water-S Water-S Drainag Oxidized Presend Salt Dep Stunted Geomor Shallow Microtop FAC-Ne	<u>/ Indicators (2 or more required)</u> itained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Rod be of Reduced Iron (C4) bosits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) bographic Relief (D4) utral Test (D5)	oots (C3

		Borougn/City:	: Hoonah / /	Angoon	Sampling Dat	e: 16-Jun-2	2017
					Sampling Poi	nt: F	P105
	l	Landform (hil	lside, terrace	e, hummocks, etc.):		Hillside	
one		Slope (%):	8				
	Lat: 57.47	2807		Long: -134.554246	<u> </u>	Datum: NAC	83
				NWI classifi	cation:		
the site typical fo	or this time of	fyear? Yes	s X No	(If no, explain	in Remarks.)		
ydrology s	significantly d	isturbed?	Are "Nor	mal Circumstances"	oresent' Yes	<b>x</b> No	
/drology r	naturally prob	lematic?	(If neede	ed, explain any answe	ers in Remarks	.)	
Attach site m	hap show	ing sampl	ing point	locations, trans	sects, impo	rtant fea	tures, e
Yes 0	No x						
Yes 0	No x	Is the	Sampled A	rea			
Yes 0	No x	withir	n a Wetland	? Yes	No	х	
				-			
c names of p							
				Dominance Test w	orksneet:		
	30	1	FAC	Number of Domina	nt Species		
	35	1	FACU		•	2	(A)
			0		-		. ,
			0	Total Number of Do	ominant		
Total Cover:				Species Across All	Strata:	5	(B)
: 32.5	20% of to	tal cover:	13				
						0.40	(A/B)
	20	1				N 4 141	
					-	-	
Tatal Cavar	50			· · —		-	_
		tal cover:	10				
. 20	20/0 01 10		10				(B)
	10	1	FACU				
			0	Prevalence Inc	dex = B/A =	#DIV/0!	
			0	Hydrophytic Veg	etation Indicat	tors:	
			0				
			0				
			0			<sup>1</sup> (Provide s	upporting
			0				
			0				
			0			5	,
			0	<sup>1</sup> Indicators of hyd	ric soil and we	tland hydrol	ogy must
Total Cover	10					-	•••
: 5		tal cover:	2	Hydrophytic			
		are Ground		Vegetation	Yes	No	v
h tt roduus				- Securion	162	NO	x
5 ft radius		of Druce het-		Present?			
5 ft radius		of Bryophyte	es	Present?			
5 ft radius		of Bryophyte	es	Present?			
	the site typical for ydrologys ydrologyr Attach site n Yes 0 Yes 0 Yes 0 Yes 0 Yes 0 Total Cover: Total Cover: Total Cover:	Johnson, L.Mark       I         Ione       2         Lat:       57.47         the site typical for this time of ydrology       significantly d         ydrology       naturally prob         Attach site map showid       Yes         Yes       0       No       x         Cover       30       35         Total Cover:       65       20% of to         30       20       20         Total Cover:       50       20% of to         10       10       10         Total Cover:       10       10         Total Cover:       10       10	Johnson, L.Mark       Landform (hill         Johnson, L.Mark       Slope (%):         Lat:       57.472807         the site typical for this time of year?       Yes         ydrology       significantly disturbed?         ydrology       naturally problematic?         Attach site map showing sample         Yes       0         Yes       0         Yes       0         No       x         Absolute       Dominant         % Cover       Species?         30       1         20       1         20       1         20       1         20       1         20       1         20       1         20       1         20       1         20       1         20       1	Johnson, L.Mark       Landform (hillside, terrace         Ione       Slope (%):       8         Lat:       57.472807         the site typical for this time of year?       Yes       No         ydrology       significantly disturbed?       Are "Nor         ydrology       naturally problematic?       (If neededdeddeddedddddddddddddddddddddddd	Johnson, L.Mark       Landform (hillside, terrace, hummocks, etc.):         Ione       Slope (%):       8         Lat:       57.472807       Long: -134.554246         NWI classifit       NWI classifit         the site typical for this time of year?       Yes       X         ydrology       significantly disturbed?       Are "Normal Circumstances"           ydrology       naturally problematic?       (If needed, explain any answed         Attach site map showing sampling point locations, trans         Yes       0       No         Yes       0       No         Yes       0       No         Yes       0       No         Absolute       Dominant         Species?       FACU         Yes       0         35       1         30       1         Total Cover:       50         20       1         30       1         Total Cover:       50         20       1         10       1         FACU       Prevalence Index         Total Cover:       50         25       20% of total cover:       10         10       1	Sampling Point         Johnson, L.Mark       Landform (hillside, terrace, hummocks, etc.):         Jone       Slope (%):       8         Lat:       57.472807       Long: 134.554246       I         Wit classification:       (If no, explain in Remarks.)       NWI classification:       NWI classification:         drology       significantly disturbed?       Are "Normal Circumstances" present Yes       Are "Normal Circumstances" present Yes         drology       naturally problematic?       (If needed, explain any answers in Remarks.)         Attach site map showing sampling point locations, transects, import         Yes       No       x         Yes       No       x         Yes       No       x         Yes       No       x         Absolute       Dominant         Societ       Status         30       1         Total Cover:       65         30       1         200       1         700       X         201       FAC         762       700         202       1         704       704         205       1         704       20% of total cover:         2	Sampling Point:

Sampling Point:	P105

	depth needed to document the indicator or o	confirm the absence of	f indicators.)
Depth Matrix	Redox Features		
	Color (moist) % Type		Remarks
	<u> </u>	Peat	& sand
9-18 10YR 4/2 1		Sa lo	
<u> </u>			
<u> </u>			
<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=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup>		for Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4)⁴	Alaska	Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underly	ing Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue		Explain in Remarks)
Thick Dark Surface (A12)	—		
Alaska Gleyed (A13)			
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, o	ne primary indicator of	wetland hydrology,
Alaska Gleyed Pores (A15)	and an appropriate landscape position		
	<sup>4</sup> Give details of color change in Remarks.		
Restrictive Layer (if present):			
Туре:			
Depth (inches)	H <u>i</u>	dric Soil Present?	Yes <u>No x</u>
Remarks:			
HYDROLOGY			
HYDROLOGY Wetland Hydrology Indicators:			
	sufficient)	Secondary In	dicators (2 or more required)
Wetland Hydrology Indicators:	sufficient) Inundation Visible on Aerial Imagery (B		dicators (2 or more required)_ ned Leaves (B9)
Wetland Hydrology Indicators: Primary Indicators (any one indicator is		7) Water-Stai	
Wetland Hydrology Indicators: Primary Indicators (any one indicator is 0 Surface Water (A1)	Inundation Visible on Aerial Imagery (B	7) Water-Stair B8) Drainage P	ned Leaves (B9)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)	Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (	7) Water-Stain B8) Drainage P Oxidized R	ned Leaves (B9) atterns (B10)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)	Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15)	7) Water-Stain B8) Drainage P Oxidized R	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)	Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	7) Water-Stain B8) Drainage P Oxidized R Presence c Salt Depos	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)	Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	7) Water-Stain B8) Drainage P Oxidized R Presence c Salt Depos Stunted or	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Image: Comparison of the com	Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	7) Water-Stain B8) Drainage P Oxidized R Presence c Salt Depos Stunted or Geomorphi Shallow Aq	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)	Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	7) Water-Stain B8) Drainage P Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Aq Microtopog	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3) raphic Relief (D4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Iron	Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	7) Water-Stain B8) Drainage P Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Aq Microtopog	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)	Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	7) Water-Stain B8) Drainage P Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Aq Microtopog	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3) raphic Relief (D4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)	Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	7) Water-Stain B8) Drainage P Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Aq Microtopog	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3) raphic Relief (D4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes	Inundation Visible on Aerial Imagery (B         Sparsely Vegetated Concave Surface (         Marl Deposits (B15)         Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)	7) Water-Stain B8) Drainage P Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Aq Microtopog	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3) raphic Relief (D4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes	Inundation Visible on Aerial Imagery (B         Sparsely Vegetated Concave Surface (         Marl Deposits (B15)         Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)	7) Water-Stain B8) Drainage P Oxidized R Presence c Salt Depos Stunted or Geomorphi Shallow Aq Microtopog FAC-Neutra	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3) raphic Relief (D4) al Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes	Inundation Visible on Aerial Imagery (B         Sparsely Vegetated Concave Surface (         Marl Deposits (B15)         Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)	7) Water-Stain B8) Drainage P Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Aq Microtopog	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3) raphic Relief (D4) al Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Field Observations:       Surface Water Present?         Yes       Saturation Present?         Yes       (includes capillary fringe)	Inundation Visible on Aerial Imagery (B         Sparsely Vegetated Concave Surface (         Marl Deposits (B15)         Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)         No       x         Depth (Inches):       NA         No       x         Depth (Inches):       >16         No       x         Depth (Inches):       >16	7) Water-Stain B8) Drainage P Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Aq Microtopog FAC-Neutra	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3) raphic Relief (D4) al Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Field Observations:       Surface Water Present?         Yes       Saturation Present?         Yes       (includes capillary fringe)	Inundation Visible on Aerial Imagery (B         Sparsely Vegetated Concave Surface (         Marl Deposits (B15)         Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)	7) Water-Stain B8) Drainage P Oxidized R Presence of Salt Depos Stunted or Geomorphi Shallow Aq Microtopog FAC-Neutra	ned Leaves (B9) atterns (B10) nizospheres along Living Roots (C3) f Reduced Iron (C4) ts (C5) Stressed Plants (D1) c Position (D2) uitard (D3) raphic Relief (D4) al Test (D5)

Project/Site: Angoon Airport			Borough/City:	Hoonah / A	Angoon	Sampling Dat		2017
Applicant/Owner: ADOT & PF						Sampling Poi	nt: F	P106
nvestigator(s): J.Barna, S.Hartung, L.Jo	hnson, L.Mark	l	_andform (hill	side, terrace	e, hummocks, etc.):		Hillside	
ocal relief (concave, convex, none): <u>No</u>	ne		Slope (%):	25				
ubregion: Southeast Alaska		Lat: 57.47	0228		Long: -134.548527	7 <u></u> I	Datum: NAD	83
oil Map Unit Name: None					NWI classifi	ication:		
re climatic / hydrologic conditions on th	e site typical fo	or this time of	fyear? Yes	X No	(If no, explain	in Remarks.)		
re Vegetation Soil or Hyd	Irology s	ignificantly d	isturbed?	Are "Nori	mal Circumstances"	present' Yes	<b>x</b> No	
re Vegetation Soil or Hyd	Irology n	aturally prob	lematic?	(If neede	d, explain any answe	ers in Remarks	.)	
SUMMARY OF FINDINGS - A	ttach site m	ap show	ing sampli	ing point	locations, trans	sects, impo	rtant fea	tures, e
lydrophytic Vegetation Present?	Yes 0	No x						
lydric Soil Present?	Yes 0	No x	Is the	Sampled A	rea			
Vetland Hydrology Present?	Yes 0	No x	within	n a Wetland	? Yes	No	x	
Remarks:								
cinarka.								
/EGETATION – Use scientific	names of p					varika ha ati		
Tree Stratum			Dominant Species?	Indicator Status	Dominance Test w	vorksneet:		
1. Picea sitchensis		60	1	FACU	Number of Domina	nt Species		
2. Tsuga heterophylla		20	1	FAC	That Are OBL, FAC	•	3	(A)
3.				0		-		
4.				0	Total Number of Do	ominant		
	Total Cover:	80			Species Across All	Strata:	7	(B)
50% of total cover:	40	20% of to	tal cover:	16				
<u>Sapling/Shrub Stratum</u> 1. Vaccinium parvifolium		15	1	FACU	Percent of Dominar	•	0.42	(A/P)
2. Vaccinium parviolium		30	1	FAC	That Are OBL, FAC Prevalence Index		0.43	(A/B)
3.				0	Total % Cover		Multiply by	
4.		·		0	OBL species	0 x		
5.		·		0	FACW species	0 x 2		
6.		·		0	FAC species	0 x 3	3= 0	
	Total Cover:	45			FACU species	0 x 4	1= 0	
50% of total cover:	22.5	20% of to	tal cover:	9	UPL species	0 x 5	5= 0	
Herb Stratum					Column Totals:	0 (A)	0	(B)
1. Rubus pedatus		30	1	FAC				
2. Moneses uniflora		10		FACU	Prevalence In		<u>#DIV/0!</u>	
3. Streptopus amplexifolius		20	1	FACU	Hydrophytic Veg		tors:	
4. Gymnocarpium dryopteris		15	1	FACU		Test is >50%		
5				0		Index is ≤3.0	1 (Dues : 1-1-	
6		·		0		cal Adaptations	•	•••••
7		·		0		Remarks or on		,
8 9.		·		0		Hydrophytic V	egeration (	⊏xµiain)
9 0		·		0	<sup>1</sup> Indicators of hyd	Iric soil and wa	tland hydrol	oav muet
	Total Case	75		0				
50% of total cover:	Total Cover: 37.5	20% of to	tal cover:	15	be present, unles Hydrophytic	s disturded or	problematic	•
			-	10				
Plot size (radius, or length x width)	5 ft radius		are Ground		Vegetation	Yes	No	x
% Cover of Wetland Bryophytes		Total Cover	of Bryophyte	s	Present?			
(Where applicable)								
Remarks:								

mpling	Point:	P106
mpining	i onit.	1 100

SOIL							S	Campling Point: P106
Profile De	scription: (Describe to	the depth r	needed to docume	ent the indica	tor or co	onfirm the	e absence of ind	icators.)
Depth	Matrix			edox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-20	10R 3/2	100	- ( /		<u>.)po</u>	200	Organics	Decomposed
				· · · · · · · · · · · · · · · · · · ·				· ·
<sup>1</sup> Type: C=	Concentration, D=Deple	tion. RM=Re	educed Matrix. CS	=Covered or (	Coated Sa	and Grain	is. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Mat
	Indicators:		licators for Proble		-			roblematic Hydric Soils <sup>3</sup> :
Lliotoo	al an I liatal (Ad)		Alaska Color Chai				Alaska Clav	d Without Llug 5V or Doddor
	ol or Histel (A1)			,				ed Without Hue 5Y or Redder
	Epipedon (A2)		Alaska Alpine Swa	. ,			Underlying L	•
	gen Sulfide (A4)		Alaska Redox Wit	h 2.5Y Hue			Other (Expla	in in Remarks)
	Dark Surface (A12)							
Alaska	Gleyed (A13)							
Alaska	Redox (A14)		ne indicator of hydi					
Alaska	Gleyed Pores (A15)		and an appropriate	e landscape p	osition m	ust be pro	esent unless distu	irbed or problematic.
		<sup>4</sup> Gi	ve details of color	change in Re	marks.			
Restrictive	Layer (if present):							
Type:								
• •	(inches)				Hvd	ric Soil	Present? Yes	s No x
	. ,							
Remarks:								
HYDROL								
Wetland Hy	/drology Indicators:							
Primary In	dicators (any one indica	tor is sufficie	ent)			<u></u>	Secondary Indicate	ors (2 or more required)
0 Surfac	e Water (A1)		Inundation Visible	on Aerial Ima	gery (B7)	)	Water-Stained L	eaves (B9)
0 High V	/ater Table (A2)		Sparsely Vegetate	ed Concave S	urface (B	8)	Drainage Patterr	ns (B10)
0 Satura	tion (A3)		Marl Deposits (B1	5)			Oxidized Rhizos	pheres along Living Roots (C3
Water	Marks (B1)		Hydrogen Sulfide	Odor (C1)			Presence of Rec	luced Iron (C4)
Sedim	ent Deposits (B2)		Dry-Season Wate	r Table (C2)			Salt Deposits (C	5)
Drift D	eposits (B3)		Other (Explain in F	Remarks)			Stunted or Stres	sed Plants (D1)
Algal M	/lat or Crust (B4)						Geomorphic Pos	ition (D2)
Iron De	eposits (B5)						Shallow Aquitarc	I (D3)
Surfac	e Soil Cracks (B6)						Microtopographi	c Relief (D4)
							FAC-Neutral Tes	st (D5)
							_	
Field Obs	ervations:							
	ater Present? Yes	No	x Depth	(Inches): N	A			
	le Present? Yes	No		(Inches): >1				
Saturation		No		(Inches): >1		Wetlar	nd Hydrology Pre	esent? Yes No x
	apillary fringe)			· /·	[		,	··· ···
	Recorded Data (stream g	gauge, monit	oring well, aerial p	hotos, previou	us inspect	tions), if a	available:	
	· · ·				•			
Remarks:					-			

Lat: 57.469 cal for this time of significantly di naturally proble te map showi X No 0 X No 0	Slope (%): 9736 year? Yes isturbed? lematic? ng sampl Is the within SWCA "upla t all speci Dominant	2 Are "Nor (If neede ing point Sampled A n a Wetland and." lindicator Status	mal Circumstances" present' Yes <u>x</u> No ed, explain any answers in Remarks.) <b>locations, transects, important featur</b> rea ? Yes <u>X</u> No	
Lat: 57.469 Lat: 57.469 cal for this time of significantly di naturally probl te map showi X No 0 X No 0 X No 0 X No 0 Iobe extends into of plants. List Absolute	Slope (%): 9736 year? Yes isturbed? lematic? ng sampl Is the within SWCA "upla t all speci Dominant	2 Are "Nor (If neede ing point Sampled A n a Wetland and." lindicator Status	Long: -134.540081       Datum: NAD 83         NWI classification:       (If no, explain in Remarks.)         mal Circumstances" present' Yes x No       No         ed, explain any answers in Remarks.)       Iocations, transects, important feature         rea       Yes X No         Plot.       No	es, e
Lat: 57.465	year? Yes isturbed? lematic? ng sampl Is the within SWCA "upla t all speci Dominant	s <u>X</u> No Are "Nor (If neede ing point Sampled A n a Wetland and."	NWI classification:         (If no, explain in Remarks.)         mal Circumstances" present' Yes x No         ed, explain any answers in Remarks.)         locations, transects, important feature         rea         ? Yes X No         plot.	
cal for this time of significantly di naturally probl te map showi X No 0 X No 0 X No 0 Iobe extends into of plants. List Absolute	year? Yes isturbed? lematic? ng sampl Is the within SWCA "upla t all speci Dominant	Are "Nor (If neede ing point Sampled A n a Wetland and."	NWI classification:         (If no, explain in Remarks.)         mal Circumstances" present' Yes x No         ed, explain any answers in Remarks.)         locations, transects, important feature         rea         ? Yes X No         plot.	es, e
significantly di naturally probl te map showi X No 0 X No 0 X No 0 Iobe extends into of plants. List Absolute	isturbed? Iematic? ng sampl Is the within SWCA "upla t all speci Dominant	Are "Nor (If neede ing point Sampled A n a Wetland and."	(If no, explain in Remarks.) mal Circumstances" present' Yes <u>x</u> No ed, explain any answers in Remarks.) <b>locations, transects, important feature</b> rea ? Yes <u>X</u> No plot.	
significantly di naturally probl te map showi X No 0 X No 0 X No 0 Iobe extends into of plants. List Absolute	isturbed? Iematic? ng sampl Is the within SWCA "upla t all speci Dominant	Are "Nor (If neede ing point Sampled A n a Wetland and."	mal Circumstances" present' Yes <u>x</u> No ed, explain any answers in Remarks.) <b>locations, transects, important featur</b> rea ? Yes <u>X</u> No plot.	es, e
naturally problem te map showi X No 0 X No 0 X No 0 Iobe extends into of plants. List Absolute	Iematic? ng sampl Is the within SWCA "upla t all speci Dominant	(If neede ing point Sampled A n a Wetland and."	ed, explain any answers in Remarks.) locations, transects, important feature rea ? Yes <u>X</u> No	es, e
te map showi X No 0 X No 0 X No 0 lobe extends into of plants. List Absolute	ng sampl Is the within SWCA "upla t all speci Dominant	ing point Sampled A n a Wetland and." les in the Indicator Status	locations, transects, important feature rea ? Yes <u>X</u> No plot.	es, e
X No 0 X No 0 X No 0 Iobe extends into of plants. List Absolute	Is the within SWCA "upla t all speci Dominant	e Sampled A n a Wetland and." es in the Indicator Status	rea ? Yes <u>X</u> No plot.	es, e
X No 0 X No 0 X No 0 Iobe extends into of plants. List Absolute	Is the within SWCA "upla t all speci Dominant	e Sampled A n a Wetland and." es in the Indicator Status	rea ? Yes <u>X</u> No plot.	
X No 0 X No 0 lobe extends into of plants. List Absolute	within SWCA "upla t all speci Dominant	n a Wetland and." es in the Indicator Status	? Yes <u>X</u> No plot.	
X No 0 lobe extends into of plants. List Absolute	within SWCA "upla t all speci Dominant	n a Wetland and." es in the Indicator Status	? Yes <u>X</u> No plot.	
lobe extends into of plants. List Absolute	SWCA "upla t all speci	es in the Indicator Status		
of plants. List Absolute	t all speci	es in the Indicator Status		
Absolute	Dominant	Indicator Status		
Absolute	Dominant	Indicator Status		
Absolute	Dominant	Indicator Status		
		Status	Dominance Test worksheet:	
	Species			
			Number of Dominant Species	
		0	•	(A)
		0		( )
		0	Total Number of Dominant	
			Species Across All Strata: 4	(B)
20% of tot	al cover:	0	Deveent of Deminent Creation	
5	1	FACIL	•	A/B)
				<u>ло)</u>
		0		
		0	OBL species 0 x 1= 0	
		0	FACW species 0 x 2= 0	
		0	FAC species 0 x 3= 0	
over: 15				
20% of tot	al cover:	3		
40	1	FAC	Column Totals: $0$ (A) $0$ (	(B)
			Prevalence index = $B/\Lambda = \#DIV/01$	
		_		
		0		
		0		
		0	Morphological Adaptations <sup>1</sup> (Provide supp	orting
		0	data in Remarks or on a separate shee	et)
		0	Problematic Hydrophytic Vegetation <sup>1</sup> (Expl	lain)
		0		
		0	<sup>1</sup> Indicators of hydric soil and wetland hydrology	must
over: 75			be present, unless disturbed or problematic.	
20% of tot	al cover:	15	Hydrophytic	
adius % B	are Ground		Vegetation Yes X No	
Total Cover	of Bryophyte	es	Present?	
nd lobe extends in	to SWCA "u	pland."		
	20% of tot           5           10           10           20% of tot           20% of tot           40           30           5           20% of tot           40           30           5           20% of tot           30           5           20% of tot           20% of tot           adius         % B           Total Cover	20% of total cover:           5         1           10         1           10         1           20% of total cover:	0 $0$ $0$ $0$ $0$ $0$ $0$ $0$ $10$ $1$ FACU $10$ $1$ FAC $0$ <	Image: Second

npling	Point:	P107

SOIL			;	Sampling Point: P107
Profile Description: (Describe to the second s	ne depth needed to document the indicator o	or confirm the a	absence of inc	dicators.)
Depth Matrix	Redox Features			· · · · · · · · · · · · · · · · · · ·
(inches) Color (moist)		pe <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-20 10YR 2/1	100	<u></u>	Organic	peaty muck
<sup>1</sup> Type: C=Concentration, D=Depletic	on, RM=Reduced Matrix, CS=Covered or Coate	ed Sand Grains.	<sup>2</sup> Lo	cation: PL=Pore Lining, M=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric Soil	3		Problematic Hydric Soils <sup>3</sup> :
X Histosol or Histel (A1)	Alaska Color Change (TA4)⁴		Alaska Glev	ved Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		Underlying I	•
X Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue			ain in Remarks)
Thick Dark Surface (A12)				
Alaska Gleyed (A13)	3			
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation			
Alaska Gleyed Pores (A15)	and an appropriate landscape positio	-	ent unless dist	urbed or problematic.
	<sup>4</sup> Give details of color change in Remark	S.		
Restrictive Layer (if present):				
Туре:				
Depth (inches)		Hydric Soil Pre	esent? Ye	es <u>X</u> No
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:				
	in aufficient)	Sar	ondon (Indiaat	tore (2 or more required)
Primary Indicators (any one indicator				tors (2 or more required)
0 Surface Water (A1)	Inundation Visible on Aerial Imagery		Vater-Stained I	
X High Water Table (A2)	Sparsely Vegetated Concave Surface		Drainage Patter	. ,
X Saturation (A3)	Marl Deposits (B15)			spheres along Living Roots (C3)
Water Marks (B1)	X Hydrogen Sulfide Odor (C1)			duced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)		Salt Deposits (C	
Drift Deposits (B3)	Other (Explain in Remarks)			ssed Plants (D1)
Algal Mat or Crust (B4) Iron Deposits (B5)			Geomorphic Po Shallow Aquitar	
Surface Soil Cracks (B6)				( )
			/licrotopograph AC-Neutral Te	· · ·
		F	AC-Neullai Te	st (D0)
Field Observations:	No X Depth (Inches); NA			
Surface Water Present? Yes Water Table Present? Yes X		·		
Saturation Present? Yes $\frac{x}{X}$	No Depth (Inches): 6 No Depth (Inches): 0	Watland	Hydrology Pr	esent? Yes X No
(includes capillary fringe)		wetiand	riyurology Pr	
	uge, monitoring well, aerial photos, previous ins	spections) if ave	ailable:	
2000 Not Net Orden Data (Stream gat	teo, monitoring woil, achai photos, previous ills	,μουιοπο), πανα		
Remarks:				

oject/Site: Angoon Airport			Borough/City:	Hoonah / /	Angoon	Sampling D	ate: 16-J	un-2017	,
plicant/Owner: ADOT & PF						Sampling F	oint:	P108	3
vestigator(s): J.Barna, S.Hartung, L.Jo			Landform (hil	lside, terrace	e, hummocks, etc.):		Terrace	and	
cal relief (concave, convex, none): <u>No</u>	one		Slope (%):	2					
bregion: Southeast Alaska		Lat: 57.46	9443		Long: -134.546762	2	Datum:	NAD 83	
il Map Unit Name: None					NWI classifi	cation:			
e climatic / hydrologic conditions on tl	ne site typical fo	or this time o	f year? Yes	S X No	(If no, explain	in Remarks.	)		
e Vegetation Soil or Hy	drology s	significantly o	listurbed?	Are "Nor	mal Circumstances"	present' Yes	x	No	
e Vegetation Soil or Hyd	drology r	naturally prob	ematic?		d, explain any answe				
							,	_	
UMMARY OF FINDINGS – A	ttach site n	hap show	ing sampl	ing point	locations, trans	sects, imp	ortant	featur	es, e
drophytic Vegetation Present?	Yes 0	No x							
dric Soil Present?	Yes 0	No x	Is the	Sampled A	rea				
etland Hydrology Present?	Yes 0	No x	withir	n a Wetland	? Yes	No	x		
marks: Above swale near cabins									
EGETATION – Use scientific	names of p								
ree Stratum			Dominant Species?	Indicator Status	Dominance Test w	vorksneet:			
Picea sitchensis		60	1	FACU	Number of Domina	nt Species			
Tsuga heterophylla		10		FAC	That Are OBL, FAC		3	;	(A)
		·		0					. ,
				0	Total Number of Do	ominant			
	Total Cover:	70			Species Across All	Strata:	6	i	(B)
50% of total cover:	35	20% of to	tal cover:	14	Deveent of Developer	at Canadian			
<u>apling/Shrub Stratum</u> Vaccinium ovalifolium		20	1	FAC	Percent of Dominar That Are OBL, FAC	•	0.5	50 /	(A/B)
Menziesia ferruginea		5		FACU	Prevalence Index			00 (	(A/D)
Oplopanax horridus		2		FACU	Total % Cover		Multipl	v bv	
Vaccinium vitis-idaea		10	1	FAC	OBL species		< 1=	0	
				0	FACW species		< 2=	0	
				0	FAC species	0 2	< 3=	0	
	Total Cover:	37			FACU species	0 2	< 4=	0	
50% of total cover:	18.5	20% of to	tal cover:	7.4	UPL species		< 5=	0	
lerb Stratum					Column Totals:	0 (A)		0 (	(B)
Streptopus amplexifolius		20	1	FACU					
Cornus canadensis		20	1	FACU	Prevalence Inc		<u>#DI\</u>	//0!	
Maianthemum dilatatum		10		FAC	Hydrophytic Veg				
Rubus pedatus		20	1	FAC		Test is >50%			
				0		Index is ≤3.(			tin .
				0		al Adaptatio			
				0		Remarks or o Hydrophytic	•		'
				0		riyuropriyuc	vegetati	on (⊏xµ	1a11)
·				0	<sup>1</sup> Indicators of hyd	ric soil and v	vetland hy	/drology	must
	Total Cover:	70			be present, unles				
50% of total cover:	35	20% of to	tal cover	14	Hydrophytic			ialio.	
			-	17		N		N	
	5 ft radius	<u>%</u> 8	are Ground		Vegetation	Yes		No <u></u>	(
Plot size (radius, or length x width)									
Plot size (radius, or length x width) % Cover of Wetland Bryophytes (Where applicable)		Total Cover	of Bryophyte	S	Present?				

Sampling Point:	P108

(inches) Color (moist)	%	Color (mo	iet)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-10 10YR 2/1	100		<u>ist)</u>	70	туре	LUC	Organic	-	mposed bark
10-18 2.5Y 6/1	50						Sa pebbles		
10-18 10YR 3/1	50						Organic	Charcoal.	decomposed bark
								,	
<sup>1</sup> Type: C=Concentration, D=E		-Poducod Matri		rod or (			2		Pore Lining, M=Mat
Hydric Soil Indicators:		Indicators for I	,		2	and Gran			ic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)		Alaska Colo	r Change (T	A4) <sup>4</sup>			Alaska G	leyed Without	t Hue 5Y or Redder
Histic Epipedon (A2)	Histic Epipedon (A2)			A5)			Underlyin	ig Layer	
Hydrogen Sulfide (A4) Thick Dark Surface (A12) Alaska Gleyed (A13)		Alaska Redo	ox With 2.5Y	′ Hue			Other (Ex	plain in Rema	arks)
Alaska Redox (A14) Alaska Gleyed Pores (A15	)	<sup>3</sup> One indicator of and an appr		-			y indicator of we		
	)	<sup>4</sup> Give details of							obioinatio.
Restrictive Layer (if present):									
• • • •									
Туре:									
Type: Depth (inches) Remarks:		_			Нус	Iric Soil	Present?	Yes	No <u>x</u>
Depth (inches)					Нус	Iric Soil	Present?	Yes	No <u>x</u>
Depth (inches) Remarks:					Нус	Iric Soil	Present?	Yes	No <u>x</u>
Depth (inches) Remarks: HYDROLOGY		ficient)			Нус		Present?		
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators		ficient)	/isible on Ae	rial Ima				cators (2 or m	nore required)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in		,			gery (B7)	<u>s</u>	Secondary Indio	cators (2 or m d Leaves (B9	nore required)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3)		Inundation V Sparsely Ve Marl Deposi	getated Con ts (B15)	icave Si	gery (B7)	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz	cators (2 or m d Leaves (B9 terns (B10) zospheres alo	nore required) )) )ng Living Roots (C3)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1)		Inundation V Sparsely Ve Marl Deposi	getated Con ts (B15) ulfide Odor (	icave Si (C1)	gery (B7)	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron	nore required) )) )ng Living Roots (C3)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Inundation V Sparsely Ve Marl Deposi Hydrogen Si Dry-Season	getated Con ts (B15) ulfide Odor ( Water Table	(C1) e (C2)	gery (B7)	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron 5 (C5)	nore required) ) ong Living Roots (C3) (C4)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Inundation V Sparsely Ve Marl Deposi	getated Con ts (B15) ulfide Odor ( Water Table	(C1) e (C2)	gery (B7)	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits Stunted or St	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron 5 (C5) ressed Plants	nore required) ) ong Living Roots (C3) (C4)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Inundation V Sparsely Ve Marl Deposi Hydrogen Si Dry-Season	getated Con ts (B15) ulfide Odor ( Water Table	(C1) e (C2)	gery (B7)	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits Stunted or St Geomorphic	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron i (C5) ressed Plants Position (D2)	nore required) ) ong Living Roots (C3) (C4)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Inundation V Sparsely Ve Marl Deposi Hydrogen Si Dry-Season	getated Con ts (B15) ulfide Odor ( Water Table	(C1) e (C2)	gery (B7)	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits Stunted or St Geomorphic Shallow Aqui	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron i (C5) ressed Plants Position (D2) tard (D3)	nore required) )) ong Living Roots (C3) (C4) s (D1)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Inundation V Sparsely Ve Marl Deposi Hydrogen Si Dry-Season	getated Con ts (B15) ulfide Odor ( Water Table	(C1) e (C2)	gery (B7)	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits Stunted or St Geomorphic	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron i (C5) rressed Plants Position (D2) tard (D3) phic Relief (D	nore required) )) ong Living Roots (C3) (C4) s (D1)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Inundation V Sparsely Ve Marl Deposi Hydrogen Si Dry-Season	getated Con ts (B15) ulfide Odor ( Water Table	(C1) e (C2)	gery (B7)	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits Stunted or St Geomorphic Shallow Aqui Microtopogra	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron i (C5) rressed Plants Position (D2) tard (D3) phic Relief (D	nore required) )) ong Living Roots (C3) (C4) s (D1)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	dicator is suf	Inundation V Sparsely Ve Marl Deposi Hydrogen Si Dry-Season Other (Expla	getated Con ts (B15) ulfide Odor ( Water Table	(C1) ⊝ (C2) ks)	gery (B7) urface (B	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits Stunted or St Geomorphic Shallow Aqui Microtopogra	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron i (C5) rressed Plants Position (D2) tard (D3) phic Relief (D	nore required) )) ong Living Roots (C3) (C4) s (D1)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations:	dicator is suf	Inundation V Sparsely Ve Marl Deposi Hydrogen Si Dry-Season Other (Expla	getated Con ts (B15) ulfide Odor ( Water Table in in Remar Pepth (Inches Pepth (Inches	(C1) (c1) (c2) (c2) (ks) (ks) (s): <u>N/</u> (s): <u>&gt;1</u>	gery (B7) urface (B	<u>s</u>	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits Stunted or St Geomorphic Shallow Aqui Microtopogra	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron i (C5) rressed Plants Position (D2) tard (D3) phic Relief (D	nore required) )) ong Living Roots (C3) (C4) s (D1)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Ye Water Table Present? Ye Saturation Present? Ye	dicator is suf	Inundation V Sparsely Ve Marl Deposi Hydrogen Si Dry-Season Other (Expla	getated Con ts (B15) ulfide Odor ( Water Table ain in Remar	(C1) (c1) (c2) (c2) (ks) (ks) (s): <u>N/</u> (s): <u>&gt;1</u>	gery (B7) urface (B	<u>5</u> 	Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits Stunted or St Geomorphic Shallow Aqui Microtopogra	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron i (C5) rressed Plants Position (D2) tard (D3) phic Relief (D Test (D5)	nore required) )) ong Living Roots (C3) (C4) s (D1)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one in 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Ye Water Table Present? Ye	25 26 26 26	Inundation V Sparsely Ve Marl Deposi Dry-Season Other (Expla No x E No x E	getated Con ts (B15) ulfide Odor ( Water Table in in Remar Depth (Inches Depth (Inches Depth (Inches	s): N/ (C1) (C2) (ks) (Ks) (ks)	gery (B7) urface (B4		Secondary India Water-Staine Drainage Pat Oxidized Rhiz Presence of I Salt Deposits Stunted or St Geomorphic Shallow Aqui Microtopogra FAC-Neutral	cators (2 or m d Leaves (B9 terns (B10) zospheres alo Reduced Iron i (C5) rressed Plants Position (D2) tard (D3) phic Relief (D Test (D5)	nore required) )) ong Living Roots (C3) (C4) s (D1) )4)

Project/Site: Angoon Airport		E	Borough/City	: Hoonah / /	Angoon	Samplir	ng Date: 1	6-Jun-20	17
Applicant/Owner: ADOT & PF						Samplir	ng Point:	P1	09
Investigator(s): J.Barna, S.Hartung, L.Joh	nson, L.Mark	l	_andform (hil	lside, terrace	e, hummocks, et	tc.):	Depr	ression	
Local relief (concave, convex, none): Cor	icave		Slope (%):	5					
Subregion: Southeast Alaska		Lat: 57.46	9351		Long: -134.54	46288	Datu	m: NAD 8	33
Soil Map Unit Name: None					NWI cl	assification:			
Are climatic / hydrologic conditions on the	e site typical fo	r this time of	year? Yes	s X No	(If no, ex	plain in Remai	rks.)		
Are Vegetation Soil or Hydr	rology si	ignificantly d	isturbed?	Are "Nor	mal Circumstan	ces" present'	Yes <b>x</b>	No	
Are Vegetation Soil or Hydr	rology n	aturally prob	lematic?	(If neede	ed, explain any a	answers in Rer	narks.)		
				· · · ·			,		
SUMMARY OF FINDINGS – At	tach site m	ap showi	ing sampl	ing point	locations, t	ransects, i	mporta	nt featu	ires, et
Hydrophytic Vegetation Present?	Yes x	No 0							
Hydric Soil Present?	Yes X	No 0	Is the	Sampled A	rea				
Wetland Hydrology Present?	Yes X	No 0	withi	n a Wetland	? Yes	X N	No		
Remarks: 6/18/2017. Wetland 98					•				
Assume hydric soils based of	on the presenc	o of saturatio	on						
Expect water table to rise g	•		011.						
· · · · · · · · · · · · · · · · · · ·			4 all anaa:	aa in tha	nlat				
VEGETATION – Use scientific	names of p		Dominant	Indicator	Dominance T	est workshee			
Tree Stratum			Species?	Status	Dominunce				
1. Tsuga heterophylla		50	1	FAC	Number of Do	minant Specie	es		
2.				0	That Are OBL	, FACW, or FA	۸C:	3	(A)
3		·		0					
4				0	Total Number			-	
50% of total cover:	Total Cover: 25	50 20% of to	tal cover:	10	Species Acros	ss All Strata:		5	(B)
Sapling/Shrub Stratum	25	2070 01 10	lai cover.	10	Percent of Do	minant Specie	s		
1. Oplopanax horridus		25	1	FACU		, FACW, or FA		0.60	(A/B)
2. Menziesia ferruginea		5		FACU		Index worksh			( <i>)</i>
3.				0	Total % C	Cover of:	Mul	tiply by:	
4.				0	OBL species	0	x 1=	0	
5				0	FACW species		x 2=	0	_
6				0	FAC species		x 3=	0	_
	Total Cover:	30			FACU species		x 4=	0	_
50% of total cover: Herb Stratum	15	20% of to	tal cover:	6	UPL species	$\frac{0}{0}$	x 5=	0	- (P)
1. Maianthemum dilatatum		30	1	FAC	Column Totals	s: <u>0</u> (	A)	0	(B)
2. Athyrium cyclosorum		20	1	FAC	Prevalen	ce Index = B/A	\_ #	DIV/0!	
3. Gymnocarpium dryopteris		20	1	FACU		Vegetation I			
4. Lysichiton americanus		5		OBL		ance Test is >		•	
5.				0		ence Index is :			
6.				0		ological Adapt		rovide su	oporting
7.				0		ta in Remarks			
8.				0		matic Hydroph		•	,
9.				0	—		-		
10.				0	<sup>1</sup> Indicators of	of hydric soil ar	nd wetland	d hydrolog	y must
	Total Cover:	75			be present,	unless disturb	ed or prob	lematic.	
50% of total cover:	37.5	20% of to	tal cover:	15	Hydrophytic		•		
Plot size (radius, or length x width)	5 ft radius	% B	are Ground		Vegetation	Yes	x	No	
% Cover of Wetland Bryophytes			of Bryophyte	s	Present?				
(Where applicable)			e. Biyopiiyio						
Remarks: 6/18/2017. Wetland 98					•				
US Army Corps of Engineers								Alaska V	ersion 2

nnlina	Point:	P109
ipiiriy	F UIIIL	F 109

SOIL								Sampling Point:	P109
Profile Des	scription: (Describe to	the depth	needed to document	the indicate	or or co	nfirm th	e absence of i	indicators.)	
Depth	Matrix			x Features				· · · · · · · /	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remar	ks
0-6	10YR 2/1	100			. )   0		CI Io		
6-20	10YR 2/1	100					Gr sa lo	25% loam, pe	ea gravel
<sup>1</sup> Type: C=	Concentration, D=Deple	etion, RM=F	educed Matrix, CS=C	overed or Co	bated Sa	and Grair	ns. <sup>2</sup> l	Location: PL=Pore L	₋ining, M=Mat
Hydric Soil	Indicators:	In	dicators for Problem	atic Hydric (	Soils <sup>3</sup> :		Indicators fo	or Problematic Hyd	ric Soils <sup>3</sup> :
Histos	Histosol or Histel (A1) Alaska Color Cl						Alaska G	leyed Without Hue &	5Y or Redder
	Epipedon (A2)					Underlyin	•		
			-	. ,			•	plain in Remarks)	
	jen Sulfide (A4) Dark Surface (A12)		Alaska Redox With 2						
	Gleyed (A13)								
	,	30	ne indicator of hydrop	butio vogoto	tion one	nrimonu	indiantar of w	atland hydrology	
	Redox (A14)	U	and an appropriate la						atic
Alaska	Gleyed Pores (A15)	4				ust be pr	esent unless u	isturbed of problem	allo.
		Ŀ	ive details of color cha	ange in Rem	arks.				
Restrictive	Layer (if present):								
Type:			_						
Depth	(inches)		_		Hyd	ric Soil	Present?	Yes <u>X</u> No	
HYDROLO Wetland Hy	DGY /drology Indicators:								
-	dicators (any one indica	tor is suffici	ent)			S	Secondary India	cators (2 or more re	auired)
	e Water (A1)		Inundation Visible on	Aerial Imag	orv (B7)			d Leaves (B9)	<u>quilou)</u>
	/ater Table (A2)		Sparsely Vegetated (	-		-	Drainage Pat	( )	
X Satura			Marl Deposits (B15)	Joneave Our			-	zospheres along Liv	ing Roots (C3)
	Marks (B1)		Hydrogen Sulfide Od	or (C1)			-	Reduced Iron (C4)	
	ent Deposits (B2)		Dry-Season Water Ta				Salt Deposits	• • •	
	eposits (B3)		Other (Explain in Rer	· · ·				ressed Plants (D1)	
	lat or Crust (B4)			,			Geomorphic I	. ,	
Iron De	eposits (B5)						Shallow Aquit	tard (D3)	
Surfac	e Soil Cracks (B6)						Microtopogra	phic Relief (D4)	
							FAC-Neutral	Test (D5)	
							_		
Field Obs	ervations:								
	ater Present? Yes	No	x Depth (Inc	ches): NA					
	le Present? Yes		X Depth (Inc	,	-				
Saturation					-	Wetlar	nd Hydrology	Present? Yes	X No
(includes c	apillary fringe)								<u> </u>
Describe F	Recorded Data (stream g	gauge, mon	itoring well, aerial phot	tos, previous	inspect	ions), if a	available:		
<u> </u>									
Remarks:	Expect water table to	rise given m	nore time.						

Project/Site: Angoon Airport			Borough/City:	Hoonah /	Angoon	Sampling Date:	: <u>16-Jun-2017</u>
Applicant/Owner: ADOT & PF						Sampling Point	t: P110
Investigator(s): J.Barna, S.Hartung, L.Jo	hnson, L.Mark		Landform (hill	lside, terrac	e, hummocks, etc.):	S	Shoreline
Local relief (concave, convex, none): <u>No</u>	ne		Slope (%):	3			
Subregion: Southeast Alaska		Lat: 57.46	6943		Long: -134.54367	<u>1</u> Da	atum: NAD 83
Soil Map Unit Name: None					NWI classif	ication:	
Are climatic / hydrologic conditions on th	e site typical fo	r this time c	of year? Yes	s X No	(If no, explain	in Remarks.)	
Are Vegetation Soil or Hyd	Irology s	ignificantly o	disturbed?	Are "No	rmal Circumstances"	present' Yes	x No
Are Vegetation Soil or Hyd	Irology n	aturally prol	blematic?	(If neede	ed, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – A	itach site m	ap show	ing sampl	ing point	locations, trans	sects, import	tant features, e
Hydrophytic Vegetation Present?	Yes x	No 0					
Hydric Soil Present?	Yes 0	No x	Is the	Sampled A	Area		
Wetland Hydrology Present?	Yes 0	No x	within	n a Wetland	l? Yes	No	x
Remarks: At sw end of wetl98, a-11; o	paralroat= 5%						
A Swend of weil90, a-11, c	Joranoot- 576, 1						
	nomoo of n	lanta Lia		oo in the	nlot		
VEGETATION – Use scientific	names or p		Dominant	Indicator	Dominance Test v	vorksheet:	
Tree Stratum			Species?	Status	Dominance rest	Volkoneet.	
1. Picea sitchensis		50	1	FACU	Number of Domina	nt Species	
2. Tsuga heterophylla		30	1	FAC	That Are OBL, FAC	CW, or FAC:	2 (A)
3.				0			
4				0	Total Number of Do		
E0% of total cover	Total Cover:	80	otal cover:	16	Species Across All	Strata:	3 (B)
50% of total cover: Sapling/Shrub Stratum	40	20% 01 10	Jai cover.	16	Percent of Domina	nt Species	
1.				0	That Are OBL, FAC	•	0.67 (A/B)
2.				0	Prevalence Index		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
3.				0	Total % Cover		Aultiply by:
4.				0	OBL species	0 x 1=	
5.				0	FACW species	0 x 2=	= 0
6				0	FAC species	0 x 3=	= 0
	Total Cover:	0			FACU species	0 x 4=	
50% of total cover:	0	20% of to	otal cover:	0	UPL species	0 x 5=	
Herb Stratum		10	4		Column Totals:	0 (A)	0 (B)
<ol> <li>Maianthemum dilatatum</li> <li>Moneses uniflora</li> </ol>		10	1	FAC FACU		L D/A	
				0	Prevalence In		<u>#DIV/0!</u>
3				0	Hydrophytic Veg x Dominance	Test is >50%	15.
5.				0		Index is ≤3.0	
6.				0			(Provide supporting
7.				0		Remarks or on a	
8.				0			getation <sup>1</sup> (Explain)
9.		·		0	—		<b>J</b>
10.				0	<sup>1</sup> Indicators of hyd	tric soil and wetle	and hydrology must
	Total Cover:	13			be present, unles		
50% of total cover:	6.5	20% of to	otal cover:	2.6	Hydrophytic		
Plot size (radius, or length x width)	5 ft radius		- Bare Ground		Vegetation	Yes x	No
% Cover of Wetland Bryophytes			_		Present?	Yes x	
(Where applicable)		Total Cove	r of Bryophyte	s	1.163611(1		
Remarks: At sw end of wetl98, a-11	: coralroot= 5%	6. NO shruha					
A SW CHU OF WELISO, d-1	, 551411001- 37	o, no oni upe	•				
US Army Corps of Engineers							Alaska Version

nnlina	Point:	P110
ipiirig	POINT.	PIIU

SOIL			Sampling Point: P110
Profile Description: (Describe to the c	lepth needed to document the indicator or con	firm the absence of i	ndicators.)
Depth Matrix	Redox Features		-
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks
0-4 5YR 3/2 10	0	Organic	decomposed bark
4-16 10YR 3/2 10	0	Sa	Coarse
	<u> </u>		
<sup>1</sup> Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or Coated Sar	nd Grains. <sup>2</sup> L	_ocation: PL=Pore Lining, M=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators fo	r Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gl	eyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlyin	g Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	-	plain in Remarks)
Thick Dark Surface (A12)	—		. ,
Alaska Gleyed (A13)			
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	primary indicator of we	etland hvdrology.
Alaska Gleyed Pores (A15)	and an appropriate landscape position mus		
	<sup>4</sup> Give details of color change in Remarks.		
Restrictive Layer (if present):			
Type:		via Sail Bragant?	
Depth (inches)	Hydr	ric Soil Present?	Yes <u> </u>
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (any one indicator is	sufficient)	Secondary Indic	cators (2 or more required)
0 Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Water-Staine	d Leaves (B9)
0 High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)	) Drainage Pati	terns (B10)
0 Saturation (A3)	Marl Deposits (B15)	Oxidized Rhiz	cospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of F	Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits	(C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or St	ressed Plants (D1)
Algal Mat or Crust (B4)		Geomorphic F	Position (D2)
Iron Deposits (B5)		Shallow Aquit	ard (D3)
Surface Soil Cracks (B6)		Microtopogra	phic Relief (D4)
		FAC-Neutral	Test (D5)
Field Observations:			
Field Observations: Surface Water Present? Yes	No <u>x</u> Depth (Inches): NA		
	No         x         Depth (Inches):         NA           No         x         Depth (Inches):         >16		
Surface Water Present? Yes		Wetland Hydrology	Present? Yes <u>No x</u>
Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)	NoxDepth (Inches):>16NoxDepth (Inches):>16		Present? Yes <u>No x</u>
Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)	No x Depth (Inches): >16		Present? Yes <u>No x</u>
Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)	NoxDepth (Inches):>16NoxDepth (Inches):>16		Present? Yes <u>No x</u>

Project/Site: Angoon Airport				Borough/City:	1100fiait / F	higoon	oun	pling Date.	16-Jun-20	)17
Applicant/Owner: ADOT & PF								pling Point	: <u>P</u>	111
nvestigator(s): J.Barna, S.Hartung, L.Jo	ohnson, l	L.Mark		Landform (hills	side, terrace	, hummocks, e	etc.):		Swale	
Local relief (concave, convex, none):Co	oncave			Slope (%): 2						
Subregion: Southeast Alaska			Lat: 57.4	66998		Long: -134.	543589	Da	atum: NAD	83
Soil Map Unit Name: None						NWI	classification	:		
Are climatic / hydrologic conditions on t	he site ty	pical fo	r this time o	of year? Yes	X No	(If no, e	xplain in Rer	narks.)		
Are Vegetation Soil or Hy	drology	si	qnificantly	disturbed?	Are "Norr	mal Circumsta	nces" preser	nt' Yes	<b>x</b> No	
· ·	drology		aturally pro	blematic?		d, explain any	-			
· · · · · · · · · · · · · · · · · · ·										
SUMMARY OF FINDINGS – A	ttach s	site m	ap show	/ing sampli	ng point	locations,	transects	, import	tant feat	ures, e
lydrophytic Vegetation Present?	Yes	Х	No 0							
lydric Soil Present?	Yes	Х	No 0	Is the	Sampled A	rea				
Vetland Hydrology Present?	Yes	Х	No 0		a Wetland		х	No		
	-			•						
Remarks:										
						_				
/EGETATION – Use scientific	name	s of p								
Tree Stratum				<ul> <li>Dominant</li> <li>Species?</li> </ul>	Indicator Status	Dominance	lest worksh	neet:		
1. Picea sitchensis			30	<u>1</u>	FACU	Number of D	ominant Spe	cies		
2. Tsuga heterophylla			10	1	FAC	That Are OB	•		3	(A)
3.				·	0					
4.					0	Total Numbe	r of Dominar	nt		
		Cover:	40	-		Species Acro	oss All Strata	: <u> </u>	5	(B)
50% of total cover:	20	0	20% of t	otal cover:	8					
Sapling/Shrub Stratum 1. Oplopanax horridus			40	1	FACU	Percent of De	•		0.60	
2.			40	1	0	That Are OB	Index work		0.60	(A/B)
3.				·	0		Cover of:		Aultiply by:	
1				·	0	OBL species		x 1=		_
4 5				·	0	FACW species		- x 2=		_
6.					0	FAC species				
	Total (	Cover:	40	·		FACU specie		 x 4=	0	_
50% of total cover:			20% of t	otal cover:	8	UPL species		x 5=		_
<u>Herb Stratum</u>						Column Tota		(A)	0	(B)
1. Lysichiton americanus			30	1	OBL					
2. Maianthemum dilatatum			5	·	FAC	Prevale	nce Index =	B/A =	<u>#DIV/0!</u>	
3. Tiarella trifoliata			10	1	FAC		c Vegetatio		rs:	
4				·	0		nance Test is			
5					0		lence Index			
6					0		nological Ada			
7				. <u> </u>	0		ata in Remar			
8				·	0	Proble	ematic Hydro	ophytic Veg	getation' (E	xplain)
9				·	0	1	- <b>f</b> h. 12	1		
0	_			·	0		of hydric soi		•	gy must
		Cover:	45		•		unless distu	urbed or pr	oblematic.	
50% of total cover:	22	.5	20% of t	otal cover:	9	Hydrophytic				
Plot size (radius, or length x width)	5 fl	t radius	%	Bare Ground		Vegetation	Yes	Х	No	
% Cover of Wetland Bryophytes			Total Cove	r of Bryophytes	3	Present?				
						I				
(Where applicable)										
(Where applicable) Remarks:						1				

plina	Point:	P111
ipini ig	i onit.	

SOIL								Sampling Point:	P111
Profile Des	scription: (Describe	to the depth	needed to documen	t the indica	tor or co	nfirm the	e absence of i	ndicators.)	
Depth	Matrix			ox Features				,	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	S
0-10	10YR 2/1	100	· · · · · ·				Muck		
10-20	N 2.5/	100					Muck	With 20% s	sa gr
		·							
		·						-	
17							2		
	Concentration, D=Dep Indicators:		dicators for Problem			and Grain		Location: PL=Pore Li	-
Hyunc Son	indicators.				50115 .		inuicators to	r Froblematic Hydr	ic 30115°.
X Histos	ol or Histel (A1)		Alaska Color Chang	e (TA4)⁴			Alaska Gl	eyed Without Hue 5	Y or Redder
Histic I	Epipedon (A2)		Alaska Alpine Swale	s (TA5)			Underlyin		
	jen Sulfide (A4)		Alaska Redox With 2	2.5Y Hue			Other (Ex	plain in Remarks)	
	Dark Surface (A12)								
Alaska	Gleyed (A13)	0							
	Redox (A14)	°C	one indicator of hydrop						
Alaska	Gleyed Pores (A15)	4 -	and an appropriate l			ust be pre	esent unless d	isturbed or problema	itic.
		*0	live details of color ch	ange in Rer	narks.				
Restrictive	Layer (if present):								
Type:			_						
Depth	(inches)		_		Hyd	ric Soil F	Present?	Yes <u>X</u> No	
Remarks:									
HYDROLO	DGY								
	drology Indicators:								
Primary In	dicators (any one indic	ator is suffici	ent)			S	econdary Indic	cators (2 or more req	uired)
0 Surfac	e Water (A1)		Inundation Visible or	n Aerial Ima	gery (B7)	_	Water-Staine	d Leaves (B9)	
X High W	/ater Table (A2)		Sparsely Vegetated	Concave Su	urface (B8	3)	Drainage Patt	terns (B10)	
X Satura	tion (A3)	_	Marl Deposits (B15)				Oxidized Rhiz	cospheres along Livir	ng Roots (C3)
Water	Marks (B1)	_	Hydrogen Sulfide Oc	dor (C1)				Reduced Iron (C4)	
	ent Deposits (B2)		Dry-Season Water T	· · ·			Salt Deposits	( )	
	eposits (B3)	_	Other (Explain in Re	marks)			-	ressed Plants (D1)	
~	lat or Crust (B4)						Geomorphic I	( )	
	eposits (B5) e Soil Cracks (B6)						Shallow Aquit	ard (D3) phic Relief (D4)	
Sunac							FAC-Neutral	,	
Field Of					<u> </u>				
Field Obs		NI.	X Donth (Im	ches): NA					
	ater Present? Yes le Present? Yes		Depth (In Depth (In	·					
Saturation				·		Wetlan	d Hydrology	Present? Yes	X No
	apillary fringe)			,			,	••••	
	Recorded Data (stream	i gauge, mon	itoring well, aerial pho	otos, previou	s inspect	ions), if a	vailable:		
					-				
Remarks:									

Project/Site: Angoon Airport		I	Sorougn/City.	Hoonah / A	Angoon	•	•	18-Jun-2	
pplicant/Owner: ADOT & PF						-	ng Point:	P	112
nvestigator(s): J.Barna, S.Hartung, L.Jo	hnson, L.Mark	<u> </u>	_andform (hill	side, terrace	e, hummocks, etc	c.):		Swale	
ocal relief (concave, convex, none): <u>Co</u>	ncave		Slope (%): 2	2					
ubregion: Southeast Alaska		Lat: 57.46	5794		Long: -134.53	7242	Da	tum: NAD	83
oil Map Unit Name: None				_	NWI cla	ssification:			
e climatic / hydrologic conditions on th	ne site typical f	or this time of	year? Yes	X No	(If no, exp	lain in Rema	rks.)		
e Vegetation Soil or Hyd	drology	significantly d	isturbed?	Are "Nor	mal Circumstand	es" present'	Yes	<b>x</b> No	
re Vegetation Soil or Hyd	drology	naturally prob	lematic?	(If neede	d, explain any a	nswers in Rei	marks.)		
UMMARY OF FINDINGS – A	ttach site r	nap snowi	ing sampli	ing point	locations, tr	ansects, i	mport	ant feat	ures, e
vdrophytic Vegetation Present?	Yes X	No 0							
ydric Soil Present?	Yes X	No 0	Is the	Sampled A	rea				
etland Hydrology Present?	Yes X	No 0	within	a Wetland	? Yes	<u>X</u> I	No		
emarks:									
indiko.									
	nomes of	alanta Lia	t all anasi	aa in tha	nlat				
EGETATION – Use scientific	names or		Dominant	Indicator	Dominance Te	st workshoe			
ree Stratum		% Cover		Status	Dominance re	St WORKSHEE			
. Tsuga heterophylla		50	1	FAC	Number of Dor	ninant Specie	es		
-				0	That Are OBL,	FACW, or FA	AC:	3	(A)
				0		(B) (			
·	Tatal Osuan			0	Total Number of			0	
50% of total cover:	Total Cover: 25	50 20% of to	tal cover:	10	Species Acros	s All Strata:		3	(B)
Sapling/Shrub Stratum	20	2070 01 10		10	Percent of Don	ninant Specie	es		
. Picea sitchensis		1		FACU	That Are OBL,	•		1.00	(A/B)
Menziesia ferruginea		5		FACU	Prevalence I	ndex worksh	eet:		. ,
Vaccinium alaskaense		80	1	FAC	Total % Co	over of:	M	lultiply by:	
. Tsuga heterophylla		10		FAC	OBL species	0	x 1=	0	
				0	FACW species		x 2=	0	_
				0	FAC species	0	x 3=	0	_
	Total Cover:			40.0	FACU species		x 4=	0	
50% of total cover: Herb Stratum	48	20% of to	tal cover:	19.2	UPL species Column Totals	: 0 (	x 5= (A)	0	(B)
. Lysichiton americanus		30	1	OBL		(	,,,,		_(B)
Rubus pubescens		5		FACW	Prevalenc	e Index = B/	۹ =	#DIV/0!	
Cornus canadensis		5		FACU	Hydrophytic				
				0		nce Test is >			
				0	Prevale	nce Index is	≤3.0		
				0	Morpho	logical Adapt	ations <sup>1</sup> (	Provide su	upporting
				0		a in Remarks			
				0	Problen	natic Hydroph	nytic Veg	etation <sup>1</sup> (E	Explain)
				0	1				
)				0	<sup>1</sup> Indicators of				ogy must
	Total Cover:				be present, u	nless disturb	ed or pro	oblematic.	
50% of total cover:	20	20% of to	tal cover:	8	Hydrophytic				
Plot size (radius, or length x width)	5 ft radiu	s %B	are Ground	0	Vegetation	Yes	Х	No	
% Cover of Wetland Bryophytes		Total Cover	of Bryophyte	s	Present?	-			
(Where applicable)									
Remarks:									

npling Point:	P1 <sup>-</sup>	1
---------------	-----------------	---

SOIL		Sampling Point: P112
Profile Description: (Describe to the	depth needed to document the indicator or	confirm the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist)	% Color (moist) % Type	e <sup>1</sup> Loc <sup>2</sup> Texture Remarks
	00	Peaty muck
	, RM=Reduced Matrix, CS=Covered or Coated Indicators for Problematic Hydric Soils <sup>3</sup>	-
Hydric Soil Indicators:	Indicators for Problematic Hydric Solis	<sup>3</sup> : Indicators for Problematic Hydric Soils <sup>3</sup> :
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)
Thick Dark Surface (A12)		
Alaska Gleyed (A13)		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, o	one primary indicator of wetland hydrology,
Alaska Gleyed Pores (A15)	and an appropriate landscape position	n must be present unless disturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):		
Туре:		
Depth (inches)	—— н	Hydric Soil Present? Yes X No
Remarks:		
Kemans.		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is	s sufficient)	Secondary Indicators (2 or more required)
0 Surface Water (A1)	Inundation Visible on Aerial Imagery (B	B7) Water-Stained Leaves (B9)
X High Water Table (A2)	Sparsely Vegetated Concave Surface	
X Saturation (A3)	Marl Deposits (B15)	Oxidized Rhizospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Geomorphic Position (D2)
Iron Deposits (B5)		Shallow Aquitard (D3)
Surface Soil Cracks (B6)		Microtopographic Relief (D4)
		FAC-Neutral Test (D5)
Field Observations:	No × Depth (Inches): NA	
Surface Water Present? Yes Water Table Present? Yes X	No <u>x</u> Depth (Inches): NA No Depth (Inches): 6	
Saturation Present? Yes X	No Depth (Inches): 0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		
	e, monitoring well, aerial photos, previous inspe	ections), if available:
	· · · · · · · · · · · · · · · · · · ·	··
Remarks:		

Sampling Date: <u>16-Jun-2017</u>
Sampling Point: P113
etc.): Terrace
53419 Datum: NAD 83
classification:
explain in Remarks.)
ances" present′ Yes <u>x</u> No
answers in Remarks.)
transects, important features, etc
transects, important leatures, etc
<u>X</u> No
Test worksheet:
Dominant Species
BL, FACW, or FAC: 4 (A)
er of Dominant
oss All Strata: 6 (B)
Dominant Species BL, FACW, or FAC: 0.67 (A/B)
e Index worksheet:
Cover of: Multiply by:
x = 0 $x = 0$
ies 0 x 2= 0
s <u>0 x 3= 0</u>
es <u>0 x 4= 0</u>
$5 = 0 \times 5 = 0$
als: 0 (A) 0 (B)
ence Index = B/A = #DIV/0!
ic Vegetation Indicators:
inance Test is >50%
alence Index is ≤3.0
hological Adaptations <sup>1</sup> (Provide supporting
ata in Remarks or on a separate sheet)
lematic Hydrophytic Vegetation <sup>1</sup> (Explain)
of hydric soil and wetland hydrology must
t, unless disturbed or problematic.
Yes X No
nolina
--------
ipinig

		Sampling Point: P113
Profile Description: (Describe to the	depth needed to document the indicator or co	nfirm the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-12 10YR 2/1 10	0	Mu peat
12-20 7.5YR 3/2 10	0	Peat
· ·		
1		2
	RM=Reduced Matrix, CS=Covered or Coated Sa	
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
X Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)
Thick Dark Surface (A12)	—	—
Alaska Gleyed (A13)		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	primary indicator of wetland hydrology,
Alaska Gleyed Pores (A15)	and an appropriate landscape position mu	ust be present unless disturbed or problematic.
—	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):		
Туре:		
Depth (inches)	Hyd	ric Soil Present? Yes X No
Remarks:		
nomans.		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is	sufficient)	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is 0. Surface Water (A1)		Secondary Indicators (2 or more required) Water-Stained Leaves (B9)
0 Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (B9)
0 Surface Water (A1) X High Water Table (A2)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8	Water-Stained Leaves (B9) Drainage Patterns (B10)
0 Surface Water (A1) X High Water Table (A2) X Saturation (A3)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15)	Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C3)
0 Surface Water (A1) X High Water Table (A2)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X Hydrogen Sulfide Odor (C1)	Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4)
0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C3)
0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X Hydrogen Sulfide Odor (C1)	Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Salt Deposits (C5)
0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
0 Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
0       Surface Water (A1)         X       High Water Table (A2)         X       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
0       Surface Water (A1)         X       High Water Table (A2)         X       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes	Inundation Visible on Aerial Imagery (B7)         Sparsely Vegetated Concave Surface (B8         Marl Deposits (B15)         X         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)
O Surface Water (A1)     X High Water Table (A2)     X Saturation (A3)     Water Marks (B1)     Sediment Deposits (B2)     Drift Deposits (B3)     Algal Mat or Crust (B4)     Iron Deposits (B5)     Surface Soil Cracks (B6)  Field Observations:     Surface Water Present? Yes	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) X 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)
0       Surface Water (A1)         X       High Water Table (A2)         X       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         X       Saturation Present?       Yes         X       (includes capillary fringe)	Inundation Visible on Aerial Imagery (B7)         Sparsely Vegetated Concave Surface (B8)         Marl Deposits (B15)         X Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)         No       Depth (Inches): NA         No       Depth (Inches): 6	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)
0       Surface Water (A1)         X       High Water Table (A2)         X       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         X       Saturation Present?       Yes         X       (includes capillary fringe)	Inundation Visible on Aerial Imagery (B7)         Sparsely Vegetated Concave Surface (B8         Marl Deposits (B15)         X         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)
0       Surface Water (A1)         X       High Water Table (A2)         X       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         X       Saturation Present?       Yes         X       (includes capillary fringe)	Inundation Visible on Aerial Imagery (B7)         Sparsely Vegetated Concave Surface (B8)         Marl Deposits (B15)         X Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)         No       Depth (Inches): NA         No       Depth (Inches): 6	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)

Project/Site: Angoon Airport	Borough/City:	Hoonah / Angoon	Sampling Date: <u>16-Jun-2017</u>
Applicant/Owner: ADOT & PF			Sampling Point: P114
Investigator(s): J.Barna, S.Hartung, L.Johnson, L.Mark		side, terrace, hummocks, etc.):	Road prism
Local relief (concave, convex, none):			
	Lat: 57.466416	Long: -134.5339	
Soil Map Unit Name: None		NWI classi	fication:
Are climatic / hydrologic conditions on the site typical fo			n in Remarks.)
Are VegetationSoilor Hydrologysi	gnificantly disturbed?	Are "Normal Circumstances'	present Yes <u>x</u> No
Are Vegetation Soil or Hydrology n	aturally problematic?	(If needed, explain any answ	<i>l</i> ers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	an showing sampli	na point locations tran	sects important features et
Hydrophytic Vegetation Present? Yes 0	No x		
Hydric Soil Present? Yes 0		Sampled Area	No. v
Wetland Hydrology Present? Yes 0	No <u>x</u> within	a Wetland? Yes	No <u></u>
Remarks: Edge of road prism, saturated organic soils	to edge of prism, plants	upland	
VEGETATION – Use scientific names of p	lants. List all specie	es in the plot.	
Tree Streture	Absolute Dominant	Indicator Dominance Test	worksheet:
<u>Tree Stratum</u> 1.	% Cover Species?	Status 0 Number of Domina	ant Species
2		0 That Are OBL, FA	•
3.		0	
4.		0 Total Number of D	
Total Cover:	0	Species Across A	Il Strata: 2 (B)
50% of total cover: 0	20% of total cover:	0 Dereent of Demine	ant Spacias
<u>Sapling/Shrub Stratum</u> 1. Rubus parviflorus	80 1	FACU Percent of Domina	
2. Picea sitchensis	10 1	FACU Prevalence Inde	
3. Salix ovalifolia	5	FAC Total % Cove	
4. Pteridium aquilinum	5	FACU OBL species	
5.		0 FACW species	
6		0 FAC species	0 x 3= 0
Total Cover:	100	FACU species	
50% of total cover: 50	20% of total cover:	20 UPL species	$0 \times 5 = 0$
Herb Stratum 1.		Column Totals:	<u>     (A)                               </u>
2.	<u> </u>		ndex = B/A = #DIV/0!
3.			getation Indicators:
4.			e Test is >50%
5.		0 Prevalence	e Index is ≤3.0
6.		0 Morpholog	ical Adaptations <sup>1</sup> (Provide supporting
7			Remarks or on a separate sheet)
8		0 Problemati	c Hydrophytic Vegetation <sup>1</sup> (Explain)
9		0	
10			dric soil and wetland hydrology must
Total Cover:	0		ss disturbed or problematic.
50% of total cover: 0	20% of total cover:	0 Hydrophytic	
Plot size (radius, or length x width) 5 ft radius	% Bare Ground	Vegetation	Yes No x
	Total Cover of Bryophytes	Present?	
(Where applicable)		<u> </u>	
Remarks: Edge of road prism, saturated organic set	oils to edge of prism, plan	ts upland	
US Army Corps of Engineers			Alaska Version 2.0

mpling	Point:	P114

SOIL			Sampling Point: P114				
Profile Description: (Describe to the	e depth needed to document the indicator	or confirm the abser	nce of indicators.)				
Depth Matrix	Redox Features						
(inches) Color (moist)	% Color (moist) % Ty	ype <sup>1</sup> Loc <sup>2</sup> Tex	ture Remarks				
0-5 10YR 3/2	100	Ro	ock With si lo, duff, road fil				
<u> </u>							
1			2				
	n, RM=Reduced Matrix, CS=Covered or Coat	2	<sup>2</sup> Location: PL=Pore Lining, M=Mat				
Hydric Soil Indicators:	Indicators for Problematic Hydric So	ils": Indica	tors for Problematic Hydric Soils <sup>3</sup> :				
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Ala	aska Gleyed Without Hue 5Y or Redder				
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Ur	nderlying Layer				
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Ot	her (Explain in Remarks)				
Thick Dark Surface (A12)	_						
Alaska Gleyed (A13)							
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation	n, one primary indicat	or of wetland hydrology,				
Alaska Gleyed Pores (A15)	and an appropriate landscape positi	on must be present u	nless disturbed or problematic.				
	<sup>4</sup> Give details of color change in Remark	<s.< td=""><td></td></s.<>					
Restrictive Layer (if present):							
Туре:							
Depth (inches)		Hydric Soil Presen	t? Yes No x				
Remarks:							
Nemaina.							
HYDROLOGY Wetland Hydrology Indicators:							
Primary Indicators (any one indicator i	s sufficient)	Seconda	ary Indicators (2 or more required)				
<sup>0</sup> Surface Water (A1)	Inundation Visible on Aerial Imagery		-Stained Leaves (B9)				
0 High Water Table (A2)	Sparsely Vegetated Concave Surface		age Patterns (B10)				
0 Saturation (A3)	Marl Deposits (B15)		ed Rhizospheres along Living Roots (C3)				
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		nce of Reduced Iron (C4)				
Sediment Deposits (B2)	Dry-Season Water Table (C2)		eposits (C5)				
Drift Deposits (B3)	Other (Explain in Remarks)		ed or Stressed Plants (D1)				
Algal Mat or Crust (B4)		Geomorphic P					
Iron Deposits (B5)		Shallow Aquitard (D3)					
Surface Soil Cracks (B6)		Microt	opographic Relief (D4)				
		FAC-N	leutral Test (D5)				
Field Observations:							
Surface Water Present? Yes	No <u>x</u> Depth (Inches): NA	_					
Water Table Present? Yes	No x Depth (Inches): >16	_					
Saturation Present? Yes	No <u>×</u> Depth (Inches): >16	Wetland Hydr	rology Present? YesNo <u>_x</u>				
(includes capillary fringe)							
Describe Recorded Data (stream gaug	ge, monitoring well, aerial photos, previous in	spections), if available	e:				
Remarks:							

Project/Site: Angoon Airport		E	Borough/City:	Hoonah / /	Angoon	Sampling Date:	16-Jun-2017	,
Applicant/Owner: ADOT & PF						Sampling Point:	P115	5
Investigator(s): J.Barna, S.Hartung, L.Joh	nson, L.Mark	L	_andform (hill	side, terrace	e, hummocks, etc.):	Terrac	ce/hill slope	
Local relief (concave, convex, none): <u>Non</u>	е		Slope (%):	8				
Subregion: Southeast Alaska		Lat: 57.470	0826		Long: -134.54050	9 Dat	um: NAD 83	
Soil Map Unit Name: None					NWI classifi	ication:		
Are climatic / hydrologic conditions on the	site typical for	r this time of	year? Yes	X No	(If no, explain	in Remarks.)		
Are Vegetation Soil or Hydro	ology si	gnificantly d	isturbed?	Are "Nor	mal Circumstances"	present'Yes	No	
Are Vegetation Soil or Hydro	ologyn	aturally prob	lematic?	(If neede	ed, explain any answe	ers in Remarks.)		
					le setteres trem			+
SUMMARY OF FINDINGS – Att	ach site m	ap snowi	ng sampi	ing point	locations, trans	sects, importa	ant reatur	es, et
Hydrophytic Vegetation Present?	Yes 0	No x						
Hydric Soil Present?	Yes 0	No x	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes 0	No x	withir	a Wetland	? Yes	No x		
Remarks: Upland knob, extensive dow	n wood and m	IOSS						
· · ·								
Moist, but not saturated								
VEGETATION – Use scientific r	ames of p	lants. Lis	t all speci	es in the	plot.			
			Dominant	Indicator	Dominance Test w	vorksheet:		
Tree Stratum		% Cover	Species?	Status	Number of Densing	at On a size		
1				#N/A #N/A	Number of Domina That Are OBL, FAC	•	2	(A)
3. Picea sitchensis		20	1	FACU	That Are ODE, I AC	, or i Ac.		(~)
4. Tsuga heterophylla		60	1	FAC	Total Number of Do	ominant		
	Total Cover:	80			Species Across All	Strata:	5	(B)
50% of total cover:	40	20% of tot	tal cover:	16				
Sapling/Shrub Stratum					Percent of Dominal	•	0.40	
12.				0	That Are OBL, FAC		0.40 (	(A/B)
3. Vaccinium ovalifolium		30	1	FAC	Total % Cover		ultiply by:	
4. Menziesia ferruginea		20	1	FACU	OBL species	0 x 1=	0	
5.				0	FACW species	0 x 2=	0	
6.				0	FAC species	0 x 3=	0	
	Total Cover:	50			FACU species	0 x 4=	0	
50% of total cover:	25	20% of tot	tal cover:	10	UPL species	0 x 5=	0	
Herb Stratum		40	4	FAOL	Column Totals:	0 (A)	0 (	(B)
1. Cornus canadensis		40	1	FACU 0	Dervelance in			
23.				0	Prevalence In		<u>#DIV/0!</u>	
Δ				0	Hydrophytic Veg	Test is >50%	5.	
5.				0		Index is ≤3.0		
6.				0		cal Adaptations <sup>1</sup> (F	Provide supp	ortina
7.				0		, Remarks or on a s		-
8.				0		Hydrophytic Vege	•	,
9.				0	—			,
10.				0	<sup>1</sup> Indicators of hyd	Iric soil and wetlar	id hydrology	must
	Total Cover:	40			be present, unles	s disturbed or pro	blematic.	
50% of total cover:	20	20% of tot	tal cover:	8	Hydrophytic			
Plot size (radius, or length x width)	5 ft radius	% B	are Ground		Vegetation	Yes	No x	x
% Cover of Wetland Bryophytes			of Bryophyte	s	Present?			
(Where applicable)								
Remarks: Upland knob, extensive d	own wood and	I moss						
US Army Corps of Engineers							Alaska Ver	rsion 2 (
· · · · · · · · · · · · · · · · · · ·								

nnlina	Point:	P115
ipiiriy	r onn.	FIIJ

SOIL			Sampling Point: P115
Profile Description: (Describe to th	e depth needed to document the indicato	r or confirm the absen	ce of indicators.)
Depth Matrix	Redox Features		·····
(inches) Color (moist)	% Color (moist) %	Type <sup>1</sup> Loc <sup>2</sup> Text	ure Remarks
0-8 10YR 2/1	100	orga	nic Decomposed wood
8-18 10YR 4/6	100	Loa	With 20% organic material
<sup>1</sup> Type: C=Concentration, D=Depletio	n, RM=Reduced Matrix, CS=Covered or Coa	ated Sand Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric S	oils <sup>3</sup> : Indicat	tors for Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4)⁴	۸la	ska Gleyed Without Hue 5Y or Redder
	_		•
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		derlying Layer ner (Explain in Remarks)
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	0	
Thick Dark Surface (A12) Alaska Gleyed (A13)			
	30		6 U U U U
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetati		
Alaska Gleyed Pores (A15)	and an appropriate landscape pos		liess disturbed of problematic.
	<sup>4</sup> Give details of color change in Rema	rks.	
Restrictive Layer (if present):			
Туре:			
Depth (inches)		Hydric Soil Present	? Yes <u>No x</u>
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (any one indicator	is sufficient)	Secondar	ry Indicators (2 or more required)
0 Surface Water (A1)	Inundation Visible on Aerial Image	ry (B7) Water-	Stained Leaves (B9)
0 High Water Table (A2)	Sparsely Vegetated Concave Surf	ace (B8) Draina	ge Patterns (B10)
0 Saturation (A3)	Marl Deposits (B15)	Oxidize	ed Rhizospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presen	nce of Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)		eposits (C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted	d or Stressed Plants (D1)
Algal Mat or Crust (B4)			orphic Position (D2)
Iron Deposits (B5)			w Aquitard (D3)
Surface Soil Cracks (B6)			opographic Relief (D4)
		FAC-N	eutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No x Depth (Inches): NA	_	
Water Table Present? Yes	No x Depth (Inches): >16	-	
Saturation Present? Yes	No x Depth (Inches): >16	Wetland Hydro	ology Present? Yes <u>No x</u>
(includes capillary fringe)			
Describe Recorded Data (stream gau	ge, monitoring well, aerial photos, previous i	nspections), if available	):
Remarks: Moist, but not saturated			
-,			

Project/Site: Angoon Airport			Borough/City:	Hoonah /	Angoon	Sampling Da	te: 16-Jun-20	017
Applicant/Owner: ADOT & PF						Sampling Po	int: P	116
Investigator(s): J.Barna, S.Hartung, L.Joh	nson, L.Mark		Landform (hill	lside, terrace	e, hummocks, etc.):		Slope	
Local relief (concave, convex, none): None	Э		Slope (%):	10				
Subregion: Southeast Alaska		Lat: 57.47	0583		Long: -134.54081	2	Datum: NAD	83
Soil Map Unit Name: None					NWI classif	ication:		
Are climatic / hydrologic conditions on the	site typical for	this time of	f year? Yes	s X No	(If no, explain	in Remarks.)		
	ology si				mal Circumstances"		<b>x</b> No	
Are Vegetation Soil or Hydro					ed, explain any answe	-		
				,			,	
SUMMARY OF FINDINGS – Att	ach site m	ap showi	ing sampl	ing point	locations, trans	sects, impo	ortant feat	ures, etc
Hydrophytic Vegetation Present?	Yes X	No 0						
Hydric Soil Present?	Yes X	No 0	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes X	No 0		n a Wetland		No		
					· · · · · · · · · · · · · · · · · · ·			
Remarks: Several feet below upland, lu	sh lady fern							
Clistoning slong pit @ 10 ins	haa aynaatyd		aftan naana tinu					
Glistening along pit @ 10 inc								
VEGETATION – Use scientific n	ames of pl							
Tree Stratum			Dominant Species?	Indicator Status	Dominance Test v	vorksheet:		
1. Tsuga heterophylla		50	1	FAC	Number of Domina	nt Species		
2. Picea sitchensis		8	<u> </u>	FACU	That Are OBL, FAC		4	(A)
3.				0				(,,)
4.				0	Total Number of Do	ominant		
	Total Cover:	58			Species Across All	Strata:	4	(B)
50% of total cover:	29	20% of to	tal cover:	11.6		-		. ,
Sapling/Shrub Stratum					Percent of Domina	nt Species		
1. Vaccinium vitis-idaea		25	1	FAC	That Are OBL, FAC		1.00	(A/B)
2. Vaccinium ovalifolium		10	1	FAC	Prevalence Index	x worksheet:		
3. Oplopanax horridus		20		FACU	Total % Cover	of:	Multiply by:	
4. Menziesia ferruginea		10		FACU	OBL species	<u>0</u> x		_
5. Rubus spectabilis		2		FACU	FACW species		2=0	_
6				0	FAC species	<u>0</u> x	3=0	_
	Total Cover:	67			FACU species		4= 0	_
50% of total cover:	33.5	20% of to	tal cover:	13.4	UPL species		5= 0	<b>—</b> (D)
Herb Stratum		25	4		Column Totals:	0 (A)	0	(B)
1. Athyrium cyclosorum		35	1	FAC FACU				
2. Streptopus amplexifolius		5			Prevalence In		<u>#DIV/0!</u>	
3				0	Hydrophytic Veg		tors:	
4.				0		Test is >50%		
5				0		Index is ≤3.0	1 (Description	
6				0		cal Adaptations		
7				0		Remarks or on	•	,
8				0	Problematic	: Hydrophytic \	egetation (E	zxpiain)
9				0			التراجينا اممرماه	
10				0	<sup>1</sup> Indicators of hyd		-	yy must
	Total Cover:	40		•	be present, unles	s disturbed or	problematic.	
50% of total cover:	20	20% of to	-	8	Hydrophytic			
Plot size (radius, or length x width)	5 ft radius	% B	are Ground		Vegetation	Yes X	No	
% Cover of Wetland Bryophytes		Total Cover	of Bryophyte	s	Present?			
(Where applicable)								
Remarks: Several feet below upland,	lush lady fern							
US Army Corps of Engineers							Alaska	Version 2.0
oo Anny oorpa or Engineera							Alaska	v GI SIUTI Z.U

nlina	Point:	P116
piing	POINT.	PIIO

SOIL								Sampling Point:	P116
Profile Des	scription: (Describe to	the depth	needed to documer	nt the indica	tor or co	nfirm th	e absence of i	ndicators.)	
Depth	Matrix			ox Features				· · · · · · <b>,</b>	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remar	ks
0-15	10YR 2/1	100			<u></u>		Mucky peat		
15-18	10YR 3/2	100					Mucky peat	Sand & g	ravel
<sup>1</sup> Type: C=	Concentration, D=Deple	etion, RM=F	Reduced Matrix, CS=0	Covered or C	oated Sa	and Grai	ns. <sup>2</sup> L	ocation: PL=Pore L	ining, M=Mat
Hydric Soil	Indicators:	In	dicators for Problem	natic Hydric	Soils <sup>3</sup> :		Indicators fo	r Problematic Hyd	ric Soils <sup>3</sup> :
X History	ol or Histel (A1)		Alaska Color Chang	$(TA4)^4$			Alaska Gl	eyed Without Hue 5	V or Redder
	. ,			,				•	
	Epipedon (A2)	_	Alaska Alpine Swale	. ,			Underlying		
	gen Sulfide (A4)		_Alaska Redox With	2.5Y Hue				plain in Remarks)	
	Dark Surface (A12)								
	Gleyed (A13)	3 -							
	Redox (A14)	Ű	One indicator of hydro						
Alaska	Gleyed Pores (A15)	4 -	and an appropriate			ust be pi	resent unless di	sturbed or problema	atic.
		*0	Give details of color ch	hange in Rer	narks.				
Restrictive	Layer (if present):								
Type:	Roots,		_						
Depth	(inches)		_		Hyd	ric Soil	Present?	res <u>X</u> No	
Primary Ind 0 Surfact 0 High W X Satura	<b>rdrology Indicators:</b> dicators (any one indica e Water (A1) /ater Table (A2) tion (A3)	tor is suffici	Inundation Visible o Sparsely Vegetated Marl Deposits (B15)	Concave Su )			Water-Stained Drainage Patt Oxidized Rhiz	erns (B10) ospheres along Livi	
	Marks (B1)	_	Hydrogen Sulfide O	. ,				Reduced Iron (C4)	
	ent Deposits (B2) eposits (B3)		Dry-Season Water Other (Explain in Re	· · /			Salt Deposits	(C5) ressed Plants (D1)	
	lat or Crust (B4)	_		unano)	Position (D2)				
	eposits (B5)						Shallow Aquit	( )	
	e Soil Cracks (B6)						_ '	ohic Relief (D4)	
							FAC-Neutral	( )	
Field Ob -	anyatianay				<u> </u>				
	ater Present? Yes _ le Present? Yes _	N	o <u>x</u> Depth (Ir o <u>X</u> Depth (Ir oDepth (Ir	nches): >1	8	Wetla	nd Hydrology I	Present? Yes	<u>X</u> No
	apillary fringe)								
Describe F	Recorded Data (stream g	gauge, mon	itoring well, aerial pho	otos, previou	s inspect	ions), if	available:		
Pomorko:	Glistening along pit @	10 inchas	ovport ut to opport	ftor more the	20				
Remarks:	Gilsterning along pit @	to inclues,	evheer write abhear s	anei more un					

Project/Site: Angoon Airport	Borough/C	ity: Hoonah / Angoon	Sampling Date: <u>16-Jun-2017</u>
Applicant/Owner: ADOT & PF			Sampling Point: P119
Investigator(s): J.Barna, S.Hartung, L.Johnson, I	Mark Landform	(hillside, terrace, hummocks, etc.):	Slope
Local relief (concave, convex, none): <u>None</u>	Slope (%):	15	
Subregion: Southeast Alaska	Lat: 57.471755	Long: -134.5400	92 Datum: NAD 83
Soil Map Unit Name: None		NWI class	ification:
Are climatic / hydrologic conditions on the site ty	pical for this time of year?	Yes X No (If no, explai	n 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 answ	wers in Remarks.)
SUMMARY OF FINDINGS – Attach s	site map showing sam	ipling point locations, trar	nsects, important features, et
Hydrophytic Vegetation Present? Yes	X No x		
Hydric Soil Present? Yes	X No 0 Is	the Sampled Area	
Wetland Hydrology Present? Yes	X No 0 wit	thin a Wetland? Yes	X No
Remarks: Just west of road			
Remarks: Just west of road Near the boundary, lower down is s	kunk cabbage and neat satu	rated to the surface	
Near the boundary, lower down is s	Runk Cabbaye and pear, satu		
		aion in the plat	
VEGETATION – Use scientific name	Absolute Dominar		workshoot.
Tree Stratum	% Cover Species		worksheet.
1. Tsuga heterophylla	40 1	FAC Number of Domin	ant Species
2.		0 That Are OBL, FA	ACW, or FAC: <u>3</u> (A)
3		0	
4		0 Total Number of [	
Total (		Species Across A	Il Strata: <u>5</u> (B)
50% of total cover: 20 Sapling/Shrub Stratum	20% of total cover:	8 Percent of Domin	ant Species
1. Menziesia ferruginea	25 1	FACU That Are OBL, FA	•
2. Vaccinium alaskaense	40 1	FAC Prevalence Inde	
3. Tsuga heterophylla	25 1	FAC Total % Cove	
4.		0 OBL species	0 x 1 = 0
5.		0 FACW species	0 x 2= 0
6.		0 FAC species	0 x 3= 0
Total 0	Cover: 90	FACU species	0 x 4= 0
50% of total cover: 45	20% of total cover:	18 UPL species	0 x 5= 0
Herb Stratum		Column Totals:	0 (A) 0 (B)
1. Cornus canadensis	25 1	FACU	
2			$ndex = B/A = \frac{\#DIV/0!}{}$
3			getation Indicators:
4.			e Test is >50%
5			e Index is ≤3.0
6			ical Adaptations <sup>1</sup> (Provide supporting
7			Remarks or on a separate sheet)
8			ic Hydrophytic Vegetation <sup>1</sup> (Explain)
9			/dric soil and wetland hydrology must
10. <u> </u>			
Total (		· · · · · · · · · · · · · · · · · · ·	ess disturbed or problematic.
50% of total cover: 12		5 Hydrophytic	
	radius % Bare Grour		Yes X No x
% Cover of Wetland Bryophytes	Total Cover of Bryoph	ytes Present?	
(Where applicable)	-		
Remarks: Just west of road			
US Army Corps of Engineers			Alaska Version 2.0

npling	Point.	P119
npiing	POIN.	PII9

SOIL		Sampling Point: P119
Profile Description: (Describe to the	e depth needed to document the indicator or co	onfirm the absence of indicators.)
Depth Matrix	Redox Features	· · · · · · · · · · · · · · · · · · ·
(inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
	100	Organics
13-19 N 5/	20 10YR 5/4	Sa cl lo
<sup>1</sup> Type: C=Concentration, D=Depletior	n, RM=Reduced Matrix, CS=Covered or Coated S	and Grains. <sup>2</sup> Location: PL=Pore Lining, M=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
× Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)
Thick Dark Surface (A12)		
Alaska Gleyed (A13)		
	<sup>3</sup> One indicator of hydrophytic versite time and	o primory indicator of watland kydrate ry
Alaska Redox (A14) Alaska Gleyed Pores (A15)	<sup>3</sup> One indicator of hydrophytic vegetation, on	nust be present unless disturbed or problematic.
Alaska Gleyed Poles (A15)		iust be present unless disturbed of problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):		
Туре:		
Depth (inches)	Нус	dric Soil Present? Yes X No
HYDROLOGY	down is skunk cabbage and peat, saturated to the	
Wetland Hydrology Indicators:		
Primary Indicators (any one indicator i	s sufficient)	Secondary Indicators (2 or more required)
<sup>0</sup> Surface Water (A1)	Inundation Visible on Aerial Imagery (B7	
0 High Water Table (A2)	Sparsely Vegetated Concave Surface (B	
$\times$ Saturation (A3)	Marl Deposits (B15)	Oxidized Rhizospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Geomorphic Position (D2)
Iron Deposits (B5)		Shallow Aguitard (D3)
Surface Soil Cracks (B6)		Microtopographic Relief (D4)
		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	No x Depth (Inches): NA	
Water Table Present? Yes	No x Depth (Inches): $>16$	
	No Depth (Inches): 0	Wetland Hydrology Present? Yes X No
Saturation Present? Yes X	Deptil (inclies).	
Saturation Present? Yes X (includes capillary fringe)	NoDepth (inches)	
(includes capillary fringe)	ge, monitoring well, aerial photos, previous inspec	
(includes capillary fringe)	····	

Investigator(s): J.Barna, S.Hartung, L.Johnson, L.Mark       Landform (hillside, terrace, hummocks, etc.):         Local relief (concave, convex, none): None       Slope (%):       8-10         Subregion:       Southeast Alaska       Lat:       57.471561       Long: -134.540128         New classical constraints       None       NW classification:       NW classification:         Are climatic / hydrologic conditions on the site typical for this time of year?       Yes       X       No       (If no, explain in Remarks.)         Are climatic / hydrologic conditions on the site typical for this time of year?       Yes       X       No       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, import hydrology Present?       Yes       No       x       Is the Sampled Area         Wetland Hydrology Present?       Yes       No       x       is the Sampled Area       No         YEGETATION – Use scientific names of plants. List all species in the plot.       Indicator       Dominant Species?       No         1. Tsuga heterophylla       % Cover       1       FAC       Number of Dominant Species         2. Picea sitchensis       25       1       FACU       Number of Dominant Species         3. Vaccinium alaskaense       60       1       FAC       Percent of Do	Site: Angoon Airport		B	Borough/City:	Hoonah / A	<u> </u>	Sampling Date:		
cocal relief (concave, convex, none): None       Slope (%):       8-10         Subregion:       Southeast Alaska       Lat:       57.471561       Long: 134.540128         NWI classification:       NWI classification:       NWI classification:       NWI classification:         ve climatic / hydrologic conditions on the site typical for this time of year?       Yes       X No       (If no, explain in Remarks.)         ve Vegetation       Soil       or Hydrology       inatter the site typical for this time of year?       Yes       X No         SUMMARY OF FINDINGS -       Attach. site map showing sampling point locations, transects, impo         Aydrophytic Vegetation Present?       Yes       0       No       x       is the Sampled Area         Vetland Hydrology Present?       Yes       0       No       x       within a Wetland?       Yes       No         7       Yes       0       No       x       is the Sampled Area       Number of Dominant Species         1       Tsuga heterophylla       25       1       FACU       Number of Dominant Species         3       2       10       1       FACU       Number of Dominant Species       Xuacinium alaskaense       60       1       FACU         1.       Yacinium alaskaense       25       1							Sampling Point	: P	120
ubregion:       Southeast Alaska       Lat:       57.471561       Long:-134.540128         oil Map Unit Name:       None       None       NWI classification:       INWI classification:         re Vegetation       Soil       or Hydrology       significantly disturbed?       Are "Normal Circumstances" present Yes         re Vegetation       Soil       or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks:         RUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, impr         ydrophytic Vegetation Present?       Yes       0       No       x       is the Sampled Area         veltand Hydrology Present?       Yes       0       No       x       is the Sampled Area         veltand Hydrology Present?       Yes       0       X       Is the Sampled Area         emarks:       Absolute       Dominant       Indicator         Tere Stratum       % Cover       Species?       Status         1. Yauga heterophylla       0       Total Cover:       35         20% of total cover:       17.5       20% of total cover:       7         Yaecinium alkakeanse       60       1       FAC         2. Maccinium alkakeanse       60       1       FAC         2. Maccin	ator(s): J.Barna, S.Hartung, L.Johns	on, L.Mark	L	andform (hills	side, terrace	, hummocks, etc.):		Hillside	
bill Map Unit Name:       Nome       NWI classification:       NWI classification:       NWI classification:       If no, explain in Remarks).         re Vegetation       Soil       or Hydrology       significantly disturbed?       Are 'Normal Circumstances'' present' Yes       Are 'Normal Circumstances'' present'' ses         re Vegetation       Soil       or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks'         UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, import ydrophytic Vegetation Present?         Yes       0       No       x       Is the Sampled Area         utland Hydrology Present?       Yes       0       No       x         etland Hydrology Present?       Yes       0       No       x         etland Hydrology Present?       Yes       0       No       x         etland Hydrology Present?       Yes       0       Number of Dominant Species         Picea stichensis       25       1       FACU       Number of Dominant Species         Presention       10       1       FACU       Number of Dominant Species         Solling/Shub Stratum       5       1       FACU       Number of Dominant Species         Vaccinium alaskaense       60       1       FAC <t< td=""><td>elief (concave, convex, none):<u>None</u></td><td></td><td>8</td><td>Slope (%): 8</td><td>3-10</td><td></td><td></td><td></td><td></td></t<>	elief (concave, convex, none): <u>None</u>		8	Slope (%): 8	3-10				
re climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) re Vegetation Soil or Hydrology inaturally problematic? (If needed, explain any answers in Remarks: UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, import ydrophytic Vegetation Present? Yes 0 No x is the Sampled Area etland Hydrology Present? Yes 0 No x within a Wetland? Yes No emarks: EGETATION – Use scientific names of plants. List all species in the plot. EGETATION – Use scientific names of plants. List all species in the plot. EGETATION – Use scientific names of plants. List all species in the plot. EGETATION – Use scientific names of plants. List all species in the plot. EGETATION – Use scientific names of plants. List all species in the plot. EGETATION – Use scientific names of plants. List all species in the plot. Eree Stratum Absolute Dominant Indicator States EGETATION – Use scientific names of plants. List all species in the plot. Eree Stratum Absolute Dominant Indicator States EGETATION – Use scientific names of plants. List all species in the plot. Eree Stratum Absolute Dominant Indicator States Eree Stratum Absolute Dominant Indicator Dominant Species Total Cover: 35 20% of total cover: 17.5 20% of total cover: 7 Pleas sitchensis 25 1 FACU Vaccinium outificitum 55 1 FACU Prevalence index worksheet: Soly of total cover: 7 Soly of total cover: 25 Column Totals: 0 (A) Coruus canadensis 5 1 FACU Prevalence Index = B/A = Hydrophytic Vegetation Indicator Soly of total cover: 2.5 Soly of total cover: 2.5 S	on: Southeast Alaska	Lat	:: 57.471	1561		Long: -134.540128	Da	atum: NAD	83
e Vegetation       Soil       or Hydrology       significantly disturbed?       Are "Normal Circumstances" present 'Yes         e Vegetation       Soil       or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks         UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, impresent?       Yes       0       No       x         vidic Soil Present?       Yes       0       No       x       is the Sampled Area         etland Hydrology Present?       Yes       0       No       x       within a Wetland?       Yes       No         amarks:       EGETATION – Use scientific names of plants. List all species in the plot.       Indicator       Dominant       Indicator         Ficea sitchensis       25       1       FAC       Number of Dominant       Secores?         Ficea sitchensis       25       1       FAC       Total Number of Dominant       Species Across All Strata:         Percent of botal cover:       17.5       20% of total cover:       7       Percent of Dominant       Species Across All Strata:         Yacchium alaskaense       60       1       FAC       Provalence Index worksheet:       Yes CWV of FAC         Total Cover:       70       25       1       FAC       FAC Uspecies       0 <td>p Unit Name: None</td> <td></td> <td></td> <td></td> <td></td> <td>NWI classific</td> <td>ation:</td> <td></td> <td></td>	p Unit Name: None					NWI classific	ation:		
e Vegetation Soil or Hydrology aturally problematic? Are "Normal Circumstances" present 'Yes e Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, improved drophytic Vegetation Present? Yes 0 No x is the Sampled Area etland Hydrology Present? Yes 0 No x within a Wetland? Yes No emarks: EGETATION – Use scientific names of plants, List all species in the plot. EGETATION – Use scientific names of plants, List all species in the plot. Tere Stratum % Cover Species? Status 100 minimit Indicator Stratus 20% of total cover: 17.5 20% of total cover: 1840 - 25 1 FACU Picea sitchensis 25 1 FACU Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: 1840 - 25 1 FACU Total Number of Dominant Species That Are OBL, FACW, or FAC: 1840 - 25 1 FACU Total Number of Dominant Species That Are OBL, FACW, or FAC: 1840 - 25 1 FACU Total Number of Dominant Species That Are OBL, FACW, or FAC: 1840 - 25 1 FACU Total Species 0 x Prevalence Index worksheet: 1840 - 25 1 FACU Total Species 0 x FAC species	natic / hydrologic conditions on the si	ite typical for thi	s time of	year? Yes	X No	(If no, explain ir	n Remarks.)		
e VegetationSoli or Hydrologynaturally problematic?       (If needed, explain any answers in Remarks         UMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, imported to the present?       Yes No		•••		-		nal Circumstances" p	resent' Yes	<b>x</b> No	
UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important provide the prophytic Vegetation Present?       Yes       0       x       is the Sampled Area         vdric Soll Present?       Yes       0       No       x       is the Sampled Area         etland Hydrology Present?       Yes       0       No       x       within a Wetland?       Yes       No         etland Hydrology Present?       Yes       0       No       x       within a Wetland?       Yes       No         etland Hydrology Present?       Yes       0       No       x       within a Wetland?       Yes       No         emarks:       Absolute       Dominant       Indicator       Momant       Dominant       Indicator         Teree Stratum       10 Cover       10 Total Cover:       35       0       Total Number of Dominant       Species Across All Strata:         Species Across All Stratum       25       1       FACU       Prevalence Index worksheet:       Total Cover:       7         Stratum       25       1       FACU       OBL species       0       x         Yaccinium alaskaense       60       1       FACU       Species       x       FACU Species       x         Yaccinium alaskaense<									
ydric Soil Present?       Yes       O       No       x       is the Sampled Area within a Wetland?       No         etland Hydrology Present?       Yes       0       No       x       within a Wetland?       Yes       No         etland Hydrology Present?       Yes       0       No       x       within a Wetland?       Yes       No         etland Hydrology Present?       Yes       0       Absolute       Dominant       Indicator         Tree Stratum       Absolute       Dominant       Indicator       Number of Dominant Species       That Are OBL, FACW, or FAC:         Picea sitchensis       25       1       FAC       Total Number of Dominant Species       That Are OBL, FACW, or FAC:       Total Number of Dominant Species         Sapling/Shrub Stratum       70       20% of total cover:       7       Prevalence Index worksheet:       Total Number of Dominant Species       No         Vaccinium alaskaense       60       1       FAC       Prevalence Index worksheet:       Total Number of Dominant Species       No       Yes       No       Yes       No       Yes       Yes       No       Yes       Yes <th>ARY OF FINDINGS – Atta</th> <th>ch site map</th> <th>showi</th> <th></th> <th>,</th> <th></th> <th>,</th> <th>tant feat</th> <th>ures, e</th>	ARY OF FINDINGS – Atta	ch site map	showi		,		,	tant feat	ures, e
etand Hydrology Present?       Yes       No       x       within a Wetland?       Yes       No         emarks:         EGETATION – Use scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of plants. List all species in the plot.         Image of the scientific names of the scientific names of the scientific names of the scientific names of the scientific name of the scienti		′es 0 No	x	Is the	Sampled A	rea			
emarks:         EGETATION – Use scientific names of plants. List all species in the plot.         Absolute Dominant Indicator         Tree Stratum         1       Tsuga heterophylla       10       1       FAC         1       10       1       FAC       Number of Dominant Species         1       10       1       FAC       Number of Dominant Species         1       17.5       20% of total cover:       7         3apling/Shrub Stratum       5       1       FACU         1       Vaccinium alaskaense       60       1       FAC         1       Vaccinium volifolium       5       FAC       Total Aumber of Dominant Species         1       Vaccinium volifolium       5       FAC       Prevalence Index worksheet:         1       Vaccinium volifolium       5       TACU       FACU       FACU         1       So% of total cover:       140       25       1       FACU         2       1       FACU       FACU       FACU       FACU         1       Corus canadensis       5       1       FACU       FACU         2       0       0       1       Morephological Adaptation:	d Hydrology Present? Y	′es 0 No			-		No	x	
EGETATION – Use scientific names of plants. List all species in the plot.         Interstation         Absolute Dominant Indicator Species? Status         Statum         Species?         Statum         Species?         Statum         Dominant Species         Total Cover:         Total Cover:       Total								<u> </u>	
1. Tsuga heterophylla       10       1       FAC         2. Picea sitchensis       25       1       FAC         3		A	bsolute	Dominant	Indicator		orksheet:		
2. Picea sitchensis       25       1       FACU       That Are OBL, FACW, or FAC:         0       0       0       Total Cover:       35         20% of total cover:       17.5       20% of total cover:       7         Sapling/Shrub Stratum       0       1       FACU       Total Number of Dominant         Vaccinium alaskaense       60       1       FACU       Percent of Dominant Species         Macinium alaskaense       60       1       FACU       Prevalence Index worksheet:         Naccinium ovalifolium       5       FACU       FACU       Total % Cover of:         Succinium ovalifolium       25       1       FACU       FACU       FACU         Picea sitchensis       25       1       FACU       Total % Cover of:       X         Succinium condificitum       70       20% of total cover:       28       O       x         FACU species       0       x       FACU species       0       x         Column Totals:       0       5       1       FACU species       0       x         Loconus canadensis       5       1       FACU species       0       x       Column Totals:       0       x         Loronus canadensis <td< td=""><td></td><td>%</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		%							
Image: Solution of total cover:       Total Cover:       35         Sapling/Shrub Stratum       35       7         Vaccinium alaskaense       60       1       FAC         Menziesia ferruginea       25       1       FACU         Vaccinium ovalifolium       5       FAC       Prevalence Index worksheet:         Tsuga heterophylla       25       1       FAC         Dicea sitchensis       25       1       FACU         Sol% of total cover:       140       70         Cornus canadensis       5       1       FACU         Prevalence Index = B/A =       0       70         Column Totals:       0       70       70         Cornus canadensis       5       1       FACU         Sol% of total cover:       0       0       1         O       0       0       0       1         O       0       0       0       1         Deminance Test is >50%       70       0			-				•		<i>(</i> <b>•</b> )
Image: Solution of total cover: 17.5       Total Cover: 35       0       Total Number of Dominant Species Across All Strata:         Sapling/Shrub Stratum       17.5       20% of total cover: 7       Percent of Dominant Species That Are OBL, FACW, or FAC:         Menziesia ferruginea       25       1       FACU         Vaccinium valifolium       5       FACU         Total Number of Dominant Species       17.5       Percent of Dominant Species         Vaccinium valifolium       5       FACU         Total Aver OBL, FACW, or FAC:       Prevalence Index worksheet:         Total Number of Dominant Species       0         Total Science       25       1         Picea sitchensis       25       1         Sol% of total cover:       70       20% of total cover:       28         Corrus canadensis       5       1       FACU         Corrus canadensis       5       1       Prevalence Index = B/A =	ea sitchensis		25	1		That Are OBL, FAC	N, or FAC:	3	(A)
50% of total cover:       Total Cover:       35       Species Across All Strata:         Sapling/Shrub Stratum       17.5       20% of total cover:       7         Vaccinium alaskaense       60       1       FAC         Menziesia ferruginea       25       1       FACU         Vaccinium ovalifolium       5       FAC       FACU         Vaccinium ovalifolium       5       FAC       FACU         Picea sitchensis       25       1       FACU         50% of total cover:       70       20% of total cover:       28         Cornus canadensis       5       1       FACU         O       0       0       Morphological Adaptation:         O       0       0       0       Prevalence Index is 3.0         O       0 <t< td=""><td></td><td></td><td></td><td>·</td><td></td><td>Total Number of Dor</td><td>minant</td><td></td><td></td></t<>				·		Total Number of Dor	minant		
50% of total cover:       17.5       20% of total cover:       7         Sapling/Shrub Stratum       60       1       FAC         Waccinium alaskaense       60       1       FAC         Menziesia ferruginea       25       1       FACU         Vaccinium ovalifolium       5       FAC       Prevalence Index worksheet:         Total % Cover of:       0       FACU       0         Picea sitchensis       25       1       FACU         Picea sitchensis       25       1       FACU         50% of total cover:       70       20% of total cover:       28         Cornus canadensis       5       1       FACU       Prevalence Index = B/A =	Т	otal Cover:	35					7	(B)
Vaccinium alaskaense       60       1       FAC       That Are OBL, FACW, or FAC:         Menziesia ferruginea       25       1       FACU       Prevalence Index worksheet:         Vaccinium ovalifolium       5       FAC       OBL species       0         Tsuga heterophylla       25       1       FAC       OBL species       0         Picea sitchensis       25       1       FAC       OBL species       0       x         FAC species       0       x       FAC species       0       x         50% of total cover:       70       20% of total cover:       28       Column Totals:       0       X         Cornus canadensis       5       1       FACU       Prevalence Index = B/A =       X         Column Totals:       0       0       Prevalence Index is <3.0				al cover:	7				_ (B)
Menziesia ferruginea       25       1       FACU       Prevalence Index worksheet:         Tsuga heterophylla       25       1       FAC       Total % Cover of:       OBL species       0       x         Picea sitchensis       25       1       FAC       FAC       FAC       Werealence Index worksheet:       Total % Cover of:       OBL species       0       x         Picea sitchensis       25       1       FAC       FAC       FAC species       0       x         50% of total cover:       70       20% of total cover:       28       Column Totals:       0       x         Cornus canadensis       5       1       FACU       Prevalence Index = B/A =       Hydrophytic Vegetation Indica         Column Totals:       0       0       Prevalence Index is <3.0	g/Shrub Stratum					Percent of Dominant	t Species		
Vaccinium ovalifolium       5       FAC         Tsuga heterophylla       25       1       FAC         Picea sitchensis       25       1       FAC         Dicea sitchensis       25       1       FAC         Solve of total cover:       140       0       FAC species       0       x         Solve of total cover:       70       20% of total cover:       28       Column Totals:       0       x         Cornus canadensis       5       1       FACU       Prevalence Index = B/A =       x         Cornus canadensis       5       1       FACU       Prevalence Index = B/A =       Hydrophytic Vegetation Indica         O       0       0       0       Prevalence Index is ≤3.0       Morphological Adaptations         O       0       0       0       0       Morphological Adaptations         Solve of total cover:       2.5       20% of total cover:       1       Indicators of hydric soil and we be present, unless disturbed or         Plot size (radius, or length x width)       5 ft radius       % Bare Ground       Yes       Present?         Yes (Where applicable)       Total Cover of Bryophytes       0       Present?       Present?	cinium alaskaense		60	1	FAC	That Are OBL, FAC	N, or FAC:	0.43	(A/B)
Tsuga heterophylla       25       1       FAC         Dicea sitchensis       25       1       FACU         OBL species       0       x         FACW species       0       x         FACU       0       FACW species       0         FACU species       0       x         FACU species       0       x         Cornus canadensis       5       1       FACU         Prevalence Index = B/A =       0       0         Morphological Adaptation:       0       0         O       0       0       0         O       0       0       0         O       0       0       0         O       0       0       0         O       0       0       0         O       0       0       0         O       0       0       0         Total Cover:       5       0       1         S0% of total cover:       2.5       20% of				1		Prevalence Index	worksheet:		
Picea sitchensis       25       1       FACU       FACW species       0       x         50% of total cover:       70       140       0       FACU species       0       x         ferb Stratum       5       1       FACU       FACU species       0       x         Cornus canadensis       5       1       FACU       Prevalence Index = B/A =       0         Cornus canadensis       5       1       FACU       Prevalence Index = B/A =       0         Multiple       0       0       Prevalence Index is <3.0			-			-		/lultiply by:	_
Image: Solution of total cover:       Total Cover:       140       0       FAC species       0       x         Solw of total cover:       70       20% of total cover:       28       FACU species       0       x         Cornus canadensis       5       1       FACU       Prevalence Index = B/A =         Image: Cornus canadensis       5       1       FACU       Prevalence Index = B/A =         Image: Cornus canadensis       5       1       FACU       Prevalence Index = B/A =         Image: Cornus canadensis       5       1       FACU       Prevalence Index = B/A =         Image: Cornus canadensis       0       0       Dominance Test is >50%       Prevalence Index is <3.0									_
Total Cover:       140         50% of total cover:       70         20% of total cover:       28         Gornus canadensis       5	ea sitchensis		25	1			-	-	_
Sow of total cover:       70       20% of total cover:       28         Herb Stratum       0       0       X         Cornus canadensis       5       1       FACU         0       0       0       Prevalence Index = B/A =         0       0       0       Prevalence Index = S/A =         0       0       0       Prevalence Index is <3.0			1.10		0	· · ·			_
Herb Stratum       5       1       FACU       Column Totals:       0       (A)         .       .       .       .       0       Prevalence Index = B/A =       Hydrophytic Vegetation Indica         .       .       .       0       Dominance Test is >50%       Prevalence Index is <3.0				al aquar	20				_
Cornus canadensis       5       1       FACU       Prevalence Index = B/A =         0       0       Prevalence Index = B/A =       Hydrophytic Vegetation Indica         0       0       0       Dominance Test is >50%         0       0       0       Prevalence Index is ≤3.0         0       0       0       Morphological Adaptations         0       0       0       Morphological Adaptations         0       0       0       Problematic Hydrophytic Vegetation Indica         0       0       0       Morphological Adaptations         0       0       0       Problematic Hydrophytic Vegetation Indica         0       0       0       Morphological Adaptations         0       0       0       Problematic Hydrophytic Vegetation Indica         0       0       0       1         0       0       0       1         0       0       1       Indicators of hydric soil and we be present, unless disturbed or         1       1       Indicators of hydric soil and we be present, unless disturbed or         9       50% of total cover:       2.5       20% of total cover:       1         9       1       5 ft radius       % Bare Ground <t< td=""><td></td><td>70 2</td><td>0% 01 101</td><td>al cover:</td><td>28</td><td></td><td>• • • •</td><td>0</td><td>(B)</td></t<>		70 2	0% 01 101	al cover:	28		• • • •	0	(B)
0       Prevalence Index = B/A =         0       0         1       Indicators of hydric soil and we be present, unless disturbed or         1       Indicators of hydric soil and we be present, unless disturbed or         50% of total cover:       2.5         20% of total cover:       1         1       Indicators of hydric soil and we be present, unless disturbed or         1       Problematic Cover:       2.5         20% of total cover:       1         1       Hydrophytic         Vegetation       Yes         Present?       Present? <td></td> <td></td> <td>5</td> <td>1</td> <td>FACU</td> <td></td> <td><u> </u></td> <td></td> <td>_(2)</td>			5	1	FACU		<u> </u>		_(2)
Image: Sector of Wetland Bryophytes       Image: Sector of Bryophytes       Image:						Prevalence Ind	ex = B/A =	#DIV/0!	
					0				
.       0       data in Remarks or on Problematic Hydrophytic V         .       0       0         .       0       0         .       0       0         .       0       0         .       0       0         .       0       0         .       0       1         .       0       0         .       0       0         .       0       0         .       0       0         .       0       0         .       0       0         .       1       Indicators of hydric soil and we be present, unless disturbed or         .       2.5       20% of total cover:       1         .       9       1       Hydrophytic         .       2.5       20% of total cover:       1         .       1       1       1         .       1       1       1         .       1       1       1         .       1       1       1         .       1       1       1         .       1       1       1         .       1					0	Prevalence Ir	ndex is ≤3.0		
.       0       data in Remarks or on Problematic Hydrophytic V         .       0       0         .       0       0         .       0       0         .       0       0         .       0       0         .       0       0         .       0       1         .       0       0         .       0       0         .       0       0         .       0       0         .       0       0         .       0       0         .       1       Indicators of hydric soil and we be present, unless disturbed or         .       2.5       20% of total cover:       1         .       9       1       Hydrophytic         .       2.5       20% of total cover:       1         .       1       1       1         .       1       1       1         .       1       1       1         .       1       1       1         .       1       1       1         .       1       1       1         .       1					0	Morphologica	al Adaptations <sup>1</sup>	(Provide sı	upporting
Image: Second system       Total Cover:       0       1       Indicators of hydric soil and we be present, unless disturbed or         50% of total cover:       2.5       20% of total cover:       1       Hydrophytic         Plot size (radius, or length x width)       5 ft radius       % Bare Ground       Vegetation       Yes         % Cover of Wetland Bryophytes       Total Cover of Bryophytes       Present?       Present?					0				
Total Cover:       5         50% of total cover:       2.5         20% of total cover:       1         Plot size (radius, or length x width)       5 ft radius         % Cover of Wetland Bryophytes       Total Cover of Bryophytes         Where applicable)       Total Cover of Bryophytes					0	Problematic I	Hydrophytic Ve	getation <sup>1</sup> (E	Explain)
Total Cover:       5       be present, unless disturbed or         50% of total cover:       2.5       20% of total cover:       1       Hydrophytic         Plot size (radius, or length x width)       5 ft radius       % Bare Ground       Vegetation       Yes         % Cover of Wetland Bryophytes       Total Cover of Bryophytes       Present?					_				
50% of total cover:       2.5       20% of total cover:       1       Hydrophytic         Plot size (radius, or length x width)       5 ft radius       % Bare Ground       Vegetation       Yes         % Cover of Wetland Bryophytes       Total Cover of Bryophytes       Present?         (Where applicable)       Yes       Yes					0	<sup>1</sup> Indicators of hydri	ic soil and wetla	ind hydrolo	gy must
Plot size (radius, or length x width)       5 ft radius       % Bare Ground       Vegetation       Yes         % Cover of Wetland Bryophytes       Total Cover of Bryophytes       Present?         (Where applicable)       Present?	Т					be present, unless	disturbed or pr	oblematic.	
% Cover of Wetland Bryophytes Total Cover of Bryophytes Present?	50% of total cover:	2.5 2	0% of tot	al cover:	1	Hydrophytic			
% Cover of Wetland Bryophytes Total Cover of Bryophytes Present? (Where applicable)	size (radius, or length x width)	5 ft radius	% B;	are Ground		Vegetation	Yes	No	x
(Where applicable)					S	Present?			
Remarks:				,					
	arks:								

npling	Point:	P120
npinig	i onit.	1 120

SOIL				Sampling Point: P120
Profile Description: (Describe to the	e depth needed to document the indicator	or confirm the	e absence of in	ndicators.)
Depth Matrix	Redox Features			,
(inches) Color (moist)	% Color (moist) % T	ype <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
	100	<u> </u>	Humus	Very moist not saturated
14-20 10YR5/3	100		Sa Cl Lo	Moist
<sup>1</sup> Type: C=Concentration, D=Depletior	n, RM=Reduced Matrix, CS=Covered or Coa	ted Sand Grain	s. <sup>2</sup> L	ocation: PL=Pore Lining, M=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric So	-		Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4)⁴		Alaska Gle	eyed Without Hue 5Y or Redder
	_			•
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		Underlying	
Hydrogen Sulfide (A4) Thick Dark Surface (A12)	Alaska Redox With 2.5Y Hue			olain in Remarks)
Alaska Gleyed (A13)				
	30			
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetatio			
Alaska Gleyed Pores (A15)	and an appropriate landscape posit	-	esent unless di	sturbed or problematic.
	<sup>4</sup> Give details of color change in Remar	ks.		
Restrictive Layer (if present):				
Туре:				
Depth (inches)		Hydric Soil F	Present? Y	es <u>No x</u>
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (any one indicator i	s sufficient)	s	econdary Indic	ators (2 or more required)
<sup>0</sup> Surface Water (A1)	Inundation Visible on Aerial Imager			
0 High Water Table (A2)	Sparsely Vegetated Concave Surfa		Water-Stained Drainage Patte	( )
0 Saturation (A3)	Marl Deposits (B15)		-	ospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		-	Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)		Salt Deposits	
Drift Deposits (B3)	Other (Explain in Remarks)		-	essed Plants (D1)
Algal Mat or Crust (B4)			Geomorphic F	
Iron Deposits (B5)			Shallow Aquita	( )
Surface Soil Cracks (B6)			- '	bhic Relief (D4)
			FAC-Neutral T	
				631 (20)
Field Observations:				
Surface Water Present? Yes	No × Depth (Inches): NA			
Water Table Present? Yes	No x Depth (Inches): >20	-		
Saturation Present? Yes	No X Depth (Inches): >20	- Wetlan	nd Hydrology F	Present? Yes No x
(includes capillary fringe)		-		
	ge, monitoring well, aerial photos, previous ir	nspections), if a	vailable:	
		. "		
Remarks:				

Project/Site: Angoon Airport			Borough/City:	Hoonah / /	Angoon	Sampling D		un-2017
Applicant/Owner: ADOT & PF						Sampling P	oint:	P121
Investigator(s): J.Barna, S.Hartung, L.Jo	hnson, L.Mark		Landform (hil	lside, terrace	e, hummocks, etc.):		Hillside	e
Local relief (concave, convex, none): No	ne		Slope (%):	3				
Subregion: Southeast Alaska		Lat: 57.46	9957		Long: -134.54005	2	Datum: I	NAD 83
Soil Map Unit Name: None					NWI classif	ication:		
Are climatic / hydrologic conditions on th	e site typical fo	r this time o	f year? Yes	S X No	(If no, explain	in Remarks.)	)	
Are Vegetation Soil or Hyd	Irology s	ignificantly c	listurbed?	Are "Nor	mal Circumstances"	present' Yes	x	No
Are Vegetation Soil or Hyd	lrologyn	aturally prob	lematic?	(If neede	d, explain any answe	ers in Remarl	ks.)	
SUMMARY OF FINDINGS - A				ina noint	locations tran	cooto imr	ortant	footuros of
			ing sampi	ing point	iocations, trans	secis, imp	ontant	leatures, et
Hydrophytic Vegetation Present?	Yes X	No 0						
Hydric Soil Present?	Yes 0	No x		Sampled A				
Wetland Hydrology Present?	Yes 0	No x	withir	n a Wetland	? Yes	No	x	
Remarks:								
Moist, but not saturated								
<b>VEGETATION – Use scientific</b>	names of p	lants. Lis	t all speci	es in the	plot.			
<b>T O</b> ( <b>1</b> )		Absolute		Indicator	Dominance Test v	vorksheet:		
<u>Tree Stratum</u> 1. Tsuga heterophylla		% Cover 50	Species? 1	Status FAC	Number of Domina	nt Spacios		
		50	I		That Are OBL, FAC	•	3	(A)
2. 3.				0		<i>M</i> , 0117(0.		(//)
4.				0	Total Number of Do	ominant		
	Total Cover:	50			Species Across All	Strata:	5	(B)
50% of total cover:	25	20% of to	tal cover:	10				
Sapling/Shrub Stratum		05	4	FACU	Percent of Domina	•	0.0	
<ol> <li>Menziesia ferruginea</li> <li>Vaccinium vitis-idaea</li> </ol>		25 15	1	FACU FAC	That Are OBL, FAC		0.6	60 (A/B)
3. Vaccinium alaskaense		40	1	FAC	Total % Cover		Multiply	v bv:
4.			<u> </u>	0	OBL species			0
5.				0	FACW species			0
6.				0	FAC species		x 3=	0
	Total Cover:	80			FACU species	0 x	x 4=	0
50% of total cover:	40	20% of to	tal cover:	16	UPL species		x 5=	0
Herb Stratum		05		FAOL	Column Totals:	0 (A)		0 (B)
1. Cornus canadensis		35	1	FACU		<b>D</b> (A		//01
2. Rubus pedatus		25	1	FAC 0	Prevalence In		<u>#DIV</u>	<u>//0!</u>
3				0	Hydrophytic Veg x Dominance	Test is >50%		
4 5.				0		Index is ≤3.0		
6.				0				ide supporting
7.				0		Remarks or o		
8.				0		Hydrophytic	•	,
9.				0	<del>_</del>	, , ,	0	、 I <i>'</i>
10.				0	<sup>1</sup> Indicators of hyd	fric soil and w	vetland hy	drology must
	Total Cover:	60			be present, unles	s disturbed c	or problem	natic.
50% of total cover:	30	20% of to	tal cover:	12	Hydrophytic			
Plot size (radius, or length x width)	5 ft radius	% E	are Ground		Vegetation	Yes X	K I	No
% Cover of Wetland Bryophytes			of Bryophyte	S	Present?			
(Where applicable)			,,··					
Remarks:								
US Army Corps of Engineers							۸۱-	aska Version 2.
US Army Corps of Engineers							Ala	iska version z

nplina	Point:	P121
npining	i onit.	1 14 1

SOIL		Sampling Point: P121					
Profile Description: (Describe to the de	epth needed to document the indicator or co	onfirm the absence of indicators.)					
Depth Matrix	Redox Features						
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks					
0-17 10YR2/2		Organic <i>I</i> oist to very moist, not saturate					
<sup>1</sup> Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, CS=Covered or Coated S	and Grains. <sup>2</sup> Location: PL=Pore Lining, M=Mat					
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :					
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder					
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer					
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)					
Thick Dark Surface (A12)							
Alaska Gleyed (A13)	3						
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, on						
Alaska Gleyed Pores (A15)		nust be present unless disturbed or problematic.					
	<sup>4</sup> Give details of color change in Remarks.						
Restrictive Layer (if present):							
Type: glacial till							
Depth (inches) <u>17</u>	Ну	dric Soil Present? Yes <u>No x</u>					
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:							
Primary Indicators (any one indicator is s	ufficient)	Secondary Indicators (2 or more required)					
0 Surface Water (A1)	Inundation Visible on Aerial Imagery (B7						
0 High Water Table (A2)	Sparsely Vegetated Concave Surface (B						
0 Saturation (A3)	Marl Deposits (B15)	Oxidized Rhizospheres along Living Roots (C3)					
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Reduced Iron (C4)					
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C5)					
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)		Geomorphic Position (D2)					
Iron Deposits (B5)		Shallow Aquitard (D3)					
Surface Soil Cracks (B6)		Microtopographic Relief (D4)					
		FAC-Neutral Test (D5)					
Field Observations:							
Surface Water Present? Yes	No X Depth (Inches): NA						
Water Table Present? Yes	No x Depth (Inches): $>17$						
Saturation Present? Yes	No x Depth (Inches): $>17$	Wetland Hydrology Present? Yes No_ x					
(includes capillary fringe)	hte A Dopti (indies).						
	monitoring well, aerial photos, previous inspec	- tions), if available:					
Remarks: Moist, but not saturated							

US Army Corps of Engineers

Project/Site: Angoon Airport		E	Borough/City:	Hoonah / A	Angoon	Sampling D	ate: <u>16-Jun-2</u>	017
Applicant/Owner: ADOT & PF						Sampling P	oint: F	P123
Investigator(s): J.Barna, S.Hartung, L.Johnson	L.Mark	L	_andform (hill	side, terrace	, hummocks, etc.):		Terrace	
Local relief (concave, convex, none): None			Slope (%):	3				
Subregion: Southeast Alaska	La	t: 57.468	8791		Long: -134.53867	76	Datum: NAD	83
Soil Map Unit Name: None					NWI classi	fication:		
Are climatic / hydrologic conditions on the site	typical for th	is time of	year? Yes	X No	(If no, explair	n in Remarks.)		
Are Vegetation Soil or Hydrology	signi	ficantly d	isturbed?	Are "Nori	mal Circumstances"	' present' Yes	x No	
Are Vegetation Soil or Hydrology	natu	ally prob	lematic?	(If neede	d, explain any answ	ers in Remark	(s.)	
SUMMARY OF FINDINGS – Attach	site map	showi	ing sampli	ing point	locations, tran	isects, imp	ortant fea	tures, etc.
Hydrophytic Vegetation Present? Yes	X No	0						
Hydric Soil Present? Yes	X No	0	Is the	Sampled A	rea			
Wetland Hydrology Present? Yes	X No	0	within	a Wetland	Yes ?	K No		
Remarks: Moderate tree removal in the are	a in the next	5 voore	moro opop o	20001/				
	a in the pasi	o years,	more open c	апору				
Seepage at bottom of pit, expect	NT to appea	ar after m	ore time					
VEGETATION – Use scientific nam				os in tho	nlot			
VEGETATION - Ose scientific flam			Dominant	Indicator	Dominance Test	worksheet:		
Tree Stratum			Species?	Status				
1. Tsuga heterophylla		20	1	FAC	Number of Domina	ant Species		
2. Picea sitchensis		10	1	FACU	That Are OBL, FA	CW, or FAC:	4	(A)
3				0				
4	Cover:	30		0	Total Number of D		7	(D)
	-		tal cover:	6	Species Across A	ii Strata:	7	(B)
Sapling/Shrub Stratum	2	.0 /0 01 101		0	Percent of Domina	ant Species		
1. Menziesia ferruginea		30	1	FACU	That Are OBL, FA		0.57	(A/B)
2. Vaccinium alaskaense		40	1	FAC	Prevalence Inde	x worksheet:		. ,
3. Tsuga heterophylla		20	1	FAC	Total % Cove	r of:	Multiply by	
4.				0	OBL species		1=0	
5				0	FACW species		2= 0	
6				0	FAC species		3= 0	_
	Cover:	90		40	FACU species		4= 0	_
50% of total cover:	45 2	20% of to	tal cover:	18	UPL species Column Totals:	$\frac{0}{0}$ (A)	5= 0	(B)
1. Athyrium cyclosorum		40	1	FAC		<u> </u>	0	(0)
2. Cornus canadensis		25	1	FACU	Prevalence Ir	ndex = B/A =	#DIV/0!	
3.				0	Hydrophytic Veg			
4.				0		e Test is >50%		
5.				0	Prevalence	e Index is ≤3.0		
6.				0	Morpholog	ical Adaptatior	ns <sup>1</sup> (Provide s	upporting
7.				0	data in	Remarks or o	n a separate	sheet)
8.				0	Problemati	c Hydrophytic	Vegetation <sup>1</sup> (	Explain)
9.				0				
10.				0	<sup>1</sup> Indicators of hy	dric soil and w	etland hydrol	ogy must
Tota	Cover:	65			be present, unle	ss disturbed o	r problematic	
50% of total cover: 3	2.5 2	20% of tot	tal cover:	13	Hydrophytic			
Plot size (radius, or length x width) 5	ft radius	% B	are Ground		Vegetation	Yes X	No	
% Cover of Wetland Bryophytes	Tot	al Cover	of Bryophyte	S	Present?			
(Where applicable)								
Remarks: Moderate tree removal in the a	rea in the p	ast 5 yea	rs, more oper	n canopy				
West of ATV parking area, representative wetla	and plot of re	oadside a	irea					
US Army Corps of Engineers							Alaska	Version 2.0

npling	Point:	P123

SOIL		ç	Sampling Point: P123				
Profile Description: (Describe to th	e depth needed to document the indicator	or confirm the absence of ind	icators.)				
Depth Matrix	Redox Features						
(inches) Color (moist)	% Color (moist) % T	ype <sup>1</sup> Loc <sup>2</sup> Texture	Remarks				
0-20 10YR 2/1	100	<u> </u>					
••	n, RM=Reduced Matrix, CS=Covered or Coat	2	cation: PL=Pore Lining, M=Mat				
Hydric Soil Indicators:	Indicators for Problematic Hydric So	ils <sup>°</sup> : Indicators for F	Problematic Hydric Soils <sup>3</sup> :				
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gley	ed Without Hue 5Y or Redder				
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying L					
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue		ain in Remarks)				
Thick Dark Surface (A12)			,				
Alaska Gleyed (A13)							
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetatio	n one primary indicator of wetla	and hydrology				
Alaska Gleyed Pores (A15)	and an appropriate landscape posit						
	<sup>4</sup> Give details of color change in Remar						
Restrictive Layer (if present):							
Type: Depth (inches)		Hydric Soil Present? Yes	s X No				
			s <u>X</u> No				
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:							
Primary Indicators (any one indicator			ors (2 or more required)				
0 Surface Water (A1)	Inundation Visible on Aerial Imager		( )				
0 High Water Table (A2)	Sparsely Vegetated Concave Surfa						
X Saturation (A3)	Marl Deposits (B15)		pheres along Living Roots (C3)				
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Rec	( )				
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C					
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or Stres	. ,				
Algal Mat or Crust (B4)		Geomorphic Pos					
Iron Deposits (B5) Surface Soil Cracks (B6)		Microtopographi	( )				
		FAC-Neutral Tes	. ,				
			St (D3)				
		<u> </u>					
Field Observations:							
Surface Water Present? Yes	No X Depth (Inches): NA	-					
Water Table Present? Yes Saturation Present? Yes X	No x Depth (Inches): >16 No Depth (Inches): 0	Wetland Hydrology Pro	esent? Yes X No				
(includes capillary fringe)							
	ge, monitoring well, aerial photos, previous in	uspections), if available:					
	ge,e. intering weil, dendi priotos, providus ir						
Remarks: Seepage at bottom of pit,	expect WT to appear after more time						

Project/Site: Angoon Airport		Borough/City	Hoonah / A	Angoon	Samplii	ng Date: 1	16-Jun-20	17
Applicant/Owner: ADOT & PF					Samplii	ng Point:	P1	124
Investigator(s): J.Barna, S.Hartung, L.Johnson, L.Mark		Landform (hil	lside, terrace	e, hummocks, etc	:.):	Hillside, we	est-facing sl	оре
Local relief (concave, convex, none): Concave		Slope (%):	3-5					
Subregion: Southeast Alaska	Lat: 57.47	70729		Long: -134.549	9546	Datı	um: NAD 8	33
Soil Map Unit Name: None				NWI cla	ssification:			
Are climatic / hydrologic conditions on the site typical for	r this time o	of year? Yes	s X No	(If no, exp	ain in Rema	rks.)		
Are Vegetation Soil or Hydrology s	ignificantly	disturbed?	Are "Nori	mal Circumstanc			No	
Are Vegetation Soil or Hydrology n	aturally pro	blematic?		d, explain any ar				
SUMMARY OF FINDINGS – Attach site m	ap show	ving sampl	ing point	locations, tr	ansects, i	importa	int feati	ures, etc
Hydrophytic Vegetation Present? Yes X	No 0							
Hydric Soil Present? Yes X	No 0	Is the	Sampled A	rea				
Wetland Hydrology Present? Yes X	No 0	withir	n a Wetland	? Yes	X	No		
Remarks: Southwest of stream 10, > 21, 9-21, 4-9, Near a tree root wad tip-up, organic layer			of tin un					
Surface water 3' away in mud hole	Shanower i	ikely because	or up up					
	1							
VEGETATION – Use scientific names of p		Dominant	Indicator	plot. Dominance Te	ot worksho			
Tree Stratum		Species?	Status	Dominance re	St WOIKSHE	<i>.</i>		
1. Picea sitchensis	30	1	FACU	Number of Dom	ninant Specie	es		
2. Tsuga heterophylla	40	1	FAC	That Are OBL,	FACW, or F	AC:	6	(A)
3.			0					
4			0	Total Number o				
Total Cover:	70	·		Species Across	all Strata:		7	(B)
50% of total cover: 35	20% of to	otal cover:	14	Demonstrat Dem				
Sapling/Shrub Stratum	25	1	FAC	Percent of Dom	-		0.00	
1. Vaccinium alaskaense 2. Tsuga heterophylla	35 20	1	FAC	That Are OBL, Prevalence Ir			0.86	(A/B)
3. Sambucus racemosa	20	·	FAC	Total % Co			Iltiply by:	
4. Vaccinium vitis-idaea	30	1	FAC	OBL species	0	x 1=	0	_
5. Vaccinium parvifolium	5	·	FACU	FACW species		x 2=	-	-
6.			0	FAC species	0	x 3=		_
Total Cover:	92	·		FACU species	0	x 4=	0	_
50% of total cover: 46	20% of to	otal cover:	18.4	UPL species	0	x 5=	0	_
Herb Stratum				Column Totals:	0	(A) –	0	(B)
1. Lysichiton americanus	35	1	OBL					_
2. Athyrium cyclosorum	15	1	FAC	Prevalence	e Index = B/	A = <u></u>	<u>#DIV/0!</u>	
3. Tiarella trifoliata	5		FAC	Hydrophytic V	Vegetation I	ndicators	6:	
4. Streptopus amplexifolius	2		FACU	X Domina	nce Test is >	·50%		
5			0		nce Index is			
6			0	Morphol	ogical Adapt	ations <sup>1</sup> (P	Provide su	pporting
7		. <u> </u>	0		in Remarks			
8		. <u> </u>	0	Problem	natic Hydroph	nytic Vege	etation <sup>1</sup> (E	xplain)
9		. <u> </u>	0					
10			0	<sup>1</sup> Indicators of	hydric soil a	nd wetlan	d hydrolog	gy must
Total Cover:	57			be present, u	nless disturb	ed or prob	olematic.	
50% of total cover: 28.5	20% of to	otal cover:	11.4	Hydrophytic				
Plot size (radius, or length x width) 5 ft radius	%	Bare Ground		Vegetation	Yes	Х	No	
% Cover of Wetland Bryophytes	Total Cove	r of Bryophyte	S	Present?	-			
(Where applicable)								
Remarks: Southwest of stream 10, > 21, 9-21, 4-	9, 1-4 tree s	izes						
US Army Corps of Engineers							Alacks	laraian 0.0
US Army Colps of Engineers							Alaska V	/ersion 2.0

npling	Point:	P124

SOIL				Sampling Point: P124					
Profile Description: (Describe to	the depth needed to documen	It the indicator or co	onfirm the absence o	of indicators.)					
Depth Matrix	-	ox Features		·					
(inches) Color (moist)	% Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks					
0-10 10YR 2/1		100	Mucky pea						
10-17 10YR 2/2		100	Mucky pea	With some gravels					
<u> </u>		<u> </u>	<u> </u>						
<sup>1</sup> Type: C=Concentration, D=Deple	tion, RM=Reduced Matrix, CS=(	Covered or Coated Sa	and Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Mat					
Hydric Soil Indicators:	Indicators for Problem	natic Hydric Soils <sup>3</sup> :	Indicators	for Problematic Hydric Soils <sup>3</sup> :					
X Histosol or Histel (A1)	Alaska Color Chang	e (TA4) <sup>4</sup>	Gleyed Without Hue 5Y or Redder						
Histic Epipedon (A2)	Alaska Alpine Swale			ving Layer					
Hydrogen Sulfide (A4)	Alaska Redox With	. ,	•	Explain in Remarks)					
Thick Dark Surface (A12)		2.01 1100							
Alaska Gleyed (A13)									
Alaska Redox (A14)	<sup>3</sup> One indicator of hydro	phytic vegetation, one	e primary indicator of	wetland hydrology.					
Alaska Gleyed Pores (A15)				disturbed or problematic.					
	<sup>4</sup> Give details of color ch	nange in Remarks.							
Restrictive Layer (if present):									
Type:									
Depth (inches)		Hyd	Iric Soil Present?	Yes X No					
Remarks: Near a tree root wad t	tin un organia lavor obollower lik	ialy hannung of tin un							
Remarks. Near a nee root wad t	tip-up, organic layer shallower lik	ely because of tip up							
HYDROLOGY									
Wetland Hydrology Indicators:									
Primary Indicators (any one indicat	tor is sufficient)		Secondary In	dicators (2 or more required)					
0 Surface Water (A1)	,	n Aerial Imagery (B7)		ned Leaves (B9)					
X High Water Table (A2)		Concave Surface (B							
X Saturation (A3)	Marl Deposits (B15)	)	Oxidized R	hizospheres along Living Roots (C3)					
Water Marks (B1)	Hydrogen Sulfide O	dor (C1)	Presence of Reduced Iron (C4)						
Sediment Deposits (B2)	Dry-Season Water	· · ·	Salt Depos						
Drift Deposits (B3)	Other (Explain in Re	emarks)		Stressed Plants (D1)					
Algal Mat or Crust (B4)				c Position (D2)					
Iron Deposits (B5)			Shallow Aq						
Surface Soil Cracks (B6)				raphic Relief (D4)					
			FAC-Neulia	al Test (D5)					
Field Observations:									
Surface Water Present? Yes	No × Depth (In	nches): NA							
Water Table Present? Yes X		·							
Saturation Present? Yes X		·	Wetland Hydrolog	y Present? Yes X No					
(includes capillary fringe)		·							
Describe Recorded Data (stream g	Jauge, monitoring well, aerial pho	otos, previous inspect	tions), if available:						
	·								
Remarks: Surface water 3' away	in mud hole								

US Army Corps of Engineers

Project/Site: Angoon Airport			Borough/City	: Hoonah / /	Angoon	Sampling Date: 1	6-Jun-2017
Applicant/Owner: ADOT & PF						Sampling Point:	P125
Investigator(s): J.Barna, S.Hartung, L.Jo	nnson, L.Mark		Landform (hil	lside, terrace	e, hummocks, etc.):	Hummock	k on a slope
Local relief (concave, convex, none): <u>Nor</u>	ıe		Slope (%):	5			
Subregion: Southeast Alaska		Lat: 57.47	0423		Long: -134.549622	2 Datu	m: NAD 83
Soil Map Unit Name: None					NWI classifi	cation:	
Are climatic / hydrologic conditions on th	e site typical for	r this time o	f year? Yes	s X No	(If no, explain	in Remarks.)	
Are Vegetation Soil or Hyd	rology si	gnificantly c	listurbed?	Are "Nor	mal Circumstances"	present' Yes 🛛 🗴	No
Are Vegetation Soil or Hyd	rology na	aturally prob	lematic?	(If neede	d, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – At	tach site m	ap snow	ing sampi	ing point	locations, trans	sects, importai	nt features, et
Hydrophytic Vegetation Present?	Yes 0	No x					
Hydric Soil Present?	Yes 0	No x	Is the	Sampled A	rea		
Wetland Hydrology Present?	Yes 0	No x	withi	n a Wetland	? Yes	No <u>x</u>	
Remarks: Downslope of upland plot,	extensive duff						
	SALCHISIVE dull						
VEGETATION – Use scientific	names of n	lante Lie	t all enoci	os in tho	nlot		
		Absolute		Indicator	Dominance Test w	orksheet:	
Tree Stratum				Status			
1. Tsuga heterophylla		35	1	FAC	Number of Dominal	•	
2. Picea sitchensis		45	1	FACU	That Are OBL, FAC	;W, or FAC:	3 (A)
3				0	Total Number of Do		
4	Total Cover:	80		0	Species Across All		6 (B)
50% of total cover:	40	20% of to	tal cover:	16	Opecies Acioss All		<u> </u>
Sapling/Shrub Stratum					Percent of Dominar	nt Species	
1. Vaccinium alaskaense		20	1	FAC	That Are OBL, FAC		0.50 (A/B)
2. Tsuga heterophylla		40	1	FAC	Prevalence Index		
3. Vaccinium parvifolium		20	1	FACU	Total % Cover	of: Mul	tiply by:
4				0	OBL species	0 x 1=	0
5				0	FACW species	0 x 2=	0
6		- 00		0	FAC species	<u>0 x 3=</u>	0
50% of total cover:	Total Cover: 40	80	tal cover:	16	FACU species	0 x 4= 0 x 5=	0
Herb Stratum	40	20% 01 10	tal cover.	10	Column Totals:	$\frac{0}{0}$ (A) (A)	0 (B)
1. Gymnocarpium dryopteris		5	1	FACU		(//)	(B)
2.				0	Prevalence Inc	dex = B/A = #	DIV/0!
3.				0		etation Indicators:	
4.				0	Dominance	Test is >50%	
5.				0		Index is ≤3.0	
6.				0	Morphologic	al Adaptations <sup>1</sup> (Pr	ovide supporting
7				0		Remarks or on a se	•
8				0	Problematic	Hydrophytic Veget	ation <sup>1</sup> (Explain)
9				0	1		
10				0	' Indicators of hyd	ric soil and wetland	i hydrology must
	Total Cover:	5			· · · · ·	s disturbed or prob	lematic.
50% of total cover:	2.5	20% of to	tal cover:	1	Hydrophytic		
Plot size (radius, or length x width)	5 ft radius	% E	Bare Ground		Vegetation	Yes	No <u>x</u>
— % Cover of Wetland Bryophytes		Total Cover	of Bryophyte	s	Present?		
(Where applicable)							
Remarks: Downslope of upland plo	t, extensive du	ff					
US Army Corps of Engineers							Alaska Version 2.0
Serving Corps of Engineers							,

nolina	Point:	P125
ipinig	i onit.	1 120

SOIL								Sampling Point:	P125	
Profile Des	cription: (Describe to	the depth n	eeded to document	t the indica	tor or co	nfirm th	e absence of i	ndicators.)		
Depth	Matrix			ox Features				· ·····,		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-18	10R 3/3	40 -		70	турс	LUC	Organic	Less decomposed	wood	
	10YR 2/1	60					Organic	Mixed matrix		
									<u> </u>	
<sup>1</sup> Type: C=	Concentration, D=Deple	tion RM=Re	duced Matrix_CS=C	overed or C	oated Sa	and Grain	2	ocation: PL=Pore Lining	n M=Mat	
Hydric Soil			icators for Problem		-			r Problematic Hydric S	-	
-			Alaska Color Change					•		
	ol or Histel (A1)		-	. ,	Alaska Gleyed Without Hue 5Y or Redder					
	Epipedon (A2)		Alaska Alpine Swale	. ,			Underlying			
Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue							Other (Ex	plain in Remarks)		
	Dark Surface (A12)									
Alaska	Gleyed (A13)									
Alaska	Redox (A14)		e indicator of hydrop							
Alaska	Gleyed Pores (A15)	;	and an appropriate la	andscape po	osition mu	ust be pr	esent unless di	sturbed or problematic.		
		<sup>4</sup> Giv	e details of color ch	ange in Rer	narks.					
Restrictive	Layer (if present):									
Type:										
Depth	(inches)				Hyd	ric Soil	Present?	íes No x	ĸ	
Remarks:										
Remarks.										
HYDROLO										
-	drology Indicators:					_				
	dicators (any one indica						Secondary Indic	ators (2 or more require	ed)	
	e Water (A1)		Inundation Visible or			-	Water-Staine	( )		
	/ater Table (A2)		Sparsely Vegetated		urface (B8	3)	Drainage Patt			
0 Saturat			Marl Deposits (B15)				Oxidized Rhiz	ospheres along Living F	Roots (C3)	
Water	Marks (B1)		Hydrogen Sulfide Oc	( )			-	Reduced Iron (C4)		
	ent Deposits (B2)		Dry-Season Water T	· · /			Salt Deposits	. ,		
	eposits (B3)		Other (Explain in Re	marks)			-	essed Plants (D1)		
	lat or Crust (B4)						Geomorphic F	( )		
	eposits (B5)						Shallow Aquit	( )		
Surface	e Soil Cracks (B6)							ohic Relief (D4)		
							FAC-Neutral	Гest (D5)		
Field Obse	ervations:				Τ					
Surface W	ater Present? Yes	No	x Depth (Inc							
	le Present? Yes	No								
Saturation	-	No	x Depth (Inc	ches): >1	8	Wetlar	nd Hydrology I	Present? Yes	No <u>x</u>	
	apillary fringe)									
Describe R	ecorded Data (stream	gauge, monite	oring well, aerial pho	tos, previou	s inspect	ions), if a	available:			
Demender										
Remarks:										

Project/Site: Angoon Airport			E	Borough/City	: Hoonah / /	Angoon	Samp	ling Date:	16-Jun-20	17
Applicant/Owner: ADOT & PF							Samp	oling Point:	P1	26
Investigator(s): J.Barna, S.Hartung, L.Jo	hnson, L.M	lark	l	andform (hil	lside, terrace	e, hummocks, e	etc.):	ŀ	Hillside	
Local relief (concave, convex, none): Co	ncave		5	Slope (%):	3-5					
Subregion: Southeast Alaska		Lat:	57.46	906		Long: -134.5	39784	Dat	um: NAD 8	33
Soil Map Unit Name: None						NWI	lassification:			
Are climatic / hydrologic conditions on th	ne site typic	al for this	time of	year? Yes	s X No	(If no, ex	plain in Ren	narks.)		
Are Vegetation Soil or Hyd	drology	signific	antly d	isturbed?	Are "Nor	mal Circumsta	nces" presen	ť Yes 🛛	<b>x</b> No	
Are Vegetation Soil or Hyd						ed, explain any				
									-	
SUMMARY OF FINDINGS – A	ttach site	e map s	howi	ng sampl	ing point	locations,	transects	, importa	ant featu	ures, et
Hydrophytic Vegetation Present?	Yes X	No	0							
Hydric Soil Present?	Yes X	No	0	Is the	Sampled A	rea				
Wetland Hydrology Present?	Yes X	No	0	withi	n a Wetland	? Yes	Х	No		
Pomorka: On the adap of the study of			flover	la lana and n	orth of ATV/	troil				
Remarks: On the edge of the study a	irea pounda	ary, west c	or lover	s lane and n	orth of ATV I	Irall.				
Water table rising, seeping	along side:	s above 1	1"							
				4 all anaa:	aa in tha	nlat				
VEGETATION – Use scientific	names c		solute		Indicator	Dominance	Tost worksh	oot.		
Tree Stratum				Species?	Status	Dominance				
1. Picea sitchensis			20	1	FACU	Number of D	ominant Spe	cies		
2. Tsuga heterophylla			50	1	FAC	That Are OBI	, FACW, or	FAC:	4	(A)
3					0					
4			70		0	Total Number			-	
50% of total cover:	Total Cov 35		70	tal cover:	14	Species Acro	ss All Strata	·	7	(B)
Sapling/Shrub Stratum					14	Percent of Do	ominant Spe	cies		
1. Menziesia ferruginea			35	1	FACU	That Are OBL	•		0.57	(A/B)
2. Oplopanax horridus			25	1	FACU		Index work			
3. Vaccinium alaskaense			40	1	FAC	Total %	Cover of:	Μ	ultiply by:	
4.					0	OBL species		x 1=	0	
5.					0	FACW specie		x 2=	0	_
6					0	FAC species		x 3=	0	_
	Total Cov	01.	00			FACU specie		x 4=	0	_
50% of total cover: Herb Stratum	50	209	% of to	tal cover:	20	UPL species		x 5=	0	
1. Lysichiton americanus			35	1	OBL	Column Tota	s: 0	(A)	0	(B)
2. Athyrium cyclosorum			25	1	FAC	Broyalo	nce Index = E	2/A -	#DIV/0!	
3. Maianthemum dilatatum			20	<u>'</u>	FAC	Hydrophyti				
4. Cornus canadensis			15		FACU		ance Test is		3.	
5. Streptopus amplexifolius			10		FACU		lence Index i			
6.					0		ological Ada		Provide su	pportina
7.					0		ita in Remarl			
8.					0		ematic Hydro			
9.					0			. 0	,	
10.					0	<sup>1</sup> Indicators	of hydric soil	and wetlar	nd hydrolog	gy must
	Total Cov	ver: 1	05			be present,	unless distu	rbed or pro	blematic.	
50% of total cover:	52.5	200	% of to	tal cover:	21	Hydrophytic		•		
Plot size (radius, or length x width)	5 ft ra	dius	% B	are Ground		Vegetation	Yes	х	No	
% Cover of Wetland Bryophytes	51110			of Bryophyte	s	Present?				
(Where applicable)			20101	e. Biyopiiyio						
Remarks: On the edge of the stud	y area bour	ndary, wes	st of lov	ver's lane and	d north of AT	V trail.				
	,	,,								
US Army Corps of Engineers									Alaska \	/ersion 2.0

npling	Point:	P126

M=Mat
oils³:
Redder
1)
<u>)</u>
! <u>)</u>
<u> </u>
l) pots (C3)
<u> </u>
bots (C3)
bots (C3)
bots (C3)
)

Project/Site: Angoon Airport			Borough/City:	Hoonah /	Angoon	Sampling Da	ate: <u>16-Jun-20</u>	)17
Applicant/Owner: ADOT & PF						Sampling Po	pint: P2	200
Investigator(s): J.Barna, L.Johnson			Landform (hills	side, terrace	e, hummocks, etc.):		flat	
Local relief (concave, convex, none): none	;		Slope (%): 0					
Subregion: Southeast Alaska		Lat: 57.47	5637		Long: -134.55843	1	Datum: NAD	83
Soil Map Unit Name: None					NWI classif	ication:		
Are climatic / hydrologic conditions on the	site typical for	r this time o	f year? Yes	X No	(If no, explain	in Remarks.)		
Are Vegetation Soil or Hydro	ology si	gnificantly o	listurbed?	Are "Nor	rmal Circumstances"	present' Yes	<b>x</b> No	
Are Vegetation Soil or Hydro	ologyna	aturally prob	plematic?	(If neede	ed, explain any answ	ers in Remark	s.)	
				·			·	
SUMMARY OF FINDINGS – Atta	ach site m	ap show	ing sampli	ng point	locations, trans	sects, impo	ortant feat	ures, et
Hydrophytic Vegetation Present?	Yes x	No 0						
Hydric Soil Present?	Yes <u>x</u>	No 0	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes x	No 0	within	a Wetland	? Yes x	No		
Remarks: Characteristic plot - open sph	agnum wetlar	nd						
	agnan nonai							
Expect WT to rise given more	e time.							
VEGETATION – Use scientific n	ames of p	lants. Lis	st all specie	es in the	plot.			
		Absolute	Dominant	Indicator	Dominance Test v	vorksheet:		
Tree Stratum			Species?	Status				
1. Picea sitchensis		5	1	FACU	Number of Domina	•	4	( • )
2. Tsuga heterophylla 3.		10	1		That Are OBL, FAC	JVV, OF FAC:	4	(A)
3 4.				0	Total Number of D	ominant		
	Total Cover:	15			Species Across All		5	(B)
50% of total cover:	7.5	20% of to	otal cover:	3	•	•		. ,
Sapling/Shrub Stratum					Percent of Domina	nt Species		
1				0	That Are OBL, FAC		0.80	(A/B)
2				0	Prevalence Inde			
3				0	Total % Cover		Multiply by:	
4 5				0	OBL species FACW species		1 = 0 2 = 0	_
5 6.				0	FAC species	-	3 = 0	_
	Total Cover:	0		<u> </u>	FACU species		4= 0	_
50% of total cover:			otal cover:	0	UPL species	÷	4 = 0 5 = 0	_
Herb Stratum				-	Column Totals:	(A)	0	(B)
1. Rhododendron groenlandicum		40	1	FAC				_
2. Rubus chamaemorus		30	1	FACW	Prevalence In	dex = B/A =	<u>#DIV/0!</u>	
3. Cornus canadensis		5		FACU	Hydrophytic Veg	etation Indica	ators:	
4. Empetrum nigrum		75	1	FAC		Test is >50%		
5				0		Index is ≤3.0	1	
6				0		cal Adaptation		
7				0		Remarks or or	•	,
8				0	Problematic	c Hydrophytic \	vegetation (E	xpiain)
9				0	<sup>1</sup> Indicators of hyd	tric coil and w	etland bydrole	av must
10	Total Course	150		0	be present, unles			gy must
50% of total cover:	Total Cover: 75		otal cover:	30	Hydrophytic	s disturbed or	problematic.	
-						V.		
Plot size (radius, or length x width)	5 ft radius		Bare Ground	0	Vegetation	Yes x	No	
% Cover of Wetland Bryophytes	40	Total Cover	of Bryophytes	40	Present?			
(Where applicable) Remarks: Characteristic plot - open s	nhoanum wei	land			1			
Remarks. Characteristic plot - open s	phagnum wet	ualiu						
US Army Corps of Engineers							Alaska	/ersion 2.

nlina	Point:	P200
ipiing	POINT.	P200

SOIL			Sampling Point: P200				
Profile Description: (Describe to the o	lepth needed to document the indicator o	r confirm the absence	of indicators.)				
Depth Matrix	Redox Features						
(inches) Color (moist) %	Color (moist) % Typ	pe <sup>1</sup> Loc <sup>2</sup> Texture	Remarks				
0-9 5yr3/2 10	0	organic	Coarse organic				
9-16 5yr4/3 10	0	organic	Greasy muck				
	RM=Reduced Matrix, CS=Covered or Coated		<sup>2</sup> Location: PL=Pore Lining, M=Mat				
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils	s <sup>°</sup> : Indicators	s for Problematic Hydric Soils <sup>3</sup> :				
x Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska	a Gleyed Without Hue 5Y or Redder				
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Under	lying Layer				
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other	(Explain in Remarks)				
Thick Dark Surface (A12)	—						
Alaska Gleyed (A13)							
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation,	one primary indicator o	f wetland hydrology,				
Alaska Gleyed Pores (A15)	and an appropriate landscape position	n must be present unles	s disturbed or problematic.				
	<sup>4</sup> Give details of color change in Remarks	j.					
Restrictive Layer (if present):							
Type:							
Depth (inches)		Hydric Soil Present?	Yes x No				
Remarks:							
Nemarks.							
HYDROLOGY							
Wetland Hydrology Indicators:							
Primary Indicators (any one indicator is	sufficient)	Secondary I	ndicators (2 or more required)				
<sup>0</sup> Surface Water (A1)	Inundation Visible on Aerial Imagery (		ined Leaves (B9)				
0 High Water Table (A2)	Sparsely Vegetated Concave Surface		Patterns (B10)				
x Saturation (A3)	Marl Deposits (B15)						
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Rhizospheres along Living Roots (C3) of Reduced Iron (C4)				
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Depo					
Drift Deposits (B3)	Other (Explain in Remarks)		Stressed Plants (D1)				
Algal Mat or Crust (B4)		Geomorph	nic Position (D2)				
Iron Deposits (B5)		Shallow A	quitard (D3)				
Surface Soil Cracks (B6)		Microtopo	graphic Relief (D4)				
		FAC-Neut	ral Test (D5)				
Field Observations:							
Surface Water Present? Yes	No <u>x</u> Depth (Inches): NA						
Water Table Present? Yes	No x Depth (Inches): >16						
Saturation Present? Yes x	No Depth (Inches): Surface	Wetland Hydrolo	gy Present? Yes <u>x</u> No				
(includes capillary fringe)							
Describe Recorded Data (stream gauge	, monitoring well, aerial photos, previous ins	pections), if available:					
Remarks: Expect WT to rise given mo	e time.						
· · · · · · · · · · · · · · · · · · ·							

US Army Corps of Engineers

Project/Site: Angoon Airport			Borough/City:	Hoonah / /	Angoon	Sampling	Date: 1	6-Jun-20	17
Applicant/Owner: ADOT & PF						Sampling	Point:	P2	201
Investigator(s): J.Barna, L.Johnson			Landform (hill:	side, terrace	e, hummocks, etc.):		hillside	hummok	
Local relief (concave, convex, none): co	ncave		Slope (%): 1	l					
Subregion: Southeast Alaska		Lat:			Long:		Datu	m: NAD 8	33
Soil Map Unit Name: None					NWI classi	fication:			
Are climatic / hydrologic conditions on th	ne site typical fo	or this time o	f year? Yes	X No	(If no, explain	in Remarks	s.)		
Are Vegetation Soil or Hyd				Are "Nor	mal Circumstances"	present' Ye	es x	No	
Are Vegetation Soil or Hyd	drology n	aturally prob	plematic?	(If neede	d, explain any answ	ers in Rema	arks.)		
					1	4 - 1			
SUMMARY OF FINDINGS – A	ttach site m	ap snow	ing sampli	ng point	locations, tran	sects, im	porta	nt feati	ures, et
Hydrophytic Vegetation Present?	Yes x	No 0							
Hydric Soil Present?	Yes 0	No x	Is the	Sampled A	rea				
Wetland Hydrology Present?	Yes 0	No x	within	a Wetland	? Yes	No	х		
Remarks: Veg a false positive indicat	or - soil and by	drology do n	ot meet wetlar	nd criteria					
Mixed soil, refusal @13" - 9									
No hydro	<u></u>		20,0112.10						
VEGETATION – Use scientific	names of n	lante Lie	t all specie	e in the	nlot				
VEGETATION - Ose scientific	names or p	Absolute		Indicator	Dominance Test	worksheet:			
Tree Stratum			Species?	Status					
1. Tsuga heterophylla		90	1	FAC	Number of Domina	•			
2				0	That Are OBL, FA	CW, or FAC	:	3	(A)
3		·		0	Total Number of D	a main a mat			
4	Total Cover:	90		0	Species Across Al			3	(B)
50% of total cover:	45		tal cover:	18	Species Acioss Ai	i Silala.		3	(D)
Sapling/Shrub Stratum		20/00110			Percent of Domina	ant Species			
1. Vaccinium ovalifolium		80	1	FAC	That Are OBL, FA	CW, or FAC	:	1.00	(A/B)
2.				0	Prevalence Inde	x workshee	et:		
3		. <u> </u>		0	Total % Cove	r of:		tiply by:	_
4				0	OBL species	0	x 1=	0	_
5				0	FACW species	0	x 2=	0	_
6	<b>T</b> / 1 0			0	FAC species	0	× 3=	0	_
50% of total cover:	Total Cover: 40	80	tal cover:	16	FACU species	0	x 4= x 5=	0	-
Herb Stratum	40	20 /0 01 10		10	Column Totals:	0 (A)		0	(B)
1. Cornus alba		75	1	FAC		(*)		-	_(=)
2.		·		0	Prevalence Ir	ndex = B/A =	= #	DIV/0!	
3.		·		0	Hydrophytic Veg	getation Ind	icators		
4.		·		0	x Dominance	e Test is >50	9%		
5.				0	Prevalence	e Index is ≤3	.0		
6				0	Morphologi	ical Adaptati	ons <sup>1</sup> (Pr	ovide su	pporting
7				0		Remarks or		•	,
8				0	Problemati	c Hydrophyt	ic Veget	ation <sup>1</sup> (E	xplain)
9				0	1				
10		. <u> </u>		0	<sup>1</sup> Indicators of hydrogeneration				gy must
	Total Cover:	75			be present, unles	ss disturbed	or prob	lematic.	
50% of total cover:	37.5	20% of to	-	15	Hydrophytic				
Plot size (radius, or length x width)	5 ft radius	% E	Bare Ground	0	Vegetation	Yes	x	No	
% Cover of Wetland Bryophytes		Total Cover	of Bryophytes	s 95	Present?				
(Where applicable)									
Remarks: Veg a false positive indic	ator - soil and	hydrology do	o not meet wet	land criteria					
0 1									

	<b>-</b> · ·	
pling	Point:	P201

SOIL								Sampling Point:	P201
Profile Des	cription: (Descrit	be to the depth	needed to docume	ent the indicat	tor or co	nfirm th	e absence of i	ndicators.)	
Depth	Matrix	-		dox Features				· · · · · · <b>,</b>	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	s
0-6	5yr3/3	100					organic	duff	
6-10	7.5yr3/2	100					silty,greasy		
10-13	7.5yr3/2	40					silty,greasy		
10-13	7.5yr4/2	30					organic		
10-13	7.5yr5/3	30					mineral		
>13							gravel	glacial till with gra	vel/cobble
			Reduced Matrix, CS=			and Grair		ocation: PL=Pore Li	
Hydric Soil	Indicators:	In	dicators for Proble	matic Hydric	50IIS :		Indicators for	r Problematic Hydri	c Solis:
Histoso	l or Histel (A1)		Alaska Color Chan	ige (TA4) <sup>4</sup>			Alaska Gle	eyed Without Hue 5\	/ or Redder
Histic E	pipedon (A2)	_	Alaska Alpine Swa	les (TA5)			Underlying	g Layer	
Hydrog	en Sulfide (A4)		Alaska Redox With	n 2.5Y Hue			Other (Exp	plain in Remarks)	
Thick D	ark Surface (A12)								
Alaska	Gleyed (A13)								
Alaska	Redox (A14)	<sup>3</sup> C	One indicator of hydr	ophytic vegeta	ation, one	e primary	/ indicator of we	tland hydrology,	
Alaska	Gleyed Pores (A15	5)	and an appropriate	e landscape po	osition m	ust be pr	esent unless di	sturbed or problema	tic.
		40	Give details of color of	change in Ren	narks.				
Restrictive	Layer (if present):								
Type:	<b>,</b> , , , , , , , , , , , , , , , , , ,								
Depth (	inches)		-		Hyd	Iric Soil	Present?	res No	x
Dementor	Mixed coil refue			havend 10"					
Remarks:	Mixed soil, refusal	@13" - glacial	till with gravel/cobble	e beyond 13"					
HYDROLC									
	drology Indicators					_			
	licators (any one in	dicator is suffici	,					ators (2 or more req	uired)
	e Water (A1)		Inundation Visible				Water-Stained	( )	
	ater Table (A2)		Sparsely Vegetate		Irface (B8	3)	Drainage Patt	( )	
0 Saturat	. ,		Marl Deposits (B1	,			-	ospheres along Livir	ig Roots (C3)
	Marks (B1)		Hydrogen Sulfide (					Reduced Iron (C4)	
	ent Deposits (B2) eposits (B3)		Dry-Season Water	· · ·			Salt Deposits		
	lat or Crust (B4)		Other (Explain in F	(emarks)			Geomorphic F	ressed Plants (D1)	
	posits (B5)						Shallow Aquita	( )	
	e Soil Cracks (B6)							ohic Relief (D4)	
							FAC-Neutral 1	( )	
							_		
Field Obse	arvations.								
		es N	o x Depth (	Inches): NA					
Water Tabl		es N	· ·	·					
Saturation		es N		·		Wetla	nd Hydrology F	Present? Yes	No x
	apillary fringe)				—		,		
,	, , ,	am gauge, mon	itoring well, aerial pl	notos, previou	s inspect	ions), if a	available:		
		-			-				
Remarks:	No hydro								

US Army Corps of Engineers

Project/Site: Angoon Airport		E	Borough/City:	Hoonah / /	Angoon	Sampling D	Date: 16-Jun-	2017
Applicant/Owner: ADOT & PF						Sampling F	oint:	P202
nvestigator(s): J.Barna, L.Johnson		L	andform (hill.	side, terrace	e, hummocks, etc.)	:	basin	
_ocal relief (concave, convex, none): <u>cor</u>	ncave		Slope (%): (	)				
Subregion: Southeast Alaska		Lat: 57.478	3072		Long: -134.5594	134	Datum: NA	D 83
Soil Map Unit Name: None					NWI class	sification:		
Are climatic / hydrologic conditions on th	ne site typical for	r this time of	year? Yes	X No	(If no, expla	in in Remarks.	)	
Are Vegetation Soil or Hyd	drologysi	ignificantly di	sturbed?	Are "Nor	mal Circumstances	s" present′ Yes	s <u>x</u> No	
Are Vegetation Soil or Hyd	drology na	aturally probl	ematic?	(If neede	ed, explain any ans	wers in Remar	ks.)	
					1 4			- 4
SUMMARY OF FINDINGS - A	ttach site m	ap snowi	ng sampi	ing point	locations, tra	nsects, imp	ortant tea	atures, e
Hydrophytic Vegetation Present?	Yes <u>x</u>	No 0						
Hydric Soil Present?	Yes x	No 0	Is the	Sampled A	rea			
Netland Hydrology Present?	Yes <u>x</u>	No 0	within	a Wetland	? Yes	x No		
Remarks: Typical shrub wetland plot								
ternarka. Typical sinub wettand plot								
VEGETATION – Use scientific	names of n	lante Liet	t all snoci	os in tha	nlot			
	names or p		Dominant	Indicator	Dominance Test	t worksheet:		
Tree Stratum			Species?	Status				
1. Tsuga heterophylla		70	1	FAC	Number of Domin			
2				0	That Are OBL, F	ACW, or FAC:	4	(A)
3			. <u> </u>	0	Total Number of	Deminent		
4	Total Cover:	70		0	Total Number of		4	(P)
50% of total cover:	35	20% of tot	al cover	14	Species Across A	All Strata.	4	(B)
Sapling/Shrub Stratum		2070 01 101			Percent of Domir	nant Species		
1. Vaccinium ovalifolium		40	1	FAC	That Are OBL, F	•	1.00	(A/B)
2.				0	Prevalence Ind		:	
3.				0	Total % Cov	er of:	Multiply b	y:
4.				0	OBL species	0	x 1= 0	
5				0	FACW species		x 2= 0	
6				0	FAC species	0 2	x 3= 0	
	Total Cover:	40			FACU species		x 4= 0	
50% of total cover: Herb Stratum	20	20% of tot	al cover:	8	UPL species		x 5= 0	(P)
1. Lysichiton americanus		20	1	OBL	Column Totals:	0 (A)	0	(B)
2. Oplopanax horridus		15	1	FACU	Prevalence	Index = B/A =	#DIV/0!	
3.			<u> </u>	0	Hydrophytic Ve			•
4.				0		ce Test is >50%		
5.				0		e Index is ≤3.0		
6.				0		gical Adaptatio		supporting
7.				0		n Remarks or o		
8.				0		tic Hydrophytic	•	,
9.				0			-	,
0.			·	0	<sup>1</sup> Indicators of h	ydric soil and w	vetland hydro	ology must
	Total Cover:	35			be present, unl	ess disturbed o	or problemati	с.
50% of total cover:	17.5	20% of tot	al cover:	7	Hydrophytic			
Plot size (radius, or length x width)	5 ft radius	% B	are Ground	0	Vegetation	Yes	x No	
% Cover of Wetland Bryophytes			of Bryophyte	-	Present?		<u> </u>	
(Where applicable)								
Remarks: Typical shrub wetland plo	ot							
JS Army Corps of Engineers							Alask	a Version 2

	<b>-</b> · ·	
pling	Point:	P202

SOIL								Sampling Point:	P202
Profile Des	cription: (Describe	to the depth	needed to document	t the indica	tor or co	nfirm the	e absence of i	ndicators.)	
Depth	Matrix			ox Features		••••			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-10	10yr2/1	80			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100	organic	greasy mu	
0-10	10yr2/1	20					organic	greasy mu	ck
10-16	10yr2/1	100					organic	greasy mu	ck
	· · · · ·								
<sup>1</sup> Type: C=	Concentration, D=De		Reduced Matrix, CS=C		-	and Grain	ıs. <sup>2</sup> L	ocation: PL=Pore Lin	ing, M=Mat
Hydric Soil	Indicators:	In	dicators for Problem	atic Hydric	Soils':		Indicators fo	r Problematic Hydrid	: Soils <sup>3</sup> :
x Histoso	ol or Histel (A1)		Alaska Color Change	e (TA4) <sup>4</sup>			Alaska Gl	eyed Without Hue 5Y	or Redder
Histic E	Epipedon (A2)		- Alaska Alpine Swale	s (TA5)			Underlying	a Laver	
	jen Sulfide (A4)		Alaska Redox With 2	. ,			•	plain in Remarks)	
	Dark Surface (A12)		-					,	
	Gleyed (A13)								
—	Redox (A14)	<sup>3</sup> C	One indicator of hydrop	ohvtic veget	ation one	e primary	indicator of we	tland hydrology	
	Gleyed Pores (A15)		• •					sturbed or problemat	c.
		<sup>4</sup> C	Give details of color ch					·	
Destatistics	1 ( <b>:f</b>			ange mitte					
_	Layer (if present):								
Type:	(		-					<i>,</i> ,,	
Depth (	(inches)		_		нуа	ric Soli I	Present?	res <u>x</u> No	
Remarks:									
HYDROLO	DGY								
Wetland Hy	drology Indicators:								
Primary Inc	dicators (any one indi	cator is suffici	ent)			S	econdary Indic	ators (2 or more requ	ired)
× Surface	e Water (A1)		Inundation Visible or	n Aerial Ima	gery (B7)		Water-Staine	d Leaves (B9)	
x High W	/ater Table (A2)		Sparsely Vegetated	Concave Si	urface (B8	3)	Drainage Patt	erns (B10)	
x Saturat	tion (A3)		Marl Deposits (B15)				Oxidized Rhiz	ospheres along Living	g Roots (C3)
Water	Marks (B1)		Hydrogen Sulfide Od	lor (C1)			Presence of F	Reduced Iron (C4)	
Sedime	ent Deposits (B2)		Dry-Season Water T	able (C2)			Salt Deposits	(C5)	
Drift De	eposits (B3)		Other (Explain in Re	marks)		х	Stunted or Sti	essed Plants (D1)	
	lat or Crust (B4)						Geomorphic F		
	eposits (B5)						Shallow Aquit	( )	
Surface	e Soil Cracks (B6)						-	ohic Relief (D4)	
							FAC-Neutral	Гest (D5)	
Field Obse	ervations:								
Surface Wa	ater Present? Yes	x N	Depth (Ind	ches): 2					
Water Tabl	le Present? Yes	X N	Depth (Ind	ches): Surfa	ace				
Saturation	Present? Yes	X N		ches): Surfa		Wetlar	nd Hydrology	Present? Yes <u>x</u>	No
(includes c	apillary fringe)								
Describe R	Recorded Data (stream	n gauge, mon	itoring well, aerial pho	tos, previou	s inspect	ions), if a	available:		
Remarks:									

Sampling Point: P203 de, terrace, hummocks, etc.): muskeg
ght
Long: -134.556554 Datum: NAD 83
NWI classification:
X No (If no, explain in Remarks.)
Are "Normal Circumstances" present' Yes x No
(If needed, explain any answers in Remarks.)
g point locations, transects, important features, e
ampled Area
Wetland? Yes x No
· · · · · · · · · · · · · · · · · · ·
s in the plot. ndicator   Dominance Test worksheet:
Status
FAC Number of Dominant Species
FAC That Are OBL, FACW, or FAC: 5 (A)
FACW
0 Total Number of Dominant
Species Across All Strata: 6 (B)
8
Percent of Dominant Species
FACU That Are OBL, FACW, or FAC: 0.83 (A/B)
0 Prevalence Index worksheet:
0 Total % Cover of: Multiply by: 0 OBL species 0 x 1= 0
FACU species         0         x 4=         0           1         UPL species         0         x 5=         0
1 UPL species 0 x 5= 0 Column Totals: 0 (A) 0 (B)
FACW
FAC Prevalence Index = B/A = #DIV/0!
OBL Hydrophytic Vegetation Indicators:
OBL x Dominance Test is >50%
$\begin{array}{c c} \hline 0 \\ \hline \end{array} \\ \hline $ \\ \hline \end{array} \\ \hline \\ \\ \hline \end{array} \\ \hline \end{array} \\ \hline \\ \\ \hline \end{array} \\ \\ \hline \\ \\ \hline \end{array} \\ \\ \\ \hline \end{array} \\ \\ \\ \\
0 Morphological Adaptations <sup>1</sup> (Provide supporting
0 data in Remarks or on a separate sheet)
0 Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
0 <sup>1</sup> Indicators of hydric soil and wetland hydrology must
be present, unless disturbed or problematic.
37 Hydrophytic
0 Vegetation Yes <u>x</u> No
50 Present?

Sampling Point:	P203
Sampling Folin.	F 203

(inches) Color (moist)	% Color (moist) %	Type <sup>1</sup> Loc <sup>2</sup>	<sup>2</sup> Texture	Remarks
0-4 5yr3/2	100	<u> </u>	organic	Coarse organic material
4-16 5yr4/3	100		organic	Greasy muck
:			<u> </u>	
Type: C=Concentration, D=Deplet	ion, RM=Reduced Matrix, CS=Covered or C	pated Sand Gra	ains. <sup>2</sup> L	ocation: PL=Pore Lining, M=Ma
ydric Soil Indicators:	Indicators for Problematic Hydric	Soils <sup>3</sup> :	Indicators for	Problematic Hydric Soils <sup>3</sup> :
x Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>		Alaska Gle	eyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		Underlying	l Layer
Hydrogen Sulfide (A4) Thick Dark Surface (A12) Alaska Gleyed (A13)	Alaska Redox With 2.5Y Hue		Other (Exp	plain in Remarks)
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegeta	-	•	
Alaska Gleyed Pores (A15)	and an appropriate landscape po <sup>4</sup> Give details of color change in Rem		present unless di	sturbed or problematic.
estrictive Layer (if present):				
estrictive Layer (if present): Type:				
Restrictive Layer (if present): Type: Depth (inches) Remarks:		Hydric So	il Present? Y	/es <u>x</u> No
Type: Depth (inches) Remarks: YDROLOGY		Hydric So	il Present? Y	′es <u>x</u> No
Type: Depth (inches) Remarks: YDROLOGY /etland Hydrology Indicators:	pr is sufficient)	Hydric So		
Type: Depth (inches) Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicato	,		Secondary Indic	ators (2 or more required)
Type: Depth (inches) Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicators x_Surface Water (A1)	Inundation Visible on Aerial Imag	ery (B7)	Secondary Indic	ators (2 or more required) I Leaves (B9)
Type: Depth (inches) Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicators X_Surface Water (A1)	,	ery (B7)	Secondary Indic Water-Stainec Drainage Patte	ators (2 or more required) I Leaves (B9)
Type: Depth (inches) Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicators × Surface Water (A1) × High Water Table (A2)	Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su	ery (B7)	Secondary Indic Water-Stained Drainage Patte Oxidized Rhize	ators (2 or more required) I Leaves (B9) erns (B10)
Type: Depth (inches) Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicato × Surface Water (A1) × High Water Table (A2) × Saturation (A3)	Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Marl Deposits (B15)	ery (B7)	Secondary Indic Water-Stained Drainage Patte Oxidized Rhize	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3 ieduced Iron (C4)
Type: Depth (inches) Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicato × Surface Water (A1) × High Water Table (A2) × Saturation (A3) Water Marks (B1)	Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	ery (B7)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3 ieduced Iron (C4)
Type: Depth (inches) Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicators) X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) x Dry-Season Water Table (C2)	ery (B7) face (B8)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3 leduced Iron (C4) (C5) essed Plants (D1)
Type: Depth (inches) Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicator X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) x Dry-Season Water Table (C2)	ery (B7) face (B8)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C: leduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3)
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>fetland Hydrology Indicators:</b> Primary Indicators (any one indicators) Primary Indicators (any one indicators) Trimary Indicators (any one indicators) Algal Water Table (A2) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) x Dry-Season Water Table (C2)	ery (B7) face (B8)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3 leduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4)
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>fetland Hydrology Indicators:</b> Primary Indicators (any one indicators) Primary Indicators (any one indicators) Primary Indicators (any one indicators) Auface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) x Dry-Season Water Table (C2)	ery (B7) face (B8)	Secondary Indic Water-Stained Drainage Patte Oxidized Rhize Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita Microtopograp	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3 leduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4)
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indicator X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes X	Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) x Dry-Season Water Table (C2) Other (Explain in Remarks)	ery (B7) face (B8)  	Secondary Indic Water-Stained Drainage Patte Oxidized Rhize Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita Microtopograp	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3 leduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4)
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>/etland Hydrology Indicators:</b> Primary Indicators (any one indicator X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) <b>Field Observations:</b> Surface Water Present? Yes X Water Table Present? Yes X	Inundation Visible on Aerial Imag         Sparsely Vegetated Concave Su         Marl Deposits (B15)         Hydrogen Sulfide Odor (C1)         x       Dry-Season Water Table (C2)         Other (Explain in Remarks)	ery (B7) face (B8)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhize Presence of R Salt Deposits Stunted or Str Geomorphic P Shallow Aquita Microtopograp FAC-Neutral T	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3 leduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4) Test (D5)
Type: Depth (inches) Remarks: <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indicator X Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) <b>Field Observations:</b> Surface Water Present? Yes X	Inundation Visible on Aerial Imag Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) x Dry-Season Water Table (C2) Other (Explain in Remarks)	ery (B7) face (B8)	Secondary Indic Water-Stained Drainage Patte Oxidized Rhize Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita Microtopograp	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C: leduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4) Test (D5)

	B	brough/City.	Hoonan / J	Angoon	Sampling Da	le. To-Jun-20	J17
					Sampling Po	int: P2	204
	La	andform (hill	lside, terrace	e, hummocks, etc.):		hillside	
vex	S	lope (%): 🗧	3				
	Lat: 57.482	371		Long: -134.54822	4	Datum: NAD	83
				NWI classif	ication:		
e site tvpical f	or this time of	vear? Yes	X No	(If no. explain	in Remarks.)		
• •		•		·		x No	
	0 ,						
		inalic :	(II Heede	a, explain any answ		».)	
tach site n	nap showir	ng sampli	ing point	locations, trans	sects, impo	ortant feat	ures, e
Yes x	No 0						
		Is the	Sampled A	rea			
			-		No	x	
ator							
		<u> </u>		• -			
names of p					verke be et:		
				Dominance Test	worksneet:		
	10	1	FACU	Number of Domina	ant Species		
	20	1	FAC		•	3	(A)
			0	,			_ ` ′
			0	Total Number of D	ominant		
Total Cover:	30			Species Across All	Strata:	5	(B)
15	20% of tota	al cover:	6		-		_
					•		
		1				0.60	(A/B)
	40	1					_
							_
				FACW species	-		_
			0				_
			4.0		-		_
45	20% of tota	al cover:	18	· · · · · · · · · · · · · · · · · · ·	• • •		— (D)
					<u> </u>	0	(B)
				Drevelones In	day = D/A =		
						itors:	
			-				
						-1 (Durau data a su	
							,
				Problematic	C Hydropnytic \	/egetation (E	xplain)
						المترادينا الممتعالة	au ( 100 · · · - J
			0	-			gy must
	-		0		ss disturbed or	problematic.	
		-	U				
5 ft radiu		_	10	-	Yes x	No	
	Total Cover of	of Bryophyte	s 40	Present?			
licator							
	e site typical for rology s rology r tach site n Yes 0 Yes 0 ator Total Cover: 15 Total Cover: 45	vex       Si         Lat:       57.482:         e site typical for this time of y         rology       significantly dis         rology       naturally proble         tach site map showin         Yes       No         Yes       No         Yes       No         Yes       No         Yes       No         Yes       No         Absolute         % Cover         10         20         15         20% of tota         30         20         45         20% of tota         0         20% of tota         0         20% of tota         0         20% of tota	Landform (hill vex Slope (%): Lat: 57.482371 e site typical for this time of year? Yes rology significantly disturbed? rology naturally problematic? tach site map showing sampl Yes X No 0 Yes 0 No X Is the Yes 0 No X within ator names of plants. List all speci Absolute Dominant % Cover Species? 10 1 20 1 15 20% of total cover: 30 1 20 1 Total Cover: 30 15 20% of total cover: 30 1 20 1 15 20% of total cover: 30 1 20% of total cover: 30 1 20% of total cover: 30 20% of total cover: 30 30 20% of total	Landform (hillside, terrace         vex       Slope (%):       3         Lat:       57.482371         e site typical for this time of year?       Yes       X       No         rology       significantly disturbed?       Are "Nor         rology       naturally problematic?       (If neededdeddeddeddeddeddeddeddeddeddedddedddedddeddedddeddeddeddedddeddeddeddeddeddeddeddedddeddeddedddedddedddedddedddeddeddeddeddeddedddeddedddeddeddeddeddeddeddedddedddedddedddd	Lat:       57.482371       Long: -134.54822         will classifies       a site typical for this time of year?       Yes       X       No       (If no, explain rology	Sampling Po         Landform (hillside, terrace, hummocks, etc.):         vex       Slope (%): 3         Lat:       57.482371         Lat:       57.482371         Lat:       57.482371         Lat:       57.482371         Lat:       57.482371         Long:       134.548224         NWI classification:         a site typical for this time of year?       Yes         rology       ignificantly disturbed?         Are "Normal Circumstances" present' Yes         rology       inaturally problematic?         Yes       No         Yes       No         Yes       No         Yes       No         Absolute       Dominant         90       No         20       1         Absolute       Dominant         90       1         15       20% of total cover:         16       1         15       20% of total cover:         16       0         15       20% of total cover:         16       0         20       1         FACU         Prevalence Index worksheet:         Tota	Sampling Point: Pi         Sampling Point: Pi         Vex       Slope (%): 3         Lat:       57.482371       Long: -134.548224       Datum: NAD         NWI classification:         e site typical for this time of year?       Yes       X_No       (If no, explain in Remarks.)         No (If no, explain in Remarks.)         tack is the sampling point locations, transects, important feat         Yes X_No         Yes       No       0       x       within a Wetland?       Yes       No       x         Yes       No       0       x       within a Wetland?       Yes       No       x         Total Cover:       30       1       FAC       Total Number of Dominant Species       Total Number of Dominant Species         Total Cover:       30       1       FAC       Percent of Dominant Species       10         Total Cover:       90       0       FACU       Percent of Dominant Species       11 = 0         Total Cover:       90       0       FACU       Percent of Dominant Species       12 = 0         Total Cover:       90       0       FACU       Perceles       1 = 0       6         <

Sampling Point:	P204
Sampling Found.	F204

Depth Matrix (inches) Color (moist)	Redox Features Color (moist) %		oc <sup>2</sup> Texture	Remarks
(inches) Color (moist) 0-12 7.5yr3/3	% <u>Color (moist)</u> % 100	Type <sup>1</sup> Lo	organic	Coarse organic material
12-16 10yr4/1	100		sandy silt	
<sup>1</sup> Type: C=Concentration, D=Depleti	on, RM=Reduced Matrix, CS=Covered or C	Coated Sand (	Grains. <sup>2</sup> L	ocation: PL=Pore Lining, M=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric	: Soils <sup>3</sup> :	Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>		Alaska Gle	eyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		Underlying	•
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue			plain in Remarks)
Thick Dark Surface (A12)			、	,
Alaska Gleyed (A13)				
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic veget	ation, one prir	nary indicator of we	tland hydrology,
Alaska Gleyed Pores (A15)	and an appropriate landscape p	•	•	
	<sup>4</sup> Give details of color change in Rer	narks.		
Restrictive Layer (if present):				
······································				
Type:				
Type: Depth (inches)		Hydric \$	Soil Present? Y	′es No x
Depth (inches)		Hydric \$	Soil Present? Y	/es No
		Hydric S	Soil Present? Y	′es No <u>x</u>
Depth (inches)		Hydric \$	Soil Present? Y	/es No
Depth (inches) Remarks:		Hydric S	Soil Present? Y	/es No
Depth (inches) Remarks: HYDROLOGY		Hydric S	Soil Present? Y	/es No
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators:	r is sufficient)	Hydric S		
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicato	,		Secondary Indic	ators (2 or more required)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1)	Inundation Visible on Aerial Ima	gery (B7)	Secondary Indic	ators (2 or more required) I Leaves (B9)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2)	Inundation Visible on Aerial Ima	gery (B7)	Secondary Indic Water-Stained Drainage Patte	ators (2 or more required) t Leaves (B9) erns (B10)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicato 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15)	gery (B7)	Secondary Indic Water-Stained Drainage Patte Oxidized Rhize	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	gery (B7)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) ieduced Iron (C4)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	gery (B7)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) leduced Iron (C4) (C5)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator O Surface Water (A1) O High Water Table (A2) O Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	gery (B7)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) leduced Iron (C4) (C5) essed Plants (D1)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	gery (B7)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) leduced Iron (C4) (C5) essed Plants (D1) Position (D2)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	gery (B7)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) leduced Iron (C4) (C5) essed Plants (D1) Position (D2)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	gery (B7)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) reduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	gery (B7)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita Microtopograp	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) reduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	gery (B7)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita Microtopograp	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) reduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	gery (B7) urface (B8)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita Microtopograp	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) reduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations:	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	gery (B7) urface (B8)	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita Microtopograp	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) reduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4)
Depth (inches) Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 0 Surface Water (A1) 0 High Water Table (A2) 0 Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes	Inundation Visible on Aerial Ima Sparsely Vegetated Concave Su Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) Other (Explain in Remarks)	gery (B7) urface (B8) - - - - - - - - - - - - - - - - - - -	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic F Shallow Aquita Microtopograp	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) leduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4) Test (D5)
Depth (inches)         Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator)         0       Surface Water (A1)         0       High Water Table (A2)         0       Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)       Yes	Inundation Visible on Aerial Ima         Sparsely Vegetated Concave St         Marl Deposits (B15)         Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)	gery (B7) urface (B8) - - - - - - - - - - - - - - - - - - -	Secondary Indic Water-Stained Drainage Patt Oxidized Rhiz Presence of R Salt Deposits Stunted or Str Geomorphic P Shallow Aquita Microtopograp FAC-Neutral T	ators (2 or more required) I Leaves (B9) erns (B10) ospheres along Living Roots (C3) leduced Iron (C4) (C5) essed Plants (D1) Position (D2) ard (D3) whic Relief (D4) Test (D5)

Project/Site: Angoon Airport			Borough/City:	Hoonah /	Angoon	Sampling	Date: 18-Jun-	2017
Applicant/Owner: ADOT & PF						Sampling	Point:	P205
Investigator(s): J.Barna, L.Johnson			Landform (hills	side, terrace	e, hummocks, etc	c.):	Muskeg	
Local relief (concave, convex, none): nor	ıe		Slope (%): s	slight				
Subregion: Southeast Alaska		Lat: 57.48	1681		Long: -134.55	60478	Datum: NAI	J 83
Soil Map Unit Name: None					NWI cla	assification:		
Are climatic / hydrologic conditions on th	e site typical fo	r this time o	fyear? Yes	X No	(If no, exp	lain in Remarks	s.)	
Are Vegetation Soil or Hyd	lrology si	gnificantly o	listurbed?	Are "Nor	mal Circumstand	es" present' Ye	es <b>x</b> No	
Are Vegetation Soil or Hyd					ed, explain any a			
SUMMARY OF FINDINGS - A	ttach site m	ap show	ing sampli	ng point	locations, tr	ransects, im	iportant fea	itures, et
Hydrophytic Vegetation Present?	Yes x	No 0						
Hydric Soil Present?	Yes x	No 0	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes x	No 0	within	a Wetland	? Yes	x No	)	
					-			-
Remarks: Representative plot - PEM,	•	tod oorligr i	n the growing					
Expect at least 16 inches.	vouid be satura	ated earlier i	n the growing	season.				
VEGETATION – Use scientific	names of p							
Tree Stratum		Absolute % Cover	Species?	Indicator Status	Dominance Te	est worksheet:		
<u>1.</u>				0	Number of Dor	ninant Species		
2.				0		FACW, or FAC	: 1	(A)
3.				0				
4				0	Total Number of			
	Total Cover:	0			Species Across	s All Strata:	2	(B)
50% of total cover:	0	20% of to	tal cover:	0	Demonst of Dem	ninent Cressies		
Sapling/Shrub Stratum 1. Cornus canadensis		25	1	FACU		ninant Species FACW, or FAC	: 0.50	(A/B)
2.		23	<u>'</u>	0		ndex workshee		(A/D)
2				0	Total % Co		Multiply by	<i>I</i> .
4.				0	OBL species	20	x 1= 20	<u> </u>
5.				0	FACW species		x 2= 20	
6.				0	FAC species	95	x 3= 285	
	Total Cover:	25			FACU species	25	x 4= 100	
50% of total cover:	12.5	20% of to	tal cover:	5	UPL species	0	x 5= 0	
<u>Herb Stratum</u>					Column Totals	: <u>150</u> (A)	) 425	(B)
1. Dodecatheon frigidum		10		FACW				
2. Carex pachystachya		95	1	FAC		ce Index = B/A =		<u>33</u>
3. Lysichiton americanus		5		OBL		Vegetation Ind		
4. Menyanthes trifoliata		15		OBL		ince Test is >50		
5				0		ence Index is ≤3		
6				0		logical Adaptati		
7				0		a in Remarks or	•	,
8 9.				0	Problen	natic Hydrophyt	ic vegetation	(⊏xpiain)
9 10.				0	<sup>1</sup> Indicators of	f hydric soil and	wetland bydro	loav must
iv	Total Cover	125		0		•	•	
50% of total cover:	Total Cover: 62.5		tal cover:	25	be present, u Hydrophytic	Inless disturbed	or proplematic	
			-					
Plot size (radius, or length x width)	5 ft radius		Bare Ground	0	Vegetation	Yes	x No	
% Cover of Wetland Bryophytes	50	Total Cover	of Bryophytes	s <u>50</u>	Present?			
(Where applicable)								
Remarks: Representative plot - PE	M, muskeg							
US Army Corps of Engineers							Alaska	a Version 2.0
, <u>,</u> ,								

nlina	Point:	P205
ping	i onit.	F 203

SOIL								Sampling Point:	P205
Profile Des	scription: (Describe	to the depth	needed to document	the indica	tor or co	nfirm the	e absence of in	dicators.)	
Depth	Matrix			x Features				,	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-11	10yr2/1	100			Турс	200	organic		
11-20	10yr4/2	100					organic	Greasy mu	ck
	· · · · · ·							-	
							· ·		
<sup>1</sup> Type: C=	Concentration, D=De	pletion, RM=F	Reduced Matrix, CS=C	overed or C	coated Sa	and Grain	ns. <sup>2</sup> Lo	cation: PL=Pore Lin	ing, M=Mat
Hydric Soil	Indicators:	In	dicators for Problem	atic Hydric	Soils <sup>3</sup> :		Indicators for	Problematic Hydrid	: Soils <sup>®</sup> :
Histoso	ol or Histel (A1)		Alaska Color Change	e (TA4) <sup>4</sup>			Alaska Glev	yed Without Hue 5Y	or Redder
	Epipedon (A2)		Alaska Alpine Swale	s (TA5)			Underlying		
	jen Sulfide (A4)		Alaska Redox With 2	. ,				ain in Remarks)	
	Dark Surface (A12)							,	
	Gleyed (A13)								
	Redox (A14)	<sup>3</sup>	One indicator of hydrop	hytic veget:	ation one	e primarv	indicator of wet	and hydrology	
	Gleyed Pores (A15)		and an appropriate la						C.
	0.0902 1 0.000 (	<sup>4</sup> (	Give details of color ch						
Pootriotivo	l over (if present)								
_	Layer (if present):								
Type:	(in choo)		_		L b col	wie Ceil I		Na V Na	
Depth	(inches)		_		пуа	inc Soli	Present? Ye	es <u>x</u> No	
Remarks:	Expect at least 16 in	nches. Would	be saturated earlier in	the growing	season.				
HYDROLO	DGY								
Wetland Hy	drology Indicators:								
Primary Inc	dicators (any one indi	icator is suffic	ient)			s	econdary Indica	tors (2 or more requ	ired)
0 Surfac	e Water (A1)		Inundation Visible or	Aerial Imag	gery (B7)		Water-Stained	Leaves (B9)	
x High W	/ater Table (A2)		Sparsely Vegetated	Concave Su	urface (B8	3)	Drainage Patte	rns (B10)	
x Satura	tion (A3)		Marl Deposits (B15)				Oxidized Rhizo	spheres along Livin	g Roots (C3)
Water	Marks (B1)		Hydrogen Sulfide Od	lor (C1)			Presence of Re	educed Iron (C4)	
	ent Deposits (B2)		Dry-Season Water T	. ,			Salt Deposits (		
Drift De	eposits (B3)	_	Other (Explain in Re	marks)			Stunted or Stre	ssed Plants (D1)	
	lat or Crust (B4)						Geomorphic Po	· · ·	
	eposits (B5)						Shallow Aquita	( )	
Surfac	e Soil Cracks (B6)						Microtopograph	( )	
							FAC-Neutral Te	est (D5)	
Field Obs									
	ater Present? Yes		o <u>x</u> Depth (Inc	· · ·					
			o Depth (Inc	· · · · · · · · · · · · · · · · · · ·					
Saturation		s <u>×</u> N	o Depth (Ind	ches): 5		Wetlar	nd Hydrology P	resent? Yes <u>x</u>	No
	apillary fringe)		Standard III - 1 - 1	· · · ·	- !				
Describe F	Recorded Data (stream	m gauge, mor	itoring well, aerial pho	tos, previou	s inspect	ions), if a	avallable:		
Remarks:									

US Army Corps of Engineers

Project/Site: Angoon Airport	Borough/City:	Hoonah / Angoon	Sampling Date: <u>16-J</u>	un-2017
Applicant/Owner: ADOT & PF			Sampling Point:	P206
Investigator(s): J.Barna, L.Johnson	Landform (hill	side, terrace, hummocks, etc	.): flat	
Local relief (concave, convex, none):	Slope (%): 0	)		
Subregion: Southeast Alaska	Lat: 57.481553	Long: -134.550	D748 Datum:	NAD 83
Soil Map Unit Name: None		NWI clas	ssification:	
Are climatic / hydrologic conditions on the site typica	I for this time of year? Yes	X No (If no, expl	ain in Remarks.)	
Are Vegetation Soil or Hydrology	significantly disturbed?	Are "Normal Circumstance	es" present' Yes x	No
Are Vegetation Soil or Hydrology		(If needed, explain any an	swers in Remarks.)	
	—		,	
SUMMARY OF FINDINGS – Attach site	map showing sampli	ing point locations, tra	ansects, important	features, etc
Hydrophytic Vegetation Present? Yes 0	No x			
Hydric Soil Present? Yes 0	No x Is the	Sampled Area		
Wetland Hydrology Present? Yes 0	No x within	a Wetland? Yes	No x	
Remarks: Upslope from muskage to the west				
		! 41		
VEGETATION – Use scientific names of	Absolute Dominant	Indicator   Dominance Te	st workshoot:	
Tree Stratum	% Cover Species?	Status	st worksneet.	
1. Pinus contorta	5	FAC Number of Dom	inant Species	
2. Tsuga heterophylla	35 1	FAC That Are OBL, F	FACW, or FAC: 2	(A)
3.		0		
4		0 Total Number o		
Total Cove		Species Across	All Strata: 4	(B)
50% of total cover: 20	20% of total cover:	8 Demonst of Dem	inant Chasics	
<u>Sapling/Shrub Stratum</u> 1. Vaccinium ovalifolium	85 1	FAC That Are OBL. F	•	50 (A/B)
2. Cornus canadensis	25 1		FACW, or FAC: 0.5 Idex worksheet:	ы (А/Б)
3. Vaccinium vitis-idaea	5	FAC Total % Co		v by:
4.		0 OBL species	$\frac{1}{0} \frac{1}{x 1} = 1$	<u>y by.</u> 0
		0 FACW species		0
5 6		0 FAC species		375
Total Cove	er 115	FACU species		180
50% of total cover: 57.5	20% of total cover:	23 UPL species	<u></u>	0
Herb Stratum	-	Column Totals:		555 (B)
1. Pteridium aquilinum	20 1	FACU		
2.		0 Prevalence	e Index = B/A = <u>3.2647</u>	05882
3.		0 Hydrophytic \	/egetation Indicators:	
4.		0 Dominar	nce Test is >50%	
5.		0 Prevaler	nce Index is ≤3.0	
6.		0 Morphol	ogical Adaptations <sup>1</sup> (Provi	ide supporting
7.		0 data	in Remarks or on a separ	rate sheet)
8.		0 Problem	atic Hydrophytic Vegetatio	on <sup>1</sup> (Explain)
9.		0		
10.		0 <sup>1</sup> Indicators of	hydric soil and wetland hy	/drology must
Total Cove	er: 20	be present, ur	nless disturbed or problem	natic.
50% of total cover: 10	20% of total cover:	4 Hydrophytic	•	
Plot size (radius, or length x width) 5 ft rad	– ius % Bare Ground	0 Vegetation	Yes	No x
% Cover of Wetland Bryophytes 15			····	<u> </u>
(Where applicable)				
Remarks: Upslope from muskage to the west		I		
US Army Corps of Engineers			Ala	aska Version 2.0

nlina	Point:	P206
ping	i onit.	F 200

SOIL								Sampling Point:	P206
Profile Des	cription: (Describe	to the depth	needed to documen	t the indicato	or or co	nfirm the	e absence of ir	ndicators.)	
Depth	Matrix			ox Features				· · · · · · · · · · · · · · · · · · ·	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	;
0-9	10yr5/4	100					organic	Coarse organic	matter
9-12	10yr2/2	100					organic	Coarse organic	matter
12-14	10yr2/1	100					organic	Greasy mu	ck
14-16	10r4/1	100					gravel/clay		
	Concentration, D=Dep					ind Grain		ocation: PL=Pore Lin	-
Hydric Soil	Indicators:	Inc	licators for Problem	natic Hydric S	Soils":		Indicators for	Problematic Hydrid	: Soils <sup>3</sup> :
Histoso	ol or Histel (A1)		Alaska Color Chang	e (TA4) <sup>4</sup>			Alaska Gle	eyed Without Hue 5Y	or Redder
Histic E	Epipedon (A2)		Alaska Alpine Swale	es (TA5)			Underlying	g Layer	
Hydrog	en Sulfide (A4)		Alaska Redox With 2	2.5Y Hue			Other (Exp	plain in Remarks)	
	)ark Surface (A12)								
Alaska	Gleyed (A13)								
Alaska	Redox (A14)	<sup>3</sup> O	ne indicator of hydror	ohvtic vegetat	ion. one	primarv	indicator of we	tland hvdrology.	
	Gleyed Pores (A15)							sturbed or problemat	ic.
		⁴G	ive details of color ch			•		·	
Postrictivo	Layer (if present):			0	1				
_	Layer (il present).								
Type:	(in all a a )				L I. ral	ria Cail I		An No	
Depth	(inches)				пуц	ne son r	Present? Y	′es <u>No</u>	<u>x</u>
Remarks:									
HYDROLO	DGY								
Wetland Hy	drology Indicators:								
Primary Inc	dicators (any one indic	ator is sufficie	ent)			S	econdary Indic	ators (2 or more requ	iired)
0 Surface	e Water (A1)		Inundation Visible or	n Aerial Image	ery (B7)		Water-Stained	l Leaves (B9)	
0 High W	ater Table (A2)		Sparsely Vegetated	Concave Sur	face (B8	3)	Drainage Patte	erns (B10)	
0 Saturat	ion (A3)		Marl Deposits (B15)				Oxidized Rhize	ospheres along Living	g Roots (C3)
Water	Marks (B1)		Hydrogen Sulfide Od	dor (C1)			Presence of R	educed Iron (C4)	
	ent Deposits (B2)		Dry-Season Water T	· · ·			Salt Deposits	(C5)	
Drift De	eposits (B3)		Other (Explain in Re	emarks)			Stunted or Str	essed Plants (D1)	
	lat or Crust (B4)						Geomorphic P	( )	
	posits (B5)						Shallow Aquita		
Surface	e Soil Cracks (B6)							hic Relief (D4)	
							FAC-Neutral T	ēst (D5)	
Field Obse									
	ater Present? Yes		X Depth (In		_				
	e Present? Yes	No	· · ·	·	-	Methe	م		Na V
Saturation		No	x Depth (In	ches): >16	-	vvetian	nd Hydrology F	Present? Yes _	No x
,	apillary fringe) ecorded Data (stream		toring well oprial sha		inenact	ione) if a	wailable:		
Describe R	ecolueu Data (stream	i yauye, moni	toring well, aerial pho	nos, previous	inspect	ions), ii a			
Remarks:									

Project/Site: Angoon Airport		D	orougn/only.	Hoonah / A	Angoon	Sampling Date		017
Applicant/Owner: ADOT & PF						Sampling Poir	nt: P	207
vestigator(s): J.Barna, L.Johnson		L	andform (hill	side, terrace	e, hummocks, etc.):		hill	
ocal relief (concave, convex, none):		S	lope (%):	2				
ubregion: Southeast Alaska		Lat: 57.479	9		Long: -134.55165		atum: NAD	83
oil Map Unit Name: None				_	NWI classif	fication:		
re climatic / hydrologic conditions on tl	ne site typical fo	r this time of	year? Yes	X No	(If no, explain	in Remarks.)		
re Vegetation Soil or Hy	drologysi	ignificantly dis	sturbed?	Are "Nori	mal Circumstances"	present' Yes	x No	
re Vegetation Soil or Hy	drologyn	aturally proble	ematic?	(If neede	d, explain any answ	ers in Remarks.	)	
	44.0 ch cite				le setteres tren		staust fact	
SUMMARY OF FINDINGS – A	ittach site m	ap snown	ng sampi	ing point	locations, tran	sects, impo	rtant feat	ures, e
lydrophytic Vegetation Present?	Yes 0	No x						
lydric Soil Present?	Yes 0	No x		Sampled A				
Vetland Hydrology Present?	Yes 0	No x	within	a Wetland	? Yes	No	x	
Remarks: 0								
Refusal at 12"								
/EGETATION – Use scientific	names of p	lants. List	all speci	es in the	plot.			
	•	Absolute		Indicator	Dominance Test	worksheet:		
Tree Stratum		% Cover	_ <u>.</u>	Status	Number of Densing	ant Creation		
1. Tsuga heterophylla 2. Tsuga mertensiana		90	1	FAC FAC	Number of Domina That Are OBL, FAG	•	1	(A)
3.		10		0	That AIC ODE, I A		I	(~)
4.				0	Total Number of D	ominant		
	Total Cover:	100			Species Across Al	I Strata:	2	(B)
50% of total cover:	50	20% of tota	al cover:	20				
Sapling/Shrub Stratum		05		FAOL	Percent of Domina	•		
1. Vaccinium parvifolium		25	1	FACU	That Are OBL, FA		0.50	(A/B)
2 3				0	Prevalence Inde Total % Cover		Multiply by:	
				0	OBL species	0 x 1	Multiply by: = 0	_
4 5				0	FACW species	0 x 2		
6.				0	FAC species	100 x 3	= 300	_
	Total Cover:	25			FACU species	25 x 4	= 100	
50% of total cover:	12.5	20% of tota	al cover:	5	UPL species	0 x 5		
Herb Stratum					Column Totals:	125 (A)	400	(B)
1				0				
2				0	Prevalence In		<u>3.2</u>	
3				0	Hydrophytic Veg	e Test is >50%	ors:	
+ 5.				0		lndex is ≤3.0		
~				0		cal Adaptations <sup>1</sup>	(Provide s	upporting
o 7				0		Remarks or on a		
8.				0		c Hydrophytic Ve	•	,
9.				0	—	, , , .	- (	. ,
0.				0	<sup>1</sup> Indicators of hyd	dric soil and wet	and hydrolo	ogy must
	Total Cover:	0			be present, unles			
50% of total cover:	0	20% of tota	al cover:	0	Hydrophytic	•		
Plot size (radius, or length x width)	5 ft radius	% Ba	are Ground	0	Vegetation	Yes	No	x
% Cover of Wetland Bryophytes		Total Cover of	_		Present?			•
(Where applicable)			, <sub></sub> ,					
(Where applied bid)								
Remarks:								
nlina	Point:	P207						
--------	---------	------						
piirig	F UIIIL	F207						

SOIL			S	Sampling Point: P207
Profile Description: (Describe to	the depth needed to document	the indicator or cor	firm the absence of ind	icators.)
Depth Matrix	-	x Features		
(inches) Color (moist)	% Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks
0-12 7.5yr2.5/2	100		organic	
>12			gravel/cobble	refusal
<sup>1</sup> Type: C=Concentration, D=Deple	tion, RM=Reduced Matrix, CS=Co	overed or Coated Sar	nd Grains. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Mat
Hydric Soil Indicators:	Indicators for Problema	atic Hydric Soils <sup>3</sup> :	Indicators for P	roblematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change	(TA4) <sup>4</sup>	Alaska Gleve	ed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales	(TA5)	Underlying L	
Hydrogen Sulfide (A4)	Alaska Redox With 2.			in in Remarks)
Thick Dark Surface (A12)				······································
Alaska Gleyed (A13)				
Alaska Redox (A14)	<sup>3</sup> One indicator of hydron	ovtic vegetation one	primary indicator of wetla	nd hydrology
Alaska Gleyed Pores (A15)			st be present unless distu	
	<sup>4</sup> Give details of color cha			
<b>-</b>				
Restrictive Layer (if present):				
Туре:	<u></u> .			
Depth (inches)		Hydr	ric Soil Present? Yes	s <u>No x</u>
Remarks: Refusal at 12"				
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (any one indicat	tor is sufficient)		Secondary Indicate	ors (2 or more required)
0 Surface Water (A1)	Inundation Visible on	Aerial Imagery (B7)	Water-Stained L	
0 High Water Table (A2)	Sparsely Vegetated C			( )
0 Saturation (A3)	Marl Deposits (B15)	, v		pheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odd	or (C1)	Presence of Rec	
Sediment Deposits (B2)	Dry-Season Water Ta	able (C2)	Salt Deposits (C	5)
Drift Deposits (B3)	Other (Explain in Ren	narks)	Stunted or Stres	sed Plants (D1)
Algal Mat or Crust (B4)	—		Geomorphic Pos	sition (D2)
Iron Deposits (B5)			Shallow Aquitare	1 (D3)
Surface Soil Cracks (B6)			Microtopographi	c Relief (D4)
—			FAC-Neutral Tes	st (D5)
Field Observations:				
Surface Water Present? Yes	No x Depth (Incl	hes): NA		
Water Table Present? Yes	No x Depth (Incl	/		
Saturation Present? Yes	No X Depth (Incl		Wetland Hydrology Pre	esent? Yes No x
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring well, aerial photo	os, previous inspectio	ons), if available:	
Remarks:				

Project/Site: Angoon Airport		Bo	orough/City:	Hoonah / A	Angoon	Sampling Da	ate: 18-Jun-20	017
Applicant/Owner: ADOT & PF						Sampling Po	pint: P	208
Investigator(s): J.Barna, L.Johnson		La	ndform (hills	side, terrace	, hummocks, etc.):		hill toe	
Local relief (concave, convex, none): concave		SI	ope (%): 1					
Subregion: Southeast Alaska	Lat	57.4784	75		Long: -134.54763		Datum: NAD	83
Soil Map Unit Name: None					NWI classifi	cation:		
Are climatic / hydrologic conditions on the site	typical for this	s time of y	ear? Yes	X No	(If no, explain	in Remarks.)		
Are Vegetation Soil or Hydrology					mal Circumstances"		<b>x</b> No	
Are Vegetation Soil or Hydrology	/ natura	ally proble	matic?		d, explain any answe			
SUMMARY OF FINDINGS – Attach	n site map	showin	g sampli	ng point	locations, trans	sects, impo	ortant feat	ures, etc.
Hydrophytic Vegetation Present? Yes	x No	0						
Hydric Soil Present? Yes	x No	0	Is the	Sampled A	rea			
Wetland Hydrology Present? Yes	x No	0	within	a Wetland	? Yes x	No		
Remarks: Plot is a concave area and has w	rotland							
Presence of hydric soil indicates								
Presence of hydrology indicates								
				a in the .				
VEGETATION – Use scientific nam			all specie Dominant	Indicator	DIOL. Dominance Test v	vorkshoot:		
Tree Stratum		Cover		Status	Dominance rest	Joinsheet.		
1. Tsuga heterophylla		90	1	FAC	Number of Domina	nt Species		
2.				0	That Are OBL, FAC	W, or FAC:	1	(A)
3				0				
4				0	Total Number of Do			(=)
	al Cover:	90		10	Species Across All	Strata:	3	(B)
50% of total cover: Sapling/Shrub Stratum	45 20	)% of tota	l cover:	18	Percent of Dominal	nt Species		
1. Vaccinium parvifolium		80	1	FACU	That Are OBL, FAC	•	0.33	(A/B)
2. Rubus spectabilis		15	<u> </u>	FACU	Prevalence Index		0.00	(700)
3. Malus fusca		25		FACW	Total % Cover		Multiply by:	
4. Oplopanax horridus		30	1	FACU	OBL species		1= 0	_
5.				0	FACW species		2= 50	_
6.				0	FAC species	90 x	3= 270	_
Tota	al Cover:	150			FACU species	125 x	4= 500	
50% of total cover:	75 20	)% of tota	l cover:	30	UPL species		5= 0	
Herb Stratum					Column Totals:	240 (A)	820	(B)
1				0				
2				0	Prevalence In			<u>7</u>
3				0	Hydrophytic Veg			
4				0		Test is >50%		
5				0		Index is ≤3.0	1 (	
6				0		cal Adaptation	•	
7						Remarks or or		,
8				0	<u>x</u> Problematic	: Hydrophytic \	vegetation (E	=xpiain)
9 10.				0	<sup>1</sup> Indicators of hyd	tria cail and w	otland bydrolo	av must
		0						yy musi
50% of total cover:	al Cover: 0 20	0 0% of tota	Loovori	0	be present, unles	s disturbed or	problematic.	
					Hydrophytic			
	5 ft radius	-	re Ground	0	Vegetation	Yes	No	x
% Cover of Wetland Bryophytes (Where applicable)	90 Tota	l Cover o	f Bryophytes	<u>90</u>	Present?			
Remarks: Plot is a concave area and has	s wetland							
hydrology as well as hydric soils. The FACU sl	hrubs, i.e., dev	vil's club (	Oplopanax I	horridus) an	d V. parvifo lium wer	e growing on I	hummocks	
and therefore not influenced by wetland condit	ions.							
US Army Corps of Engineers							Alaska	Version 2.0

Sampling	Point:	P208
Cumping	i onit.	1 200

x       Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Alaska Gleyed Without Hue 5Y or Redder         Histic Epipedon (A2)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Alaska Gleyed (A13)       Alaska Redox (A14) <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. <sup>4</sup> Give details of color change in Remarks.         Restrictive Layer (if present):       Type:	Color (moist)       %       Color (moist)       %       Ty         0-16       10yr2/1       100	organic       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         State       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Other       Problematic Hydric Soils:         Other       Other (Explain in Remarks)         Other (Explain in Remarks)       Other (Explain in Remarks)         On must be present unless disturbed or problematic.       S.
0-16       10yr2/1       100       organic       Organic greasy mineral         Image: Second Seco	0.16       10yr2/1       100         10yr2/1       100       100         100	organic       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         State       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Organic greasy mineral       Organic greasy mineral         Other       Problematic Hydric Soils:         Other       Other (Explain in Remarks)         Other (Explain in Remarks)       Other (Explain in Remarks)         On must be present unless disturbed or problematic.       S.
Image: Secondary Indicators is sufficient)       Indicator strees of hydrospitale and scape position must be present unless disturbed or problematic.         **       Maska Cleyed (A13)       Alaska Redox (A14)         Alaska Cleyed (A13)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A15)       and an appropriate landscape position must be present unless disturbed or problematic.         **       **       Maska Cleyed (A13)         Alaska Cleyed (A13)       and an appropriate landscape position must be present unless disturbed or problematic.         **       **       Maska Cleyed (A15)         Alaska Cleyed (A15)       and an appropriate landscape position must be present unless disturbed or problematic.         **       **       Mydric Soil Present?         YDENCLOCY       Vestion Must be present unless disturbed or problematic.         **       **       No         © Surface Water (A1)       **       **         **       Startation (A3)       Math Deposits (B15)       Other (Explain in Remarks)         **       Startation (A3)       Math Deposits (B15)       Other (Explain in Remarks)         **       Startation (A3)       Math Deposits (B2)       Other (Explain in Remarks)         **       Sturtation (B4)       **       **         **       *	Image:	ed Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Ma <b>Is<sup>3</sup>: Indicators for Problematic Hydric Soils</b> <sup>3</sup> : Alaska Gleyed Without Hue 5Y or Redde Underlying Layer Other (Explain in Remarks) , one primary indicator of wetland hydrology, on must be present unless disturbed or problematic. s.
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric Soils <sup>3</sup> :         x       Histosol or Histel (A1)	Hydric Soil Indicators:       Indicators for Problematic Hydric Soil         x       Histosol or Histel (A1)	Indicators for Problematic Hydric Soils <sup>3</sup> :  Alaska Gleyed Without Hue 5Y or Redde Underlying Layer Other (Explain in Remarks)  on e primary indicator of wetland hydrology, on must be present unless disturbed or problematic. s.
type       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric Soils <sup>3</sup> :         x       Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Alaska Gleyed Without Hue 5Y or Redder         Histosol or Histel (A2)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Sulfide (A4)       Alaska Alpine Swales (TA5)       Underlying Layer         Trick Dark Surface (A12)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Alaska Gleyed Notes (A13)       "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. "Give details of color change in Remarks.         Restrictive Layer (If present):       Type:         Depth (inches)       Hydric Soil Present? Yes No         Remarks:       Presence of hydric soil indicates wetland         YDROLOGY       Statemarks (B1)         Yudrogon functators:       Sparsely Vegetated Concave Surface (B8)         Saturation (A3)       Mari Deposits (B15)         Water Marks (B1)       Hydrogen Sutface Concave Surface (B8)         Oriti Deposits (B2)       Dry-Season Water Table (C2)         Oriti Deposits (B3)       Other (Explain in Remarks)         Surface Water (R4)       Hydrogen Sutface Concave Surface (B8)         Surface Water (B4)	Hydric Soil Indicators:       Indicators for Problematic Hydric Soil         x       Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Histic Epipedon (A2)       Alaska Alpine Swales (TA5)         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue         Thick Dark Surface (A12)       Alaska Redox With 2.5Y Hue         Alaska Gleyed (A13)       Alaska Redox (A14)         Alaska Gleyed Pores (A15)       and an appropriate landscape position         4 Give details of color change in Remark       Give details of color change in Remark         Restrictive Layer (if present):       Type:         Depth (inches)       Presence of hydric soil indicates wetland         INDROLOGY       Metland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)       Inundation Visible on Aerial Imagery         0       Surface Water (A1)       Inundation Visible on Aerial Imagery         x       High Water Table (A2)       Sparsely Vegetated Concave Surface         x       Saturation (A3)       Marl Deposits (B15)	Indicators for Problematic Hydric Soils <sup>3</sup> :  Alaska Gleyed Without Hue 5Y or Redde Underlying Layer Other (Explain in Remarks)  on e primary indicator of wetland hydrology, on must be present unless disturbed or problematic. s.
x       Histosol or Histel (A1)       Alaska Color Change (TA4)*       Alaska Gleyed Without Hue 5Y or Redder         Histic Epipedon (A2)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Suffice (A4)       Alaska Redox With 2.5Y Hue       Other (Explain In Remarks)         Thick Dark Surface (A12)       Alaska Redox (A14)       *         Alaska Gleyed (A13)       *       and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.       *       *         Remarks:       Presence of hydric soil indicates wetland       *         *UPROLOGY       *       *       Mark Deposition (A2)         Vertiand Hydrology Indicators (any one indicator is sufficient)       *       Secondary Indicators (2 or more required)         © Surface Water (A1)       *       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)       Water-Stained Leaves (B9)         x       Saturation (A3)       *       Mart Deposits (B1)       Oxidized Rhizospheres along Living Roots (C3)         Year Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)       Saturation (A3)         X       Saturation (A3)       Other (Explain in Remarks)       Saturation (A3)       Saturation (A3)         Year Marks (B1)       Hydrogen Sulfide Od	x       Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Histic Epipedon (A2)       Alaska Alpine Swales (TA5)         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue         Thick Dark Surface (A12)       Alaska Redox With 2.5Y Hue         Alaska Gleyed (A13)       Alaska Redox (A14)         Alaska Gleyed Pores (A15)       and an appropriate landscape position         4 Give details of color change in Remark       Give details of color change in Remark         Restrictive Layer (if present):       Type:         Depth (inches)       Depth (inches)         Remarks:       Presence of hydric soil indicates wetland <b>VDROLOGY</b> Inundation Visible on Aerial Imagery         x       High Water Table (A2)       Sparsely Vegetated Concave Surface         x       Saturation (A3)       Marl Deposits (B15)	Alaska Gleyed Without Hue 5Y or Redde Underlying Layer Other (Explain in Remarks) , one primary indicator of wetland hydrology, on must be present unless disturbed or problematic. s.
Histic Epipedon (A2)	Histic Epipedon (A2)       Alaska Alpine Swales (TA5)         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue         Thick Dark Surface (A12)       Alaska Redox With 2.5Y Hue         Alaska Gleyed (A13)       Alaska Redox (A14)         Alaska Gleyed Pores (A15)       and an appropriate landscape position         4 Give details of color change in Remark       4 Give details of color change in Remark         Restrictive Layer (if present):       Type:         Depth (inches)       Presence of hydric soil indicates wetland         Alaska Hydrology Indicators:       Primary Indicators (any one indicator is sufficient)         0       Surface Water (A1)       Inundation Visible on Aerial Imagery         x       High Water Table (A2)       Sparsely Vegetated Concave Surface         x       Saturation (A3)       Marl Deposits (B15)	Underlying Layer Other (Explain in Remarks) , one primary indicator of wetland hydrology, on must be present unless disturbed or problematic. s.
Hydrogen Sulfide (A4)       Alaska Redox Wilh 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Gleyed (A13)       Alaska Gleyed (A13)         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.         *Give details of color change in Remarks.         Restrictive Layer (if present):       Type:         Depth (inches)       Hydric Soil Present? Yes x No         Remarks:       Presence of hydric soil indicates wetland         YDROLOGY       Inundation Visible on Aerial Imagery (B7)         Water Atland Hydrology Indicators is sufficient)       Sparsely Vegetated Concave Surface (B8)         0       Surface Water (A1)       Inundation Visible Odor (C1)         X       Saturation (A3)       Marl Deposits (B15)         Water Marks (B1)       Hydriggen Sulfide Codor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Stunted or Stressed Plants (D1)         Sulface Water Present?       Yes X       No       Geomorphic Positin (D2)         Sulface Boil Cracks (B6)       Microtopographic Relief (D4)       FAC-Neutral Test (D5)	Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue         Thick Dark Surface (A12)       Alaska Gleyed (A13)         Alaska Gleyed (A13) <sup>3</sup> One indicator of hydrophytic vegetation         Alaska Redox (A14) <sup>3</sup> One indicator of hydrophytic vegetation         Alaska Gleyed Pores (A15)       and an appropriate landscape positid <sup>4</sup> Give details of color change in Remark         Restrictive Layer (if present):         Type:         Depth (inches)         Remarks:         Presence of hydric soil indicates wetland         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)         0       Surface Water (A1)         ×       High Water Table (A2)         ×       Saturation (A3)	Other (Explain in Remarks) , one primary indicator of wetland hydrology, on must be present unless disturbed or problematic. s.
Thick Dark Surface (Å12)       Alaska Gleyed (Å13)         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. <sup>4</sup> Give details of color change in Remarks.         Restrictive Layer (if present):         Type:         Depth (inches)         Remarks:         Presence of hydric soil indicates wetland         YDROLOGY         Wotland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)         O       Surface Water (A1)         X       High Water Table (A2)         Saturation (A3)       Mart Deposits (B15)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)         Seturation (A3)       Other (Explain in Remarks)         Alagk Matter Crust (B4)       Other (Explain in Remarks)         Irin Deposits (B5)       Stunted or Stressed Plants (D1)         Alagk Mator Crust (B4)       Other (Explain in Remarks)         Surface Water Present?       Yes         No       Depth (inches):         No       Depth (inches):         Mark Marks (B6)       Water Stained Leaves (B6)         Surface Soil Cracks (B6)       Other (Explain in Remarks)         Surface Soil Cr	Thick Dark Surface (A12) Alaska Gleyed (A13) Alaska Gleyed (A13) Alaska Redox (A14) Alaska Gleyed Pores (A15) Alaska Gleyed Pores (A15) Give details of color change in Remark  Restrictive Layer (if present): Type: Depth (inches) Remarks: Presence of hydric soil indicates wetland  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) O Surface Water (A1) Inundation Visible on Aerial Imagery High Water Table (A2) Sparsely Vegetated Concave Surface Xalasha Gleyed Pores (A15) Alaska Gleyed Pores (A15) Inundation Visible on Aerial Imagery Aligh Water Table (A2) Sparsely Vegetated Concave Surface Marl Deposits (B15)	, one primary indicator of wetland hydrology, on must be present unless disturbed or problematic. s.
Alaska Gleyed Pores (A15)  Alaska Gleyed Pores (A15)  Alaska Gleyed Pores (A15)  Alaska Gleyed Pores (A15)  Adapted tails of color change in Remarks.  Active Layer (if present):  Type: Depth (inches)  Hydric Soil Present? Yes x No Hydric Soil Present? Yes x No  No No No No No No No No No No No No	Alaska Gleyed Pores (A15) and an appropriate landscape positie <sup>4</sup> Give details of color change in Remark  Restrictive Layer (if present): Type: Depth (inches) Remarks: Presence of hydric soil indicates wetland  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) 0 Surface Water (A1) Inundation Visible on Aerial Imagery X High Water Table (A2) Sparsely Vegetated Concave Surface X Saturation (A3) Marl Deposits (B15)	on must be present unless disturbed or problematic. s.
*Give details of color change in Remarks.         Remarks:         Type:         Depth (inches)         Remarks:         Presence of hydric soil indicates wetland         WDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)         © Surface Water (A1)         x High Water Table (A2)         x Saturation (A3)         Matr Deposits (B15)         Water Marks (B1)         Hydrogen Sulfide Odor (C1)         Prisence of Reduced Iron (C4)         Sediment Deposits (B2)         Dirth Deposits (B3)         Other (Explain in Remarks)         Sulface Soil Cracks (B6)         Field Observations:         Sutrate Table Present?         Yes         No         Depth (inches):         Water Present?         Yes         No         Depth (inches):         Mat Posent?         Yes         No         Dift Deposits (B3)         Other (Explain in Remarks)         Sufface Soil Cracks (B6)         Surface Soil Cracks (B6)         Surface Water Present?         Yes         No	Give details of color change in Remark  Restrictive Layer (if present):     Type:     Depth (inches)  Remarks: Presence of hydric soil indicates wetland  HYDROLOGY  Wetland Hydrology Indicators:     Primary Indicators (any one indicator is sufficient)      O Surface Water (A1)     Inundation Visible on Aerial Imagery     x High Water Table (A2)     Sparsely Vegetated Concave Surface     x Saturation (A3)     Marl Deposits (B15)	S
Restrictive Layer (if present):         Type:	Restrictive Layer (if present):         Type:         Depth (inches)         Remarks:       Presence of hydric soil indicates wetland         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)         0       Surface Water (A1)         Inundation Visible on Aerial Imagery         x       High Water Table (A2)         x       Sparsely Vegetated Concave Surface         x       Saturation (A3)	
Type:	Type:	Hydric Soil Present? Yes <u>x</u> No
Depth (inches)       Hydric Soil Present?       Yes       x       No         Remarks:       Presence of hydric soil indicates wetland         IVDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required)         0       Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         x       High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         x       Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Roots (C3)         y       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)       Saturation (B3)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Saturation (D2)       Saturation (D2)         Marl Deposits (B5)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)       Geomorphic Positin (D2)         Sulface Soil Cracks (B6)       Shallow Aquitard (D3)       Microtopographic Relief (D4)       FAC-Neutral Test (D5)         Field Observations:         Sutartation Present?       Yes       No       Depth (Inches):       MA         Water Table Present?       Yes       No       Depth (Inches):       9	Depth (inches)         Remarks:       Presence of hydric soil indicates wetland         IYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)         0       Surface Water (A1)         x       High Water Table (A2)         x       Sparsely Vegetated Concave Surface         x       Saturation (A3)	Hydric Soil Present? Yes <u>x</u> No
Remarks:       Presence of hydric soil indicates wetland         IVDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required)         0       Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)         x       High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)         x       Marl Deposits (B15)       Drainage Patterns (B10)         x       Saturation (A3)       Marl Deposits (B15)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Satured or Stressed Plants (D1)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Iron Deposits (B5)       Other (Explain in Remarks)       Microtopographic Relief (D4)         Surface Soil Cracks (B6)       Pepth (Inches):       NA         Water Table Present?       Yes x       No         Uncludes capillary fringe)       Depth (Inches):       11	Remarks:       Presence of hydric soil indicates wetland         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)         0       Surface Water (A1)         x       High Water Table (A2)         x       Sparsely Vegetated Concave Surface         x       Saturation (A3)	
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required)         0       Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         x       High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         x       Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Roots (C3         water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)       Salt Deposits (C5)         Sediment Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Iron Deposits (B5)       Sturface Soil Cracks (B6)       Microtopographic Relief (D4)         Field Observations:       Surface Water Present? Yes       No       Depth (Inches):       NA         Water Table Present? Yes x       No       Depth (Inches):       11       Wetland Hydrology Present? Yes x       No         Gincludes capillary fringe)       Wetland Hydrology Present? Yes x       No       Depth (Inches):       9	Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)         0       Surface Water (A1)         x       High Water Table (A2)         x       Sparsely Vegetated Concave Surface         x       Saturation (A3)	
0       Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         x       High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         x       Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Roots (C3)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)       Shallow Aquitard (D3)         Iron Deposits (B5)       No       Depth (Inches):       NA         Surface Water Present?       Yes       No       Depth (Inches):       NA         Water Table Present?       Yes       No       Depth (Inches):       11         Saturation Present?       Yes       No       Depth (Inches):       9         (includes capillary fringe)       Wetland Hydrology Present?       Yes       x       No	0       Surface Water (A1)       Inundation Visible on Aerial Imagery         x       High Water Table (A2)       Sparsely Vegetated Concave Surface         x       Saturation (A3)       Marl Deposits (B15)	
x       High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         x       Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Roots (C3)         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Saturation (D2)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Iron Deposits (B5)       Other (Explain in Remarks)       Microtopographic Relief (D4)         Surface Soil Cracks (B6)       No       Depth (Inches): NA       Marcotopographic Relief (D4)         Fac-Neutral Test (D5)       No       Depth (Inches): 11       Wetland Hydrology Present? Yes x       No         Saturation Present?       Yes x       No       Depth (Inches): 9       Wetland Hydrology Present? Yes x       No         (includes capillary fringe)       Wetland Hydrology Present? Yes x       No       Mo       Depth (Inches): 9       Mo	x       High Water Table (A2)       Sparsely Vegetated Concave Surface         x       Saturation (A3)       Marl Deposits (B15)	Secondary Indicators (2 or more required)
x       Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Roots (C3         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B3)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Surface Soil Cracks (B6)       No         X       Depth (Inches):         No       Depth (Inches):         Saturation Present?       Yes         X       No         Guide Present?       Yes         X       No         Depth (Inches):       9         Water Table Present?       Yes         X       No         Depth (Inches):       9         Water Table Present?       Yes         X       No         Depth (Inches):       9         Wetland Hydrology Present?       Yes         X       No         Depth (Inches):       9	x Saturation (A3) Marl Deposits (B15)	
Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)       Shallow Aquitard (D3)         Iron Deposits (B5)       Microtopographic Relief (D4)       FAC-Neutral Test (D5)         Field Observations:       No       Depth (Inches):       NA         Water Table Present?       Yes       No       Depth (Inches):       11         Saturation Present?       Yes       No       Depth (Inches):       9         (includes capillary fringe)       Yes       x       No       No       No		
Sediment Deposits (B2)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)       Shallow Aquitard (D3)         Iron Deposits (B5)       Microtopographic Relief (D4)       FAC-Neutral Test (D5)         Field Observations:       No       Depth (Inches): NA         Water Table Present?       Yes       No       Depth (Inches): 11         Saturation Present?       Yes       No       Depth (Inches): 9         (includes capillary fringe)       Wetland Hydrology Present? Yes       x       No		
Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Iron Deposits (B5)       Shallow Aquitard (D3)         Surface Soil Cracks (B6)       Microtopographic Relief (D4)       FAC-Neutral Test (D5)         Field Observations:       No       X       Depth (Inches):       NA         Water Table Present?       Yes       No       Depth (Inches):       11         Saturation Present?       Yes       No       Depth (Inches):       9         (includes capillary fringe)       Wetland Hydrology Present?       Yes       x       No		
Algal Mat or Crust (B4)       Geomorphic Position (D2)         Iron Deposits (B5)       Shallow Aquitard (D3)         Surface Soil Cracks (B6)       Microtopographic Relief (D4)         Field Observations:       FAC-Neutral Test (D5)         Surface Water Present?       Yes         Water Table Present?       Yes         Yes       No         Depth (Inches):       11         Saturation Present?       Yes         Yes       No         Depth (Inches):       9         Wetland Hydrology Present?       Yes         Yes       x         No       Depth (Inches):		
Iron Deposits (B5)       Shallow Aquitard (D3)         Surface Soil Cracks (B6)       Microtopographic Relief (D4)         Field Observations:       FAC-Neutral Test (D5)         Surface Water Present?       Yes         Vater Table Present?       Yes         No       Depth (Inches):         11       Saturation Present?         Yes       X         No       Depth (Inches):         9       Wetland Hydrology Present?         Yes       X         No       Depth (Inches):         9       Wetland Hydrology Present?         Yes       X         No       Depth (Inches):		
Surface Soil Cracks (B6)       Microtopographic Relief (D4)         Field Observations:       FAC-Neutral Test (D5)         Surface Water Present?       Yes       No       Depth (Inches):       NA         Water Table Present?       Yes       No       Depth (Inches):       11         Saturation Present?       Yes       X       No       Depth (Inches):       9         (includes capillary fringe)       Wetland Hydrology Present?       Yes       X       No		
Surface Water Present?       Yes       No       X       Depth (Inches):       NA         Water Table Present?       Yes       X       No       Depth (Inches):       11         Saturation Present?       Yes       X       No       Depth (Inches):       9         (includes capillary fringe)       Wetland Hydrology Present?       Yes       X       No		Microtopographic Relief (D4)
Water Table Present?       Yes       x       No       Depth (Inches):       11         Saturation Present?       Yes       x       No       Depth (Inches):       9       Wetland Hydrology Present?       Yes       x       No         (includes capillary fringe)       Ves       Ves<	Field Observations:	
Saturation Present?       Yes       X       No       Depth (Inches):       9       Wetland Hydrology Present?       Yes       X       No         (includes capillary fringe)	Surface Water Present? Yes No x Depth (Inches): NA	
(includes capillary fringe)	Water Table Present?         Yes         X         No         Depth (Inches):         11	
	Saturation Present? Yes x No Depth (Inches): 9	Wetland Hydrology Present? Yes <u>x</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous ins	-

US Army Corps of Engineers

Project/Site: Angoon Airport		B	orough/City:	Hoonah / /	Angoon	Sampling Date	: <u>18-Jun-2</u> (	017
Applicant/Owner: ADOT & PF						Sampling Poin	t: P	209
Investigator(s): J.Barna, L.Johnson		L	andform (hill	side, terrace	e, hummocks, etc.):		hill toe	
Local relief (concave, convex, none): <u>con</u>	cave	S	lope (%):	1				
Subregion: Southeast Alaska		Lat: 57.478	4		Long: -134.54752	1D	atum: NAD	83
Soil Map Unit Name: None					NWI classifi	ication:		
Are climatic / hydrologic conditions on the	e site typical fo	or this time of	year? Yes	X No	(If no, explain	in Remarks.)		
Are Vegetation Soil or Hyd	rology s	ignificantly di	sturbed?	Are "Nor	mal Circumstances"	present' Yes	<b>x</b> No	
Are Vegetation Soil or Hyd	rology r	aturally probl	ematic?	(If neede	d, explain any answe	ers in Remarks.)		
				· · ·		,		
SUMMARY OF FINDINGS – At	tach site m	hap showi	ng sampli	ing point	locations, trans	sects, impor	tant feat	ures, et
Hydrophytic Vegetation Present?	Yes 0	No x						
Hydric Soil Present?	Yes 0	No x	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes 0	No x	within	a Wetland	? Yes	No	x	
Remarks: 0								
U U								
VEGETATION – Use scientific	names of n	Jante Liet	all chooi	ac in the	nlot			
VEGETATION - Use scientific	names or p		Dominant	Indicator	Dominance Test v	vorksheet:	-	
Tree Stratum		% Cover		Status				
1. Tsuga heterophylla		90	1	FAC	Number of Domina			
2				0	That Are OBL, FAC	CW, or FAC:	1	(A)
3		·		0	Total Number of D	a main a mt		
4	Total Cover:	90		0	Total Number of Do Species Across All		3	(B)
50% of total cover:	45	20% of tota	al cover	18	Species Across Air			(B)
Sapling/Shrub Stratum		20/0 01 101			Percent of Domina	nt Species		
1. Vaccinium parvifolium		80	1	FACU	That Are OBL, FAC	•	0.33	(A/B)
2. Rubus spectabilis		15		FACU	Prevalence Index	x worksheet:		
3.				0	Total % Cover	of:	Multiply by:	
4				0	OBL species	0 x 1:		_
5		·		0	FACW species	0 x 2:	-	_
6		05		0	FAC species	<u>90</u> x 3:		_
E0% of total approx	Total Cover: 47.5	95 20% of tota		19	FACU species	<u>160</u> x 4= 0 x 5=		_
50% of total cover: Herb Stratum	47.5	20% 01 101	al cover.	19	Column Totals:	250 (A)	- 0 - 910	(B)
1 Cornus canadensis		75	1	FACU		200 (//)	010	_(2)
2.				0	Prevalence In	dex = B/A =	3.64	
3.				0	Hydrophytic Veg			
4.				0		Test is >50%		
5.				0	Prevalence	Index is ≤3.0		
6.				0	Morphologic	cal Adaptations <sup>1</sup>	(Provide su	upporting
7.				0	data in I	Remarks or on a	i separate s	sheet)
8				0	Problematic	: Hydrophytic Ve	getation <sup>1</sup> (E	Explain)
9		. <u> </u>		0				
10				0	<sup>1</sup> Indicators of hyd	Iric soil and wet	and hydrolo	gy must
	Total Cover:	75			be present, unles	s disturbed or p	roblematic.	
50% of total cover:	37.5	20% of tota	al cover:	15	Hydrophytic			
Plot size (radius, or length x width)	5 ft radius	я <u></u> % Ва	are Ground	0	Vegetation	Yes	No	x
% Cover of Wetland Bryophytes		Total Cover	of Bryophyte	s 90	Present?			
(Where applicable)								
Remarks:								
\ II /							Alaska	Versi

nolina	Point:	P209
npining	i onit.	1 209

SOIL								Sampling Point: P209	
Profile Des	cription: (Describe to	o the depth	needed to documen	t the indica	tor or co	onfirm the	absence of in	dicators.)	
Depth	Matrix			ox Features				· · · · · · · · · · · · · · · · · · ·	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-7	2.5yr2.5/1	100			.)po		organic	Coarse material	
7-16	10r2.5/1	100					silt		_
									_
									_
									—
									—
<sup>1</sup> Type: C=	Concentration, D=Depl	etion. RM=R	educed Matrix. CS=C	Covered or C	oated Sa	and Grain	s. <sup>2</sup> Lo	cation: PL=Pore Lining, M=N	/at
Hydric Soil			dicators for Problem					Problematic Hydric Soils <sup>3</sup> :	
History	a dictal (A1)		Alaska Color Chang	e (TA4) <sup>4</sup>			Alaska Clay	ved Without Hue 5Y or Redd	or
	ol or Histel (A1)			. ,					
	Epipedon (A2)		Alaska Alpine Swale	. ,			Underlying	•	
	en Sulfide (A4)		Alaska Redox With 2	2.5Y Hue			Other (Expl	ain in Remarks)	
	Dark Surface (A12)								
	Gleyed (A13)	0							
	Redox (A14)	°C	ne indicator of hydror						
Alaska	Gleyed Pores (A15)					ust be pre	esent unless dist	urbed or problematic.	
		<sup>4</sup> G	ive details of color ch	ange in Rer	narks.				
Restrictive	Layer (if present):								
Type:									ľ
•••	(inches)		-		Hyd	Iric Soil F	Present? Ye	es No x	
Demendent	. ,		-		-				
Remarks:									
HYDROLO									
-	drology Indicators:								
	dicators (any one indica	tor is suffici					econdary Indica	tors (2 or more required)	
	e Water (A1)		Inundation Visible or				Water-Stained	( )	
	/ater Table (A2)		Sparsely Vegetated		Irface (B8	8)	Drainage Patter		
0 Satura			Marl Deposits (B15)					spheres along Living Roots (	C3)
	Marks (B1)		Hydrogen Sulfide Od	. ,				duced Iron (C4)	
	ent Deposits (B2)		Dry-Season Water T	· · ·			Salt Deposits (0	•	
	eposits (B3)		Other (Explain in Re	marks)				ssed Plants (D1)	
	lat or Crust (B4)						Geomorphic Po	( )	
	eposits (B5)						Shallow Aquitar	( )	
Surface	e Soil Cracks (B6)						Microtopograph		
							FAC-Neutral Te	est (D5)	
Field Obse									
	ater Present? Yes		x Depth (In						
	le Present? Yes		x Depth (In	-					
Saturation	-	No	x Depth (In	ches): NA	<b>\</b>	Wetlan	d Hydrology Pr	resent? Yes <u>No</u>	<u>×</u>
	apillary fringe)		4 - Marine 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10			1			
Describe F	Recorded Data (stream	gauge, mon	toring well, aerial pho	tos, previou	s inspect	tions), if a	vailable:		
Remarks:									

Project/Site: Angoon Airport			Borough/City:	Hoonah / J	Angoon	Sampling Date	e: 19-Jun-2017
Applicant/Owner: ADOT & PF						Sampling Poir	nt: P210
Investigator(s): J.Barna, L.Johnson			Landform (hil	lside, terrace	e, hummocks, etc.):		hill
Local relief (concave, convex, none): <u>co</u>	onvex		Slope (%):	2			
Subregion: Southeast Alaska		Lat: 57.47	944		Long: -134.54678	<u>)</u>	atum: NAD 83
Soil Map Unit Name: None					NWI classifi	cation:	
Are climatic / hydrologic conditions on t	he site typical fo	or this time o	f year? Yes	s X No	(If no, explain	in Remarks.)	
Are Vegetation Soil or Hy	drology s	ignificantly o	listurbed?	Are "Nor	mal Circumstances"	present' Yes	<b>x</b> No
Are Vegetation Soil or Hy	drology r	naturally prob	lematic?	(If neede	ed, explain any answe	ers in Remarks.	)
							, <b>.</b> .
SUMMARY OF FINDINGS – A	Attach site m	hap show	ing sampl	ing point	locations, trans	sects, impo	rtant features, e
Hydrophytic Vegetation Present?	Yes x	No 0					
Hydric Soil Present?	Yes 0	No x	Is the	Sampled A	rea		
Netland Hydrology Present?	Yes 0	No x	withir	n a Wetland	? Yes	No	x
Remarks: Veg a false positive indica			procent				
Remarks: Veg a false positive indica Fill material present - mixe				ьd			
Thi matchar present - mixe		s - not signin	cantry disturb	cu			
	nomoo of n	lanta Lia		oo in tho	nlot		
VEGETATION – Use scientific	c names of p	Absolute		Indicator	Dominance Test v	vorkshoot:	
Tree Stratum			Species?	Status	Dominance rest	vorkäneet.	
1.				0	Number of Domina	nt Species	
2.				0	That Are OBL, FAC	W, or FAC:	3 (A)
3				0			
4	<b>T</b> ( ) 0	·		0	Total Number of Do		
50% of total cover:	Total Cover: 0	0 20% of to	tal anyar	0	Species Across All	Strata:	4 (B)
Sapling/Shrub Stratum		20 /0 01 10	tai cover.	0	Percent of Dominal	nt Species	
1. Tsuga heterophylla		15	1	FAC	That Are OBL, FAC	•	0.75 (A/B)
2. Picea sitchensis		10	1	FACU	Prevalence Index		(,,,,)
3. Vaccinium uliginosum		15	1	FAC	Total % Cover		Multiply by:
4.				0	OBL species	0 x 1	
5.				0	FACW species	0 x 2	= 0
6.		·		0	FAC species	0 x 3	= 0
	Total Cover:	40			FACU species	0 x 4	
50% of total cover:	20	20% of to	tal cover:	8	UPL species	0 x 5	
Herb Stratum		05	4		Column Totals:	0 (A)	0 (B)
1. Equisetum arvense		95	1	FAC 0			
2				0	Prevalence In		<u>#DIV/0!</u>
3		• •		0	Hydrophytic Veg x Dominance	Test is >50%	ors:
4 5		• <u> </u>		0		Index is ≤3.0	
6.				0			<sup>1</sup> (Provide supporting
7.		• <u> </u>		0			a separate sheet)
8.		·		0			egetation <sup>1</sup> (Explain)
9.				0		,,	5
0.				0	<sup>1</sup> Indicators of hyd	ric soil and wet	land hydrology must
	Total Cover:	95			be present, unles		
50% of total cover:		20% of to	tal cover:	19	Hydrophytic		
			- Bare Ground	0	Vegetation	Yes x	No
	5 ft radius			0		Yes x	NU
Plot size (radius, or length x width)	5 ft radius		-	e	Present?		
Plot size (radius, or length x width) % Cover of Wetland Bryophytes	5 ft radius		of Bryophyte	s	Present?		
Plot size (radius, or length x width)	0	Total Cover	of Bryophyte	s	Present?		

به ما ا م	Delete	D040
piing	Point:	P210

SOIL								Sampling Point:	P210
Profile Des	cription: (Describe to	the depth nee	ded to documen	t the indica	tor or co	onfirm the	e absence of ir	ndicators.)	
Depth	Matrix			ox Features				· · · · · · ,	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-8	2.5yr2.5/2	100			.)po		organic	Coarse orgar	nic
8-16	2.5yr2.5/2	40					organic		
8-16	10r4/1	60					gravel/clay		
							<u> </u>		
	Concentration, D=Deple					and Grain		ocation: PL=Pore Linii	
Hydric Soil	Indicators:	Indica	ators for Problem	natic Hydric	Soils':		Indicators for	Problematic Hydric	Soils <sup>3</sup> :
Histoso	ol or Histel (A1)	Ala	aska Color Chang	e (TA4) <sup>4</sup>			Alaska Gle	eyed Without Hue 5Y o	or Redder
Histic E	Epipedon (A2)	Ala	aska Alpine Swale	es (TA5)			Underlying	g Layer	
Hydrog	en Sulfide (A4)	Ala	aska Redox With 2	2.5Y Hue			Other (Exp	plain in Remarks)	
Thick E	Dark Surface (A12)								
Alaska	Gleyed (A13)								
Alaska	Redox (A14)	<sup>3</sup> One	indicator of hydror	ohvtic vegeta	ation. one	e primarv	indicator of we	tland hvdrology.	
	Gleyed Pores (A15)							sturbed or problematic	
	, , ,		details of color ch			-			
Postrictivo	Layer (if present):			0	<b>—</b>				
_	Layer (il present).								
Type:	(inches)				Llud	Iria Cail I	Dracant2 V	/aa Na	×
Deptil	(inches)				пуч		Present? Y	′es <u>No</u>	<u>x</u>
Remarks:	Fill material present - r	nixed soil condi	tions - not signific	antly disturb	ed				
HYDROLO	DGY								
Wetland Hy	drology Indicators:								
Primary Inc	dicators (any one indica	tor is sufficient)				S	econdary Indica	ators (2 or more requi	red)
0 Surface	e Water (A1)	Inu	Indation Visible or	n Aerial Imag	gery (B7)		Water-Stained	Leaves (B9)	
0 High W	ater Table (A2)		arsely Vegetated				Drainage Patte	erns (B10)	
0 Satura	tion (A3)	Ma	arl Deposits (B15)				Oxidized Rhize	ospheres along Living	Roots (C3)
Water	Marks (B1)	Hy	drogen Sulfide Od	dor (C1)			Presence of R	educed Iron (C4)	
Sedime	ent Deposits (B2)	Dr	y-Season Water T	Table (C2)			Salt Deposits (	(C5)	
Drift De	eposits (B3)	Ot	her (Explain in Re	marks)			Stunted or Stre	essed Plants (D1)	
Algal M	lat or Crust (B4)						Geomorphic P	Position (D2)	
Iron De	eposits (B5)						Shallow Aquita	ard (D3)	
Surface	e Soil Cracks (B6)						Microtopograp	hic Relief (D4)	
							FAC-Neutral T	est (D5)	
Field Obse	ervations:								
Surface W	ater Present? Yes	No	x Depth (In	ches): NA	Α				
Water Tab	le Present? Yes	No	x Depth (In	ches): >1	6				
Saturation	Present? Yes	No	x Depth (In	ches): >1	6	Wetlar	nd Hydrology P	Present? Yes	No x
(includes c	apillary fringe)								
Describe F	ecorded Data (stream g	gauge, monitori	ng well, aerial pho	otos, previou	s inspect	ions), if a	available:		
Demender									
Remarks:									

		Borough/City:	Hoonah / J	Angoon	Sampling Date	. <u>19-Jun-</u> 2	017
					Sampling Poin	t: F	211
		Landform (hill	lside, terrace	e, hummocks, etc.):		slope	
onvex		Slope (%):	1				
	Lat:			Long:	D	atum: NAD	83
				NWI classif	ication:		
he site typical fo	or this time o	f year? Yes	s <u>X</u> No	(If no, explain	in Remarks.)		
drology s	ignificantly c	listurbed?	Are "Nor	mal Circumstances"	present' Yes	x No	
rdrology n	aturally prob	lematic?	(If neede	ed, explain any answ	ers in Remarks.)	)	
	an ahaw		ina naint	leastions tran	aaata immaa	tant faa	
Attach site m	ap snow	ing sampi	ing point	locations, trans	sects, impor	tant rea	tures, e
Yes 0	No x						
Yes 0	No x	Is the	Sampled A	rea			
Yes 0	No x	within	n a Wetland	? Yes	No	x	
v							
names of n	lants. Lis	t all speci	es in the	plot.			
			Indicator		worksheet:		
		Species?	Status				
	80	1			•		<i>(</i> <b>•</b> )
	·			That Are OBL, FAC	SW, or FAC:	1	(A)
	·			Total Number of D	ominant		
Total Cover:	80					4	(B)
	20% of to	tal cover:	16				(-)
	65	1	FACU			0.25	(A/B)
	20	1					
	·					-	
	·				-		
Total Cover:	85			· · -			
		tal cover	17			-	_
	20/0 01 10			Column Totals:	250 (A)	920	(B)
	85	1	FACU	_			
			0	Prevalence In	idex = B/A =	<u>3.68</u>	
			0	Hydrophytic Veg	etation Indicate	ors:	
			-			<u> </u>	
	·					•	,
	·			Problematic	; Hyarophytic Ve	getation (	⊏xplain)
	·			<sup>1</sup> Indicators of hur	dric soil and wat	and hydrol	
Total Course	85		0	-			
		tal cover:	17	/	ss disturbed or p	i ubiematic.	•
		-					
5 ft radius		Bare Ground	0	Vegetation	Yes	No	x
~		- f D	s 80	Present?			
0	Total Cover	of Bryophyte	s <u>ou</u>				
0	Total Cover	of Bryophyte	s <u>o</u>				
	Attach site m Yes 0 Yes 0 Y	Drivex       Lat:         the site typical for this time of vdrology       significantly of vdrology         vdrology       naturally protein the value of vdrology         Attach site map show         Yes       0         Yes       0         Yes       0         Yes       0         No       x         Absolute       %         Cover       80         20% of to       65         20%       10         65       20         20% of to       85         10       20% of to         10       20% of to         10       20% of to <t< td=""><td>Landform (hil Drivex Slope (%): Lat: Lat: the site typical for this time of year? Yes rdrology significantly disturbed? rdrology naturally problematic? Attach site map showing sampl Yes 0 No x Is the Yes 0 Is</td><td>Landform (hillside, terrace onvex         Slope (%):       1         Lat:      </td><td>Lat:      </td><td>Sampling Poin         Landform (hillside, terrace, hummocks, etc.):        </td><td>Sampling Point: F         Sampling Point: slope         Stope (%): 1         Lat:       Landform (hilliside, terrace, hummocks, etc.):         Datum: NAD         NWI classification:         Datum: NAD         NWI classification:         Datum: NAD         MWI classification:         Datum: NAD         MWI classification:         Datum: NAD         MWI classification:         Datum: NAD         MWI classification:         Monon attrait         Yes       No       x       No         Yes       No       x         Absolute Dominant       Indicator         % cover       Species?       Status         Monon       x       No       x         Total Cover:       80       1       FAC         Total Cover:       B0       1       FACU</td></t<>	Landform (hil Drivex Slope (%): Lat: Lat: the site typical for this time of year? Yes rdrology significantly disturbed? rdrology naturally problematic? Attach site map showing sampl Yes 0 No x Is the Yes 0 Is	Landform (hillside, terrace onvex         Slope (%):       1         Lat:	Lat:	Sampling Poin         Landform (hillside, terrace, hummocks, etc.):	Sampling Point: F         Sampling Point: slope         Stope (%): 1         Lat:       Landform (hilliside, terrace, hummocks, etc.):         Datum: NAD         NWI classification:         Datum: NAD         NWI classification:         Datum: NAD         MWI classification:         Datum: NAD         MWI classification:         Datum: NAD         MWI classification:         Datum: NAD         MWI classification:         Monon attrait         Yes       No       x       No         Yes       No       x         Absolute Dominant       Indicator         % cover       Species?       Status         Monon       x       No       x         Total Cover:       80       1       FAC         Total Cover:       B0       1       FACU

plina	Point:	P211
ping	i onit.	1 4 1 1

SOIL							:	Sampling Point:	P211
Profile Des	cription: (Describe to	the depth	needed to docur	nent the indic	ator or co	onfirm th	e absence of ind	dicators.)	
Depth	Matrix			Redox Features				,	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-8	10r3/3	100	/		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	200	organic duff	Coarse orga	nic
8-14	2.5yr2.5/1	100					muck	Greasy	
14-16	10r4/1	100		_			gravel/clay		
				_			<u> </u>		
				_					
				_	• <u> </u>				
<sup>1</sup> Type: C=0	Concentration, D=Depl	etion, RM=R	educed Matrix, C	S=Covered or	Coated Sa	and Grair	ns. <sup>2</sup> Lo	cation: PL=Pore Lin	ing, M=Mat
Hydric Soil	Indicators:	In	dicators for Prob	olematic Hydri	c Soils <sup>3</sup> :		Indicators for I	Problematic Hydric	Soils <sup>3</sup> :
Histoso	ol or Histel (A1)		Alaska Color Ch	ange (TA4) <sup>4</sup>			Alaska Glev	ved Without Hue 5Y	or Redder
	Epipedon (A2)		- Alaska Alpine Sv	vales (TA5)			Underlying		
	en Sulfide (A4)		Alaska Redox W	. ,				ain in Remarks)	
	ark Surface (A12)			1012.011100				ant in the name)	
	Gleyed (A13)								
	Redox (A14)	<sup>3</sup> O	ne indicator of hy	drophytic yogo	tation on	o primon	indicator of woth	and hydrology	
	( )	U						urbed or problemati	c
Alaska	Gleyed Pores (A15)	40				usi be pi			5.
		G	ive details of cold	or change in Re	emarks.				
Restrictive	Layer (if present):								
Type:			-						
Depth (	(inches)		_		Hyd	dric Soil	Present? Ye	s No	x
Remarks:	Plot near wetland bou	ndary							
HYDROLC	DGY								
Wetland Hy	drology Indicators:								
Primary Inc	licators (any one indica	tor is suffici	ent)			5	Secondary Indicat	tors (2 or more requ	ired)
0 Surface	e Water (A1)		Inundation Visib	le on Aerial Ima	agery (B7)	)	Water-Stained I	Leaves (B9)	
0 High W	ater Table (A2)		Sparsely Vegeta	ited Concave S	Surface (B	8)	Drainage Patter	rns (B10)	
0 Saturat	ion (A3)		Marl Deposits (E	315)			Oxidized Rhizos	spheres along Living	Roots (C3)
Water I	Marks (B1)		Hydrogen Sulfid	e Odor (C1)			Presence of Re	duced Iron (C4)	
Sedime	ent Deposits (B2)		Dry-Season Wat	ter Table (C2)			Salt Deposits (0	C5)	
Drift De	eposits (B3)		Other (Explain in	n Remarks)			Stunted or Stree	ssed Plants (D1)	
Algal M	lat or Crust (B4)		-				Geomorphic Po	sition (D2)	
Iron De	posits (B5)						Shallow Aquitar	d (D3)	
Surface	e Soil Cracks (B6)						Microtopograph	ic Relief (D4)	
							FAC-Neutral Te	est (D5)	
Field Obse	ervations.								
	ater Present? Yes	Nr	o x Depti	n (Inches): N	IA				
Water Tabl	-	No		· /	16				
Saturation		No		· · ·	16	Wetla	nd Hydrology Pr	esent? Yes	No x
	apillary fringe)		Bobu						
	ecorded Data (stream	gauge, mon	toring well, aerial	photos, previo	us inspect	tions), if a	available:		
	,								
Remarks:									

US Army Corps of Engineers

Project/Site: Angoon Airport		[	Borough/City:	Hoonah / A	Angoon	Samplir	ng Date:	20-Jun-20	)17
ADOT & PF						-	ng Point:	P2	212
vestigator(s): J.Barna, L.Johnson		I	Landform (hill	side, terrace	e, hummocks, etc	:.):		basin	
ocal relief (concave, convex, none): cor	ncave		Slope (%): (	)					
ubregion: Southeast Alaska		Lat: 57.47	6387		Long: -134.544	47	Dat	um: NAD a	83
bil Map Unit Name: None					NWI cla	ssification:			
e climatic / hydrologic conditions on th	e site typical fo	or this time of	f year? Yes	X No	(If no, expl	lain in Rema	rks.)		
e Vegetation Soil or Hyd	lrologys	ignificantly d	isturbed?	Are "Nor	mal Circumstance	es" present'	Yes	<b>k</b> No	
e Vegetation Soil or Hyd	lrologyn	aturally prob	lematic?	(If neede	d, explain any an	nswers in Rei	marks.)		
UMMARY OF FINDINGS - A	tech oite m	on ohowi	ing compli	ina noint	locations tr	anaasta i	mnort	ant faat	
			ing sampi	ing point		ansecis, i	mporta	antieat	ures, e
ydrophytic Vegetation Present?	Yes <u>x</u>	No <u>0</u>							
ydric Soil Present?	Yes <u>x</u>	No <u>0</u>		Sampled A					
etland Hydrology Present?	Yes <u>x</u>	No <u>0</u>	within	a Wetland	? Yes _	x	No		
emarks: 0									
EGETATION – Use scientific	names of p	lants. Lis	t all speci	es in the	plot.				
	_	Absolute		Indicator	Dominance Te	st workshee	et:		
<u>ree Stratum</u> . Tsuga heterophylla			Species?	Status	Number of Dom	ninant Spacie			
. Isuga neterophylla		50	1		Number of Dom That Are OBL,	•		3	(A)
		·		0	matrice obe,	17.077, 0117		0	(//)
				0	Total Number o	of Dominant			
	Total Cover:	50			Species Across	All Strata:		3	(B)
50% of total cover:	25	20% of to	tal cover:	10					
Sapling/Shrub Stratum		20	4		Percent of Dom	•		4.00	
Vaccinium uliginosum		30	1	FAC 0	That Are OBL, Prevalence Ir			1.00	(A/B)
		·		0	Total % Co			ultiply by:	
		·		0	OBL species	0	x 1=	0	_
		·		0	FACW species		x 2=	0	_
				0	FAC species	0	x 3=	0	_
	Total Cover:	30			FACU species	0	x 4=	0	
50% of total cover:	15	20% of to	tal cover:	6	UPL species	0	x 5=	0	
<u>lerb Stratum</u>		00			Column Totals:	0 (	A)	0	(B)
Lysichiton americanus		80	1	OBL 0	Describerto	- Indan - D <i>U</i>			
		·		0	Hydrophytic	e Index = B/A		<u>#DIV/0!</u>	
•		·		0		nce Test is >		5.	
		·		0		nce Index is :			
				0		ogical Adapt		Provide su	porting
		·		0		in Remarks	•		
		·		0		natic Hydroph			,
				0	—		-		,
				0	<sup>1</sup> Indicators of	hydric soil a	nd wetlar	nd hydrolo	gy must
	Total Cover:	80			be present, u	nless disturb	ed or pro	blematic.	
50% of total cover:	40	20% of to	tal cover:	16	Hydrophytic				
Plot size (radius, or length x width)	5 ft radius	% B	are Ground	0	Vegetation	Yes	x	No	
% Cover of Wetland Bryophytes			of Bryophyte	s 60	Present?	-		_	
(Where applicable)									
Remarks:									

nplina	Point:	P212
·P····9		1 2 1 2

SOIL		Sampling Point: P212
Profile Description: (Describe to the	depth needed to document the indicator or c	onfirm the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %		Loc <sup>2</sup> Texture Remarks
0-16 2.5yr2.5/1 10		muck Greasy muck
	<u> </u>	·
		·
		·
<sup>1</sup> Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or Coated S	Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
x Histosol or Histel (A1)	Alaska Color Change (TA4)⁴	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)
Thick Dark Surface (A12)		
Alaska Gleyed (A13)		
	<sup>3</sup> One indicator of hardware by the constantion of the	
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, or	nust be present unless disturbed or problematic.
Alaska Gleyed Pores (A15)		iust be present unless disturbed of problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):		
Туре:		
Depth (inches)	Ну	dric Soil Present? Yes <u>x</u> No
Remarks:	· · · · ·	
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is	sufficient)	Secondary Indicators (2 or more required)
× Surface Water (A1)	Inundation Visible on Aerial Imagery (B7	Water-Stained Leaves (B9)
x High Water Table (A2)	Sparsely Vegetated Concave Surface (E	
x Saturation (A3)	Marl Deposits (B15)	Oxidized Rhizospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	—	Geomorphic Position (D2)
Iron Deposits (B5)		Shallow Aquitard (D3)
Surface Soil Cracks (B6)		Microtopographic Relief (D4)
		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes X	No Depth (Inches): 1	
Water Table Present? Yes x	No Depth (Inches): Surface	
Saturation Present? Yes x	No Depth (Inches): Surface	Wetland Hydrology Present? Yes x No
(includes capillary fringe)		
Describe Recorded Data (stream gauge	, monitoring well, aerial photos, previous inspec	ctions), if available:
Remarks:		

Project/Site: Angoon Airport	Borough/City: Ho	onah / Angoon	Sampling Date: 20-Jun-2017
Applicant/Owner: ADOT & PF			Sampling Point: P213
Investigator(s): J.Barna, L.Johnson	Landform (hillside	terrace, hummocks, etc.):	hill toe
Local relief (concave, convex, none): concave	Slope (%): 1		
Subregion: Southeast Alaska	Lat: 57.474902	Long: -134.54626	3 Datum: NAD 83
Soil Map Unit Name: None	-	NWI classif	ication:
Are climatic / hydrologic conditions on the site typical f	or this time of year? Yes X	No (If no, explain	in Remarks.)
Are Vegetation Soil or Hydrology	significantly disturbed?	re "Normal Circumstances"	present' Yes x No
Are Vegetation Soil or Hydrology	naturally problematic? (	f needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site r	hap snowing sampling	point locations, trans	sects, important features, etc
Hydrophytic Vegetation Present? Yes 0	No x		
Hydric Soil Present? Yes 0	No x Is the San	pled Area	
Wetland Hydrology Present? Yes 0	No x within a W	/etland? Yes	<u>No x</u>
Remarks: 0			
Soil is mixed but doesn't appear disturbed	l - consistent with veg and hvdi	oloav	
	· · · · · · · · · · · · · · · · · · ·		
VEGETATION – Use scientific names of	lants. List all species i	n the plot	
		icator   Dominance Test v	worksheet:
Tree Stratum	% Cover Species? S	tatus	
1. Tsuga heterophylla	90 1 F	AC Number of Domina	•
2		0 That Are OBL, FAC	CW, or FAC: (A)
3		0 0 Total Number of De	ominant
Total Cover:	90	Species Across All	
50% of total cover: 45		8	
Sapling/Shrub Stratum		Percent of Domina	nt Species
1. Vaccinium parvifolium	30 1 F.	ACU That Are OBL, FAC	CW, or FAC: 0.25 (A/B)
2. Oplopanax horridus	20 1 F.	ACU Prevalence Inde	x worksheet:
3		0 Total % Cover	
4		0 OBL species	$0 \times 1 = 0$
5		0 FACW species	$0 \times 2 = 0$
6			<u>90 x 3= 270</u>
Total Cover: 50% of total cover: 25		0 FACU species	$\begin{array}{ccc} 70 & x \ 4 = & 280 \\ \hline 0 & x \ 5 = & 0 \end{array}$
Herb Stratum		Column Totals:	<u> </u>
1. Cornus canadensis	20 1 F.	ACU	(*)(*)
2.		0 Prevalence In	idex = B/A = 3.4375
3.		0 Hydrophytic Veg	etation Indicators:
4.			Test is >50%
5.		0 Prevalence	Index is ≤3.0
6.		0 Morphologie	cal Adaptations <sup>1</sup> (Provide supporting
7			Remarks or on a separate sheet)
8			c Hydrophytic Vegetation <sup>1</sup> (Explain)
9		0	
10			dric soil and wetland hydrology must
Total Cover:			ss disturbed or problematic.
50% of total cover: 10		4 Hydrophytic	
Plot size (radius, or length x width) 5 ft radiu		0 Vegetation	Yes No x
% Cover of Wetland Bryophytes 0	Total Cover of Bryophytes	60 Present?	
(Where applicable)			
Remarks:			
US Army Corps of Engineers			Alaska Version 2.0

nlina	Point:	P213
piing	i onit.	F 2 I J

SOIL								Sampling Point:	P213
Profile Des	cription: (Describe	to the depth n	eeded to document	the indicato	r or cor	nfirm the	e absence of ir	ndicators.)	
Depth	Matrix			x Features				· · · · · · · · · · · · · · · · · · ·	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	s
0-5	2.5yr2.5/1	100					organic		
5-9	2.5yr3/2	100				_	silt loam		
9-13	7.5yr2.5/1	100					muck		
13-16	7.5yr4/2	100					sand loam		
1 <del></del>						<u> </u>	2		
Hydric Soil	Concentration, D=Dep Indicators:		icators for Problem			nd Grain		ocation: PL=Pore Li	-
•			Alaska Color Change	- (TΔ1) <sup>4</sup>				•	
	ol or Histel (A1)		-	. ,				eyed Without Hue 5	or Reader
	Epipedon (A2)		Alaska Alpine Swales	. ,			Underlying	•	
	en Sulfide (A4) 0ark Surface (A12)		Alaska Redox With 2	1.5Y Hue				olain in Remarks)	
	Gleyed (A13)								
—	,	30-	a indiaatan af buduan	hutio vo sototi		n nine e m (	indiantar of wa	tional budgets and	
	Redox (A14) Gleyed Pores (A15)		e indicator of hydrop and an appropriate la						tic
AldSka	Gleyed Foles (A15)		ve details of color cha			ist be pre			lio.
		Gr		ange in Reina	arks.				
_	Layer (if present):								
Type:	· · · ·							<i>,</i>	
Depth (	(inches)				Нуа	ric Soll F	Present? Y	′es <u>No</u>	<u>x</u>
Remarks:	Soil is mixed but doe	sn't appear dis	turbed - consistent w	<i>i</i> ith veg and h	ydrolog	у			
HYDROLO	DGY								
Wetland Hy	drology Indicators:								
Primary Inc	dicators (any one indic	ator is sufficie	nt)			S	econdary Indica	ators (2 or more req	uired)
0 Surface	e Water (A1)		nundation Visible on	Aerial Image	ery (B7)		Water-Stained	l Leaves (B9)	
	ater Table (A2)		Sparsely Vegetated	Concave Surf	ace (B8	5)	Drainage Patte	erns (B10)	
0 Saturat			Marl Deposits (B15)				Oxidized Rhize	ospheres along Livir	g Roots (C3)
	Marks (B1)		Hydrogen Sulfide Od	. ,				educed Iron (C4)	
	ent Deposits (B2)		Dry-Season Water T	( )			Salt Deposits	· ,	
	eposits (B3)	_	Other (Explain in Rer	marks)			-	essed Plants (D1)	
Ŭ	lat or Crust (B4)						Geomorphic P	· · ·	
	posits (B5)						Shallow Aquita	( )	
Sunace	e Soil Cracks (B6)						FAC-Neutral T	hic Relief (D4)	
								est (D5)	
Field Obse	arvations.								
	ater Present? Yes	No	x Depth (Inc	ches): 0					
Water Tabl		No	x Depth (Inc	· · · · · · · · · · · · · · · · · · ·	-				
Saturation		No	x Depth (Inc	·	-	Wetlan	nd Hydrology P	Present? Yes	No x
	apillary fringe)			·	-		,		
,	ecorded Data (stream	n gauge, monit	oring well, aerial phot	tos, previous	inspecti	ons), if a	vailable:		
Remarks:									

	1	Borough/City:	Hoonah / /	Angoon			017
					Sampling P	oint: P	214
	I	_andform (hill	side, terrace	e, hummocks, etc.):		muskeg	
ncave		Slope (%):	1				
	Lat: 57.47	4618		Long: -134.54422	9	Datum: NAD	83
			_	NWI classi	fication:		
he site typical fc	or this time of	year? Yes	X No	(If no, explain	in Remarks.)		
drology s	ignificantly d	isturbed?	Are "Nor	mal Circumstances"	present' Yes	<b>x</b> No	
drology n	aturally prob	lematic?	(If neede	d, explain any answ	ers in Remark	(s.)	
ttach site m	ap show	ing sampli	ing point	locations, tran	sects, imp	ortant feat	tures, e
Yes x	No 0						
Yes x	No 0	Is the	Sampled A	rea			
Yes x	No 0	within	a Wetland	? Yes x	K No		
names of p							
				Dominance Test	worksheet:		
	30	1		Number of Domina	ant Species		
			0			4	(A)
	·		0	- ,	-, -		,
			0	Total Number of D	ominant		
Total Cover:	30			Species Across Al	l Strata:	4	(B)
15	20% of to	tal cover:	6				
					•		
		1					(A/B)
	15	1					
	·		-				
	·				_		
	·						
Total Cavar	55						_
		tal cover:	11		-		
21.5	2070 01 10				•		(B)
	35	1	OBL	-	()		(=)
	·		0	Prevalence Ir	ndex = B/A =	#DIV/0!	
	·		0				
	·		0				
	·		0	Prevalence	Index is ≤3.0		
			0				upportina
	·		0				
	·		0			•	,
	·		0	—		<b>.</b> (	. ,
	·		0	<sup>1</sup> Indicators of hy	dric soil and w	etland hydrol	ogy must
Total Cover	35			-			
		tal cover:	7			r problomato.	
		-			Voe	No	
				-			
×5	Total Cover	of Bryophyte	s 85	Present?			
05		, , ,					
		,,,,					
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
	drology s drology n Attach site m Yes x Yes x Yes x Yes x Total Cover: 15 Total Cover: 27.5 Total Cover: 27.5	Lat: 57.47 he site typical for this time of drology significantly d drology naturally prob Attach site map showi Yes x No 0 Yes 2 Total Cover: 30 15 20% of to 40 15 Total Cover: 55 27.5 20% of to 35 Total Cover: 35 20% of to 35 17.5 20% of to 5 ft radius % B	Landform (hill incave Slope (%): Lat: 57.474618 he site typical for this time of year? Yes drology significantly disturbed? drology naturally problematic? Attach site map showing sampl Yes x No 0 Yes x No 0 Yes x No 0 Is the Yes x No 0	Landform (hillside, terrace incave Slope (%): 1 Lat: 57.474618 he site typical for this time of year? Yes X_No drology significantly disturbed? Are "Nor drology naturally problematic? (If neede stach site map showing sampling point Yes X_No 0 Yes X_No 0 Yes X_No 0 Is the Sampled A Yes X_No 0 within a Wetland renames of plants. List all species in the Absolute Dominant Indicator % Cover Species? Status 30 1 FAC 0 0 Total Cover: 30 15 20% of total cover: 6 40 1 OBL 0 Total Cover: 55 27.5 20% of total cover: 11 35 1 OBL 0 Total Cover: 55 27.5 20% of total cover: 11 0 0 Total Cover: 35 20% of total cover: 7 5 ft radius % Bare Ground 0	Lat:       57.474618       Long: -134.54422         NWI classif         he site typical for this time of year?       Yes       X       No       (If no, explain any answ differences"         drology	Sampling Puter Solution (hillside, terrace, hummocks, etc.):         Incave       Slope (%):       1         Lat:       57.474618       Long: -134.544229         he site typical for this time of year?       Yes       X         he site typical for this time of year?       Yes       X         idrology	Sampling Point: F         Sampling Point: muskeg         Incave       Slope (%): 1         Lat:       57.474618       Long: -134.544229       Datum: NAD         NWI classification:       MWI classification:       No         drology

npling	Point:	P214

SOIL				Sampling Point:	P214
Profile Description: (Describe to the c	epth needed to document the indicator o	r confirm the	absence of ir	ndicators.)	
Depth Matrix	Redox Features				
(inches) Color (moist) %		pe <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks	
0-16 dark 10			muck	Greasy muc	k
<sup>1</sup> Type: C=Concentration, D=Depletion, I	RM=Reduced Matrix, CS=Covered or Coate	-	. <sup>2</sup> L	ocation: PL=Pore Linir	ng, M=Mat
Hydric Soil Indicators:	Indicators for Problematic Hydric Soil	s <sup>3</sup> : I	ndicators for	Problematic Hydric	Soils <sup>3</sup> :
x Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>		Alaska Gle	eyed Without Hue 5Y o	or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		Underlying	-	
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue			plain in Remarks)	
Thick Dark Surface (A12)		-		,	
Alaska Gleyed (A13)					
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation	one primary ir	ndicator of wet	tland hydrology	
Alaska Gleyed Pores (A15)	and an appropriate landscape positio				
	<sup>4</sup> Give details of color change in Remarks				
Destrictive Lever (if procent).					
Restrictive Layer (if present):					
Type:				· · · ·	
Depth (inches)		Hydric Soil Pr	resent? Y	´es <u> </u>	
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:					
Primary Indicators (any one indicator is	· · · · · · · · · · · · · · · · · · ·		condary Indica	ators (2 or more requir	red)
X Surface Water (A1)	Inundation Visible on Aerial Imagery	(B7)V	Water-Stained	Leaves (B9)	
x High Water Table (A2)	Sparsely Vegetated Concave Surface	· · · ·	Drainage Patte		
x Saturation (A3)	Marl Deposits (B15)			ospheres along Living	Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)			educed Iron (C4)	
Sediment Deposits (B2)	Dry-Season Water Table (C2)		Salt Deposits (	. ,	
Drift Deposits (B3)	Other (Explain in Remarks)			essed Plants (D1)	
Algal Mat or Crust (B4)			Geomorphic P	( )	
Iron Deposits (B5) Surface Soil Cracks (B6)			Shallow Aquita	hic Relief (D4)	
			AC-Neutral T	( )	
			AC-Neuliai I	est (D5)	
Field Observations:					
Surface Water Present? Yes X	No Depth (Inches): 3				
Water Table Present? Yes x	No Depth (Inches): Surface	14/- /1	-	waaant? Vi	Na
Saturation Present? Yes <u>x</u>	No Depth (Inches): Surface	wetland	Hydrology P	Present? Yes <u>x</u>	No
(includes capillary fringe)	monitoring well, aerial photos, previous ins	nontions) if an	ailabla:		
Describe Recorded Data (Stream gauge	monitoring weil, aenai priotos, previous ins	pecuons), il av	allable.		

Local relief (concave, convex, none): convex       Slo         Subregion:       Southeast Alaska       Lat: 57.47308         Soil Map Unit Name:       None         Are climatic / hydrologic conditions on the site typical for this time of yet         Are Vegetation       Soil       or Hydrology       significantly distu         Are Vegetation       Soil       or Hydrology       naturally problem         SUMMARY OF FINDINGS – Attach site map showing         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydric Soil Present?       Yes       0       No       x         Wetland Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed	ar? Yes <u>X No</u> urbed? Are "Non natic? (If neede <b>g sampling point</b> Is the Sampled A within a Wetland	Long: -134.544917       Datum: NAD 83         NWI classification:       (If no, explain in Remarks.)         rmal Circumstances" present' Yes       x       No         ed, explain any answers in Remarks.)       t       Iocations, transects, important features,         t locations, transects, important features,       Area       No       x
Local relief (concave, convex, none): convex       Slo         Subregion:       Southeast Alaska       Lat: 57.47308         Soil Map Unit Name:       None         Are climatic / hydrologic conditions on the site typical for this time of yet         Are vegetation       Soil       or Hydrology       significantly distu         Are Vegetation       Soil       or Hydrology       naturally problem         SUMMARY OF FINDINGS – Attach site map showing         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydrophytic Vegetation Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         Tree Stratum       % Cover S       80         2. Picea sitchensis       30       3       30       3         4.       50% of total cover:       55       20% of total         Solling/Shrub Stratum       80       20       3       3         4.       5       0       20       3       4	pe (%): 0 star? Yes X No urbed? Are "No natic? (If neede g sampling point Is the Sampled A within a Wetland	Long: -134.544917       Datum: NAD 83         NWI classification:       (If no, explain in Remarks.)         rmal Circumstances" present' Yes       x       No         ed, explain any answers in Remarks.)       t       Iocations, transects, important features,         t locations, transects, important features,       Area       No       x
Subregion:       Southeast Alaska       Lat:       57.47308         Soil Map Unit Name:       None         Are climatic / hydrologic conditions on the site typical for this time of ye         Are Vegetation       Soil       or Hydrology       significantly dist.         Are Vegetation       Soil       or Hydrology       naturally problem         SUMMARY OF FINDINGS – Attach site map showing         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydrophytic Soil Present?       Yes       0       No       x         Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed       No       x         VEGETATION – Use scientific names of plants. List a       Absolute D       0         1.       Tsuga heterophylla       80       2         2.       Picea sitchensis       30       3       30       3         4.       50% of total cover:       55       20% of total       20       3         4.       5       20       3       4       4       4       4       4       4       4       5	35 ar? Yes <u>X</u> No Irbed? Are "No natic? (If neede g sampling point Is the Sampled A within a Wetland	NWI classification:         (If no, explain in Remarks.)         rmal Circumstances" present' Yes x No         ed, explain any answers in Remarks.)         t locations, transects, important features,         Area         d?       Yes         Yes       No x
Soil Map Unit Name:       None         Are climatic / hydrologic conditions on the site typical for this time of ye         Are Vegetation       Soil       or Hydrology       significantly distr         Are Vegetation       Soil       or Hydrology       naturally problem         SUMMARY OF FINDINGS – Attach site map showing         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydrophytic Soil Present?       Yes       0       No       x         Hydrophytic Soil Present?       Yes       0       No       x         Wetland Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         1. Tsuga heterophylla       % Cover       S         2. Picea sitchensis       30       30       3         4.       50% of total cover:       55       20% of total         Sapling/Shrub Stratum       80       20       3       3         4.	ar? Yes <u>X No</u> urbed? Are "Non natic? (If neede <b>g sampling point</b> Is the Sampled A within a Wetland	NWI classification:         (If no, explain in Remarks.)         rmal Circumstances" present' Yes x No         ed, explain any answers in Remarks.)         t locations, transects, important features,         Area         d?       Yes         Yes       No x
Are climatic / hydrologic conditions on the site typical for this time of years         Are Vegetation       Soil       or Hydrology       significantly disturble         Are Vegetation       Soil       or Hydrology       naturally problem         SUMMARY OF FINDINGS – Attach site map showing         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         1. Tsuga heterophylla       80         2. Picea sitchensis       30         3.	Irbed? Are "Non natic? (If neede <b>g sampling point</b> Is the Sampled A within a Wetland	(If no, explain in Remarks.) rmal Circumstances" present' Yes <u>x</u> No ed, explain any answers in Remarks.) <b>t locations, transects, important features,</b> <b>Area</b> d? Yes <u>No x</u>
Are Vegetation       Soil       or Hydrology       significantly dist.         Are Vegetation       Soil       or Hydrology       naturally problem         SUMMARY OF FINDINGS – Attach site map showing         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydric Soil Present?       Yes       0       No       x         Wetland Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         1       Tree Stratum       % Cover       S         1.       Tsuga heterophylla       80       2         2.       Picea sitchensis       30       30       3         3.	Irbed? Are "Non natic? (If neede <b>g sampling point</b> Is the Sampled A within a Wetland	rmal Circumstances" present' Yes <u>x</u> No ed, explain any answers in Remarks.) <b>t locations, transects, important features,</b> Area 4? Yes <u>No x</u>
Are Vegetation       Soil       or Hydrology       naturally problem         SUMMARY OF FINDINGS – Attach site map showing         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydric Soil Present?       Yes       0       No       x         Wetland Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         Methods       %       Absolute D         Model       %       Cover       S         1. Tsuga heterophylla       80       2       20% of total cover:       55         Sol% of total cover:       55       20% of total       20         3.       4.       20       3.       4.         5.       0       20       3.       4.	natic? (If neede g sampling point Is the Sampled A within a Wetland	ed, explain any answers in Remarks.) t locations, transects, important features, Area 1? Yes <u>No x</u>
SUMMARY OF FINDINGS – Attach site map showing         Hydrophytic Vegetation Present?       Yes       0       No       x         Hydric Soil Present?       Yes       0       No       x         Wetland Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         Tree Stratum       % Cover S         1. Tsuga heterophylla       80         2. Picea sitchensis       30         3.	g sampling point Is the Sampled A within a Wetland	t locations, transects, important features, Area 1? Yes <u>No x</u>
Hydrophytic Vegetation Present?       Yes       0       No       x         Hydric Soil Present?       Yes       0       No       x         Wetland Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         Methand       % Cover       S         1. Tsuga heterophylla       80       2         2. Picea sitchensis       30       3         4.       50% of total cover:       55         20% of total       20       3         4.       80       20         3.       20       3         4.       20       3         4.       20       3         5.       20       3	Is the Sampled A within a Wetland	Area J? Yes <u>No x</u>
Hydrophytic Vegetation Present?       Yes       0       No       x         Hydric Soil Present?       Yes       0       No       x         Wetland Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         Methand       % Cover       S         1. Tsuga heterophylla       80       2         2. Picea sitchensis       30       3         4.       50% of total cover:       55         20% of total       20       3         4.       80       20         3.       20       3         4.       20       3         4.       20       3         5.       20       3	Is the Sampled A within a Wetland	Area J? Yes <u>No x</u>
Hydric Soil Present?       Yes       0       No       x         Wetland Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         Tree Stratum       Absolute       D         1. Tsuga heterophylla       80       2         2. Picea sitchensis       30       30         3.	within a Wetland	d? Yes <u>No x</u>
Wetland Hydrology Present?       Yes       0       No       x         Remarks:       Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a <u>Tree Stratum</u> % Cover       S         1. Tsuga heterophylla       80       S         2. Picea sitchensis       30       30         3.	within a Wetland	d? Yes <u>No x</u>
Remarks: Soil appears mixed but not disturbed         VEGETATION – Use scientific names of plants. List a         Tree Stratum       Absolute D         1. Tsuga heterophylla       80         2. Picea sitchensis       30         3.       30         4.       Total Cover:         50% of total cover:       55         20% of total         Sapling/Shrub Stratum         1. Vaccinium parvifolium       80         2. Oplopanax horridus       20         3.       20         3.       30	II species in the	
VEGETATION – Use scientific names of plants. List a         Tree Stratum       Absolute D         1. Tsuga heterophylla       80         2. Picea sitchensis       30         3.		
VEGETATION – Use scientific names of plants. List a         Tree Stratum       Absolute D         1. Tsuga heterophylla       80         2. Picea sitchensis       30         3.		
Tree Stratum       Absolute D         1. Tsuga heterophylla       80         2. Picea sitchensis       30         3.       30         4.       Total Cover:         50% of total cover:       55         20% of total cover:       55         20% of total cover:       55         20% of total cover:       20         3.		
Tree Stratum       Absolute D         1. Tsuga heterophylla       80         2. Picea sitchensis       30         3.       30         4.       Total Cover:         50% of total cover:       55         20% of total         Sapling/Shrub Stratum         1. Vaccinium parvifolium         80         2. Oplopanax horridus         3.         4.         5.		
Tree Stratum       Absolute D         1. Tsuga heterophylla       80         2. Picea sitchensis       30         3.       30         4.       Total Cover:         50% of total cover:       55         20% of total         Sapling/Shrub Stratum         1. Vaccinium parvifolium         80         2. Oplopanax horridus         3.         4.         5.		nlot
Tree Stratum         % Cover         S           1. Tsuga heterophylla         80	ominant Indicator	Dominance Test worksheet:
2. Picea sitchensis       30         3.	pecies? Status	
3.	1 FAC	Number of Dominant Species
4.     Total Cover:     110       50% of total cover:     55     20% of total       Sapling/Shrub Stratum     20% of total     20%       1.     Vaccinium parvifolium     80       2.     Oplopanax horridus     20       3.     4.     5.	1 FACU	That Are OBL, FACW, or FAC: 1 (A)
Total Cover:     110       50% of total cover:     55       20% of total       Sapling/Shrub Stratum       1. Vaccinium parvifolium       2. Oplopanax horridus       3.       4.       5.	0	Total Number of Deminent
50% of total cover:     55     20% of total       Sapling/Shrub Stratum     80       1. Vaccinium parvifolium     80       2. Oplopanax horridus     20       3.	0	Total Number of Dominant Species Across All Strata: 5 (B)
Sapling/Shrub Stratum     80       1. Vaccinium parvifolium     80       2. Oplopanax horridus     20       3.     4       5.     —	cover: 22	
2. Oplopanax horridus     20       3.		Percent of Dominant Species
3.	1 FACU	That Are OBL, FACW, or FAC: 0.20 (A/B)
4	1 FACU	Prevalence Index worksheet:
	0	Total % Cover of: Multiply by:
	0	OBL species 0 x 1= 0
	0	FACW species $0$ x 2= $0$
		FAC species 80 x 3= 240
Total Cover: 100 50% of total cover: 50 20% of total	cover: 20	FACU species         200         x 4=         800           UPL species         0         x 5=         0
Herb Stratum	20	Column Totals: $280$ (A) $1040$ (B)
1. Cornus canadensis 70	1 FACU	
2.	0	Prevalence Index = $B/A = 3.714285714$
3.	0	Hydrophytic Vegetation Indicators:
4.	0	Dominance Test is >50%
5.	0	Prevalence Index is ≤3.0
6	0	Morphological Adaptations <sup>1</sup> (Provide supportin
7	0	data in Remarks or on a separate sheet)
8	0	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
9	0	1
10	0	<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
Total Cover: 70		be present, unless disturbed or problematic.
50% of total cover: 35 20% of total		Hydrophytic
Plot size (radius, or length x width) 5 ft radius % Bare	e Ground 0	Vegetation Yes No x
% Cover of Wetland Bryophytes 0 Total Cover of	Bryophytes 80	Present?
(Where applicable)		<u> </u>
Remarks:		
US Army Corps of Engineers		Alaska Version

pling	Point:	P21
-------	--------	-----

SOIL								Sampling Point:	P215
Profile Des	cription: (Describe	to the depth	needed to documen	t the indicat	or or co	nfirm th	e absence of in	ndicators.)	
Depth	Matrix			ox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	5
0-8	2.5yr2.5/1	100			турс	200	organic duff		
8-13	7.5yr3/4	100			<u> </u>		organic		
13-16	5yr2.5/2	70					sand loam		
13-16	7.5yr3/3	30					muck		
••		-	educed Matrix, CS=0			and Grair		ocation: PL=Pore Lir	-
Hydric Soil	Indicators:	In	dicators for Problem	hatic Hydric	Soils":		Indicators for	Problematic Hydri	c Soils <sup>3</sup> :
Histoso	ol or Histel (A1)		Alaska Color Chang	e (TA4) <sup>4</sup>			Alaska Gle	eyed Without Hue 5Y	′ or Redder
Histic E	Epipedon (A2)		Alaska Alpine Swale	es (TA5)			Underlying	g Layer	
Hydrog	en Sulfide (A4)		Alaska Redox With	2.5Y Hue			Other (Exp	olain in Remarks)	
Thick E	Dark Surface (A12)		_						
Alaska	Gleyed (A13)								
Alaska	Redox (A14)	<sup>3</sup> C	ne indicator of hydro	phytic vegeta	tion, one	e primary	indicator of we	tland hydrology,	
Alaska	Gleyed Pores (A15)		and an appropriate I	andscape po	sition m	ust be pr	esent unless dis	sturbed or problemat	ic.
		<sup>4</sup> G	ive details of color ch	nange in Rem	arks.				
Restrictive	Layer (if present):								
Type:									
	(inches)		-		Hvd	ric Soil	Present? Y	es No	x
	. ,		-						
Remarks:	Soil appears mixed	but not disturb	ed						
HYDROLO	drology Indicators:								
			opt)			c	Socondary India	ators (2 or more requ	uirod)
	dicators (any one ind	icator is suffici	,					ators (2 or more requ	
	e Water (A1) (stor Table (A2)		Inundation Visible of	0	• • • •		Water-Stained	. ,	
0 Flight W	/ater Table (A2)		Sparsely Vegetated Marl Deposits (B15)		Tace (Bo	5)	Drainage Patte	ospheres along Livin	a Poots (C2)
	Marks (B1)		Hydrogen Sulfide O				-	Reduced Iron (C4)	g Roois (C3)
	ent Deposits (B2)		Dry-Season Water				Salt Deposits (	( )	
	eposits (B3)		Other (Explain in Re	. ,				essed Plants (D1)	
	fat or Crust (B4)		-				Geomorphic P		
	eposits (B5)						Shallow Aquita	( )	
	e Soil Cracks (B6)						 Microtopograp	hic Relief (D4)	
							FAC-Neutral T	Test (D5)	
							-		
Field Obse	ervations:				1				
	ater Present? Yes	s Nr	o x Depth (In	ches): NA					
	le Present? Yes			,					
Saturation				·		Wetlar	nd Hydrology P	Present? Yes	No_x
	apillary fringe)				-			-	
		m gauge, mon	itoring well, aerial pho	otos, previous	inspect	ions), if a	available:		
	```								
Remarks:									

Project/Site: Angoon Airport			Borough/City:	Hoonah / J	Angoon	Sampling Da	ate: <u>20-Jun-</u>	2017	
Applicant/Owner: ADOT & PF	Applicant/Owner: ADOT & PF						Sampling Point: P216		
Investigator(s): J.Barna, L.Johnson			Landform (hillside, terrace, hummocks, etc.):			hummok			
Local relief (concave, convex, none): cor	nvex		Slope (%): 0	)					
Subregion: Southeast Alaska		Lat:	_		Long:		Datum: NAI	D 83	
Soil Map Unit Name: None					NWI classif	ication:			
Are climatic / hydrologic conditions on th	ne site typical fo	r this time o	f year? Yes	X No	(If no, explain	in Remarks.)			
Are Vegetation Soil or Hyd	drology si	ignificantly c	listurbed?	Are "Nor	mal Circumstances"	present' Yes	x No		
Are Vegetation Soil or Hyd	drology n	aturally prob	plematic?	(If neede	ed, explain any answ	ers in Remark	(s.)		
SUMMARY OF FINDINGS - A	ttach site m	ap snow	ing sampli	ng point	locations, trans	sects, imp	ortant tea	itures, etc	
Hydrophytic Vegetation Present?	Yes 0	No x							
Hydric Soil Present?	Yes 0	No x	Is the	Sampled A	rea				
Wetland Hydrology Present?	Yes 0	No x	within	a Wetland	? Yes	No	x		
Remarks: Mosaic - 10% wetland, 90%	6 upland - plot t	aken in upla	nd portion (re	presentative	e): brvophyte present	at surface bu	ut not at dept	h	
Decayed wood forms a larg									
Absences of wetland hydro									
VEGETATION – Use scientific	names of p	lants. Lis	t all specie	es in the	plot.				
	<u></u>		Dominant	Indicator	Dominance Test v	worksheet:	-		
Tree Stratum			Species?	Status					
1. Tsuga heterophylla		80	1	FAC	Number of Domina	•		( • )	
<ol> <li>Picea sitchensis</li> <li>3.</li> </ol>		30	1	FACU	That Are OBL, FAC	SW, or FAC:	1	(A)	
4.				0	Total Number of D	ominant			
	Total Cover:	110			Species Across All		5	(B)	
50% of total cover:	55	20% of to	tal cover:	22					
Sapling/Shrub Stratum					Percent of Domina	•			
1. Vaccinium parvifolium		80	1	FACU	That Are OBL, FAC		0.20	(A/B)	
2. Oplopanax horridus		20	1	FACU	Prevalence Inde				
3				0	Total % Cover		Multiply by	/:	
4 5.				0	OBL species FACW species		(1 = 0) (2 = 0)		
5 6.				0	FAC species	-	3= 240		
	Total Cover:	100			FACU species		4= 800		
50% of total cover:	50		tal cover:	20	UPL species		x 5= 0		
Herb Stratum					Column Totals:	280 (A)	1040	(B)	
1. Cornus canadensis		70	1	FACU					
2				0	Prevalence In		<u>3.7142857</u>	14	
3				0	Hydrophytic Veg				
4				0		Test is >50%			
5				0		Index is ≤3.0			
6				0		cal Adaptation			
7 8.				0		Remarks or o c Hydrophytic	•	,	
9.				0			vegetation	(Evbiain)	
10.				0	<sup>1</sup> Indicators of hyd	dric soil and w	etland hvdro	loav must	
	Total Cover:	70			be present, unles		-		
50% of total cover:	35	20% of to	tal cover:	14	Hydrophytic				
Plot size (radius, or length x width)	5 ft radius		Bare Ground	0	Vegetation	Yes	No	x	
% Cover of Wetland Bryophytes			of Bryophytes		Present?	103		<u>x</u>	
(Where applicable)	0		or bryophytes	00					
Remarks: Mosaic - 10% wetland, 9	0% upland - plr	t taken in u	pland portion (	representat	ive): bryophyte prese	ent at surface	but not at de	epth	
								· · · ·	
US Army Corps of Engineers							Alaska	a Version 2.0	

plina	Point:	P216
piirig	i onit.	1210

SOIL								Sampling Point:	P216
Profile Des	cription: (Describe to	the depth	needed to documen	t the indicato	r or co	nfirm th	e absence of ir	ndicators.)	
Depth	Matrix			ox Features				,	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	s
0-8	2.5yr2.5/1	100			21		organic duff	Decomposing w	/ood/veg
8-13	7.5yr3/4	100					organic	Decomposing	wood
13-16	5yr2.5/2	70					organic	Decomposing	wood
13-16	7.5yr3/3	30					muck	Greasy m	uck
<u> </u>				·······					
<sup>1</sup> Type: C=	Concentration, D=Deple					and Grair	ns. <sup>2</sup> Lo	ocation: PL=Pore Li	ning, M=Mat
Hydric Soil	Indicators:	Inc	licators for Problen	natic Hydric S	oils':		Indicators for	Problematic Hydri	c Soils³:
Histoso	ol or Histel (A1)		Alaska Color Chang	e (TA4) <sup>4</sup>			Alaska Gle	yed Without Hue 5)	or Redder
Histic E	Epipedon (A2)		Alaska Alpine Swale	es (TA5)			Underlying	Laver	
	Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue							blain in Remarks)	
	Dark Surface (A12)								
Alaska	Gleyed (A13)								
Alaska	Redox (A14)	<sup>3</sup> O	ne indicator of hydro	phytic vegetati	on, one	e primary	indicator of we	tland hydrology,	
	Gleyed Pores (A15)		and an appropriate						tic.
	, ,	<sup>4</sup> G	ive details of color ch	nange in Rema	arks.				
Restrictive	Layer (if present):			-					
Type:	Layer (in present):								
•••	(inches)				Hvd	ric Soil	Present? Y	'es No	x
	· · ·				-				
Remarks:	Decayed wood forms a	a large portic	on of probe, peat is n	ot a significant	compo	onent - in	consistent with	wetland soils in surv	ey area
HYDROLO									
-	drology Indicators:								
	dicators (any one indica	tor is sufficie						ators (2 or more req	uired)
	e Water (A1)		Inundation Visible o	-			Water-Stained	( )	
	/ater Table (A2)		Sparsely Vegetated		ace (B8	3)	Drainage Patte	, ,	
0 Satura	, ,		Marl Deposits (B15)				-	ospheres along Livir	ig Roots (C3)
	Marks (B1)		Hydrogen Sulfide O					educed Iron (C4)	
	ent Deposits (B2)		Dry-Season Water	· · ·			Salt Deposits (		
	eposits (B3) 1at or Crust (B4)		Other (Explain in Re	enarks)			Geomorphic P	essed Plants (D1)	
	eposits (B5)						Shallow Aquita	( )	
	e Soil Cracks (B6)						Microtopograp	( )	
							FAC-Neutral T	. ,	
							-	001(120)	
	mational				T				
Field Obse		No	x Depth (In	ches): NA					
	ater Present? Yes _ le Present? Yes	No		·	-				
Saturation		No		·	-	Wetla	nd Hydrology P	Present? Yes	No x
	apillary fringe)				-				
1	Recorded Data (stream g	gauge, moni	toring well, aerial pho	otos, previous	inspect	ions), if a	available:		
	•	-		-	-				
Remarks:	Absences of wetland h	ydrology like	ely a confirming char	acteristic					

Project/Site: Angoon Airport			Borough/City:	Hoonah /	Angoon	Sampling Dat	te: 21-Jun-201	7
Applicant/Owner: ADOT & PF						Sampling Poi	nt: P21	7
nvestigator(s): J.Barna, L.Johnson			Landform (hill	lside, terrace	e, hummocks, etc.):		muskeg	
_ocal relief (concave, convex, none): <u>c</u>	oncave		Slope (%):	1				
Subregion: Southeast Alaska		Lat: 57.47	2578		Long: -134.54426	<u>3</u> [	Datum: NAD 83	3
Soil Map Unit Name: None				_	NWI classifi	cation:		
Are climatic / hydrologic conditions on	the site typical fo	r this time o	f year? Yes	X No	(If no, explain	in Remarks.)		
Are Vegetation Soil or Hy	ydrology si	ignificantly d	listurbed?	Are "Nor	mal Circumstances"	present' Yes	x No	
Are Vegetation Soil or Hy	ydrologyn	aturally prob	lematic?	(If neede	ed, explain any answe	ers in Remarks	.)	
	Attach aita m	on ohow	ina oomol	ina naint	locationa trans	aata imna	rtant faatu	
SUMMARY OF FINDINGS – /	Allach Sile m		ing sampi	ing point	locations, trans	sects, impo	riani lealu	res, e
Hydrophytic Vegetation Present?	Yes x	No 0						
Hydric Soil Present?	Yes x	No 0		Sampled A				
Netland Hydrology Present?	Yes x	No 0	withir	n a Wetland	? Yes <u>x</u>	No		
Remarks: Plot taken in "lovers lane"	vea disturbed b	ut not sianif	icantly so					
0	,	at not olgini	iounity oo					
VEGETATION – Use scientifie	c names of p	lants. Lis	t all speci	es in the	plot.			
		Absolute	Dominant	Indicator	Dominance Test v	vorksheet:		
Tree Stratum			Species?	Status				
1. Tsuga heterophylla		30	1	FAC	Number of Domina		4	( • )
2 3				0	That Are OBL, FAC	w, or FAC:	4	(A)
3 4				0	Total Number of Do	ominant		
	Total Cover:	30			Species Across All		5	(B)
50% of total cover		20% of to	tal cover:	6			-	(-)
Sapling/Shrub Stratum					Percent of Dominal			
1. Lysichiton americanus		40	1	OBL	That Are OBL, FAC	W, or FAC:	0.80	(A/B)
2				0	Prevalence Index			
3				0	Total % Cover		Multiply by:	
4				0	OBL species	0 x 2		
5 6				0	FACW species	0 x 2 0 x 3	2 = 0 3 = 0	
0	Tatal Cavar	40						
50% of total cover	Total Cover: 20	20% of to	tal cover:	8	FACU species	0 x 4 0 x 5		
Herb Stratum		2070 01 10		Ũ	Column Totals:	0 (A)	0	(B)
1. Vaccinium vitis-idaea		15	1	FAC	_	( )		( )
2. Cornus canadensis		15	1	FACU	Prevalence In	dex = B/A =	<u>#DIV/0!</u>	
3. Rubus chamaemorus		45	1	FACW	Hydrophytic Veg	etation Indica	tors:	
4.				0	x Dominance	Test is >50%		
5.				0		Index is ≤3.0		
6				0	Morphologic	al Adaptations	<sup>1</sup> (Provide sup	porting
7				0		Remarks or on	•	,
8				0	Problematic	Hydrophytic V	'egetation <sup>1</sup> (Ex	plain)
9				0	1			
0				0	<sup>1</sup> Indicators of hyd			/ must
	Total Cover:	75			be present, unles	s disturbed or	problematic.	
50% of total cover	37.5	20% of to	tal cover:	15	Hydrophytic			
Plot size (radius, or length x width)	5 ft radius	% E	Bare Ground	0	Vegetation	Yes x	No	
% Cover of Wetland Bryophytes	85	Total Cover	of Bryophyte	s 85	Present?			
(Where applicable)								
Remarks: Plot taken in "lovers lar	ie", veg disturbed	d but not sig	nificantly so					
JS Army Corps of Engineers							Alaska Ve	ersion 2

nlina	Point:	P217
piing	POINT.	P217

SOIL								Sampling Point:	P217
Profile Des	cription: (Describe t	o the depth	needed to document	t the indica	tor or co	nfirm the	e absence of i	ndicators.)	
Depth	Matrix	p		ox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	5
0-9	2.5yr3/2	100				200	muck	Greasy mu	
9-16	5yr2/3	40					muck	Greasy mu	,
9-16	2.5yr2.5/1	60					muck	Greasy mu	,
								,	<u> </u>
<sup>1</sup> Type: C=	Concentration, D=Dep					and Grain	ıs. <sup>2</sup> l	ocation: PL=Pore Lir	ning, M=Mat
Hydric Soil	Indicators:	In	dicators for Problem	atic Hydric	: Soils <sup>3</sup> :		Indicators fo	r Problematic Hydri	c Soils³:
x Histoso	ol or Histel (A1)		Alaska Color Change	e (TA4) <sup>4</sup>			Alaska Gl	eyed Without Hue 5Y	or Redder
Histic E	Epipedon (A2)		– Alaska Alpine Swale	s (TA5)			Underlyin	g Layer	
	en Sulfide (A4)		Alaska Redox With 2	. ,			-	plain in Remarks)	
` `	Dark Surface (A12)		_					. ,	
Alaska	Gleyed (A13)								
Alaska	Redox (A14)	<sup>3</sup> (	One indicator of hydrop	ohvtic veaet	ation, one	e primarv	indicator of we	etland hydrology.	
	Gleyed Pores (A15)		• •					isturbed or problemat	ic.
—	, ,	<sup>4</sup> 0	Give details of color ch			-			
Restrictive	Layer (if present):								
_	Layer (il present).								
Type:	(inches)		_		Hvd	Iric Soil I	Present?	Yes x No	
Deptil			_		nya		resent		
Remarks:									
HYDROLO									
-	drology Indicators:					-			
	dicators (any one indic	ator is suffic					Secondary India	cators (2 or more requ	uired)
	e Water (A1)		Inundation Visible or				-	d Leaves (B9)	
	/ater Table (A2)		Sparsely Vegetated		urface (B8	3)	Drainage Pat	. ,	
x Saturat			Marl Deposits (B15)				-	cospheres along Livin	g Roots (C3)
	Marks (B1)		Hydrogen Sulfide Oc				-	Reduced Iron (C4)	
	ent Deposits (B2)		Dry-Season Water T	. ,			Salt Deposits	. ,	
	eposits (B3)		Other (Explain in Re	marks)			-	ressed Plants (D1)	
·	lat or Crust (B4) posits (B5)						Geomorphic I Shallow Aquit	( )	
	e Soil Cracks (B6)						-	phic Relief (D4)	
Sunace	e Soli Clacks (DO)						FAC-Neutral	,	
								Test (D3)	
Field Obse									
	ater Present? Yes		o <u>x</u> Depth (Ind	· · · · · · · · · · · · · · · · · · ·					
	le Present? Yes		o Depth (Inc						
Saturation		<u>x</u> N	o Depth (Inc	ches): Surfa	ace	Wetlar	nd Hydrology	Present? Yes <u>x</u>	No
	apillary fringe)				- inc	inno) if	weilehl		
Describe R	Recorded Data (stream	gauge, mor	ntoring well, aerial pho	tos, previou	is inspect	ions), if a	avallable:		
Remarks:									
tomanto.									

Project/Site: Angoon Airport		E	Borough/City:	Hoonah /	Angoon	Sampling Date	e: 21-Jun-2017
Applicant/Owner: ADOT & PF						Sampling Poin	it: P218
Investigator(s): J.Barna, L.Johnson		L	andform (hill	lside, terrace	e, hummocks, etc.):		muskeg
Local relief (concave, convex, none):			Slope (%):	1			
Subregion: Southeast Alaska		Lat: 57.473	34		Long: -134.54375	. <u>3</u> D	atum: NAD 83
Soil Map Unit Name: None				_	NWI classif	ication:	
Are climatic / hydrologic conditions on the	e site typical fo	or this time of	year? Yes	X No	(If no, explain	in Remarks.)	
Are Vegetation Soil or Hydi	ologys	ignificantly d	isturbed?	Are "Nor	rmal Circumstances"	present' Yes	x No
Are Vegetation Soil or Hydr	ologyn	aturally prob	lematic?	(If neede	ed, explain any answ	ers in Remarks.	)
	toob oito m	an ahawi			locationa tran	aaata imma	tant factures a
SUMMARY OF FINDINGS – At	tach site m	ap snowi	ng sampi	ing point	locations, trans	sects, impor	rtant reatures, e
Hydrophytic Vegetation Present?	Yes <u>x</u>	No 0					
Hydric Soil Present?	Yes <u>x</u>	No 0	Is the	Sampled A	rea		
Wetland Hydrology Present?	Yes <u>x</u>	No 0	withir	n a Wetland	? Yes x	<u>No</u>	
Remarks: Representative sample of for	rest/shrub we	tland					
Top 14" undecomposed sph							
0	-						
VEGETATION – Use scientific	names of p	lants. Lis	t all speci	es in the	plot.		
		Absolute		Indicator	Dominance Test v	worksheet:	
Tree Stratum			Species?	Status			
1. Tsuga heterophylla		20	1	FAC	Number of Domina	•	
23.		·		0	That Are OBL, FAC	SW, or FAC:	4 (A)
3 4		·		0	Total Number of D	ominant	
	Total Cover:	20			Species Across All		4 (B)
50% of total cover:	10	20% of tot	tal cover:	4			(=)
Sapling/Shrub Stratum					Percent of Domina	nt Species	
1. Pinus contorta		5		FAC	That Are OBL, FAG	CW, or FAC:	1.00 (A/B)
2. Empetrum nigrum		75	1	FAC	Prevalence Inde		
3				0	Total % Cover		Multiply by:
4		·		0	OBL species	0 x 1 0 x 2	
5 6.		·		0	FACW species	0 x 2 0 x 3	
0	Total Cover:	80			FACU species	0 x 4	
50% of total cover:	40	20% of tot	tal cover	16	UPL species	0 x 4	
Herb Stratum		2070 01 10		10	Column Totals:	0 (A)	<u> </u>
1. Rubus chamaemorus		60	1	FACW			
2. Cornus canadensis		20		FACU	Prevalence In	idex = B/A =	<u>#DIV/0!</u>
3. Rhododendron groenlandicum		45	1	FAC	Hydrophytic Veg	etation Indicate	ors:
4.				0	x Dominance	• Test is >50%	
5				0		Index is ≤3.0	
6				0			(Provide supporting
7				0			a separate sheet)
8				0	Problematio	: Hydrophytic Ve	egetation <sup>1</sup> (Explain)
9		·		0	<sup>1</sup> Indiactors of how	dria agil and	and budralassis
10	Tatal C	105		0	-		and hydrology must
50% of total cover:	Total Cover: 62.5	125 20% of tot	tal cover:	25	be present, unles	s disturbed or p	roplematic.
			-	25	Hydrophytic		
Plot size (radius, or length x width)	5 ft radius		are Ground		Vegetation	Yes x	No
% Cover of Wetland Bryophytes	99	Total Cover	of Bryophyte	s <u>99</u>	Present?		
(Where applicable)	fanat/-l	untiond					
Remarks: Representative sample of	torest/shrub v	vetland					
JS Army Corps of Engineers							Alaska Version 2

nolina	Point:	P218
ipinig	i onit.	1 2 10

SOIL						:	Sampling Point:	P218
Profile Description: (Describe	to the depth nee	ded to document	t the indicate	or or co	nfirm the	absence of inc	licators.)	
Depth Matrix	·· ··· ···		ox Features				,	
(inches) Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-5 2.5yr2.5/3	80					organic		
0-5 2.5yr3/2	20					organic		
5-9 7.5yr4/4	100					organic		
9-14 5yr5/8	100					organic		
14-16 7.5yr3/3	100		·			muck		
			·					
<sup>1</sup> Type: C=Concentration, D=De Hydric Soil Indicators:	-	ced Matrix, CS=C tors for Problem			nd Grain		cation: PL=Pore Lin Problematic Hydric	-
-		iska Color Change	•	Joine .			•	
x Histosol or Histel (A1)		-	. ,				ed Without Hue 5Y	or Redder
Histic Epipedon (A2)		iska Alpine Swale	. ,			Underlying I	•	
Hydrogen Sulfide (A4)	Ala	iska Redox With 2	2.5Y Hue			Other (Expla	ain in Remarks)	
Thick Dark Surface (A12)								
Alaska Gleyed (A13)	2							
Alaska Redox (A14)		ndicator of hydrop						
Alaska Gleyed Pores (A15)	an	d an appropriate la	andscape po	sition mu	ist be pre	esent unless dist	urbed or problemati	С.
	<sup>4</sup> Give	details of color ch	ange in Rem	arks.				
Restrictive Layer (if present):								
Туре:								
Depth (inches)				Hyd	ric Soil F	Present? Ye	s x No	
HYDROLOGY								
Wetland Hydrology Indicators:								
Primary Indicators (any one indi	cator is sufficient)				Se	econdary Indicat	ors (2 or more requ	ired)
0 Surface Water (A1)	Inu	ndation Visible or	n Aerial Imag	erv (B7)		Water-Stained L		
x High Water Table (A2)		arsely Vegetated	-		3)	Drainage Patter	· · /	
x Saturation (A3)		rl Deposits (B15)		,	,	. č	pheres along Living	Roots (C3)
Water Marks (B1)		drogen Sulfide Od	dor (C1)			Presence of Re		
Sediment Deposits (B2)		/-Season Water T				Salt Deposits (C	25)	
Drift Deposits (B3)		ner (Explain in Re					ssed Plants (D1)	
Algal Mat or Crust (B4)						Geomorphic Po	sition (D2)	
Iron Deposits (B5)						Shallow Aquitar	d (D3)	
Surface Soil Cracks (B6)						Microtopograph	ic Relief (D4)	
—						FAC-Neutral Te	st (D5)	
Field Observations:				1				
Surface Water Present? Yes	No	x Depth (Ind	ches): NA					
	x No		ches): Surfa	ce				
	x No		ches): Surfac		Wetlan	d Hydrology Pr	esent? Yes x	No
(includes capillary fringe)		F (		-		,	<u></u>	
Describe Recorded Data (strear	n gauge, monitori	ng well aerial pho	tos previous	ineneeti	ions) if a	vailable:		
	5 5 ,	ig won, aonai pho	tos, previous	inspeci	10115 <i>)</i> , 11 a	valiable.		

US Army Corps of Engineers

# **2018 Wetland Delineation**

WETLAND DETERMINATION DATA	FORM -	Alaska	Region
----------------------------	--------	--------	--------

Project/Site: Angoon Airport - Echo Alignment	Borough/City: Hoonah /	
Applicant/Owner: ADOT & PF		Sampling Point: 301u
Investigator(s): J.Barna, R.Gutierrez	Landform (hillside, terrac	e, hummocks, etc.): Slope
Local relief (concave, convex, none): Concave	Slope (%): 3	
Subregion: Southeast Alaska	Lat: <u>57.480797</u>	Long: -134.566649 Datum: NAD 83
Soil Map Unit Name: None		NWI classification: PFO4B
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes X No	(If no, explain in Remarks.)
Are Vegetation Soil or Hydrology		rmal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrology	naturally problematic? (If need	ed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach sit	e map showing sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No X	
Hydric Soil Present? Yes	No X Is the Sampled A	Area
Wetland Hydrology Present? Yes	No X within a Wetland	1? Yes <u>No X</u>
Remarks: Logs in area but not cut locally. Area v Very sandy soils	without vegetation is abundant with debris	
None		
VEGETATION – Use scientific names	of plants. List all species in the	plot.
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum	% Cover Species? Status	
1		Number of Dominant Species
3.		That Are OBL, FACW, or FAC: (A)
4.		Total Number of Dominant
Total Co	over:	Species Across All Strata: 2 (B)
50% of total cover:	20% of total cover:	( )
Sapling/Shrub Stratum		Percent of Dominant Species
1. Rubus spectabilis	65 X FACU	That Are OBL, FACW, or FAC: 50 (A/B)
2. Vaccinium ovalifolium	5 FAC	
3		Prevalence Index worksheet:
4		Total % Cover of: Multiply by:
5 6		OBL species         x 1=           FACW species         x 2=
Total Co	over: 70	FAC species x 3=
50% of total cover: 35	20% of total cover: 14	FACU species x 4=
Herb Stratum		UPL species x 5=
1. Phalaris canariensis	30 X UPL	Column Totals: (A) (B)
2.		Prevalence Index = $B/A = 0$
3.		
4.		Hydrophytic Vegetation Indicators:
5.		Dominance Test is >50%
6.		Prevalence Index is ≤3.0
7		Morphological Adaptations <sup>1</sup> (Provide supporting
8		data in Remarks or on a separate sheet)
9		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10		
Total Co 50% of total cover: 15	over: 30 20% of total cover: 6	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width) 5 ft r		Hydrophytic
% Cover of Wetland Bryophytes	Total Cover of Bryophytes	Vegetation Yes No X
(Where applicable)		Present?
Remarks: Logs in area but not cut locally. Are	ea without vegetation is abundant with deb	

Sampling	Point:	301u
Camping	i onit.	0010

(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	Organic rootmat	100		·			Organic	Grass roots
5-12	10yr6/1	95	10yr4/2	5	С	М	Silty sand	
12-16	10yr4/1	100					Sand	
					·		·	
				· · · · · · · · · · · · · · · · · · ·				
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=I	Reduced Matrix, CS	=Covered or (	Coated Sa	nd Grair	ns. <sup>2</sup> Location: PL:	=Pore Lining, M=Matrix.
lydric Soil Ir	ndicators:	li	ndicators for Probl	ematic Hydri	c Soils <sup>3</sup> :		Indicators for Pr	oblematic Hydric Soils <sup>3</sup> :
Histosol	or Histel (A1)		Alaska Color Cha	nge (TA4) <sup>4</sup>			Alaska Gleye	d Without Hue 5Y or Redder
Histic Ep	pipedon (A2)	_	Alaska Alpine Sw	ales (TA5)			Underlying La	yer
Hydroge	n Sulfide (A4)	_	Alaska Redox Wit	th 2.5Y Hue			Other (Explain	n in Remarks)
	ark Surface (A12)	_	_					
	Gleyed (A13)							
	Redox (A14)	3	One indicator of hyd					, .,.
Alaska G	Gleyed Pores (A15)					ust be pr	resent unless distur	bed or problematic.
		4	Give details of color	change in Re	marks.			
Postrictivo L	ayer (if present):							
conclive L	ayer (ii present).							
Туре:			_					
Type: Depth (ir					Нус	Iric Soil	Present? Yes	No <u>X</u>
Type: _ Depth (ir Remarks: \	nches): Very sandy soils <b>GY</b>				Нус	lric Soil	Present? Yes	No <u>X</u>
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd	Notes): Very sandy soils GY Irology Indicators:				Нус			
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India	nches): Very sandy soils GY Irology Indicators: cators (any one ind						Secondary Indicato	rs (2 or more required)
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India Surface \	Mater (A1)		Inundation Visible		agery (B7)	<u>`</u>	Secondary Indicator	rs (2 or more required) raves (B9)
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary Indio Surface \ High Wa	GY Wery sandy soils GY Irology Indicators: cators (any one ind Water (A1) ater Table (A2)		Inundation Visible	ed Concave S	agery (B7)	<u>`</u>	Secondary Indicator Water-Stained Le Drainage Patterns	rs (2 or more required) aves (B9) s (B10)
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India Surface \ High Wa Saturatio	GY Wery sandy soils GY Irology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3)		Inundation Visible Sparsely Vegetate Marl Deposits (B1	ed Concave S 5)	agery (B7)	<u>`</u>	Secondary Indicator Water-Stained Le Drainage Patterns Oxidized Rhizosp	rs (2 or more required) vaves (B9) s (B10) heres along Living Roots (C3
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India Surface \ High Wa Saturatic Water M	GY GY Irology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1)		Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide	ed Concave S 5) Odor (C1)	agery (B7)	<u>`</u>	Secondary Indicator Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu	rs (2 or more required) aves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4)
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India Surface \ High Wa Saturatic Water M Sedimen	GY Very sandy soils GY Irology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) th Deposits (B2)		Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide Dry-Season Wate	ed Concave S 5) Odor (C1) er Table (C2)	agery (B7)	<u>`</u>	Secondary Indicator Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu Salt Deposits (C5	rs (2 or more required) aves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4)
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India Surface \ High Wa Saturatic Water M Sedimen Drift Dep	GY GY Irology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1)		Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide	ed Concave S 5) Odor (C1) er Table (C2)	agery (B7)	<u>`</u>	Secondary Indicator Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu	rs (2 or more required) aves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4) ) ed Plants (D1)
Type: Depth (ir Remarks: \\ YDROLOO Vetland Hyd Primary India Surface \\ High Wa Saturatic Water M Sedimen Drift Dep Algal Ma	GY Irology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide Dry-Season Wate	ed Concave S 5) Odor (C1) er Table (C2)	agery (B7)	<u>`</u>	Secondary Indicatol Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu Salt Deposits (C5 Stunted or Stress	rs (2 or more required) aves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4) ) ed Plants (D1) tion (D2)
Type: Depth (ir Remarks: \/ YDROLOO Vetland Hyd Primary India Surface \/ High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	GY Very sandy soils GY rology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide Dry-Season Wate	ed Concave S 5) Odor (C1) er Table (C2)	agery (B7)	<u>`</u>	Secondary Indicatol Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu Salt Deposits (C5 Stunted or Stress Geomorphic Posi	rs (2 or more required) aves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4) ) ed Plants (D1) tion (D2) (D3)
Type: Depth (ir Remarks: \\ YDROLOO Vetland Hyd Primary India Surface \ High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep	GY Very sandy soils GY rology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide Dry-Season Wate	ed Concave S 5) Odor (C1) er Table (C2)	agery (B7)	<u>`</u>	Secondary Indicatol Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu Salt Deposits (C5 Stunted or Stress Geomorphic Posi Shallow Aquitard	rs (2 or more required) eaves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4) ) ed Plants (D1) tion (D2) (D3) Relief (D4)
Type: Depth (ir Remarks: \/ YDROLOO Vetland Hyd Primary India Surface \/ High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	GY Very sandy soils GY Irology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)		Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide Dry-Season Wate	ed Concave S 5) Odor (C1) er Table (C2)	agery (B7)	<u>`</u>	Secondary Indicator Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu Salt Deposits (C5 Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic	rs (2 or more required) eaves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4) ) ed Plants (D1) tion (D2) (D3) Relief (D4)
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India Surface \ High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface \	GY Very sandy soils GY rology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) vations:	icator is suffic - - - - - -	Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide Dry-Season Wate Other (Explain in	ed Concave S 5) Odor (C1) or Table (C2) Remarks)	agery (B7)	<u>`</u>	Secondary Indicator Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu Salt Deposits (C5 Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic	rs (2 or more required) eaves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4) ) ed Plants (D1) tion (D2) (D3) Relief (D4)
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India Surface \ High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface \ Field Obser Surface Wat Water Table	GY Very sandy soils GY Irology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) Vations: ter Present? Ye Present? Ye	s N	Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide Dry-Season Wate Other (Explain in Other (Explain in	ed Concave S 5) Odor (C1) rr Table (C2) Remarks) (Inches): N (Inches): >	agery (B7) Surface (B8	3)	Secondary Indicator Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu Salt Deposits (C5 Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic FAC-Neutral Test	rs (2 or more required) eaves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4) ) ed Plants (D1) tion (D2) (D3) Relief (D4) (D5)
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India Surface ' High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface 3 Field Obser Surface Wate Water Table Saturation P	GY Irology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) Vations: ter Present? Ye Present? Ye	s N	Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide Dry-Season Wate Other (Explain in Other (Explain in	ed Concave S 5) Odor (C1) rr Table (C2) Remarks) (Inches): N (Inches): >	agery (B7) Surface (B8	3)	Secondary Indicator Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu Salt Deposits (C5 Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic	rs (2 or more required) eaves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4) ) ed Plants (D1) tion (D2) (D3) Relief (D4) (D5)
Type: _ Depth (ir Remarks: \ YDROLOO Vetland Hyd Primary India Surface \ High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface \ Surface \ Surface Wat Water Table Saturation P (includes cap	GY Very sandy soils GY rology Indicators: cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) vations: ter Present? Ye Present? Ye pillary fringe)	s N	Inundation Visible Sparsely Vegetate Marl Deposits (B1 Hydrogen Sulfide Dry-Season Wate Other (Explain in Other (Explain in	ed Concave S 5) Odor (C1) rr Table (C2) Remarks) (Inches): (Inches):	agery (B7) burface (B8 lA 16 16	3)	Secondary Indicator Water-Stained Le Drainage Patterns Oxidized Rhizosp Presence of Redu Salt Deposits (C5 Stunted or Stress Geomorphic Posi Shallow Aquitard Microtopographic FAC-Neutral Test	rs (2 or more required) eaves (B9) s (B10) heres along Living Roots (C3 uced Iron (C4) ) ed Plants (D1) tion (D2) (D3) Relief (D4) (D5)

US Army Corps of Engineers

WETL	AND	DETE	RMINA	τιον	DATA	FORM	-	Alaska	Regi	on
------	-----	------	-------	------	------	------	---	--------	------	----

Project/Site: Angoon Airport - Echo Alignment	Borough/City:	Hoonah / Angoon	Sampling Date: 7-Jun-2018
Applicant/Owner: ADOT & PF			Sampling Point: 302w
Investigator(s): J.Barna, R.Gutierrez	Landform (hil	lside, terrace, hummocks, etc	.): Slope
Local relief (concave, convex, none): Concave	Slope (%):	1	
Subregion: Southeast Alaska	Lat: 57.480853	Long: -134.56	
Soil Map Unit Name: None		NWI cla	ssification: PFO4B
Are climatic / hydrologic conditions on the site typical for	r this time of year? Yes	X No (If no, exp	lain in Remarks.)
	ignificantly disturbed?	Are "Normal Circumstance	es" present? Yes X No
Are Vegetation Soil or Hydrology n	aturally problematic?	(If needed, explain any an	swers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing sampl	ing point locations, tra	ansects, important features, etc
Hydrophytic Vegetation Present? Yes x	No		
Hydric Soil Present? Yes x	No Is the	Sampled Area	
Wetland Hydrology Present? Yes x	No within	a Wetland? Yes _	X No
Remarks: Logs in area but not cut locally			
Small channel of flowing water			
VEGETATION – Use scientific names of p	lants. List all speci	es in the plot.	
	Absolute Dominant	Indicator Dominance Te	est worksheet:
<u>Iree Stratum</u> 1.	% Cover Species?	Status Number of Don	ainant Spaciae
2.			FACW, or FAC: 1 (A)
3.			
4.		Total Number of	of Dominant
Total Cover:	000/ 11	Species Across	s All Strata: <u>3</u> (B)
50% of total cover:	20% of total cover:	Deveent of Dev	vinant Chasies
<u>Sapling/Shrub Stratum</u> 1.		Percent of Dom That Are OBI	FACW, or FAC: 33 (A/B)
2.			(12)
3.		Prevalence In	ndex worksheet:
4.		Total % C	over of: Multiply by:
5.		OBL species	40 x 1= 40
6		FACW species	
Total Cover: 50% of total cover:	20% of total cover:	FAC species FACU species	x 3= 80 x 4= 320
Herb Stratum		UPL species	
1. Elymus alaskanus	80 X	FACU Column Totals:	
2. Deschampsia brevifolia	40 X	OBL Prevalenc	e Index = B/A = 3.00
3.			
4.	<u> </u>		Vegetation Indicators:
5			nce Test is >50%
6			nce Index is ≤3.0
7			logical Adaptations <sup>1</sup> (Provide supporting
8 9.			a in Remarks or on a separate sheet) natic Hydrophytic Vegetation <sup>1</sup> (Explain)
9 10.			
Total Cover:	120	<sup>1</sup> Indicators of	hydric soil and wetland hydrology must
50% of total cover: 60	20% of total cover:		nless disturbed or problematic.
Plot size (radius, or length x width) 5 ft radius	% Bare Ground	Hydrophytic	
	Total Cover of Bryophyte	s Vegetation	Yes <u>x</u> No
(Where applicable)		Present?	
Remarks: Logs in area but not cut locally			
US Army Corps of Engineers			Alaska Version 2.0

Sampling	Point:	302w

Profile Des	scription: (Describe to	the depth			r or co	nfirm th	e absence of indic	ators.)
Depth	Matrix		Rede	ox Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-1	Organic rootmat	100					Organic	Grass roots
1-4	10yr2/1	100					Silty loam	
4-13	10yr5/2	95	5yr5/8	5			Sand loam	
13-16	10yr5/2	90	5yr5/8	10			Sand loam	
							· ·	
17					- +   0 -		21	Dens Linia a M. Matrix
	Concentration, D=Deple		dicators for Problem			and Grain		=Pore Lining, M=Matrix.
				-				-
Histos	ol or Histel (A1)		Alaska Color Change				Alaska Gleyed	Without Hue 5Y or Redder
Histic I	Epipedon (A2)		Alaska Alpine Swale	s (TA5)			Underlying Lay	yer
	gen Sulfide (A4)		Alaska Redox With 2	2.5Y Hue			Other (Explain	in Remarks)
	Dark Surface (A12) ı Gleyed (A13)							
	,	30	ne indicator of hydror	butio vogototi	on on	nrimonu	indiactor of wotlong	t bydrology
	Redox (A14)	U	and an appropriate l	, 0	,			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Alaska	Gleyed Pores (A15)	<sup>4</sup> C	ive details of color ch			ust be pr		bed of problematic.
Destriction		G		ange in Rema	irks.			
	Layer (if present):							
Type:			-		I			
Depth	(inches):		-		Hyd	Iric Soil	Present? Yes	<u>x</u> No
Remarks:								
HYDROL								
-	drology Indicators:		0			-		(2)
· · · · ·	dicators (any one indica	tor is suffici						s (2 or more required)
	e Water (A1)		Inundation Visible or	-			_Water-Stained Lea	( )
	Vater Table (A2)		Sparsely Vegetated	Concave Surf	ace (B8	3)	Drainage Patterns	
X Satura			Marl Deposits (B15)					neres along Living Roots (C3)
	Marks (B1)		Hydrogen Sulfide Od				Presence of Redu	
	ent Deposits (B2)		Dry-Season Water T	( )			Salt Deposits (C5)	
	eposits (B3)		Other (Explain in Re	marks)			Stunted or Stresse	( )
	/lat or Crust (B4)						Geomorphic Posit	
	eposits (B5)						Shallow Aquitard (	
Surfac	e Soil Cracks (B6)						Microtopographic	
							FAC-Neutral Test	(D5)
Field Of	anyations.				<u> </u>			
Field Obs		NI-	Y Donth (I-					
	/ater Present? Yes _ le Present? Yes	No	· · ·		-			
Saturation		X No		ches): <u>&gt;16</u> ches): Surfac	_	Watte	nd Hydrology Pres	ent? Yes X No
	-	X No			_	wend	na riyuruluyy Fles	ent? Yes <u>X</u> No
(includes C	capillary fringe)							
	Recorded Data (stream of	aude. mon	toring well, aerial pho	tos, previous	inspect	ions). if a	avallable:	
	Recorded Data (stream g	gauge, mon	toring well, aerial pho	tos, previous	inspect	ions), if a	avallable:	
	Recorded Data (stream of Small channel of flowir	, , ,	toring well, aerial pho	tos, previous	inspect	ions), if a	avaliadie:	

Project/Site: Angoon Airport - Echo Align	nment	E	Borough/City:	Hoonah / A	Angoon	Sampling Date	e: 7-Jun-201	18
Applicant/Owner: ADOT & PF						Sampling Poin	nt: 303u	
Investigator(s): J.Barna, R.Gutierrez		L	_andform (hill	lside, terrace	, hummocks, etc.):	Slope toe		
Local relief (concave, convex, none): Co	ncave		Slope (%):	1				
Subregion: Southeast Alaska		Lat: <u>57.48</u>	1713		Long: -134.565003		atum: NAD	83
Soil Map Unit Name: None						cation: PFO4B	i	
Are climatic / hydrologic conditions on th					(If no, explain			
	drology s			Are "Nor	mal Circumstances" p	present? Ye	s <u>X</u> N	.0
Are Vegetation Soil or Hyd	drologyn	aturally probler	natic?	(If neede	d, explain any answe	rs in Remarks.)	1	
SUMMARY OF FINDINGS - A	ttach site map	showing sa	ampling p	oint locat	ions, transects,	important f	features,	etc.
Hydrophytic Vegetation Present?	Yes x	No						
Hydric Soil Present?	Yes	No X	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes	No X	withir	n a Wetland	? Yes	No	x	
Remarks:								
VEGETATION – Use scientific	names of plan		Dominant		Dominanaa Taatu	va rika ba a tu		
Tree Stratum			Species?	Indicator Status	Dominance Test w	orksneet.		
1. Tsuga heterophylla		85	<u>X</u>	FAC	Number of Dominar	nt Species		
2. Alnus viridis		5		FAC	That Are OBL, FAC	•	1	(A)
3.								_
4	Total Cover:	90			Total Number of Do Species Across All		1	(P)
50% of total cover:	45	20% of tot	tal cover:	18	Species Across All		1	(B)
Sapling/Shrub Stratum			-		Percent of Dominar	nt Species		
1.					That Are OBL, FAC		100	(A/B)
2.								-
3					Prevalence Index			
4 5					Total % Cover		Multiply by:	_
6.					FACW species	x 1 x 2		_
·	Total Cover:				FAC species	x 3		-
50% of total cover:		20% of to	tal cover:		FACU species	x 4		-
Herb Stratum			-		UPL species	x 5	=	_
1					Column Totals:	(A)		(B)
23.					Prevalence Inc	dex = B/A =	0	_
4.					Hydrophytic Vege	etation Indicate	ors:	
5.					X Dominance	Test is >50%		
6						Index is ≤3.0		
7						al Adaptations <sup>1</sup>		
8						Remarks or on a	•	,
9 10.					Problematic	Hydrophytic Ve	getation (E	.xplain)
10	Total Cover:				<sup>1</sup> Indicators of hyd	ric soil and wet	and hydrolo	av must
50% of total cover:		20% of to	tal cover:		be present, unles			gy musi
Plot size (radius, or length x width)	5 ft radius	% Ba	are Ground	60	Hydrophytic			
% Cover of Wetland Bryophytes		Total Cover	of Bryophyte	S	Vegetation	Yes x	No	
(Where applicable)					Present?			
Remarks:								
							<u> </u>	
US Army Corps of Engineers							Alaska \	Version 2.0

(inches)       Color (moist)       %       Color (moist)       %       Type1       Loc7       Texture       Remarks         0-16       Organic       100       Image: Color (moist)       %       Type2       Loc7       Texture       Remarks         0-16       Organic       100       Image: Color (moist)       %       Type3       Loc7       Texture       Remarks         0-16       Organic       100       Image: Color (moist)       %       Type3       Loc7       Organic       Duff         Image: Color (moist)       100       Image: Color (moist)       Marks       Duff       D	
Image: the second se	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric So         Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Alaska Gleyed Without Hue 5Y or f         Histosol or Histel (A1)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Redox (A14)       "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.       *Give details of color change in Remarks.         Restrictive Layer (if present):       Type:       No         Type:	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric So	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric So	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric So         Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Alaska Gleyed Without Hue 5Y or f         Histosol or Histel (A1)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Redox (A14)       "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.       *Give details of color change in Remarks.         Restrictive Layer (if present):       Type:       No         Type:	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric So         Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Alaska Gleyed Without Hue 5Y or f         Histosol or Histel (A1)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Redox (A14)       "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.       *Give details of color change in Remarks.         Restrictive Layer (if present):       Type:       No         Type:	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric So         Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Alaska Gleyed Without Hue 5Y or f         Histosol or Histel (A1)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Redox (A14)       "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.       *Give details of color change in Remarks.         Restrictive Layer (if present):       Type:       No         Type:	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric So         Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Alaska Gleyed Without Hue 5Y or f         Histosol or Histel (A1)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Redox (A14)       "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.       *Give details of color change in Remarks.         Restrictive Layer (if present):       Type:       No         Type:	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :       Indicators for Problematic Hydric So         Histosol or Histel (A1)       Alaska Color Change (TA4) <sup>4</sup> Alaska Gleyed Without Hue 5Y or f         Histosol or Histel (A1)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Redox (A14)       "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.       *Give details of color change in Remarks.         Restrictive Layer (if present):       Type:       No         Type:	
Histosol or Histel (A1)      Alaska Color Change (TA4) <sup>4</sup> Alaska Gleyed Without Hue 5Y or I         Histic Epipedon (A2)      Alaska Alpine Swales (TA5)      Underlying Layer         Hydrogen Sulfide (A4)      Alaska Redox With 2.5Y Hue      Other (Explain in Remarks)         Thick Dark Surface (A12)      Alaska Redox (A14)      Alaska Redox (A14)        Alaska Gleyed Pores (A15)      Indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         ^4Give details of color change in Remarks.      Yes	
Histic Epipedon (A2)       Alaska Alpine Swales (TA5)       Underlying Layer         Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Gleyed (A13)       Alaska Redox (A14)       °One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.         Restrictive Layer (if present):         Type:         Depth (inches):         Primary Indicators (any one indicator is sufficient)         Surface Water (A1)         Surface Water (A1)         Hydrogen Sulfide (A4)         Surface Water (A1)         High Water Table (A2)         Surface Water (A1)         Sutration (A3)         Mart Deposits (B15)         Water Marks (B1)         Hydrogen Sulfide Odor (C1)         Seturation (A3)         Mart Deposits (B2)         Dry-Season Water Table (C2)         Saturation (B3)         Other (Explain in Remarks)         Stunted or Stressed Plants (D1)         Alge Mat or Crust (B4)         Three marks (B5)	ledder
Hydrogen Sulfide (A4)       Alaska Redox With 2.5Y Hue       Other (Explain in Remarks)         Thick Dark Surface (A12)       Alaska Gleyed (A13)       Alaska Gleyed (A13)         Alaska Gleyed (A13)       Alaska Redox (A14) <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. <sup>4</sup> Give details of color change in Remarks.         Restrictive Layer (if present):       Type:       No X         Type:	
Thick Dark Surface (A12)       Alaska Gleyed (A13)         Alaska Gleyed (A13)       3One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.         Restrictive Layer (if present):         Type:         Depth (inches):         Primary Indicators (any one indicator is sufficient)         Surface Water (A1)         Surface Water (A1)         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Hydrogen Sulfide Odor (C1)         Sediment Deposits (B2)         Drift Deposits (B3)         Adjal Mat or Crust (B4)         Iron Deposits (B5)	
Alaska Gleyed (A13)       3One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic.         *Give details of color change in Remarks.         Restrictive Layer (if present):         Type:         Depth (inches):         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Water Marks (B1)         Water Marks (B1)         Water Crust (B2)         Drift Deposits (B3)         Other (Explain in Remarks)         Sufface Vater (S1)         Secondary Indicators (C2)         Saturation (A3)         Mari Deposits (B2)         Dry-Season Water Table (C2)         Saturation (A3)         Other (Explain in Remarks)         Stundat or Crust (B4)         Iron Deposits (B5)	
Alaska Redox (A14) <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):         Depth (inches):         Primary Indicators (any one indicator is sufficient)         Surface Water (A1)         High Water Table (A2)         Sparsely Vegetated Concave Surface (B8)         Saturation (A3)         Water Marks (B1)         Hydrogen Sulfide Odor (C1)         Sediment Deposits (B2)         Dry-Season Water Table (C2)         Dry-Season Water Table (C2)         Drift Deposits (B3)         Other (Explain in Remarks)         Other (Explain in Remarks)         Stunded or Stressed Plants (D1)         Algal Mat or Crust (B4)         Iron Deposits (B5)	
Alaska Gleyed Pores (A15)       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:         HYDROLOGY         Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required Water-Stained Leaves (B9)         Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Ro         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Sati Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Iron Deposits (B5)       Shallow Aquitard (D3)	
<sup>4</sup> Give details of color change in Remarks.         Restrictive Layer (if present):         Type:	
No _X         Restrictive Layer (if present):         Type:	
Type:	
Depth (inches):       Hydric Soil Present?       Yes       No       X         Remarks:       HYDROLOGY       Hydric Soil Present?       Yes       No       X         HYDROLOGY       Wetland Hydrology Indicators:       Secondary Indicators (2 or more required         Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)       Drainage Patterns (B10)         Saturation (A3)       Marl Deposits (B15)       Drainage Patterns (B10)       Oxidized Rhizospheres along Living Ro         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)       Saturation (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Saturet or Stressed Plants (D1)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stanted or Stressed Plants (D1)       Shallow Aquitard (D3)	
Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required)         Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Ro         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)       Shallow Aquitard (D3)	
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required)         Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Ro         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)       Shallow Aquitard (D3)	
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required         Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Ro         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)       Shallow Aquitard (D3)	
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required         Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Ro         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)       Shallow Aquitard (D3)	
Wetland Hydrology Indicators:         Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required         Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Ro         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)       Shallow Aquitard (D3)	
Primary Indicators (any one indicator is sufficient)       Secondary Indicators (2 or more required         Surface Water (A1)       Inundation Visible on Aerial Imagery (B7)       Water-Stained Leaves (B9)         High Water Table (A2)       Sparsely Vegetated Concave Surface (B8)       Drainage Patterns (B10)         Saturation (A3)       Marl Deposits (B15)       Oxidized Rhizospheres along Living Ro         Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Presence of Reduced Iron (C4)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       Salt Deposits (C5)         Drift Deposits (B3)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Geomorphic Position (D2)       Shallow Aquitard (D3)	
Surface Water (A1)Inundation Visible on Aerial Imagery (B7)Water-Stained Leaves (B9)High Water Table (A2)Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)Saturation (A3)Marl Deposits (B15)Oxidized Rhizospheres along Living RoWater Marks (B1)Hydrogen Sulfide Odor (C1)Presence of Reduced Iron (C4)Sediment Deposits (B2)Dry-Season Water Table (C2)Salt Deposits (C5)Drift Deposits (B3)Other (Explain in Remarks)Stunted or Stressed Plants (D1)Algal Mat or Crust (B4)Iron Deposits (B5)Shallow Aquitard (D3)	
High Water Table (A2)Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)Saturation (A3)Marl Deposits (B15)Oxidized Rhizospheres along Living RoWater Marks (B1)Hydrogen Sulfide Odor (C1)Presence of Reduced Iron (C4)Sediment Deposits (B2)Dry-Season Water Table (C2)Salt Deposits (C5)Drift Deposits (B3)Other (Explain in Remarks)Stunted or Stressed Plants (D1)Algal Mat or Crust (B4)Geomorphic Position (D2)Iron Deposits (B5)Shallow Aquitard (D3)	-
Saturation (A3)Marl Deposits (B15)Oxidized Rhizospheres along Living RoWater Marks (B1)Hydrogen Sulfide Odor (C1)Presence of Reduced Iron (C4)Sediment Deposits (B2)Dry-Season Water Table (C2)Salt Deposits (C5)Drift Deposits (B3)Other (Explain in Remarks)Stunted or Stressed Plants (D1)Algal Mat or Crust (B4)Geomorphic Position (D2)Iron Deposits (B5)Shallow Aquitard (D3)	
Water Marks (B1)Hydrogen Sulfide Odor (C1)Presence of Reduced Iron (C4)Sediment Deposits (B2)Dry-Season Water Table (C2)Salt Deposits (C5)Drift Deposits (B3)Other (Explain in Remarks)Stunted or Stressed Plants (D1)Algal Mat or Crust (B4)Geomorphic Position (D2)Iron Deposits (B5)Shallow Aquitard (D3)	. (00)
Sediment Deposits (B2)Dry-Season Water Table (C2)Salt Deposits (C5)Drift Deposits (B3)Other (Explain in Remarks)Stunted or Stressed Plants (D1)Algal Mat or Crust (B4)Geomorphic Position (D2)Iron Deposits (B5)Shallow Aquitard (D3)	ots(C3)
Drift Deposits (B3)Other (Explain in Remarks)Stunted or Stressed Plants (D1)Algal Mat or Crust (B4)Geomorphic Position (D2)Iron Deposits (B5)Shallow Aquitard (D3)	
Algal Mat or Crust (B4)       Geomorphic Position (D2)         Iron Deposits (B5)       Shallow Aquitard (D3)	
Iron Deposits (B5) Shallow Aquitard (D3)	
Surface Soil Cracks (B6) Microtopographic Relief (D4)	
FAC-Neutral Test (D5)	
Field Observations:	
Surface Water Present? Yes No X Depth (Inches): NA	
Water Table Present? Yes No X Depth (Inches): >16	
Saturation Present?     Yes     No     X     Depth (Inches):     >16     Wetland Hydrology Present?     Yes     I	
(includes capillary fringe)	lo_ X
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	0 <u>X</u>
	o_X
Remarks:	o_X

WETLAND DETERMINATION DATA FORM -	Alaska	Region
	/	

Project/Site: Angoon Airport - Echo Align	nent	Во	prough/City:	Hoonah / A	Angoon		-	7-Jun-20	18
Applicant/Owner: ADOT & PF					<u> </u>	Samplin	-	304w	
Investigator(s): J.Barna, R.Gutierrez					, hummocks, etc.):	Broad cha	annel		
Local relief (concave, convex, none): Con			ope (%): <u>C</u>	)					
Subregion: Southeast Alaska		Lat: 57.4825	589		Long: -134.5651			um: NAD	83
Soil Map Unit Name: None					NWI class	sification: P	FO4B		
Are climatic / hydrologic conditions on the	site typical for	this time of y	ear? Yes	X No	(If no, explai	in in Remarl	<s.)< td=""><td></td><td></td></s.)<>		
Are Vegetation Soil or Hydr	ology si	gnificantly dis	turbed?	Are "Nori	mal Circumstances	" present?	Yes	<u> </u>	lo
Are Vegetation Soil or Hydr	ology na	aturally proble	matic?	(If neede	d, explain any ans	wers in Rem	arks.)		
SUMMARY OF FINDINGS - Att	ach site ma	ap showin	g sampli	ng point	locations, trar	isects, in	nporta	nt feat	ures, etc.
Hydrophytic Vegetation Present?	Yes X	No							
Hydric Soil Present?	Yes X	No	Is the	Sampled A	rea				
Wetland Hydrology Present?	Yes X	No	within	a Wetland	? Yes	<u>X</u> N	lo		
Remarks:									
Seep fed									
VEGETATION – Use scientific r	names of pla		-						
Tree Stratum			Dominant Species?	Indicator Status	Dominance Test	worksheet			
1. Tsuga heterophylla		85	X	FAC	Number of Domir	ant Snacia	2		
2. Alnus viridis		5		FAC	That Are OBL, FA			2	(A)
3.						,			()
4.					Total Number of	Dominant			
	Total Cover:	90			Species Across A	All Strata:		2	(B)
50% of total cover:	45	20% of tota	l cover:	18					
Sapling/Shrub Stratum					Percent of Domin			100	
1					That Are OBL, FA	ACVV, OF FA	<u> </u>	100	(A/B)
3.					Prevalence Ind	ox workshi	oot:		
4.					Total % Cov			Itiply by:	
5.					OBL species		x 1=	.,,,	_
6.					FACW species		x 2=		_
	Total Cover:				FAC species		x 3=		_
50% of total cover:		20% of tota	l cover:		FACU species		x 4=		
<u>Herb Stratum</u>					UPL species		x 5=		
1. Lysichiton americanus		80	Х	OBL	Column Totals:	· · ·	4) _		(B)
23.					Prevalence	Index = B/A	=	0	_
4.					Hydrophytic Ve	egetation In	dicator	s:	
5.						e Test is >5			
6.						e Index is ≤			
7.					Morpholog	gical Adapta	itions <sup>1</sup> (F	Provide su	upporting
8.						n Remarks o			
9.					Problema	tic Hydrophy	/tic Veg∉	etation <sup>1</sup> (E	Explain)
10.									
	Total Cover:	80			<sup>1</sup> Indicators of h				gy must
50% of total cover:	40	20% of tota	-	16	be present, unl	ess disturbe	d or pro	blematic.	
Plot size (radius, or length x width)	5 ft radius		e Ground	40	Hydrophytic				
% Cover of Wetland Bryophytes		Total Cover o	f Bryophytes	š	Vegetation	Yes	X	No_	
(Where applicable)					Present?				
Remarks:									

US Army Corps of Engineers

Sampling Point:	304w
oumphing romu.	0040

Depth						0		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
<u> </u>	Organic 10yr2/2	100 70	10yr5/1	30	С	М	Organic Muck	
12-12	10yr3/2	100	10915/1		<u> </u>		Muck	
12-10	10910/2	100			·		Mack	
					·			
<sup>1</sup> Type: C=Cor	ncentration, D=Deple	tion, RM=R	educed Matrix, CS=C	Covered or C	Coated Sa	nd Grains	s. <sup>2</sup> Location: PL	=Pore Lining, M=Matrix.
lydric Soil Inc	licators:	In	dicators for Problen	natic Hydrid	c Soils <sup>3</sup> :		Indicators for P	roblematic Hydric Soils <sup>3</sup> :
Histosol o	r Histel (A1)		Alaska Color Chang	e (TA4) <sup>4</sup>			Alaska Gleve	ed Without Hue 5Y or Redder
	bedon (A2)		Alaska Alpine Swale				Underlying La	
X Hydrogen	. ,		Alaska Redox With					in in Remarks)
, ,	k Surface (A12)		-					
	eyed (A13)							
Alaska Re	dox (A14)	<sup>3</sup> C	ne indicator of hydro	phytic veget	tation, one	e primary	indicator of wetlar	nd hydrology,
Alaska Gle	eyed Pores (A15)		and an appropriate	andscape p	osition m	ust be pre	esent unless distu	rbed or problematic.
		<sup>4</sup> G	live details of color cl	nange in Re	marks.			
lestrictive Lay	yer (if present):							
Type:								
Type: Depth (inc	hes):		-		Нус	Iric Soil I	Present? Yes	s X No
Depth (inc	hes):		_		Нус	Iric Soil I	Present? Yes	3 <u>X</u> No
	hes):		-		Нус	Iric Soil I	Present? Yes	3 <u>X</u> No
Depth (inc	hes):		-		Нус	Iric Soil I	Present? Yes	s <u>X</u> No
Depth (inc Remarks:			-		Нус	Iric Soil I	Present? Yes	s <u>X</u> No
Depth (inc Remarks: YDROLOG			-		Нус	Iric Soil I	Present? Yes	s <u>X</u> No
Depth (inc Remarks: YDROLOG Vetland Hydro	Y Plogy Indicators:	tor is sufficie	- -		Нус			
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica	Y plogy Indicators: ators (any one indica	tor is sufficie		n Aerial Ima		<u>S</u>	econdary Indicato	ors (2 or more required)
Depth (inc Remarks: YDROLOG Vetland Hydro	Y plogy Indicators: ators (any one indica vater (A1)		Inundation Visible o		ngery (B7)	<u>_</u>		ors (2 or more required) eaves (B9)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W	Y blogy Indicators: ators (any one indica dater (A1) er Table (A2)			Concave S	ngery (B7)	<u>_</u>	econdary Indicato Water-Stained Le Drainage Pattern	ors (2 or more required) eaves (B9)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate	Y blogy Indicators: ators (any one indica (ater (A1) er Table (A2) (A3)	×	Inundation Visible o Sparsely Vegetated	Concave S	ngery (B7)	<u>_</u>	econdary Indicato Water-Stained Le Drainage Pattern	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mar	Y blogy Indicators: ators (any one indica (ater (A1) er Table (A2) (A3)	×	Inundation Visible o Sparsely Vegetated Marl Deposits (B15)	Concave S dor (C1)	ngery (B7)	<u>_</u>	econdary Indicato Water-Stained Le Drainage Pattern Oxidized Rhizosp	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mar	Y blogy Indicators: ators (any one indica /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2)	×	Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O	Concave S dor (C1) Fable (C2)	ngery (B7)	<u>_</u>	econdary Indicato Water-Stained Le Drainage Pattern Oxidized Rhizosp Presence of Red	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Man Sediment Drift Depo	Y blogy Indicators: ators (any one indica /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2)	×	Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O Dry-Season Water	Concave S dor (C1) Fable (C2)	ngery (B7)	<u>S</u>	econdary Indicato Water-Stained Le Drainage Pattern Oxidized Rhizosp Presence of Red Salt Deposits (Ct	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mar Sediment Drift Depo	Y blogy Indicators: ators (any one indica fater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4)	×	Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O Dry-Season Water	Concave S dor (C1) Fable (C2)	ngery (B7)	<u>S</u>	econdary Indicato Water-Stained Le Drainage Pattern Oxidized Rhizosp Presence of Red Salt Deposits (Ct Stunted or Stress	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1) ition (D2)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mai Sediment Drift Depo Algal Mat	Y blogy Indicators: ators (any one indica fater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4)	×	Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O Dry-Season Water	Concave S dor (C1) Fable (C2)	ngery (B7)	<u>S</u>	econdary Indicato Water-Stained Le Drainage Pattern Oxidized Rhizosp Presence of Red Salt Deposits (Cf Stunted or Stress Geomorphic Pos	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mai Sediment Drift Depo Algal Mat	Y blogy Indicators: ators (any one indica /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5)	×	Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O Dry-Season Water	Concave S dor (C1) Fable (C2)	ngery (B7)	<u>S</u>	econdary Indicato Water-Stained Le Drainage Pattern Oxidized Rhizosp Presence of Red Salt Deposits (Cf Stunted or Stress Geomorphic Pos Shallow Aquitard	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depos	Y blogy Indicators: ators (any one indica fater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6)	×	Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O Dry-Season Water	Concave S dor (C1) Fable (C2)	ngery (B7)	<u>S</u>	econdary Indicato Water-Stained Le Drainage Patterm Oxidized Rhizosp Presence of Red Salt Deposits (C5 Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depos Surface So Field Observa	Y blogy Indicators: ators (any one indica /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) ations:		Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O Dry-Season Water Other (Explain in Re	Concave S dor (C1) Fable (C2) marks)	agery (B7) urface (B8	<u>S</u>	econdary Indicato Water-Stained Le Drainage Patterm Oxidized Rhizosp Presence of Red Salt Deposits (C5 Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depos Surface So Field Observa Surface Water	Y blogy Indicators: ators (any one indica /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) ations: r Present? Yes	<u>x</u> <u>x</u>	Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O Dry-Season Water Other (Explain in Re	Concave S dor (C1) Fable (C2) emarks)	agery (B7) urface (B8	<u>S</u>	econdary Indicato Water-Stained Le Drainage Patterm Oxidized Rhizosp Presence of Red Salt Deposits (C5 Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depos Surface So Field Observa Surface Water Water Table F	Y blogy Indicators: ators (any one indica /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) ations: r Present? Yes Present? Yes		Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O Dry-Season Water <sup>-</sup> Other (Explain in Re	Concave S dor (C1) Fable (C2) emarks) ches): 2 ches): 1	agery (B7) urface (B8	S	econdary Indicato Water-Stained Le Drainage Pattern Oxidized Rhizosp Presence of Red Salt Deposits (Cf Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4) t (D5)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Water X Saturation Water Man Sediment Drift Depo Algal Mat Iron Depos Surface So Field Observa Surface Water Water Table F Saturation Pre	Y blogy Indicators: ttors (any one indica /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) bil Cracks (B6) ations: r Present? Yes Present? Yes essent? Yes	<u>x</u> <u>x</u>	Inundation Visible o         Sparsely Vegetated         Marl Deposits (B15)         Hydrogen Sulfide O         Dry-Season Water         Other (Explain in Response)         Depth (In Depth (	Concave S dor (C1) Fable (C2) emarks) ches): 2 ches): 1	agery (B7) urface (B8	S	econdary Indicato Water-Stained Le Drainage Patterm Oxidized Rhizosp Presence of Red Salt Deposits (C5 Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4) t (D5)
Depth (inc Remarks: YDROLOG Vetland Hydro Primary Indica X Surface W X High Wate X Saturation Water Mai Sediment Drift Depo Algal Mat Iron Depos Surface So Field Observa Surface Water Water Table F Saturation Pre (includes capi	Y blogy Indicators: itors (any one indica /ater (A1) er Table (A2) (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) sits (B5) oil Cracks (B6) ations: r Present? Yes Present? Yes Issent? Yes Ilary fringe)		Inundation Visible o Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide O Dry-Season Water <sup>-</sup> Other (Explain in Re	Concave S dor (C1) Fable (C2) emarks) cches): 2 cches): 1 cches): 0-	2 4 14	S	econdary Indicato Water-Stained Le Drainage Patterm Oxidized Rhizosp Presence of Red Salt Deposits (C5 Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3 uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4) t (D5)

WETLAND DETERMINATION DATA FORM – Alaska Regior

Project/Site: Angoon Airport - Echo Alignment	E	Borough/City	: Hoonah / A	ngoon	Sampling Da	te: 7-Jun-20	018
Applicant/Owner: ADOT & PF					Sampling Po	int: 305u	
Investigator(s): J.Barna, R.Gutierrez	L	andform (hil	lside, terrace	, hummocks, etc.):	Hill top		
Local relief (concave, convex, none): Convex	5	Slope (%):	0				
Subregion: Southeast Alaska	Lat: 57.48	3064		Long: -134.565617	,	Datum: NAD	D 83
Soil Map Unit Name: None				NWI classific			
Are climatic / hydrologic conditions on the site typical for	r this time of	year? Yes	s X No	(If no, explain i	n Remarks )		
	ignificantly d			mal Circumstances" p	,	′es X	No
	• •						
Are VegetationSoilor Hydrologyn	aturally prob	iematic?	(ii neede	d, explain any answei	is in Remarks	···)	
SUMMARY OF FINDINGS – Attach site m	ap showi	ng sampli	ing point l	ocations, trans	ects, impo	rtant feat	tures, etc
Hydrophytic Vegetation Present? Yes	No X						
Hydric Soil Present? Yes	No X	Is the	Sampled Ar	ea			
Wetland Hydrology Present? Yes	No X	withi	n a Wetland?	Yes	No	Х	
Remarks: In forest next to quarry Refusal at 8	lanta Liat		oo in tho r				
VEGETATION – Use scientific names of p					a rika ha atu		
Tree Stratum		Dominant	Indicator Status	Dominance Test w	orksneet:		
	% Cover	Species?		Number of Dominar	at Encoico		
1. Tsuga heterophylla 2. Picea sitchensis	<u>60</u> 70	<u> </u>	FAC FACU	That Are OBL, FAC	•	2	(A)
3.	10		TAGO	That AIC ODE, I AO	•••, •••• •••.	2	(1)
4.	·			Total Number of Do	minant		
Total Cover:	130			Species Across All		5	(B)
50% of total cover: 65	20% of to	tal cover:	26		-		(8)
Sapling/Shrub Stratum	2070 01 10	-		Percent of Dominan	nt Species		
1. Sambucus racemosa	40	Х	FACU	That Are OBL, FAC		40	(A/B)
2. Rubus parviflorus	40		FACU	111dt / 110 0002, 1710	-	10	(/(D)
3.	40		17100	Prevalence Index	workshoot.		
4.	·			Total % Cover		Multiply by:	
5.				OBL species		1=	
6.				FACW species		2=	
Total Cover:	80			FAC species		3= 240	
50% of total cover: 40	20% of to	tal cover:	16	FACU species		4= 600	
Herb Stratum	2070 01 10	-		UPL species		5=	
1. Geum macrophyllum	20	Х	FAC	· · —	230 (A)	840	(B)
2.				Prevalence Ind	. ,	3.65	(=)
3.	·				-	0.00	
3	·			Hydrophytic Vege	tation Indias		
4	·						
5	·				Test is >50%		
6	·			Prevalence I		1.00	
7					al Adaptations		
8	·				Remarks or on		,
9				Problematic	Hydrophytic V	/egetation' (	(Explain)
10	·						
Total Cover: Total Cover: 10	20 20% of tot	tal cover:	4	<sup>1</sup> Indicators of hydr be present, unless			0,
Plot size (radius, or length x width) 5 ft radius	% Ba	are Ground	30	Hydrophytic		<u>.                                    </u>	
% Cover of Wetland Bryophytes		of Bryophyte		Vegetation	Yes	No	х
(Where applicable)		o. Diyopiiyid		Present?			~
Remarks: In forest next to quarry				110001111		-	
US Army Corps of Engineers						Alaska	a Version 2.0

Sampling Point:	305u
	0004

(inches) Color (moist)	% Color (moist)	% Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks
0-8 10yr3/3	100	% Type <sup>1</sup>	Loc <sup>2</sup> Texture Gravely loa	
8 Refusal				<u> </u>
	etion, RM=Reduced Matrix, CS=Cove			on: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problemation	: Hydric Soils':	Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (T	A4) <sup>4</sup>	Alaska	Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (T	A5)	Underly	/ing Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y	'Hue	Other (	Explain in Remarks)
Thick Dark Surface (A12)				
Alaska Gleyed (A13)				
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophyt	ic vegetation, one	e primary indicator of	wetland hydrology,
Alaska Gleyed Pores (A15)	and an appropriate land	scape position mu	ust be present unless	disturbed or problematic.
	<sup>4</sup> Give details of color chang	e in Remarks.		
Restrictive Layer (if present):				
Туре:				
Depth (inches):		Hyd	Iric Soil Present?	Yes <u>No X</u>
· · · · ·		Hyd	Iric Soil Present?	Yes <u>No X</u>
Depth (inches): Remarks: Refusal at 8		Hyd	Iric Soil Present?	Yes <u>No X</u>
· · · · ·		Hyd	Iric Soil Present?	Yes <u>No X</u>
· · · · ·		Hyd	Iric Soil Present?	Yes <u>No X</u>
Remarks: Refusal at 8		Hyd	Iric Soil Present?	Yes <u>No X</u>
Remarks: Refusal at 8	tor is sufficient)	Hyd		Yes <u>No X</u> dicators (2 or more required)
Remarks: Refusal at 8 HYDROLOGY Wetland Hydrology Indicators:	tor is sufficient) Inundation Visible on Ae		Secondary In	
Remarks: Refusal at 8 HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indica	,	erial Imagery (B7)	<u>Secondary In</u> Water-Stai	dicators (2 or more required)
Remarks: Refusal at 8 HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indica Surface Water (A1)	Inundation Visible on Ae	erial Imagery (B7)	<u>Secondary In</u> Water-Stai 3)Drainage F	dicators (2 or more required) ned Leaves (B9)
Remarks: Refusal at 8 HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indica Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor (	erial Imagery (B7) ncave Surface (B8	<u>Secondary In</u> Water-Stai 3)Drainage F Oxidized R Presence d	dicators (2 or more required) ned Leaves (B9) tatterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4)
Remarks: Refusal at 8 HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indica Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table	erial Imagery (B7) ncave Surface (B8 (C1) e (C2)	Secondary In Water-Stai Drainage F Oxidized R Presence o Salt Depos	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5)
Remarks: Refusal at 8 HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indica Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor (	erial Imagery (B7) ncave Surface (B8 (C1) e (C2)	Secondary In Water-Stai Drainage F Oxidized R Presence o Salt Depos Stunted or	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1)
Remarks:       Refusal at 8         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicators (any one indicators (any one indicators)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table	erial Imagery (B7) ncave Surface (B8 (C1) e (C2)	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) c Position (D2)
Remarks:       Refusal at 8         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicators)         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)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table	erial Imagery (B7) ncave Surface (B8 (C1) e (C2)	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ac	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) c Position (D2) uitard (D3)
Remarks:       Refusal at 8         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicators (any one indicators (any one indicators)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table	erial Imagery (B7) ncave Surface (B8 (C1) e (C2)	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ac Microtopog	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) uitard (D3) iraphic Relief (D4)
Remarks:       Refusal at 8         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicators)         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)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table	erial Imagery (B7) ncave Surface (B8 (C1) e (C2)	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ac Microtopog	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) c Position (D2) uitard (D3)
Remarks: Refusal at 8  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indica 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)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table	erial Imagery (B7) ncave Surface (B8 (C1) e (C2)	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ac Microtopog	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) uitard (D3) iraphic Relief (D4)
Remarks: Refusal at 8 HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indica 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) Field Observations:	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table Other (Explain in Reman	erial Imagery (B7) ncave Surface (B6 (C1) e (C2) ks)	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ac Microtopog	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) uitard (D3) iraphic Relief (D4)
Remarks:       Refusal at 8         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicators)         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)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table	erial Imagery (B7) ncave Surface (B8 (C1) e (C2) iks) s): NA	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ac Microtopog	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) uitard (D3) iraphic Relief (D4)
Remarks:       Refusal at 8         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indica         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)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor Dry-Season Water Table Other (Explain in Reman No X Depth (Inches	erial Imagery (B7) ncave Surface (B8 (C1) e (C2) ks) s): NA s): NA	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ac Microtopog	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) uitard (D3) iraphic Relief (D4) al Test (D5)
Remarks:       Refusal at 8         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indica         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)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table Other (Explain in Remar No X Depth (Inches No X Depth (Inches	erial Imagery (B7) ncave Surface (B8 (C1) e (C2) ks) s): NA s): NA	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ac Microtopog FAC-Neutr	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) iraphic Relief (D4) al Test (D5)
Remarks:       Refusal at 8         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicators (any one indicators (any one indicators))         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)	Inundation Visible on Ae Sparsely Vegetated Cor Marl Deposits (B15) Hydrogen Sulfide Odor ( Dry-Season Water Table Other (Explain in Remar No X Depth (Inches No X Depth (Inches	erial Imagery (B7) ncave Surface (B8 (C1) e (C2) ks) s): NA s): >16 s): >16	Secondary In Water-Stai Drainage F Oxidized R Presence of Salt Depos Stunted or Geomorph Shallow Ac Microtopog FAC-Neutr	dicators (2 or more required) ned Leaves (B9) 'atterns (B10) hizospheres along Living Roots (C3) of Reduced Iron (C4) its (C5) Stressed Plants (D1) ic Position (D2) juitard (D3) iraphic Relief (D4) al Test (D5)

Project/Site: Angoon Airport - Echo Alignme	nt	Borough/City:	Hoonah / A	Angoon	Samplin	g Date:	7-Jun-20	)18
Applicant/Owner: ADOT & PF					Samplin	g Point:	306u	
Investigator(s): J.Barna, L.Johnson, S.Hartu	ng, R.Gutierrez	Landform (hill	side, terrace	, hummocks, etc.)	): Basin-bo	tom of for	mer pond	
Local relief (concave, convex, none): <u>Conca</u>	ve	Slope (%): 0	)					
Subregion: Southeast Alaska	Lat: 5	7.483233		Long: -134.565	586	Dat	um: NAD	83
Soil Map Unit Name: None				NWI clas	sification: N	I/A		
Are climatic / hydrologic conditions on the si	te typical for this tim	ne of year? Yes	X No	(If no, expla	ain in Remar	ks.)		
Are Vegetation Soil or Hydrold	ogy X significar	ntly disturbed?	Are "Norr	nal Circumstance	s" present?	Yes	х	No
Are Vegetation Soil or Hydrold	ogy naturally	problematic?	(If neede	d, explain any ans	wers in Rem	narks.)		
				4!				
SUMMARY OF FINDINGS – Attac	ch site map sh	owing sampli	ng point i	locations, tra	nsects, in	nporta	nt reat	ures, etc
, , , , ,	′es <u>X</u> No							
<b>,</b>	′es No	X Is the	Sampled Ar	rea				
Wetland Hydrology Present? Y	′es No	X within	a Wetland?	Yes	<u>X</u> N	lo		
Remarks:								
Bottom of recently drained pon-	d; drained year ago							
	, , , ,							
VEGETATION – Use scientific na	mes of plants.	List all specie	es in the r	olot.				
	Abso		Indicator	Dominance Tes	t workshee	t:		
Tree Stratum	% Co	over Species?	Status					
1				Number of Dom	•			
2				That Are OBL, F	ACW, or FA	C:	2	(A)
3.				Total Number of	Deminant			
4	otal Cover:			Total Number of			2	(P)
50% of total cover:		of total cover:		Species Across	All Strata.		Z	(B)
Sapling/Shrub Stratum		-		Percent of Domi	nant Specie	-		
1. Salix scouleriana	40	x x	FAC	That Are OBL, F			100	(A/B)
2. Alnus viridis	10		FAC					_ ` `
3.				Prevalence In		eet:		
4.				Total % Co	ver of:	Mu	Itiply by:	
5				OBL species		x 1=		
6				FACW species		x 2=		
	otal Cover: 50		10	FAC species		x 3=		
50% of total cover:	25 20%	of total cover:	10	FACU species UPL species		x 4= x 5=		
1				Column Totals:	(	A)		(B)
2					Index = B/A	· -	0	_(2)
3						·	•	
4.				Hydrophytic V	egetation Ir	dicator	s:	
5.				X Dominan	•			
6.					ce Index is ≤			
7.				Morpholo	ogical Adapta	ations <sup>1</sup> (F	Provide s	upporting
8.				data	in Remarks	or on a s	eparate	sheet)
9				Problema	atic Hydroph	ytic Vege	etation <sup>1</sup> (	Explain)
10								
T 50% of total cover:	otal Cover: 20%	of total cover:		<sup>1</sup> Indicators of I be present, un	•		-	
Plot size (radius, or length x width)	5 ft radius	— % Bare Ground	70	Hydrophytic				
% Cover of Wetland Bryophytes		over of Bryophytes	S	Vegetation	Yes	Х	No	
(Where applicable)		, , , , , , , , , , , , , , , , , , ,		Present?			-	
Remarks:								

Sampling I	Point:	306u
1 5		

Depth Matrix		. 1				
(inches) Color (moist)	% Color (moist) %	5 Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks		
0-8 Sand	100		Sand			
8 Refusal				Bedrock		
<sup>1</sup> Type: C=Concentration, D=Deple	etion, RM=Reduced Matrix, CS=Covered	l or Coated Sar	d Grains. <sup>2</sup> Locat	ion: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators:	Indicators for Problematic H	ydric Soils <sup>3</sup> :	Indicators	for Problematic Hydric Soils <sup>3</sup> :		
Histosol or Histel (A1)	Alaska Color Change (TA4	$)^4$	Alaska	Gleyed Without Hue 5Y or Redder		
Histic Epipedon (A2)	Alaska Alpine Swales (TA5	)	Under	ying Layer		
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y H	ue	Other	(Explain in Remarks)		
Thick Dark Surface (A12)						
Alaska Gleyed (A13)						
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic v	egetation, one	primary indicator of	wetland hydrology,		
Alaska Gleyed Pores (A15)	and an appropriate landsca		st be present unles	s disturbed or problematic.		
	<sup>4</sup> Give details of color change in	n Remarks.				
Restrictive Layer (if present):						
Туре:						
Type: Depth (inches): Remarks: Bottom of recently dra	ined pond; drained year ago	Hydi	ric Soil Present?	Yes <u>No X</u>		
Depth (inches):	ined pond; drained year ago	Hydi	ic Soil Present?	Yes <u>No X</u>		
Depth (inches): Remarks: Bottom of recently dra	ined pond; drained year ago	Hydr	ic Soil Present?	Yes <u>No X</u>		
Depth (inches): Remarks: Bottom of recently dra		Hydi		Yes <u>No X</u>		
Depth (inches): Remarks: Bottom of recently dra			Secondary I			
Depth (inches): Remarks: Bottom of recently dra IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indica	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca	I Imagery (B7)	<u>Secondary I</u> Water-Sta Drainage I	ndicators (2 or more required)_ ined Leaves (B9) Patterns (B10)		
Depth (inches): Remarks: Bottom of recently dra  IYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indica Surface Water (A1) High Water Table (A2) Saturation (A3)	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15)	I Imagery (B7) ve Surface (B8	Secondary li Water-Sta Drainage I Oxidized F	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3)		
Depth (inches): Remarks: Bottom of recently dra  IYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indica Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1	I Imagery (B7) ve Surface (B8	Secondary II Water-Sta Drainage I Oxidized F	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4)		
Depth (inches): Remarks: Bottom of recently dra  IYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indica Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (0	I Imagery (B7) ve Surface (B8 ) C2)	Secondary II Water-Sta Drainage I Oxidized F Presence Salt Depo	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5)		
Depth (inches): Remarks: Bottom of recently dra  IYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (any one indica Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1	I Imagery (B7) ve Surface (B8 ) C2)	Secondary II Water-Sta Drainage I Oxidized F Presence Salt Depo Stunted or	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) • Stressed Plants (D1)		
Depth (inches): Remarks: Bottom of recently dra  IYDROLOGY  Vetland Hydrology Indicators: Primary Indicators (any one indica Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (0	I Imagery (B7) ve Surface (B8 ) C2)	Secondary II Water-Sta Drainage I Oxidized F Presence Salt Depo Stunted or Geomorph	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) Stressed Plants (D1) ic Position (D2)		
Depth (inches): Remarks: Bottom of recently dra PYDROLOGY Netland Hydrology Indicators: Primary Indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (0	I Imagery (B7) ve Surface (B8 ) C2)	Secondary II Water-Sta Drainage I Oxidized F Presence Salt Depo Stunted or Geomorph Shallow A	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) • Stressed Plants (D1)		
Depth (inches): Remarks: Bottom of recently dra YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indica 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)	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (0	I Imagery (B7) ve Surface (B8 ) C2)	Secondary II Water-Sta Drainage Oxidized F Presence Salt Depo Stunted or Geomorph Shallow A Microtopo	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) ' Stressed Plants (D1) iic Position (D2) quitard (D3)		
Depth (inches): Remarks: Bottom of recently dra <b>YDROLOGY</b> <b>Vetland Hydrology Indicators:</b> Primary Indicators (any one indica 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)	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (0	I Imagery (B7) ve Surface (B8 ) C2)	Secondary II Water-Sta Drainage Oxidized F Presence Salt Depo Stunted or Geomorph Shallow A Microtopo	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) Stressed Plants (D1) nic Position (D2) quitard (D3) graphic Relief (D4)		
Depth (inches): Remarks: Bottom of recently dra  PTDROLOGY  Vetland Hydrology Indicators: Primary Indicators (any one indica 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)  Field Observations:	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Concar Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (0 Other (Explain in Remarks)	I Imagery (B7) ve Surface (B8 ) C2)	Secondary II Water-Sta Drainage Oxidized F Presence Salt Depo Stunted or Geomorph Shallow A Microtopo	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) Stressed Plants (D1) nic Position (D2) quitard (D3) graphic Relief (D4)		
Depth (inches): Remarks: Bottom of recently dra  PTDROLOGY  Vetland Hydrology Indicators: Primary Indicators (any one indica 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)  Field Observations: Surface Water Present? Yes	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (0 Other (Explain in Remarks) No X Depth (Inches):	I Imagery (B7) ve Surface (B8 ) C2)	Secondary II Water-Sta Drainage Oxidized F Presence Salt Depo Stunted or Geomorph Shallow A Microtopo	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) Stressed Plants (D1) nic Position (D2) quitard (D3) graphic Relief (D4)		
Depth (inches): Remarks: Bottom of recently dra  PTDROLOGY  Vetland Hydrology Indicators: Primary Indicators (any one indica 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)  Field Observations:	tor is sufficient) Inundation Visible on Aeria Sparsely Vegetated Concar Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (0 Other (Explain in Remarks)	I Imagery (B7) ve Surface (B8 ) C2)	Secondary II Water-Sta Drainage Oxidized F Presence Salt Depo Stunted or Geomorph Shallow A Microtopo	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) Stressed Plants (D1) sic Position (D2) quitard (D3) graphic Relief (D4) ral Test (D5)		
Depth (inches): Remarks: Bottom of recently dra  IYDROLOGY  Vetland Hydrology Indicators: Primary Indicators (any one indica 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)  Field Observations: Surface Water Present? Yes Water Table Present? Yes	tor is sufficient)  Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (C Other (Explain in Remarks) No X Depth (Inches): No X Depth (Inches):	I Imagery (B7) ve Surface (B8 ) C2) >16	Secondary II Water-Sta Drainage Oxidized F Presence Salt Depo Stunted or Geomorph Shallow A Microtopo FAC-Neut	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) Stressed Plants (D1) sic Position (D2) quitard (D3) graphic Relief (D4) ral Test (D5)		
Depth (inches):         Remarks:       Bottom of recently dra         YDROLOGY         Vetland Hydrology Indicators:         Primary Indicators (any one indica         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)	tor is sufficient)  Inundation Visible on Aeria Sparsely Vegetated Conca Marl Deposits (B15) Hydrogen Sulfide Odor (C1 Dry-Season Water Table (C Other (Explain in Remarks) No X Depth (Inches): No X Depth (Inches):	Imagery (B7) ve Surface (B8 ) C2) >16 >16	Secondary II Water-Sta Drainage Oxidized F Presence Salt Depo Stunted of Geomorph Shallow A Microtopo FAC-Neut	ndicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) Stressed Plants (D1) aic Position (D2) quitard (D3) graphic Relief (D4) ral Test (D5)		
Project/Site: Angoon Airport - Echo Alignment	Borough/City	y: Hoonah / Angoon			Date: 7-Jun-2	2018
----------------------------------------------------------	------------------------------	------------------------	----------------	---------------	---------------------------	--------------
Applicant/Owner: ADOT & PF				Sampling F		
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Gut		illside, terrace, humn	nocks, etc.):	Basin-bottom	n of former pon	d
Local relief (concave, convex, none): Concave	Slope (%):	0	-			
Subregion: Southeast Alaska	Lat: 57.483203	Long	g: -134.565304		Datum: NA	D 83
Soil Map Unit Name: None			NWI classifi	cation: N/A		
Are climatic / hydrologic conditions on the site typical	for this time of year? Ye	es X No (	If no, explain	in Remarks.	)	
Are Vegetation Soil or Hydrology X	significantly disturbed?	Are "Normal Cire	cumstances" p	present?	Yes X	No
Are Vegetation Soil or Hydrology	naturally problematic?	(If needed, expla	ain any answe	rs in Remark	ks.)	
SUMMARY OF FINDINGS – Attach site	nap showing samp	ling point locati	ons, trans	ects, imp	ortant fea	itures, etc.
Hydrophytic Vegetation Present? Yes X	No					
Hydric Soil Present? Yes X	No Is the	e Sampled Area				
Wetland Hydrology Present? Yes X	No withi	in a Wetland?	Yes X	No		
Remarks:						
Bottom of recently drained pond; drained	vear ago - hydro soils not	vet developed				
	joal ago lijalo concilio	)				
VEGETATION – Use scientific names of	nlants. List all speci	ies in the nlot				
	Absolute Dominant		nance Test w	vorksheet:		
Tree Stratum	% Cover Species?	Status				
1		Numb	er of Domina	nt Species		
2.		That	Are OBL, FAC	W, or FAC:	4	(A)
3			Number of De	- main a mat		
4 Total Cove	<u> </u>		Number of Do		4	(P)
50% of total cover:	20% of total cover:	Speci	es Across All	Sirala.	4	(B)
Sapling/Shrub Stratum		Perce	nt of Domina	nt Species		
1. Salix scouleriana	40 X		Are OBL, FAC	•	100	(A/B)
2. Alnus viridis	20 X	FAC				
3.		Prev	alence Index	worksheet		
4			Total % Cover		Multiply by	/:
5			species		x 1=	
6			V species		x 2=	
Total Cove 50% of total cover: 30	r: 60 20% of total cover:		species		x 3= x 4=	
Herb Stratum			species		x 4= x 5=	
1. Carex flava	20 X		nn Totals:	(A)		(B)
2. Phalaris arundinacea	20 X	[	Prevalence Inc	. ,	0	(=)
3.		- <u> </u>				
4.		Hyd	rophytic Veg	etation India	cators:	
5.		X	Dominance	Test is >50%	6	
6.			Prevalence	Index is ≤3.0	)	
7			Morphologic	al Adaptatio	ons <sup>1</sup> (Provide	supporting
8					on a separate	
9		·	Problematic	Hydrophytic	vegetation <sup>1</sup>	(Explain)
10		- <u> </u>				
Total Cove			icators of hyd		•	
50% of total cover: 20	20% of total cover:	8 be p	present, unles	s disturbed o	or problemati	C.
Plot size (radius, or length x width) 5 ft radi	us % Bare Ground	70 Hydro	phytic			
% Cover of Wetland Bryophytes	Total Cover of Bryophyte	esVeget	ation	Yes 2	X No	
(Where applicable)		Prese	nt?			
Remarks:						

US Army Corps of Engineers

Sampling	Point:	307w
Camping	i onit.	001 1

Depth Matrix	e depth needed to document the indicator or con Redox Features	initial the absence of indicators.
(inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-8 10yr3/6	100	Silt
8-16 10yr2/1	100	Silty muck Organic present
<sup>1</sup> Type: C=Concentration, D=Depletior	n, RM=Reduced Matrix, CS=Covered or Coated Sa	nd Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4) Thick Dark Surface (A12)	Alaska Redox With 2.5Y Hue	X Other (Explain in Remarks)
Alaska Gleyed (A13)		
Alaska Redox (A14) Alaska Gleyed Pores (A15)	<sup>3</sup> One indicator of hydrophytic vegetation, one and an appropriate landscape position m	primary indicator of wetland hydrology, ust be present unless disturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):		
Type: Sediment		
Depth (inches): <u>5</u>	Hyd	ric Soil Present? Yes <u>X</u> No
Remarks: Bottom of recently drained	l pond; drained year ago - hydro soils not yet devel	oped
HYDROLOGY Wetland Hydrology Indicators:		
Wetland Hydrology Indicators:	s sufficient)	Secondary Indicators (2 or more required)
	,	Secondary Indicators (2 or more required) Water-Stained Leaves (B9)
Wetland Hydrology Indicators: Primary Indicators (any one indicator i	s sufficient) X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B6	Water-Stained Leaves (B9)
X       Surface Water (A1)         High Water Table (A2)       X         X       Saturation (A3)	X Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (B9)
X       Surface Water (A1)         High Water Table (A2)       X         X       Saturation (A3)         X       Water Marks (B1)	X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B8	Water-Stained Leaves (B9) Drainage Patterns (B10)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)	X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Salt Deposits (C5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)	X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	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)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)         Algal Mat or Crust (B4)	X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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) X Geomorphic Position (D2)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)	X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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) X Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)         Algal Mat or Crust (B4)	X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)         X         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)	X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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) X Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)	X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)         X         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X         Surface Water (A1)         High Water Table (A2)         X         Saturation (A3)         X         Water Marks (B1)         X         Sediment Deposits (B2)         X         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         X         Surface Soil Cracks (B6)	X Inundation Visible on Aerial Imagery (B7) X Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)         X         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X         Surface Water (A1)         High Water Table (A2)         X         Saturation (A3)         X         Water Marks (B1)         X         Sediment Deposits (B2)         X         Algal Mat or Crust (B4)         Iron Deposits (B5)         X         Surface Soil Cracks (B6)	X Inundation Visible on Aerial Imagery (B7) X 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)         X         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         X       Surface Soil Cracks (B6)	X       Inundation Visible on Aerial Imagery (B7)         X       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)         X         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)         Algal Mat or Crust (B4)       Iron Deposits (B5)         X       Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes         X       Yes       X         Water Table Present?       Yes       X         (includes capillary fringe)       Yeinge       X	X       Inundation Visible on Aerial Imagery (B7)         X       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)         X         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         X       Surface Soil Cracks (B6)         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         X       (includes capillary fringe)	X       Inundation Visible on Aerial Imagery (B7)         X       Sparsely Vegetated Concave Surface (B8)         Marl Deposits (B15)       Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)       Other (Explain in Remarks)         Other (Explain in Remarks)       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)         X         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (any one indicator i         X       Surface Water (A1)         High Water Table (A2)         X       Saturation (A3)         X       Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         X       Surface Soil Cracks (B6)    Field Observations:          Surface Water Present?       Yes         X       Yes         X       Yes         Yeater Table Present?       Yes         X       Yes         X       Yes	X       Inundation Visible on Aerial Imagery (B7)         X       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)         X         Geomorphic Position (D2)         Shallow Aquitard (D3)         Microtopographic Relief (D4)         FAC-Neutral Test (D5)

	WETLAND DETERMINATION DATA FORM -	Alaska	Region
--	-----------------------------------	--------	--------

Project/Site: Angoon Airport - Echo Alignment	В	orough/City	Hoonah /	Angoon	Sampling Date	
Applicant/Owner: ADOT & PF				<u> </u>	Sampling Poin	nt: 308u
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Gutie				e, hummocks, etc.):	Forest slope	
Local relief (concave, convex, none): Concave	S	lope (%):	0			
Subregion: Southeast Alaska	Lat: 57.482	2737		Long: -134.562525		atum: NAD 83
Soil Map Unit Name: None				NWI classifi	cation: N/A	
Are climatic / hydrologic conditions on the site typical for	or this time of	year? Yes	S X No	(If no, explain i	n Remarks.)	
Are Vegetation Soil or Hydrology s	significantly di	sturbed?	Are "Nor	mal Circumstances" p	present? Ye	s <u>X</u> No
Are Vegetation Soil or Hydrology	naturally probl	ematic?	(If neede	ed, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site m	nap showir	ng sampli	ing point	locations, trans	ects, impor	tant features, etc
Hydrophytic Vegetation Present? Yes	No X					
Hydric Soil Present? Yes	No X	Is the	Sampled A	rea		
Wetland Hydrology Present? Yes	No X	withir	n a Wetland	? Yes	No	x
Remarks:						
In forest patch						
Saturated below 12"						
VEGETATION – Use scientific names of p	olants. List	all specie	es in the	plot.		
		Dominant	Indicator	Dominance Test w	orksheet:	
Tree Stratum		Species?	Status			
1. Tsuga heterophylla	85	X	FAC	Number of Dominar	•	4 (A)
2				That Are OBL, FAC	w, or FAC:	1 (A)
4.				Total Number of Do	minant	
Total Cover:	85			Species Across All	Strata:	4 (B)
50% of total cover: 42.5	20% of tota	al cover:	17		_	
Sapling/Shrub Stratum		-		Percent of Dominar	it Species	
1. Rubus spectabilis	20	Х	FACU	That Are OBL, FAC	W, or FAC:	25 (A/B)
2. Oplopanax horridus	15	Х	FACU			
3				Prevalence Index		A
4 5.				Total % Cover OBL species	<u>x 1</u>	Multiply by:
6.				FACW species	x 2	
Total Cover:	35			FAC species	x 3	
50% of total cover: 17.5	20% of tota	al cover:	7	FACU species	x 0	
Herb Stratum		-		UPL species	x 5	
1. Cornus canadensis	80	Х	FACU	Column Totals:	(A)	(B)
2.				Prevalence Inc	lex = B/A =	0
3.						
4.				Hydrophytic Vege	station Indicate	ors:
5					Test is >50%	
6					Index is ≤3.0	
7						(Provide supporting
8						a separate sheet)
9				Problematic	Hydrophytic Ve	egetation <sup>1</sup> (Explain)
10	80			1 Indiant fl	a sall surd our d	
Total Cover: 50% of total cover: 40	80 20% of tota	al cover:	16	be present, unless		and hydrology must roblematic.
Plot size (radius, or length x width) 5 ft radius		re Ground		Hydrophytic		
% Cover of Wetland Bryophytes	Total Cover of	-	S	Vegetation	Yes	No X
(Where applicable)		, , , , , , , , , , , , , , , , ,		Present?		<u>_</u>
Remarks:						

US Army Corps of Engineers

Sampling Point:	308u
oumpning i onit.	300u

(inches)	Color (moist)	%	Color (	moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-12	Organic	100				Турс	100	Organic	_	rtomanto	
12-16	10yr2/1	100				·		Silt loam			
		·									
		·									
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM=F	educed Ma	atrix, CS=Co	overed or (	Coated Sa	Ind Grain	s. <sup>2</sup> Locatio	n: PL=Pore Li	ining, M=Mat	trix.
lydric Soil Ir	ndicators:	In	dicators f	or Problem	atic Hydrio	c Soils <sup>3</sup> :			for Problema	-	
Histosol	or Histel (A1)		Alaska C	olor Change	∋ (TA4) <sup>4</sup>			Alaska (	Gleyed Withou	ut Hue 5Y or	Redder
Histic Ep	pipedon (A2)	_	Alaska A	Ipine Swales	s (TA5)			Underlyi	ing Layer		
Hydroge	n Sulfide (A4)		Alaska R	edox With 2	2.5Y Hue			Other (E	Explain in Ren	narks)	
	ark Surface (A12)										
	Gleyed (A13)	_									
	Redox (A14)	<sup>3</sup> (		, ,	, ,				vetland hydrol	0,	
Alaska G	Gleyed Pores (A15)	Α.					ust be pr	esent unless	disturbed or p	problematic.	
		*(	Sive details	s of color cha	ange in Re	marks.					
Restrictive L	ayer (if present):										
Туре:			-								_
Depth (ir	nches): In forest patch					Нус	dric Soil	Present?	Yes	<u>No X</u>	<u> </u>
Depth (ir Remarks: I	In forest patch		-			Нус	dric Soil	Present?	Yes	<u>No X</u>	<u> </u>
Depth (ir Remarks: I YDROLOO	In forest patch GY Irology Indicators:		- 			Нус					
Depth (ir Remarks: I YDROLOO Vetland Hyd Primary India	In forest patch GY Irology Indicators: cators (any one indic	ator is suffici						Secondary Inc	licators (2 or i	more require	
Depth (ir Remarks: I YDROLOO Vetland Hyd Primary Indio	In forest patch GY Irology Indicators: cators (any one indicators) Water (A1)	ator is suffici	Inundatio	n Visible on		agery (B7)	<u>S</u>	Secondary Inc	licators (2 or i ed Leaves (B	more require	
Depth (ir Remarks: I YDROLOO Vetland Hyd Primary Indio Surface V High Wa	In forest patch GY Irology Indicators: cators (any one indicators) Water (A1) tter Table (A2)	ator is suffici	Inundation Sparsely	Vegetated (		agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa	licators (2 or i led Leaves (B atterns (B10)	more require	d)
Depth (ir Remarks: I YDROLOO Vetland Hyd Primary India Surface V High Wa Saturatio	In forest patch GY Irology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3)	ator is suffici	Inundatio Sparsely Marl Dep	Vegetated ( osits (B15)	Concave S	agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa Oxidized Rh	dicators (2 or i ned Leaves (B atterns (B10) nizospheres a	more require 19) long Living R	d)
Depth (ir Remarks: I PYDROLOO Wetland Hyd Primary India Surface V High Wa Saturatic Water M	In forest patch GY Irology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) larks (B1)	ator is suffici	Inundatio Sparsely Marl Dep Hydroger	Vegetated ( osits (B15) n Sulfide Od	Concave S lor (C1)	agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of	dicators (2 or i ied Leaves (B atterns (B10) nizospheres al f Reduced Iro	more require 19) long Living R	d)
Depth (ir Remarks: I PYDROLOO Wetland Hyd Primary India Surface V High Wa Saturatic Water M Sedimen	In forest patch GY Irology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3)	ator is suffici	Inundation Sparsely Marl Dep Hydroger Dry-Seas	Vegetated ( osits (B15)	Concave S lor (C1) able (C2)	agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit	dicators (2 or i ied Leaves (B atterns (B10) nizospheres al f Reduced Iro	more require 9) long Living R n (C4)	d)
Depth (ir Remarks: I PTDROLOO Vetland Hyd Primary India Surface V High Wa Saturatio Water M Sedimen Drift Dep	In forest patch GY Irology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	ator is suffici	Inundation Sparsely Marl Dep Hydroger Dry-Seas	Vegetated ( osits (B15) n Sulfide Od on Water T	Concave S lor (C1) able (C2)	agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit Stunted or S Geomorphic	dicators (2 or n led Leaves (B atterns (B10) nizospheres al f Reduced Iro ts (C5) Stressed Plan c Position (D2	more require 9) long Living R n (C4) ts (D1)	d)
Depth (ir Remarks: I Primary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	In forest patch GY Irology Indicators: cators (any one indicators: Cators (any one indicators: Water (A1) atter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ator is suffici	Inundation Sparsely Marl Dep Hydroger Dry-Seas	Vegetated ( osits (B15) n Sulfide Od on Water T	Concave S lor (C1) able (C2)	agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit Stunted or S Geomorphic Shallow Aqu	dicators (2 or n red Leaves (B atterns (B10) nizospheres al f Reduced Iro ts (C5) Stressed Plan c Position (D2 uitard (D3)	more require 99) long Living R n (C4) ts (D1)	d)
Depth (ir Remarks: I Primary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	In forest patch GY Irology Indicators: cators (any one indicators: Cators (any one indicators: Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)	ator is suffici	Inundation Sparsely Marl Dep Hydroger Dry-Seas	Vegetated ( osits (B15) n Sulfide Od on Water T	Concave S lor (C1) able (C2)	agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit Stunted or S Geomorphic Shallow Aqu Microtopogr	dicators (2 or n ed Leaves (B atterns (B10) nizospheres al f Reduced Iro ts (C5) Stressed Plan c Position (D2 uitard (D3) aphic Relief (	more require 99) long Living R n (C4) ts (D1)	d)
Pepth (ir Remarks: I YDROLOO Vetland Hyd Primary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	In forest patch GY Irology Indicators: cators (any one indicators: Cators (any one indicators: Water (A1) atter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ator is suffici	Inundation Sparsely Marl Dep Hydroger Dry-Seas	Vegetated ( osits (B15) n Sulfide Od on Water T	Concave S lor (C1) able (C2)	agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit Stunted or S Geomorphic Shallow Aqu	dicators (2 or n ed Leaves (B atterns (B10) nizospheres al f Reduced Iro ts (C5) Stressed Plan c Position (D2 uitard (D3) aphic Relief (	more require 99) long Living R n (C4) ts (D1)	d)
Depth (ir Remarks: I IYDROLOO Wetland Hyd Primary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	In forest patch GY Irology Indicators: cators (any one indicators: cators (any one indicators: cators (any one indicators) Water (A1) atter Table (A2) on (A3) larks (B1) attor Cats (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	ator is suffici	Inundation Sparsely Marl Dep Hydroger Dry-Seas	Vegetated ( osits (B15) n Sulfide Od on Water T	Concave S lor (C1) able (C2)	agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit Stunted or S Geomorphic Shallow Aqu Microtopogr	dicators (2 or n ed Leaves (B atterns (B10) nizospheres al f Reduced Iro ts (C5) Stressed Plan c Position (D2 uitard (D3) aphic Relief (	more require 99) long Living R n (C4) ts (D1)	d)
Depth (ir Remarks: I IYDROLOO Wetland Hyd Primary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S	In forest patch GY Irology Indicators: cators (any one indicators: Cators (any one indicators: Cators (any one indicators) Water (A1) atter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) Vations:	ator is suffici	Inundatio Sparsely Marl Dep Hydroger Dry-Seas Other (E)	Vegetated ( osits (B15) n Sulfide Od on Water T	Concave S lor (C1) able (C2) marks)	agery (B7)	<u>S</u>	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit Stunted or S Geomorphic Shallow Aqu Microtopogr	dicators (2 or n ed Leaves (B atterns (B10) nizospheres al f Reduced Iro ts (C5) Stressed Plan c Position (D2 uitard (D3) aphic Relief (	more require 99) long Living R n (C4) ts (D1)	d)
Depth (ir Remarks: I Primary India Primary India Surface V High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Field Obser Surface Wat Water Table	In forest patch GY Irology Indicators: cators (any one indicators: Cators (any one indicators: Cators (any one indicators: Cators (any one indicators: Water (A1) ther Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) Vations: ter Present? Yes Present? Yes	N	Inundation Sparsely Marl Dep Hydroger Dry-Seas Other (E)	Vegetated ( osits (B15) n Sulfide Od son Water T kplain in Rer Depth (Inc Depth (Inc	Concave S lor (C1) able (C2) marks) ches): ches):	agery (B7) urface (B	B)	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit Stunted or S Geomorphic Shallow Aqu Microtopogr FAC-Neutra	dicators (2 or n ed Leaves (B atterns (B10) nizospheres al f Reduced Iro ts (C5) Stressed Plan c Position (D2 uitard (D3) aphic Relief ( I Test (D5)	more require 99) long Living R n (C4) ts (D1) () D4)	d) coots (C3
Depth (ir Remarks: I YDROLOO Vetland Hyd Primary India Surface V High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Field Obser Surface Wat Water Table Saturation P	In forest patch GY Irology Indicators: cators (any one indicators) Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) Inter Present? Yes Present? Yes Present? Yes		Inundation Sparsely Marl Dep Hydroger Dry-Seas Other (E)	Vegetated ( osits (B15) n Sulfide Od son Water T. kplain in Rer	Concave S lor (C1) able (C2) marks) ches):	agery (B7) urface (B	B)	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit Stunted or S Geomorphic Shallow Aqu Microtopogr	dicators (2 or n ed Leaves (B atterns (B10) nizospheres al f Reduced Iro ts (C5) Stressed Plan c Position (D2 uitard (D3) aphic Relief ( I Test (D5)	more require 99) long Living R n (C4) ts (D1)	d)
Depth (ir Remarks: I YDROLOO Vetland Hyd Primary India Surface V High Wa Saturatic Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Field Obser Surface Wat Water Table Saturation P (includes cap	In forest patch GY Irology Indicators: cators (any one indicators: Cators (any one indicators: Cators (any one indicators: Cators (any one indicators: Water (A1) ther Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) Cruations: ter Present? Yes Present? Yes	N	Inundation Sparsely Marl Dep Hydroger Dry-Seas Other (E)	Vegetated ( osits (B15) n Sulfide Od son Water T kplain in Rer Depth (Inc Depth (Inc Depth (Inc	Concave S lor (C1) able (C2) marks) ches): ches):	agery (B7) urface (B 16	B)	Secondary Inc Water-Stain Drainage Pa Oxidized Rh Presence of Salt Deposit Stunted or S Geomorphic Shallow Aqu Microtopogr FAC-Neutra	dicators (2 or n ed Leaves (B atterns (B10) nizospheres al f Reduced Iro ts (C5) Stressed Plan c Position (D2 uitard (D3) aphic Relief ( I Test (D5)	more require 99) long Living R n (C4) ts (D1) () D4)	d) coots (C3

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM -	Alaska	Region
TELEARD DETERMINATION DATA FORM	Alushu	region

Project/Site: Angoon Airport - Echo Alignment	Bo	orough/City:	Hoonah / J	Angoon	Sampling			
Applicant/Owner: ADOT & PF					Sampling	Point: 30	)9u	
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.G	utierrez La	andform (hill	side, terrace	e, hummocks, etc.):	Forest slop	е		
Local relief (concave, convex, none): Convex	SI	ope (%):	D					
Subregion: Southeast Alaska	Lat: 57.4816	62		Long: -134.56233	2	Datur	n: NAD 83	5
Soil Map Unit Name: None				NWI classifi	ication: N/	A		
Are climatic / hydrologic conditions on the site typica	I for this time of y	ear? Yes	X No	(If no, explain	in Remarks	s.)		
Are Vegetation Soil or Hydrology	significantly dis	turbed?	Are "Nor	mal Circumstances"	present?	Yes	X No	
Are Vegetation Soil or Hydrology	naturally proble	matic?	(If neede	ed, explain any answe	ers in Rema	irks.)		
SUMMARY OF FINDINGS – Attach site						,	t foatur	os oto
Hydrophytic Vegetation Present? Yes X	No	y sampi	ng point		ecis, iii	portan	lieatur	es, elc.
Hydric Soil Present? Yes		ls tha	Sampled A	roa				
Wetland Hydrology Present? Yes			a Wetland		No	v		
		wittiii		· 165		<u> </u>	_	
Remarks:								
In forest patch								
Saturated below 12"								
VEGETATION – Use scientific names o	•							
Tree Stratum	Absolute		Indicator	Dominance Test v	vorksheet:			
1. Tsuga heterophylla	<u>% Cover</u> 85	X	Status FAC	Number of Domina	nt Spacias			
2.	00	^	FAC	That Are OBL, FAC			3	(A)
3.					,	·	<u> </u>	(, ,)
4.				Total Number of Do	ominant			
Total Cov	er: 85			Species Across All	Strata:		4	(B)
50% of total cover: 42.5	20% of tota	cover:	17					
Sapling/Shrub Stratum				Percent of Domina				
1. Vaccinium ovalifolium	60	X	FAC	That Are OBL, FAC	W, or FAC		75	(A/B)
2. Vaccinium vitis-idaea	30	Х	FAC	L <u> </u>				
3 4				Prevalence Index Total % Cove			nly by:	
5.				OBL species	101.	x 1=	ply by:	
6.				FACW species		x 2=		
Total Cov	er: 90			FAC species	<u> </u>	x 3=		
50% of total cover: 45	20% of tota	l cover:	18	FACU species		x 4=		
Herb Stratum		-		UPL species		x 5=		
1. Cornus canadensis	25	Х	FACU	Column Totals:	(A)	)		(B)
2.				Prevalence In	dex = B/A =	=	0	
3.								
4				Hydrophytic Veg				
5				X Dominance	Test is >50	)%		
6				Prevalence				
7				Morphologic				
8					Remarks or			
9				Problematic	Hydropnyt	ic vegeta	ation (Exp	blain)
10				1 matter 61			ا ا	
Total Cov 50% of total cover: 12.5	er: 25 20% of tota	l cover:	5	<sup>1</sup> Indicators of hyd be present, unles				must
Plot size (radius, or length x width) 5 ft ra		e Ground	-	Hydrophytic				
% Cover of Wetland Bryophytes	Total Cover o	-	s 80	Vegetation	Yes	x	No	
(Where applicable)		. Siyopiiyto		Present?				
Remarks:								

Sampling Point:	309u
Sampling Point.	309u

(inches) Color (moist) 0-16 Organic	<u>%</u> Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks Organic	
<sup>1</sup> Type: C=Concentration, D=Deple	tion, RM=Reduced Matrix, CS=Covered or Coated San	d Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.	_
lydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils	S³:
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Re	addar
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer	Juuei
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)	
Thick Dark Surface (A12)			
Alaska Gleyed (A13)	30		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one		
Alaska Gleyed Pores (A15)		st be present unless disturbed or problematic.	
	<sup>4</sup> Give details of color change in Remarks.		
Restrictive Layer (if present):			
Туре:			
Type: Depth (inches): Remarks: In forest patch	Hydr	ic Soil Present? Yes No _X	
Depth (inches): Remarks: In forest patch	Hydr	ic Soil Present? Yes <u>No X</u>	_
Depth (inches): Remarks: In forest patch	Hydr	ic Soil Present? Yes <u>No X</u>	
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators:			<u>-</u>
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators:	or is sufficient)	ic Soil Present? Yes <u>No X</u> <u>Secondary Indicators (2 or more required)</u> Water-Stained Leaves (B9)	<u>-</u>
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat		Secondary Indicators (2 or more required) Water-Stained Leaves (B9)	-
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1)	or is sufficient)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9)	- ts (C3
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2)	or is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10)	- ts (C3
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3)	or is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Marl Deposits (B15)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root	- ts (C3
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	or is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4)	- ts (C3
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	or is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Salt Deposits (C5) Stunted or Stressed Plants (D1) Geomorphic Position (D2)	- ts (C3
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat 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)	or is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Salt Deposits (C5) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)	- ts (C3
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	or is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Salt Deposits (C5) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)	- -
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat 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)	or is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Salt Deposits (C5) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3)	- -
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat 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)	or is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Salt Deposits (C5) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)	- - ts (C3
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat 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)	or is sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Salt Deposits (C5) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)	- ts (C3
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat 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) Field Observations:	or is sufficient) 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)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4) Salt Deposits (C5) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)	- ts (C3
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat 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) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes	or is sufficient) 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) No X Depth (Inches):	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root 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)	
Depth (inches): Remarks: In forest patch YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicat 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) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes	or is sufficient) 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) No X Depth (Inches): >16	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Root 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) Wetland Hydrology Present? YesNo	

Project/Site: Angoon Airport - Echo Alignment	B	Borough/City	: Hoonah / /	Angoon	Sampling D	ate: 7-Jun-	2018
Applicant/Owner: ADOT & PF					Sampling Po	oint: 310u	
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.C	Gutierrez L	andform (hil	lside, terrace	, hummocks, etc.):	Forest edge/r	oad edge	
Local relief (concave, convex, none): Convex	s	Slope (%):	0				
Subregion: Southeast Alaska	Lat: 57.482			Long: -134.56700	2	Datum: NA	AD 83
Soil Map Unit Name: None					- ication: PFO		
Are climatic / hydrologic conditions on the site typic	al for this time of	vear? Yes	s X No	(If no, explain			
Are Vegetation X Soil or Hydrology				mal Circumstances"	,	Yes X	No
				d, explain any answe	_		
Are Vegetation Soil or Hydrology	naturally probl	ematic?	(ii neede	u, explain any answe	IS III REITIAIR	5.)	
SUMMARY OF FINDINGS – Attach site	e map showir	ng sampl	ing point	locations, trans	ects, impo	ortant fea	atures, etc
Hydrophytic Vegetation Present? Yes	( No						
Hydric Soil Present? Yes	No X	Is the	Sampled A	rea			
Wetland Hydrology Present? Yes	No X		n a Wetland		No	х	
			ra modana				
Remarks:							
Refusal at 10"							
VEGETATION – Use scientific names of	-	-	es in the <sub>l</sub>	olot.			
		Dominant	Indicator	Dominance Test v	vorksheet:		
Tree Stratum	% Cover	Species?	Status				
1				Number of Domina	•		( • )
2				That Are OBL, FAC	W, or FAC:	4	(A)
4.				Total Number of Do	ominant		
Total Co	ver:			Species Across All		4	(B)
50% of total cover:	20% of tot	al cover:		Species Across Air	Strata.		(B)
Sapling/Shrub Stratum				Percent of Domina	nt Snecies		
1. Alnus viridis	60	х	FAC	That Are OBL, FAC		100	(A/B)
2. Salix scouleriana		X	FAC		,		(,,,,)
3.			1710	Prevalence Index	worksheet.		
4.				Total % Cove		Multiply b	ov:
5.				OBL species		1=	<u> </u>
6.				FACW species	x	2=	
Total Co	ver: 90			FAC species	x	3=	
50% of total cover: 45	20% of tot	al cover:	18	FACU species		4=	
Herb Stratum				UPL species	x	5=	
1. Epilobium anagallidifolium	25	Х	FAC	Column Totals:	(A)		(B)
2. Equisetum arvense	10	Х	FAC	Prevalence In	dex = B/A =	0	
3.							
4.				Hydrophytic Veg	etation Indic	ators:	
5.				X Dominance			
6.					Index is ≤3.0		
7					cal Adaptation	ıs¹ (Provid∉	e supporting
8.					Remarks or o		
9.					Hydrophytic	•	,
0.					, F.,	5	、 · ····/
Total Co	ver: 35			<sup>1</sup> Indicators of hyd	Iric soil and w	etland hvdr	ology must
50% of total cover: 17.5	20% of tot	al cover:	7	be present, unles			0,
			-				
Plot size (radius, or length x width) 5 ft ra		re Ground		Hydrophytic			
% Cover of Wetland Bryophytes	Total Cover	ot Bryophyte	s	Vegetation	Yes X	<u> </u>	o
(Where applicable)				Present?			
Remarks:							
US Army Corps of Engineers						Ales	ka Varsian 2 (

US Army Corps of Engineers

mpling Point:	310u
---------------	------

SOIL								Sampling Poi	nt: <u>310u</u>
Profile Des	cription: (Describe t	o the depth	needed to document	t the indicator	or con	firm the	absence of ir	ndicators.)	
Depth	Matrix			ox Features				· · · · · · ,	
(inches)	Color (moist)	%	Color (moist)	% T	ype <sup>1</sup>	Loc <sup>2</sup>	Texture	Re	marks
0-4	10yr3/2	100	/	<u> </u>	71		Silt loam		
4-10	10yr4/3	40					Silt loam		
4-10	Gravel	60					Gravel		
	Concentration, D=Dep					d Grains	s. <sup>2</sup> Location:	PL=Pore Linin	g, M=Matrix.
Hydric Soil	Indicators:	In	dicators for Problem	natic Hydric So	oils°:		Indicators fo	r Problematic I	Hydric Soils <sup>3</sup> :
Histoso	ol or Histel (A1)		Alaska Color Chang	e (TA4) <sup>4</sup>			Alaska Gl	eyed Without H	ue 5Y or Redder
Histic E	Epipedon (A2)		Alaska Alpine Swale	es (TA5)			Underlying	g Layer	
Hydrog	en Sulfide (A4)		Alaska Redox With				Other (Ex	plain in Remark	s)
Thick D	Dark Surface (A12)		-						
Alaska	Gleyed (A13)								
Alaska	Redox (A14)	<sup>3</sup> C	One indicator of hydro	phytic vegetatio	on, one	primary	indicator of we	tland hydrology	,
Alaska	Gleyed Pores (A15)		and an appropriate I						
		<sup>4</sup> C	Give details of color ch	ange in Remarl	ks.				
Restrictive	Layer (if present):								
Type:									
• •	(inches):		-		Hydi	ic Soil F	Present?	Yes	No X
					-				
Remarks:	Refusal at 10"								
HYDROLO									
-	drology Indicators:								
Primary Inc	dicators (any one indica	ator is suffici				S	econdary Indic	ators (2 or mor	e required)
	e Water (A1)		Inundation Visible of		,		-	d Leaves (B9)	
	ater Table (A2)		Sparsely Vegetated		ce (B8	)	Drainage Patt	( )	
	tion (A3)		Marl Deposits (B15)				-	-	Living Roots (C3)
	Marks (B1)		Hydrogen Sulfide O				-	Reduced Iron (C	4)
	ent Deposits (B2)		Dry-Season Water 1	· · /			Salt Deposits	· · ·	
	eposits (B3)		Other (Explain in Re	⊧marks)				ressed Plants ([	D1)
	lat or Crust (B4)						Geomorphic F	( )	
	eposits (B5)						Shallow Aquit	. ,	
Surface	e Soil Cracks (B6)						-	ohic Relief (D4)	
							FAC-Neutral	Test (D5)	
Field Obse									
	ater Present? Yes	N		· · · · · · · · · · · · · · · · · · ·	_				
	le Present? Yes	N		· ·	_				
Saturation		N	Depth (In	iches): >16	_	Wetlan	nd Hydrology I	Present? Y	es <u>No X</u>
	apillary fringe)								
Describe R	ecorded Data (stream	gauge, mon	toring well, aerial pho	tos, previous in	spectio	ons), if av	vailable:		
emarks:									

Project/Site: Angoon Airport - Echo Alignmer	nt	E	Borough/City:	Hoonah / A	Angoon	Sampling Date:	7-Jun-2018
Applicant/Owner: ADOT & PF						Sampling Point:	311w
Investigator(s): J.Barna, L.Johnson, S.Hartur	ng, R.Gutierre	ez L	andform (hill	side, terrace	e, hummocks, etc.):	Road edge/ditch	
Local relief (concave, convex, none): Concav	/e	5	Slope (%):	C			
Subregion: Southeast Alaska	L	at: 57.482	2411		Long: -134.567101	Dat	um: NAD 83
Soil Map Unit Name: None					-	cation: PFO4B	
Are climatic / hydrologic conditions on the site	e typical for t	his time of	year? Yes	X No	(If no, explain	in Remarks.)	
Are Vegetation X Soil or Hydrolog		nificantly di			mal Circumstances" p	,	X No
	gy nat	-			d, explain any answe	-	
SUMMARY OF FINDINGS – Attac	h site ma	p showi	ng sampli	ng point	locations, trans	ects, importa	nt features, etc
Hydrophytic Vegetation Present? Ye	es X I	No					
Hydric Soil Present? Ye		No	Is the	Sampled A	rea		
Wetland Hydrology Present? Ye	es X N	No		n a Wetland		No X	
Remarks:							
					-		
VEGETATION – Use scientific nar	nes of pla		-		-		
Trop Stratum		Absolute	Dominant	Indicator	Dominance Test w	orksheet:	
Tree Stratum 1.		% Cover	Species?	Status	Number of Dominou	nt Encoico	
2.					Number of Dominar That Are OBL, FAC	•	3 (A)
3.					That AIC ODE, I AO	w, or r Ao.	<u> </u>
4.					Total Number of Do	ominant	
Тс	tal Cover:				Species Across All	Strata:	3 (B)
50% of total cover:		20% of tot	al cover:				
Sapling/Shrub Stratum			_		Percent of Dominar	•	
1. Alnus viridis		30	Х	FAC	That Are OBL, FAC	W, or FAC:	100 (A/B)
2							
3					Prevalence Index		
4 5					Total % Cover OBL species	x 1=	ultiply by:
6.					FACW species	x 2=	
	tal Cover:	30			FAC species	x 3=	
50% of total cover:	15	20% of tot	al cover	6	FACU species	x 4=	
Herb Stratum		20/0 01 101	-		UPL species	x 5=	
1. Equisetum arvense		25	Х	FAC	Column Totals:	(A)	(B)
2. Deschampsia elongata		70	Х	FAC	Prevalence Inc	dex = B/A =	0
3.							
4.					Hydrophytic Vege	etation Indicators	s:
5.					X Dominance	Test is >50%	
6.					Prevalence	Index is ≤3.0	
7.					Morphologic	al Adaptations <sup>1</sup> (F	Provide supporting
8.						Remarks or on a s	
9				_	Problematic	Hydrophytic Vege	etation <sup>1</sup> (Explain)
10							
Tc 50% of total cover:	otal Cover: 47.5	95 20% of tot	al cover:	19	<sup>1</sup> Indicators of hyd be present, unless		
—	5 ft radius		are Ground		Hydrophytic		
· · · · · · · · · · · · · · · · · · ·			-			Voc V	No
% Cover of Wetland Bryophytes		otal Cover	of Bryophyte	s	Vegetation Present?	Yes X	No
Remarks:					Fiesent		
Remarko.							

US Army Corps of Engineers

(inches)	Matrix Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-4	10yr3/1	95	10yr5/2	5	C C	M	Silt loam		Komanto
4-12	10yr3/1	80	10yr5/2	15	C	M	Silt loam	Som	e gravel/sand
	.09.07		7.5yr4/6	5	C	M	Silt loam		e gravel/sand
12-16	10yr3/1	100					Silt loam		e gravel/sand
									9.410,04114
:									
Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, CS=C	Covered or C	Coated Sa	nd Grain	s. <sup>2</sup> Location: F	PL=Pore Lin	ing, M=Matrix.
/dric Soil l	ndicators:		Indicators for Problem	natic Hydrid	c Soils <sup>3</sup> :		Indicators for	Problemati	c Hydric Soils <sup>3</sup> :
Histosol	or Histel (A1)	_	Alaska Color Chang	e (TA4) <sup>4</sup>			Alaska Gle	yed Without	Hue 5Y or Redder
Histic Ep	pipedon (A2)		Alaska Alpine Swale	es (TA5)			Underlying	Layer	
x Hydroge	n Sulfide (A4)		Alaska Redox With	2.5Y Hue			Other (Expl	lain in Rema	arks)
	ark Surface (A12)	•							
Alaska C	Gleyed (A13)								
Alaska F	Redox (A14)		<sup>3</sup> One indicator of hydro	phytic veget	tation, one	primary	indicator of wetl	and hydrolo	gy,
Alaska C	Gleyed Pores (A15)		and an appropriate I	andscape p	osition mu	ist be pr	esent unless dist	turbed or pr	oblematic.
			<sup>4</sup> Give details of color ch	nange in Re	marks.				
strictive L	ayer (if present):								
Type:									
Type: Depth (ir	nches):		_		Hyd	ric Soil	Present? Y	es <u>X</u>	No
Depth (ir	nches):		_		Hyd	ric Soil	Present? Yo	es <u>X</u>	No
-	nches):		_		Hyd	ric Soil	Present? Ye	es X	No
Depth (ir	nches):		<u> </u>		Hyd	ric Soil	Present? Yo	es <u>X</u>	No
Depth (ir					Hyd	ric Soil	Present? Y	es <u>X</u>	No
Depth (ir Remarks:					Hyd	ric Soil	Present? Yo	es <u>X</u>	No
Depth (ir Remarks: (DROLO) Tetland Hyd	GY	cator is suffi	 cient)		Hyd		Present? Yo		
Depth (ir Remarks: (DROLO etland Hyd Primary Indi	GY Irology Indicators: cators (any one indi	cator is suffi		n Aerial Ima				tors (2 or m	ore required)
Depth (ir Remarks: IDROLO etland Hyd Primary Indi X_Surface	GY Irology Indicators: cators (any one indi	cator is suffi	cient) Inundation Visible of Sparsely Vegetated		gery (B7)	<u>s</u>	Secondary Indica	tors (2 or m Leaves (B9	ore required)
Depth (ir Remarks: <b>/DROLO</b> etland Hyd Primary Indi X Surface X High Wa	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2)	cator is suffi	Inundation Visible of	Concave S	gery (B7)	<u>s</u>	Secondary Indica Water-Stained Drainage Patte	tors (2 or m Leaves (B9 rns (B10)	ore required)
Depth (ir Remarks: <b>/DROLO</b> Primary Indi X Surface X High Wa X Saturatio	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3)	cator is suffi	Inundation Visible of Sparsely Vegetated	Concave S	gery (B7)	<u>s</u>	Secondary Indica Water-Stained Drainage Patte	tors (2 or m Leaves (B9 rns (B10) spheres alo	ore required) ) ng Living Roots (C3
Pepth (ii Remarks: YDROLO Vetland Hyd Primary Indi X Surface X High Wa X Saturatic X Saturatic X Water M	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3)	cator is suffi	Inundation Visible of Sparsely Vegetated Marl Deposits (B15)	Concave S dor (C1)	gery (B7)	<u>s</u>	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron	ore required) ) ng Living Roots (C3
Pepth (ii Remarks: YDROLO Yetland Hyd Primary Indi X Surface X High Wa X Saturatio X Saturatio X Water M Sedimer	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1)	cator is suffi	Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or	Concave S dor (C1) Fable (C2)	gery (B7)	<u>s</u>	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5)	ore required) ) ng Living Roots (C3 (C4)
Primary Indi X Surface X High Wa X Saturatio X Water M Sedimer Drift Dep	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	cator is suffi	Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water T	Concave S dor (C1) Fable (C2)	gery (B7)	)	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) ssed Plants	ore required) ) ng Living Roots (C3 (C4)
Primary Indi X Surface X High Wa X Saturatio X Saturatio X Water M Sedimer Drift Dep Algal Ma	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	cator is suffi	Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water T	Concave S dor (C1) Fable (C2)	gery (B7)	)	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) ssed Plants osition (D2)	ore required) ) ng Living Roots (C3 (C4)
Depth (in Remarks: (DROLO) etland Hyd Primary Indi X Surface X High Wa X Saturation X Saturation X Saturation X Saturation Algal Ma Iron Dep	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	cator is suffi	Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water T	Concave S dor (C1) Fable (C2)	gery (B7)	)	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre Geomorphic Po	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) essed Plants osition (D2) rd (D3)	ore required) ) ng Living Roots (C: (C4) s (D1)
Primary Indi X Surface X High Wa X Saturatio X Saturatio X Saturatio X Saturatio Algal Ma Iron Dep	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	cator is suffi	Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water T	Concave S dor (C1) Fable (C2)	gery (B7)	)	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre Geomorphic Po Shallow Aquita	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) essed Plants osition (D2) rd (D3) nic Relief (D	ore required) ) ng Living Roots (C: (C4) s (D1)
Depth (in Remarks: (DROLO) etland Hyd Primary Indi X Surface X Saturatio X Saturatio X Saturatio X Saturatio X Saturatio Algal Ma Iron Dep Surface	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	cator is suffi	Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water T	Concave S dor (C1) Fable (C2)	gery (B7)	)	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre Geomorphic Po Shallow Aquita Microtopograph	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) essed Plants osition (D2) rd (D3) nic Relief (D	ore required) ) ng Living Roots (C: (C4) s (D1)
Primary Indi X Surface X High Wa X Saturatio X Saturatio X Saturatio X High Wa Sedimer Drift Dep Algal Ma Iron Dep Surface	GY Irology Indicators: cators (any one indi Water (A1) atter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)		Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water 1 Other (Explain in Re	Concave S dor (C1) Fable (C2) emarks)	gery (B7) urface (B8	)	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre Geomorphic Po Shallow Aquita Microtopograph	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) essed Plants osition (D2) rd (D3) nic Relief (D	ore required) ) ng Living Roots (C3 (C4) s (D1)
Primary Indi X Surface X High Wa X Saturatio X Saturatio X Saturatio X Saturatio X Saturatio X Galantia Iron Dep Surface Surface	GY rology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) rvations: ter Present? Yes	5 <u>X</u>	Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water 1 Other (Explain in Re	Concave S dor (C1) Fable (C2) emarks)	gery (B7) urface (B8	)	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre Geomorphic Po Shallow Aquita Microtopograph	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) essed Plants osition (D2) rd (D3) nic Relief (D	ore required) ) ng Living Roots (C3 (C4) s (D1)
Primary Indi X Surface X High Wa X Saturatio X Saturatio X Saturatio X Saturatio X Gater M Sedimer Drift Dep Algal Ma Iron Dep Surface Field Obser Surface Water Table	GY rology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) rvations: ter Present? Yes	5 <u>X</u>	Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water 1 Other (Explain in Re No Depth (In No Depth (In	Concave S dor (C1) Fable (C2) emarks) ches): 2 ches): 6	gery (B7) urface (B8		Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (f Stunted or Stre Geomorphic Po Shallow Aquita Microtopograph FAC-Neutral Te	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) sssed Plants osition (D2) rd (D3) nic Relief (D est (D5)	ore required) ) ng Living Roots (C3 (C4) s (D1) 4)
Depth (ii Remarks: Primary Indi X Surface X Surface X Saturatio X Saturatio X Saturation Drift Dep Algal Ma Iron Dep Surface Field Obser Surface Water Vater Table Saturation P	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) Fvations: ter Present? Yes Present? Yes	5 <u>X</u>	Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water 1 Other (Explain in Re	Concave S dor (C1) Fable (C2) emarks) ches): 2 ches): 6	gery (B7) urface (B8		Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre Geomorphic Po Shallow Aquita Microtopograph	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) sssed Plants osition (D2) rd (D3) nic Relief (D est (D5)	ore required) ) ng Living Roots (C (C4) s (D1)
Depth (in Remarks: TOROLO etland Hyd Primary Indi X Surface X High Wa X Saturatio X Saturatio X Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Surface Surface Surface Water Vater Table Saturation P includes ca	GY Irology Indicators: cators (any one indi Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) Fvations: ter Present? Yes Present? Yes pillary fringe)		Inundation Visible or Sparsely Vegetated Marl Deposits (B15) Hydrogen Sulfide Or Dry-Season Water 1 Other (Explain in Re No Depth (In No Depth (In	Concave S dor (C1) Fable (C2) emarks) ches): 2 ches): 6 ches): 6	gery (B7) urface (B8	) ) X Wetlan	Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (f Stunted or Stre Geomorphic Po Shallow Aquita Microtopograph FAC-Neutral Te	tors (2 or m Leaves (B9 rns (B10) spheres alo educed Iron C5) sssed Plants osition (D2) rd (D3) nic Relief (D est (D5)	ore required) ) ng Living Roots (C: (C4) ; (D1) 4)

Project/Site: Angoon Airport - Echo Align	iment	L	Jorougn/Oity.	Hoonah / A	Angoon	Sampi	ny Date.	10-Jun-2	018
Applicant/Owner: ADOT & PF						Sampl	ng Point:	312w	
nvestigator(s): J.Barna, L.Johnson, S.H	artung, R.Gutie	rrez l	_andform (hill	side, terrace	, hummocks, etc	c.): Edge di	ainage cha	annel	
ocal relief (concave, convex, none): Co	ncave	5	Slope (%):	2					
Subregion: Southeast Alaska		Lat: 57.484	4594		Long: -134.56	3758	Dat	tum: NAD	83
Soil Map Unit Name: None						assification:	PFO4B		
are climatic / hydrologic conditions on th	e site typical fo	r this time of	year? Yes	X No	(If no, exp	lain in Rema	rks.)		
re Vegetation Soil or Hyd	lrology s	ignificantly d	isturbed?	Are "Nori	mal Circumstanc	es" present?	Yes	Х	٨o
are Vegetation Soil or Hyd	Irology n	aturally prob	lematic?	(If neede	d, explain any ar	nswers in Re	marks.)		
				` <b>.</b>			,		
SUMMARY OF FINDINGS – At	tach site m	ap showi	ng sampli	ng point	locations, tra	ansects, i	mporta	int feat	ures, et
lydrophytic Vegetation Present?	Yes X	No							
lydric Soil Present?	Yes X	No	Is the	Sampled A	rea				
Vetland Hydrology Present?	Yes X	No	within	n a Wetland	? Yes	Х	No		
Remarks: On edge of stream									
Next to stream channel									
/EGETATION – Use scientific	names of p	lants, List	t all specie	es in the r	olot.				
		Absolute	Dominant	Indicator	Dominance Te	est workshe	et:		
Tree Stratum		% Cover	Species?	Status					
1					Number of Dor				
2					That Are OBL,	FACW, or F	AC:	2	(A)
3.					Total Number of	of Dominant			
4	Total Cover:	·			Species Acros			2	(B)
50% of total cover:		20% of to	tal cover:		Species Acius	s All Stiata.		2	(D)
Sapling/Shrub Stratum			-		Percent of Don	ninant Speci	es		
1. Lysichiton americanus		40	Х	OBL	That Are OBL,			100	(A/B)
2. Athyrium cyclosorum		20	Х	FAC			I		
3					Prevalence I				
4					Total % C	Cover of:	_	ultiply by:	
5 6		·			OBL species FACW species		x 1= x 2=		
0	Total Cover	60			FAC species				
50% of total cover:	Total Cover: 30	20% of to	tal cover:	12	FAC species		x 3= x 4=		
Herb Stratum		2070 01 10	-	12	UPL species		x 5=		
1.					Column Totals	:	(A)		(B)
2.					Prevalenc	e Index = B/	A =	0	_ ` /
3.									
4.					Hydrophytic	Vegetation	Indicator	s:	
5.					X Domina	ince Test is >	>50%		
6						ence Index is			
7						logical Adap	•		••••
8						a in Remarks			
9					Problem	natic Hydrop	hytic Veg	etation' (	Explain)
0	<b>-</b>	·			1				
50% of total cover:	Total Cover:	20% of to	tal cover:		<sup>1</sup> Indicators of be present, u			-	0,
Plot size (radius, or length x width)	5 ft radius	% Ba	are Ground		Hydrophytic				
<ul> <li>Cover of Wetland Bryophytes</li> </ul>	60	Total Cover	of Bryophyte	s 60	Vegetation	Yes	х	No	
(Where applicable)					Present?			-	
Remarks: On edge of stream									
- 5									

Sampling Point: 31	12w
--------------------	-----

	epth needed to document the indicator or	confirm the	absence of indi	cators.)
Depth Matrix	Redox Features	1 . 2	Tautum	Demender
(inches) Color (moist) % 0-16 10yr3/1 100	Color (moist) % Typ	be <sup>1</sup> Loc <sup>2</sup>	Texture Silt loam	Remarks Organics 0-4"
	<u> </u>			
<u> </u>				
	M=Reduced Matrix, CS=Covered or Coated			-=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils	5.	Indicators for P	roblematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>		Alaska Gleye	ed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		Underlying L	ayer
X Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue		Other (Expla	in in Remarks)
Thick Dark Surface (A12)				
Alaska Gleyed (A13)				
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation,			
Alaska Gleyed Pores (A15)	and an appropriate landscape position		esent unless distu	rbed or problematic.
	<sup>4</sup> Give details of color change in Remarks	-		
Restrictive Layer (if present):				
Туре:				
Depth (inches):		Hydric Soil	Present? Yes	s <u>X</u> No
Remarks: Next to stream channel				
HYDROLOGY				
Wetland Hydrology Indicators:	ufficient)	c	Secondary Indicate	ore (2 or more required)
Primary Indicators (any one indicator is su	,			ors (2 or more required)
X Surface Water (A1) X High Water Table (A2)	Inundation Visible on Aerial Imagery (		Water-Stained L Drainage Patterr	( )
X Saturation (A3)	Sparsely Vegetated Concave Surface Marl Deposits (B15)	· (DO)	-	oheres along Living Roots (C3)
Water Marks (B1)	X Hydrogen Sulfide Odor (C1)		Presence of Red	
Sediment Deposits (B2)	Dry-Season Water Table (C2)		Salt Deposits (C	
Drift Deposits (B3)	Other (Explain in Remarks)		Stunted or Stres	sed Plants (D1)
Algal Mat or Crust (B4)		Х	Geomorphic Pos	ition (D2)
Iron Deposits (B5)			Shallow Aquitard	
Surface Soil Cracks (B6)			Microtopographi	
			FAC-Neutral Tes	it (D5)
Field Observation				
Field Observations: Surface Water Present? Yes X	No Depth (Inches): 13			
Surface Water Present? Yes X Water Table Present? Yes X	No Depth (Inches): 13 No Depth (Inches): Surface			
Saturation Present? Yes X	No Depth (Inches): Surface	Wetla	nd Hydrology Pre	esent? Yes X No
(includes capillary fringe)	· · · · <u>_ · · · · · · · · · · · ·</u>		,,	
	monitoring well, aerial photos, previous insp	ections), if a	vailable:	
Remarks:				

WETLAND DETERMINATION DATA FORM -	Alaska	Region
TELEAND DETERMINATION DATA FORM =	πιασκα	Region

Project/Site: Angoon Airport - Echo Alignment	Borough/City:	Hoonah / J	Angoon	Sampling D		n-2018
Applicant/Owner: ADOT & PF				Sampling F		
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Guti			e, hummocks, etc.):	Hill slope		
Local relief (concave, convex, none): Concave	Slope (%): 5					
Subregion: Southeast Alaska	Lat: 57.484608		Long: -134.56392		Datum: N	AD 83
Soil Map Unit Name: None				cation: PFC		
Are climatic / hydrologic conditions on the site typical for	or this time of year? Yes	X No	(If no, explain	in Remarks.	)	
Are Vegetation Soil or Hydrology	significantly disturbed?	Are "Nor	mal Circumstances" p	present?	Yes X	No
Are Vegetation Soil or Hydrology	naturally problematic?	(If neede	ed, explain any answe	rs in Remarl	ks.)	
SUMMARY OF FINDINGS – Attach site n	ap showing samplir	ng point	locations, trans	ects, imp	ortant fe	atures, etc.
Hydrophytic Vegetation Present? Yes X	No	•••	· · · · · · · · · · · · · · · · · · ·			
Hydric Soil Present? Yes	No X Is the	Sampled A	rea			
Wetland Hydrology Present? Yes	No X within	a Wetland	? Yes	No	х	
Remarks: Slope above stream						
Remarks. Slope above stream						
Saturation may be perched from evening	rain, plot 4' abovestream ch	nannel				
VEGETATION – Use scientific names of p	lants. List all specie	s in the	plot.			
	Absolute Dominant	Indicator	Dominance Test w	/orksheet:		
Tree Stratum	% Cover Species?	Status		1 Q		
1. Tsuga heterophylla	<u>70 x</u>	FAC	Number of Dominal	•	4	
2 3			That Are OBL, FAC	W, OF FAC:	4	(A)
4.			Total Number of Do	ominant		
Total Cover:	70		Species Across All	Strata:	6	(B)
50% of total cover: 35	20% of total cover:	14				( )
Sapling/Shrub Stratum	_		Percent of Dominar	nt Species		
1. Vaccinium ovalifolium	40 X	FAC	That Are OBL, FAC	W, or FAC:	67	(A/B)
2. Oplopanax horridus	20 X	FACU				
3			Prevalence Index			
4			Total % Cover		Multiply	by:
5 6			OBL species FACW species		x 1= x 2=	
Total Cover:	60		FAC species		x 3=	
50% of total cover: 30	20% of total cover:	12	FACU species		x 3= x 4=	
Herb Stratum			UPL species		x 5=	
1. Cornus alba	40 x	FAC	Column Totals:	(A)	-	(B)
2. Equisetum arvense	20 x	FAC	Prevalence Inc	. ,	0	`` /
3. Dryopteris expansa	30 x	FACU				
4.			Hydrophytic Veg	etation Indic	cators:	
5.			X Dominance	Test is >50%	6	
6.				Index is ≤3.0		
7.			Morphologic	al Adaptatio	ns <sup>1</sup> (Provid	e supporting
8				Remarks or o	•	
9			Problematic	Hydrophytic	Vegetation	າ້ (Explain)
10						
Total Cover: 50% of total cover: 45	90 20% of total cover:	18	<sup>1</sup> Indicators of hyd be present, unles			
Plot size (radius, or length x width) 5 ft radiu	—					
		60	Hydrophytic	Vaa	v .	
% Cover of Wetland Bryophytes 60 (Where applicable)	Total Cover of Bryophytes	60	Vegetation Present?	Yes	<u>x n</u>	o
Remarks: Slope above stream			IFTesent?			

US Army Corps of Engineers

npling	Point:	313u
--------	--------	------

											3u
Profile Des	cription: (Describ	e to the de	pth needed to	document	the indica	tor or cor	nfirm the	absence of i	ndicators.)		
Depth	 Matrix				ox Features				,		
(inches)	Color (moist)	%	Color	(moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-13	Organic	100				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	200	Organic			
13-20	10yr3/1	100						Loam		Organics	
									·	- 0	
									·		
									· . <u> </u>		
<sup>1</sup> Type: C=	Concentration, D=D	epletion, R	M=Reduced M	atrix, CS=Co	overed or C	coated Sa	nd Grains	s. <sup>2</sup> Location	: PL=Pore Li	ning, M=Matrix	x.
	Indicators:	<u> </u>	Indicators f			-				tic Hydric Soi	
History	ol or Histel (A1)		Alaska (	olor Change	$(T\Delta A)^4$			Alaska G	leved Withou	ut Hue 5Y or R	oddor
	. ,			-					-		equei
	Epipedon (A2)			Ipine Swales				Underlyir			
	en Sulfide (A4)		Alaska H	edox With 2	2.5Y Hue				xplain in Rem	iarks)	
	Dark Surface (A12)										
	Gleyed (A13)		0								
Alaska	Redox (A14)							indicator of w			
Alaska	Gleyed Pores (A15	)	and an a	ppropriate la	andscape p	osition mu	ust be pre	esent unless c	listurbed or p	roblematic.	
			<sup>4</sup> Give details	s of color cha	ange in Rei	marks.					
estrictive	Layer (if present):										
estrictive Type:	Layer (if present):										
Type: Depth ( Remarks:	(inches):					Hyd	ric Soil F	Present?	Yes	<u>No X</u>	_
Type: Depth ( Remarks: YDROLC /etland Hy Primary Inco Surface High W Saturat Water I Sedime Drift De Algal M	(inches): DGY drology Indicators dicators (any one in e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)		Inundatio Sparsely Marl Dep Hydroge Dry-Seas	on Visible on Vegetated ( posits (B15) n Sulfide Od son Water Ta xplain in Rer	Concave Si lor (C1) able (C2)	gery (B7)	<u>S</u>	econdary Indi Water-Staine Drainage Pa Oxidized Rhi Presence of Salt Deposits Stunted or S Geomorphic	cators (2 or n ed Leaves (B tterns (B10) zospheres ald Reduced Iror s (C5) tressed Plant Position (D2)	more required) 9) ong Living Rod n (C4) ts (D1)	_
Type: Depth ( Remarks: YDROLC Vetland Hy Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M Iron De Surface Surface	(inches): DGY drology Indicators dicators (any one in e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) ervations: ater Present? Ye	dicator is su	Inundatio Sparsely Marl Dep Hydroge Dry-Seas	Vegetated ( posits (B15) n Sulfide Od son Water Ta	Concave Si lor (C1) able (C2) marks) ches): <u>N</u> ches): <u>1</u> ;	gery (B7) urface (B8	S	econdary Indi Water-Staine Drainage Pa Oxidized Rhi Presence of Salt Deposits Stunted or S	cators (2 or n ed Leaves (B1 zospheres ald Reduced Iror s (C5) tressed Plant Position (D2) tard (D3) aphic Relief (I Test (D5)	nore required) 9) ong Living Roo n (C4) Its (D1) ) D4)	_
Type: Depth ( Remarks: YDROLC /etland Hy Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M Iron De Surface Surface Surface Wa Water Tabl Saturation	(inches): DGY drology Indicators dicators (any one in e Water (A1) //ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) e Soil Cracks (B6) ervations: ater Present? Ye	dicator is su	No X No X	Vegetated ( posits (B15) n Sulfide Od son Water Ta xplain in Rer Depth (Inc Depth (Inc	Concave Si lor (C1) able (C2) marks) ches): <u>N</u> ches): <u>1</u> ;	gery (B7) urface (B8	S	econdary Indi Water-Staine Drainage Pa Oxidized Rhi Presence of Salt Deposits Stunted or S Geomorphic Shallow Aqui Microtopogra FAC-Neutral	cators (2 or n ed Leaves (B1 zospheres ald Reduced Iror s (C5) tressed Plant Position (D2) tard (D3) aphic Relief (I Test (D5)	nore required) 9) ong Living Roo n (C4) Its (D1) ) D4)	ots (C:
Type: Depth ( Remarks: YDROLO /etland Hy Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M Iron De Surface Surface Surface Wa Water Tabl Saturation (includes c	(inches): DGY drology Indicators dicators (any one in e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5) e Soil Cracks (B6) ervations: ater Present? Ye Present? Ye	dicator is su	No X No X No X	Vegetated ( posits (B15) n Sulfide Od son Water Ta xplain in Rer Depth (Inc Depth (Inc Depth (Inc	Concave Si lor (C1) able (C2) marks) marks) 	gery (B7) urface (B8 0 3 3	S	econdary Indi Water-Staine Drainage Pa Oxidized Rhi Presence of Salt Deposits Stunted or S Geomorphic Shallow Aqui Microtopogra FAC-Neutral	cators (2 or n ed Leaves (B1 zospheres ald Reduced Iror s (C5) tressed Plant Position (D2) tard (D3) aphic Relief (I Test (D5)	nore required) 9) ong Living Roo n (C4) Its (D1) ) D4)	ots (C3

US Army Corps of Engineers

Project/Site: Angoon Airport - Echo Alignment	Borough/City: Hoonah /	Angoon Sampling Date: 10-Jun-2018
Applicant/Owner: ADOT & PF		Sampling Point: 314w
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Gutie	errez Landform (hillside, terrace	e, hummocks, etc.): Rock quarry basin
Local relief (concave, convex, none): Concave	Slope (%): 1	
Subregion: Southeast Alaska	Lat: 57.483691	Long: -134.564024 Datum: NAD 83
Soil Map Unit Name: None	-	NWI classification: PFO4B
Are climatic / hydrologic conditions on the site typical for	or this time of year? Yes X No	(If no, explain in Remarks.)
Are Vegetation X Soil X or Hydrology	significantly disturbed? Are "Nor	rmal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrology	naturally problematic? (If neede	ed, explain any answers in Remarks.)
	oon obewing complian point	leastions transats important factures at
	tap showing sampling point	locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes X	No	
Hydric Soil Present? Yes X	No Is the Sampled A	
Wetland Hydrology Present? Yes X	No within a Wetland	I? Yes <u>X</u> No
Remarks: Recently cleared ground. Areas without ve	egetation are abundanct with duff. leaf	litter, and debris.
Open rock quarry/former pond	· · · · · · · · · · · · · · · · · · ·	
VEGETATION – Use scientific names of p	plants. List all species in the	plot.
	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum	% Cover Species? Status	
1		Number of Dominant Species
2.		That Are OBL, FACW, or FAC: 2 (A)
3.		Total Number of Dominant
Total Cover:	<del>.</del>	Species Across All Strata: 2 (B)
50% of total cover:	20% of total cover:	
Sapling/Shrub Stratum		Percent of Dominant Species
1. Lysichiton americanus	40 X OBL	That Are OBL, FACW, or FAC: 100 (A/B)
2. Athyrium cyclosorum	20 X FAC	
3.		Prevalence Index worksheet:
4.		Total % Cover of: Multiply by:
5		OBL species x 1=
6		FACW species x 2=
Total Cover:		FAC species x 3=
50% of total cover: <u>30</u> Herb Stratum	20% of total cover: 12	FACU species   x 4=     UPL species   x 5=
1.		Column Totals: (A) (B)
2.		Prevalence Index = $B/A = 0$
3.		
4.		Hydrophytic Vegetation Indicators:
5.		X Dominance Test is >50%
6.		Prevalence Index is ≤3.0
7.		Morphological Adaptations <sup>1</sup> (Provide supporting
8		data in Remarks or on a separate sheet)
9		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10		
Total Cover: 50% of total cover:	20% of total cover:	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width) 5 ft radiu	s % Bare Ground	Hydrophytic
% Cover of Wetland Bryophytes	Total Cover of Bryophytes	Vegetation Yes X No
(Where applicable)		Present?
Remarks: Recently cleared ground. Areas without	t vegetation are abundanct with duff, le	ef litter, and debris.
US Army Corpo of Engineers		Alaska Marian O
US Army Corps of Engineers		Alaska Version 2.

mpling	Point:	314w
--------	--------	------

SOIL		:	Sampling Point: 314w
Profile Description: (Describe to the d	epth needed to document the indicator or co	nfirm the absence of ind	icators.)
Depth Matrix	Redox Features		·····,
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks
0-6 Organic 100		Organic	
6-18 10yr2/1 100	)	Muck	<u> </u>
			<u> </u>
			<u> </u>
<sup>1</sup> Type: C=Concentration D=Depletion F	M=Reduced Matrix, CS=Covered or Coated Sa	nd Grains <sup>2</sup> Location: P	L=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :		Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Clov	ed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying L	-
X Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue		ain in Remarks)
Thick Dark Surface (A12)			
Alaska Gleyed (A13)	2		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one		
Alaska Gleyed Pores (A15)	and an appropriate landscape position m	ust be present unless dist	urbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.		
Restrictive Layer (if present):			
Туре:			
Depth (inches):	Нус	Iric Soil Present? Ye	s X No
Remarks: Open rock quarry/former pon	d		
Remarks. Open fock quality/former pon	u .		
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (any one indicator is s	ufficient)	Secondary Indicat	ors (2 or more required)
X Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Water-Stained L	eaves (B9)
X High Water Table (A2)	Sparsely Vegetated Concave Surface (B8		
X Saturation (A3)	Marl Deposits (B15)	Oxidized Rhizos	pheres along Living Roots (C3)
Water Marks (B1)	X Hydrogen Sulfide Odor (C1)	Presence of Re	duced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C	
Drift Deposits (B3)	Other (Explain in Remarks)		ssed Plants (D1)
Algal Mat or Crust (B4)		Geomorphic Po	sition (D2)
Iron Deposits (B5)		Shallow Aquitar	. ,
Surface Soil Cracks (B6)		Microtopograph	. ,
		FAC-Neutral Te	st (D5)
Field Observations:			
Surface Water Present? Yes X	No Depth (Inches): 4		
Water Table Present? Yes X	No Depth (Inches): Surface		
Saturation Present? Yes X	No Depth (Inches): Surface	Wetland Hydrology Pr	esent? Yes X No
(includes capillary fringe)			— —
	monitoring well, aerial photos, previous inspecti	ons), if available:	
·			
Remarks:			

WETLAND DETERMINATION DATA FORM -	Alaska	Region
	/	

Project/Site: Angoon Airport - Echo Align Applicant/Owner: ADOT & PF	ment		Borough/City:	Hoonah / A	Angoon	Sampling D	Date: <u>10-Jun-2</u> Point: 315u	2018
Investigator(s): J.Barna, L.Johnson, S.Ha	artung, R.Gutier	rez	Landform (hill	side, terrace	, hummocks, etc.):	Hill slope in c	quarry	
Local relief (concave, convex, none): Cor	ncave		Slope (%): 3	3				
Subregion: Southeast Alaska		Lat: 57.48	3657		Long: -134.564045	5	Datum: NAD	0 83
Soil Map Unit Name: None					NWI classifi	cation: PFC	)4B	
Are climatic / hydrologic conditions on the	e site typical for	this time of	f year? Yes	X No	(If no, explain	in Remarks.	)	
Are Vegetation X Soil X or Hyd	rology si	gnificantly o	disturbed?	Are "Norr	mal Circumstances" p	present?	Yes X	No
Are Vegetation Soil or Hyd	rology na	aturally prot	plematic?	(If neede	d, explain any answe	rs in Remarl	ks.)	
SUMMARY OF FINDINGS - At								tures, etc.
Hydrophytic Vegetation Present?	Yes	No X						
Hydric Soil Present?	Yes	No X	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes	No X	within	a Wetland	? Yes	No	X	
Remarks:								
Disturbed area in rock quarr	-							
VEGETATION – Use scientific i	names of pl							
Tree Stratum			Dominant	Indicator	Dominance Test w	orksheet:		
		% Cover	Species?	Status	Number of Dominar	at Species		
2.					That Are OBL, FAC	•	2	(A)
3.			·		111d(7110 00E, 1710	, or 1710.		(,,)
4.					Total Number of Do	ominant		
	Total Cover:				Species Across All	Strata:		(B)
50% of total cover:		20% of to	otal cover:					
Sapling/Shrub Stratum					Percent of Dominar			
1			·		That Are OBL, FAC	W, or FAC:		(A/B)
3.					Prevalence Index	workshoot		
4.					Total % Cover		Multiply by:	
5.					OBL species		x 1=	
6.					FACW species		x 2=	
	Total Cover:				FAC species		x 3=	
50% of total cover:		20% of to	otal cover:		FACU species		x 4=	
<u>Herb Stratum</u>					UPL species		x 5=	
1					Column Totals:	(A)		(B)
2. Oplopanax horridus		10		FACU	Prevalence Inc	dex = B/A =	0	
3. Dryopteris expansa		10	<u> </u>	FACU				
4					Hydrophytic Vege			
5						Test is >50%		
6					Prevalence		ns <sup>1</sup> (Provide s	supporting
7 8.							on a separate	
9.							Vegetation <sup>1</sup> (	· ·
10.							- egetation (	
	Total Cover:	20			<sup>1</sup> Indicators of hyd	ric soil and v	vetland hvdrol	oav must
50% of total cover:	10		otal cover:	4	be present, unles		-	••
Plot size (radius, or length x width)	5 ft radius	% B	are Ground	80	Hydrophytic		•	
% Cover of Wetland Bryophytes	-	Total Cover	of Bryophytes	S	Vegetation	Yes	No	х
(Where applicable)					Present?			
Remarks:								

US Army Corps of Engineers

ampling Point:	315u

SOIL								Sampling Po	pint:	315u
Profile Descri	ption: (Describe to	the depth neede	d to document	the indicat	or or co	nfirm the	absence of i	ndicators.)		
Depth	Matrix	•		ox Features				,		
(inches)	s) Color (moist) % Color (moist) %				Type <sup>1</sup>	Loc <sup>2</sup>	Texture	F	Remarks	
0-16	Rock	100	<u> </u>				Rock	D	isturbed	
								. <u> </u>		
<sup>1</sup> Type: C=Co	ncentration, D=Deplet	ion, RM=Reduce	d Matrix, CS=C	overed or C	oated Sa	and Grains	s. <sup>2</sup> Locatior	: PL=Pore Lini	ng, M=Ma	ıtrix.
Hydric Soil Inc	licators:	Indicato	rs for Problem	atic Hydric	Soils <sup>3</sup> :		Indicators for	or Problematic	Hydric S	Soils <sup>3</sup> :
Histosol o	r Histel (A1)	Alask	a Color Chang	e (TA4) <sup>4</sup>			Alaska G	leyed Without	Hue 5Y oi	Redder
	bedon (A2)		a Alpine Swale				Underlyir	•		
Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue								xplain in Rema	rks)	
	k Surface (A12)								,	
	eyed (A13)									
Alaska Re	• • •	<sup>3</sup> One ind	icator of hydrop	ohytic veget:	ation one	e primary	indicator of w	etland hydroloc	1V	
	eyed Pores (A15)		an appropriate la							
	,		tails of color ch			I				
Restrictive La	yer (if present):									
Type:										
Depth (inc	hes):				Нус	dric Soil F	Present?	Yes	No 2	x
Remarks:										
rtemanto.										
HYDROLOG	v									
	ology Indicators:									
-	ators (any one indicate	or is sufficient)				s	econdary Indi	cators (2 or mo	ore require	(he
Surface W			lation Visible or	A orial Ima	70n/ (P7)			ed Leaves (B9)		<u>, , , , , , , , , , , , , , , , , , , </u>
	er Table (A2)		sely Vegetated		,		Drainage Pa	, ,		
Saturation			Deposits (B15)					zospheres alon	a Livina F	Roots (C3)
Water Ma			ogen Sulfide Oc					Reduced Iron (		
	Deposits (B2)		Season Water T				Salt Deposite	,	01)	
Drift Depo	• • • •		r (Explain in Re	· · ·				tressed Plants	(D1)	
Algal Mat or Crust (B4)							Position (D2)	( )		
Iron Depo	sits (B5)						Shallow Aqu	itard (D3)		
Surface S	oil Cracks (B6)						Microtopogra	aphic Relief (D4	)	
							FAC-Neutral	Test (D5)		
							-			
Field Observ	ations:									
Surface Wate		No X	Depth (Inc	ches): No	)					
Water Table F	Present? Yes	No X	Depth (Inc		)					
Saturation Pre	esent? Yes	No X	Depth (In		)	Wetlan	d Hydrology	Present?	Yes	No X
(includes capi	llary fringe)									
Describe Rec	orded Data (stream g	auge, monitoring	well, aerial phot	tos, previous	s inspect	ions), if av	vailable:			
Remarks: Di	sturbed area in rock o	quarry								

US Army Corps of Engineers

Project/Site: Angoon Airport - Echo Alig	nment		Borough/City	: Hoonah /	Angoon	Sampling Date:	11-Jun-20	18
Applicant/Owner: ADOT & PF						Sampling Point:	316w	
nvestigator(s): J.Barna, L.Johnson, S.H	lartung, R.Gutie	errez	Landform (hil	lside, terrace	e, hummocks, etc.):	Hill top		
_ocal relief (concave, convex, none): Co	oncave		Slope (%):	None				
Subregion: Southeast Alaska		Lat: 57.48	6243		Long: -134.56159	2 Da	tum: NAD	83
Soil Map Unit Name: None						ication: PFO4B		
Are climatic / hydrologic conditions on th	ne site typical fo	or this time o	f year? Yes	s X No	(If no, explain	in Remarks.)		
		significantly of			mal Circumstances"	,	X N	0
· · · · · · ·	drology r				ed, explain any answe			
		latarany pro	siomatio.	(1110000	sa, oxplain any anone			
SUMMARY OF FINDINGS – A	ttach site m	ap show	ing sampl	ing point	locations, trans	ects, importa	ant featu	ires, etc
lydrophytic Vegetation Present?	Yes X	No						
lydric Soil Present?	Yes X	No	Is the	Sampled A	rea			
Vetland Hydrology Present?	Yes X	No	withi	n a Wetland	? Yes X	No		
Remarks: Wetland patch								
/EGETATION – Use scientific	names of p		-					
Tree Stratum		Absolute	Dominant Species?	Indicator	Dominance Test v	vorksheet:		
1		70 COver	Species	Status	Number of Domina	nt Species		
2.					That Are OBL, FAC	•	3	(A)
3.							Ű	()
4.					Total Number of Do	ominant		
	Total Cover:				Species Across All	Strata:	3	(B)
50% of total cover:		20% of to	otal cover:					
Sapling/Shrub Stratum					Percent of Dominal			
1. Lysichiton americanus		40	<u>X</u>	OBL	That Are OBL, FAC	CW, or FAC:	100	(A/B)
2. Athyrium cyclosorum 3. Cornus alba		20	<u> </u>	FAC FAC	Drevelance Index			
4.		15		FAC	Prevalence Index Total % Cove		ultiply by:	
5.					OBL species	x 1=		_
6.					FACW species	x 2=		_
	Total Cover:	75			FAC species	x 3=		
50% of total cover:	37.5	20% of to	otal cover:	15	FACU species	x 4=		_
<u>Herb Stratum</u>					UPL species	x 5=		_
1					Column Totals:	(A)		(B)
2					Prevalence In	dex = B/A =	0	_
3								
4					Hydrophytic Veg		rs:	
5					X Dominance			
6						Index is ≤3.0	B	
7						cal Adaptations <sup>1</sup> (		••••
8						Remarks or on a		,
9 0.						Hydrophytic Veg	etation (E	xpiairi)
0	Total Cover				<sup>1</sup> Indicators of hyd	Iria apil and watle	nd hydrolo	m ( mu ot
50% of total cover:	Total Cover:		otal cover:		be present, unles			yy musi
	5 ft radius	s % B	are Ground		Hydrophytic			
Plot size (radius, or length x width)					1			
Plot size (radius, or length x width) % Cover of Wetland Bryophytes		Total Cover	of Bryophyte	es	Vegetation	Yes X	No	
		Total Cove	r of Bryophyte	es	Vegetation Present?	Yes X	No	

mpling Point:	316w
---------------	------

SOIL			Sampling Point: 316w
Profile Description: (Describe to	the depth needed to document the indicator or o	confirm the absence of i	ndicators.)
Depth Matrix	Redox Features		· · · · · · · · · · · · · · · · · · ·
(inches) Color (moist)	% Color (moist) % Type	e <sup>1</sup> Loc <sup>2</sup> Texture	Remarks
0-6 10yr2/1	100	Muck	
6-16 Organic	100	Organic	
<sup>1</sup> Type: C=Concentration, D=Deplet	ion, 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	A	or Problematic Hydric Soils <sup>3</sup> :
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska G	leyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlyin	•
X Hydrogen Sulfide (A4)		•	plain in Remarks)
	Alaska Redox With 2.5Y Hue		
Thick Dark Surface (A12)			
Alaska Gleyed (A13)	30		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, o		
Alaska Gleyed Pores (A15)	and an appropriate landscape position	must be present unless a	isturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.		
Restrictive Layer (if present):			
Туре:			
Depth (inches):	H	lydric Soil Present?	Yes <u>X</u> No
HYDROLOGY			
Wetland Hydrology Indicators:	an in sufficient)	Casandan ( Indi	estare (2 ar more remained)
Primary Indicators (any one indicato			cators (2 or more required)
X Surface Water (A1)	Inundation Visible on Aerial Imagery (E		d Leaves (B9)
X High Water Table (A2)	Sparsely Vegetated Concave Surface		
X Saturation (A3)	Marl Deposits (B15) X Hydrogen Sulfide Odor (C1)		zospheres along Living Roots (C3)
Water Marks (B1)			Reduced Iron (C4)
Sediment Deposits (B2) Drift Deposits (B3)	Dry-Season Water Table (C2) Other (Explain in Remarks)	Salt Deposits	
Algal Mat or Crust (B4)		Geomorphic	ressed Plants (D1) Position (D2)
Iron Deposits (B5)		Shallow Aqui	( )
Surface Soil Cracks (B6)		·	phic Relief (D4)
		FAC-Neutral	
Field Observations:		1	
	X No Depth (Inches): None		
	X No Depth (Inches): Surface		
	X No Depth (Inches): Surface	Wetland Hydrology	Present? Yes X No
(includes capillary fringe)			<u> </u>
· · · · · · · · · · · · · · · · · · ·	auge, monitoring well, aerial photos, previous inspe	ections), if available:	
		,,	
Remarks:			
omano.			

oject/Site: Angoon Airport - Echo Alignment E		Borough/City: Hoonah / Angoon			Sampling Date: <u>10-Jun-2018</u>			
Applicant/Owner: ADOT & PF						Sampling Point:	317u	
Investigator(s): J.Barna, L.Johnson, S.Hart	ung, R.Gutierr	ez	Landform (hil	lside, terrace	, hummocks, etc.):	Hill top		
Local relief (concave, convex, none): <u>Conc</u>	ave		Slope (%):	None				
Subregion: Southeast Alaska		Lat: 57.48	6318		Long: -134.56149	Da	tum: NAD	83
Soil Map Unit Name: None					NWI classifi	cation: PFO4B		
Are climatic / hydrologic conditions on the s	ite typical for	this time of	fyear? Yes	s X No	(If no, explain	in Remarks.)		
Are Vegetation Soil or Hydrol	logy sig	nificantly c	listurbed?	Are "Norr	mal Circumstances" p	present? Yes	X	No
Are Vegetation Soil or Hydrol	logyna	turally prob	plematic?	(If neede	d, explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS – Atta	ch site ma	ip snowi	ing sampl	ing point	locations, trans	ects, importa	ant reat	ures, et
5 1 5 6	Yes X	No						
,	Yes	No X	Is the	Sampled A	rea			
Wetland Hydrology Present?	Yes	No X	withi	n a Wetland?	? Yes	No	<u> </u>	
Remarks:								
VEGETATION – Use scientific na	mos of nia	ante Lie	t all snoci	os in tho r				
		Absolute	Dominant	Indicator	Dominance Test w	orksheet:		
Tree Stratum		% Cover		Status				
1. Tsuga heterophylla		80	X	FAC	Number of Dominal	nt Species		
2. Malus fusca		5		FACW	That Are OBL, FAC	W, or FAC:	2	(A)
3.								
4.					Total Number of Do		•	
50% of total cover:	Fotal Cover: 42.5	85	tal cover:	17	Species Across All	Strata:	3	(B)
Sapling/Shrub Stratum	42.5	20 /0 01 10		17	Percent of Dominar	at Species		
1. Vaccinium alaskaense		25	х	FAC	That Are OBL, FAC		67	(A/B)
2.					,			( )
3.					Prevalence Index	worksheet:		
4.					Total % Cover	of: M	ultiply by:	
5.					OBL species	x 1=		
6					FACW species	x 2=		
	Fotal Cover:	25		_	FAC species	x 3=		
50% of total cover: Herb Stratum	12.5	20% of to	tal cover:	5	FACU species	x 4=		
1. Streptopus amplexifolius		40	х	FACU	UPL species Column Totals:	x 5= (A)		(B)
2. Oplopanax horridus		10	~	FACU	Prevalence Inc	. ,	0	(D)
3. Dryopteris expansa		10		FACU	T TOVAICHOO IN		0	_
4.				17100	Hydrophytic Veg	etation Indicator	's'	
5.					X Dominance		0.	
6.						Index is ≤3.0		
7.						al Adaptations <sup>1</sup> (	Provide s	upporting
8.					data in F	Remarks or on a	separate	sheet)
9.					Problematic	Hydrophytic Veg	etation <sup>1</sup> (	Explain)
10								
	Total Cover:	60		-	<sup>1</sup> Indicators of hyd	ric soil and wetla	nd hydrolo	ogy must
50% of total cover:	30	20% of to	tal cover:	12	be present, unles	s disturbed or pro	blematic.	
– Plot size (radius, or length x width)	5 ft radius	% B	are Ground	80	Hydrophytic			
% Cover of Wetland Bryophytes	Г		of Bryophyte	s	Vegetation	Yes X	No	
(Where applicable)	<u> </u>		, , ,		Present?			
					FIESEIIL			
Remarks:					Fiesent:			

Sampling	Point:	317u
Gamping	i onit.	517u

	e depth needed to document the indicator or con	firm the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-13 Organic	100	Organic
13-16 10yr2/1	100	Muck
<u> </u>		
<u> </u>		
<sup>1</sup> Type: C=Concentration, D=Depletio	n, RM=Reduced Matrix, CS=Covered or Coated Sar	nd Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)
Thick Dark Surface (A12)		
Alaska Gleyed (A13)		
	<sup>3</sup> One indicator of hydroxistic version	primary indicator of wotland by directory
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	
Alaska Gleyed Pores (A15)		ist be present unless disturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):		
Туре:		
Depth (inches):	Hyd	ric Soil Present? Yes <u>No X</u>
Remarks:		
Komarko.		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (any one indicator	is sufficient)	Secondary Indicators (2 or more required)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (B9)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8	Drainage Patterns (B10)
Saturation (A3)	Marl Deposits (B15)	Oxidized Rhizospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Geomorphic Position (D2)
Iron Deposits (B5)		Shallow Aquitard (D3)
Surface Soil Cracks (B6)		Microtopographic Relief (D4)
		FAC-Neutral Test (D5)
Field Observations:	Ι	
Surface Water Present? Yes	No X Depth (Inches): No	
Water Table Present? Yes	No X Depth (Inches): No	
Saturation Present? Yes	No X Depth (Inches): 13	Wetland Hydrology Present? Yes No X
(includes capillary fringe)		
· · · · · · ·	ا ge, monitoring well, aerial photos, previous inspectio	ons), if available:
· · · · · · ·	ge, monitoring well, aerial photos, previous inspection	ons), if available:
· · · · · ·	ge, monitoring well, aerial photos, previous inspection	ons), if available:

, , , , , , , , , , , , , , , , , , , ,	iment		Solough/Oity	: Hoonah / /	Rigoon	Sampling Dat	e. iz-Juli-z	2018
Applicant/Owner: ADOT & PF						Sampling Poi	nt: 318u	
nvestigator(s): J.Barna, L.Johnson, S.H	artung, R.Gutie	rrez l	andform (hil	lside, terrace	e, hummocks, etc.):	Toe road fill slop	be	
ocal relief (concave, convex, none): Co	ncave	5	Slope (%):	2				
Subregion: Southeast Alaska		Lat: 57.48	5102		Long: -134.56397	5 [	Datum: NAC	0 83
Soil Map Unit Name: None					NWI classif	ication: N/A		
Are climatic / hydrologic conditions on th	e site typical fo	r this time of	year? Yes	s X No	(If no, explain	in Remarks.)		
Are Vegetation X Soil X or Hyd	Irology s	ignificantly d	isturbed?	Are "Nor	mal Circumstances"	present? Ye	es X I	No
Are Vegetation Soil or Hyd		aturally prob	lematic?	(If neede	ed, explain any answe	ers in Remarks.	)	
SUMMARY OF FINDINGS – A	tach site m	ap showi	ng sampli	ing point	locations, trans	ects, impor	tant feat	ures, et
lydrophytic Vegetation Present?	Yes	No X						
lydric Soil Present?	Yes	No X	Is the	Sampled A	rea			
Vetland Hydrology Present?	Yes	No X	withi	n a Wetland	? Yes	No	X	
Remarks: At edge of maintained road	chouldor							
At toe of road prism	shoulder							
At the of road phann								
/EGETATION Lies scientific	names of n	lante Liet		oc in the	nlot			
/EGETATION – Use scientific	names or p	Absolute	Dominant	Indicator	Dominance Test v	vorkehoot:		
Tree Stratum			Species?	Status	Dominance rest	vorksneet.		
1.					Number of Domina	nt Species		
2.					That Are OBL, FAC		2	(A)
3.								
4					Total Number of Do			(=)
E0% of total cover	Total Cover:	20% of to	tal aquar		Species Across All	Strata:	4	(B)
50% of total cover:		20% 01 10			Demonst of Demine	nt Creation		
<u>Sapling/Shrub Stratum</u> 1. Rubus parviflorus		85	х	FACU	Percent of Domina That Are OBL, FAC	•	50	(A/B)
2. Alnus viridis		25		FAC	11100 0002, 1710	-	00	(,,,,,,)
3.					Prevalence Index	x worksheet:		
4.		·			Total % Cove	r of:	Multiply by:	
5.					OBL species	<b>x</b> 1		
6					FACW species	x 2	2=	
	Total Cover:	110			FAC species	35 x 3		
50% of total cover:	55	20% of to	tal cover:	22	FACU species	115 x 4		
<u>Herb Stratum</u> 1.					UPL species Column Totals:	x 5 150 (A)	565	(P)
2. Equisetum arvense		10	X	FAC	Prevalence In	( )	3.77	(B)
3. Dryopteris expansa		30	X	FACU			5.11	_
4.				17100	Hydrophytic Veg	etation Indicat	ors:	
5.						Test is >50%		
6.		• <u> </u>				Index is ≤3.0		
7.		·				cal Adaptations	<sup>1</sup> (Provide s	upporting
8.					data in l	Remarks or on	a separate	sheet)
9.					Problematic	Hydrophytic V	egetation <sup>1</sup> (	Explain)
0								
	Total Cover:	40			<sup>1</sup> Indicators of hyd			
50% of total cover:	20	20% of to	tal cover:	8	be present, unles	s disturbed or p	problematic	
Plot size (radius, or length x width)	5 ft radius	s % Ba	are Ground		Hydrophytic			
% Cover of Wetland Bryophytes		Total Cover	of Bryophyte	es	Vegetation	Yes	No	x
					Present?			<u> </u>
(Where applicable)					Treating			
Remarks: At edge of maintained ro	ad shoulder				Il lesent:			

npling Point: 3	318u
-----------------	------

SOIL								Sampling Point:	318u
Profile Des	cription: (Describe to	the depth r	needed to docume	ent the indica	tor or co	onfirm the	e absence of in	dicators.)	
Depth	Matrix			edox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remar	ks
0-2	Organic	100					Organic		
2-8	10yr2/2	100					Silt loam		
8-16	10yr2/2	80					Silt loam		
8-16	Cobble/gravel	20					Cobble/gravel	Roadf	ill
	<u> </u>								<u></u>
	Concentration, D=Deple	tion RM-R	duced Matrix CS-	-Covered or C	oated S	and Grain	<sup>2</sup> Location:	PL=Pore Lining, M	-Matrix
Hydric Soil			licators for Proble					Problematic Hydi	
-				-				-	
	ol or Histel (A1)		Alaska Color Char					eyed Without Hue 5	Y or Redder
	Epipedon (A2)		Alaska Alpine Swa				Underlying	•	
	en Sulfide (A4)		Alaska Redox Wit	h 2.5Y Hue			Other (Exp	olain in Remarks)	
	Oark Surface (A12)								
Alaska	Gleyed (A13)								
Alaska	Redox (A14)	<sup>3</sup> O	ne indicator of hydi	rophytic veget	ation, or	ne primary	indicator of wet	tland hydrology,	
Alaska	Gleyed Pores (A15)		and an appropriate	e landscape p	osition n	nust be pr	esent unless dis	sturbed or problema	atic.
		<sup>4</sup> G	ive details of color	change in Rei	narks.				
Restrictive	Layer (if present):								
Type:									
Depth	(inches):				Ну	dric Soil	Present? Y	'es No	х
Demerika	Attac of read writers		-						
Remarks.	At toe of road prism								
HYDROLO									
-	drology Indicators:								
Primary Inc	dicators (any one indicat	or is sufficie	nt)				Secondary Indica	ators (2 or more rec	quired)
Surface	e Water (A1)		Inundation Visible	on Aerial Ima	gery (B7	7)	Water-Stained	l Leaves (B9)	
High W	/ater Table (A2)		Sparsely Vegetate	ed Concave S	urface (E	38)	Drainage Patte	erns (B10)	
Saturat	tion (A3)		Marl Deposits (B1	5)			Oxidized Rhize	ospheres along Livi	ng Roots (C3)
Water	Marks (B1)		Hydrogen Sulfide	Odor (C1)			Presence of R	educed Iron (C4)	
Sedime	ent Deposits (B2)		Dry-Season Water	r Table (C2)			Salt Deposits	(C5)	
Drift De	eposits (B3)		Other (Explain in F	Remarks)			Stunted or Stre	essed Plants (D1)	
Algal M	lat or Crust (B4)		-				Geomorphic P	osition (D2)	
Iron De	eposits (B5)						Shallow Aquita	ard (D3)	
Surface	e Soil Cracks (B6)						Microtopograp	hic Relief (D4)	
							FAC-Neutral T	est (D5)	
Field Obse	ervations:								
	ater Present? Yes	No	X Depth (	(Inches): N	0				
Water Tab	le Present? Yes	No		(Inches): N					
Saturation		No		(Inches): N		Wetla	nd Hydrology P	Present? Yes	No X
(includes c	apillary fringe)								
	ecorded Data (stream g	auge, monit	oring well, aerial pl	notos, previou	s inspec	tions), if a	vailable:		
					-	-			
Remarks:									

Project/Site: Angoon Airport - Echo Alignment	Borough/City: Hoonah / A	Angoon Sampling Date: 11-Jun-2018
Applicant/Owner: ADOT & PF		Sampling Point: 319w
nvestigator(s): J.Barna, L.Johnson, S.Hartung, R.Gu	tierrez Landform (hillside, terrace	e, hummocks, etc.): Flat
_ocal relief (concave, convex, none): Concave	Slope (%): None	
Subregion: Southeast Alaska	Lat: 57.484677	Long: -134.564604 Datum: NAD 83
Soil Map Unit Name: None		NWI classification: PFO4B
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 "Nor	mal Circumstances" present? Yes X No
		ed, explain any answers in Remarks.)
		,
SUMMARY OF FINDINGS – Attach site	map showing sampling point	locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes X	No	
Hydric Soil Present? Yes X	No Is the Sampled A	rea
Wetland Hydrology Present? Yes X	No within a Wetland	? Yes X No
Remarks: Wetland patch		
VEGETATION – Use scientific names of		
Tree Stratum	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
1. Vaccinium uliginosum	$\frac{10}{10} \times \frac{3400}{10}$	Number of Dominant Species
2.		That Are OBL, FACW, or FAC: 3 (A)
3.		
4.		Total Number of Dominant
Total Cove		Species Across All Strata: 4 (B)
50% of total cover: 5	20% of total cover: 2	
Sapling/Shrub Stratum		Percent of Dominant Species
1. Lysichiton americanus	60 X OBL	That Are OBL, FACW, or FAC: 75 (A/B)
2. Athyrium cyclosorum	<u>40 X FAC</u> 15 X FAC	Dervelan er hader merkelsest.
<ol> <li>Cornus alba</li> <li>Rubus spectabilis</li> </ol>	<u>15 X FAC</u> 2 FACU	Prevalence Index worksheet: Total % Cover of: Multiply by:
5.		OBL species     x 1=
6.		FACW species x 2=
Total Cove	er: 117	FAC species x 3=
50% of total cover: 58.5	20% of total cover: 23.4	FACU species x 4=
Herb Stratum		UPL species x 5=
1.		Column Totals: (A) (B)
2.		Prevalence Index = B/A = 0
3		
4		Hydrophytic Vegetation Indicators:
5		X Dominance Test is >50%
6		Prevalence Index is ≤3.0
7		Morphological Adaptations <sup>1</sup> (Provide supporting
8		data in Remarks or on a separate sheet)
9		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
0		
Total Cove 50% of total cover:	20% of total cover:	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width) 5 ft rad	ius % Bare Ground	Hydrophytic
% Cover of Wetland Bryophytes 30	Total Cover of Bryophytes 30	Vegetation Yes X No
(Where applicable)		Present?
Remarks: Wetland patch		
US Army Corps of Engineers		Alaska Version 2

mpling Point:	319w
---------------	------

SOIL			Sampling Point: <u>319w</u>
Profile Description: (Describe to the d	epth needed to document the indicator or o	confirm the absence of in	ndicators.)
Depth Matrix	Redox Features		· · · · · · ,
(inches) Color (moist) %	Color (moist) % Type	<sup>1</sup> Loc <sup>2</sup> Texture	Remarks
0-8 10yr2/1 10		Muck	
8-16 Organic 10	)	Peat	
<sup>1</sup> Type: C=Concentration, D=Depletion, F	M=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>		r Problematic Hydric Soils <sup>3</sup> :
	$\Delta t_{\rm est} = 0$		
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>		eyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlyin	
X Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Ex	plain in Remarks)
Thick Dark Surface (A12)			
Alaska Gleyed (A13)			
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, c		
Alaska Gleyed Pores (A15)	and an appropriate landscape position	must be present unless di	sturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.		
Restrictive Layer (if present):			
Туре:			
Depth (inches):		ydric Soil Present?	Yes X No
· · · · ·		•	
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (any one indicator is s	ufficient)	Secondary Indic	cators (2 or more required)
X Surface Water (A1)	Inundation Visible on Aerial Imagery (B	7) Water-Staine	d Leaves (B9)
X High Water Table (A2)	Sparsely Vegetated Concave Surface (	B8) Drainage Pat	terns (B10)
X Saturation (A3)	Marl Deposits (B15)	Oxidized Rhiz	cospheres along Living Roots (C3)
Water Marks (B1)	X Hydrogen Sulfide Odor (C1)	Presence of F	Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits	(C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or St	ressed Plants (D1)
Algal Mat or Crust (B4)		X Geomorphic I	
Iron Deposits (B5)		Shallow Aquit	ard (D3)
Surface Soil Cracks (B6)		Microtopogra	phic Relief (D4)
		FAC-Neutral	Test (D5)
Field Observations:			
Surface Water Present? Yes X	No Depth (Inches): None		
Water Table Present? Yes X	No Depth (Inches): Surface		
Saturation Present? Yes X	No Depth (Inches): Surface	Wetland Hydrology	Present? Yes X No
(includes capillary fringe)			
	monitoring well, aerial photos, previous inspe	ctions), if available	
Remarks:			
Normania.			

Project/Site: Angoon Airport - Echo Alignment E			Borough/Cit	Borough/City: Hoonah / Angoon			7-Jun-2018	
Applicant/Owner:	ADOT & P	F					Sampling Point	: 400
Investigator(s): J.Bar	na, L.John	ison, S.Hartung, R.G	utierrez	Landform (h	illside, teri	race, hummocks, etc.):	Open terrace	
Local relief (concave	, convex, r	none): Flat		Slope (%):	1-2			
Subregion:	Southeast	Alaska	Lat:	57.486243		Long: -134.55411	<u>1</u> Da	atum: NAD 83
Soil Map Unit Name:	None					NWI classif	ication: PFO4B	
Are climatic / hydrolo	gic conditi	ons on the site typica	al for this t	ime of year? Ye	es <u>X</u> N	lo (If no, explain	in Remarks.)	
Are Vegetation	Soil	or Hydrology	signific	antly disturbed?	Are "	Normal Circumstances"	present? Yes	X No
Are Vegetation	Soil	or Hydrology	natural	y problematic?	(If ne	eded, explain any answe	ers in Remarks.)	

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

Hydrophytic Vegetation Present?	Yes	Х	No				
Hydric Soil Present?	Yes	Х	No	Is the Sampled Area			
Wetland Hydrology Present?	Yes	Х	No	within a Wetland?	Yes	х	No
Pomarka: Mystonyborb white flower				tative cover are abundant with dut			

Remarks: Mysteryherb white flower. 5 %. Areas without vegetative cover are abundant with duff, leaf litter, and debris.

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

1.	Tao a Dhach un	Absolute	Dominant	Indicator	Dominance Test worksheet:		
2.	Tree Stratum	% Cover	Species?	Status	Number of Deminerat Origina		
3.	1						(A)
4.       Total Cover:       Total Cover:       Total Number of Dominant         50% of total cover:       20% of total cover:       Species Across All Strata:       5       (B)         1.       Rhododendron groenlandicum       10       x       FAC       FACU       Percent of Dominant Species         2.       Viburnum edule       25       x       FACU       Prevalence Index worksheet:       60       (A/B)         3.       Picea sitchensis       10       x       FACU       Prevalence Index worksheet:       10       x 1=       10         4.					That Are OBL, FACW, of FAC	: 3	(A)
Total Cover:Total Cover:Species Across All Strata:5(B)Sapling/Shrub Stratum10xFACPercent of Dominant SpeciesFhat Are OBL, FACW, or FAC:60(A/B)1. Rhododendron groenlandicum10xFACUPrevalence Index worksheet:60(A/B)2. Viburnum edule25xFACUPrevalence Index worksheet:60(A/B)3. Picea sitchensis10xFACUPrevalence Index worksheet:104Total % Cover of:Multiply by:5FACU6FACW speciesx 2=50% of total cover:22.520% of total cover:9FACU speciesx 4=Herb StratumFACU speciesx 4=1. Carex pachystachya70xFACColumn Totals:(A)(B)	4				Total Number of Dominant		
50% of total cover:       20% of total cover:       Percent of Dominant Species         Sapling/Shrub Stratum       10       x       FAC         1. Rhododendron groenlandicum       25       x       FACU         2. Viburnum edule       25       x       FACU         3. Picea sitchensis       10       x       FACU         4.       10       x       FACU         5.       0       X       FACU         6.       10       x       FACU         70       x       FACU         Yoburnum edule       25       x         5.       0       X         6.       10       x         70       x       FACU         Yoburnum edule       X       Yoburnum edule         X       Yoburnum edule       X       Yoburnum edule         X       10       X       FACU         Methods a stickensis       10       X       FACU         Methods a stickensis       X       Yoburnum edule       X         X       10       X       FACU       Total % Cover of:       Multiply by:         OBL species       X       2=       FACU species       X	 Total	Cover:				5	(B)
1. Rhododendron groenlandicum       10       x       FAC       That Are OBL, FACW, or FAC:       60       (A/B)         2. Viburnum edule       25       x       FACU       FACU       Prevalence Index worksheet:       (A/B)         3. Picea sitchensis       10       x       FACU       FACU       Prevalence Index worksheet:       (A/B)         4.		-	otal cover:				(2)
1. Rhododendron groenlandicum       10       x       FAC       That Are OBL, FACW, or FAC:       60       (A/B)         2. Viburnum edule       25       x       FACU       FACU       Prevalence Index worksheet:       (A/B)         3. Picea sitchensis       10       x       FACU       FACU       Prevalence Index worksheet:       (A/B)         4.	Sapling/Shrub Stratum		-		Percent of Dominant Species		
3. Picea sitchensis       10       x       FACU       Prevalence Index worksheet: Total % Cover of:       Multiply by:         5.       0BL species       x 1=       Prevalence Index worksheet:       Nultiply by:         6.       70       x       FACU       FACU       Prevalence Index worksheet:         Total % Cover of:       Multiply by:       X 1=       X 1=       X 1=         6.       70       x 45       X 2=       X 2=         50% of total cover:       22.5       20% of total cover:       9       FACU species       X 4=         Herb Stratum       70       x       FAC       Column Totals:       (A)       (B)		10	x	FAC		: 60	(A/B)
4.	2. Viburnum edule	25	х	FACU			
5.       OBL species       x 1=         6.       Total Cover:       45         50% of total cover:       22.5       20% of total cover:       9         Herb Stratum       Total Cover:       9         1. Carex pachystachya       70       x       FAC         Column Totals:       (A)       (B)	3. Picea sitchensis	10	x	FACU	Prevalence Index workshee	et:	
6.       Total Cover:       45       FACW species       x 2=         50% of total cover:       22.5       20% of total cover:       9       FAC species       x 3=         Herb Stratum       1. Carex pachystachya       70       x       FAC       Column Totals:       (A)       (B)	4.				Total % Cover of:	Multiply by	:
Total Cover:45FAC speciesx 3=50% of total cover:22.520% of total cover:9FACU speciesx 4=Herb Stratum1. Carex pachystachya70xFACColumn Totals:(A)(B)	5.				OBL species	x 1=	
50% of total cover:     22.5     20% of total cover:     9     FACU species     x 4=       Herb Stratum     UPL species     x 5=       1. Carex pachystachya     70     x     FAC     Column Totals:     (A)     (B)	6.				FACW species	x 2=	
Herb Stratum     UPL species     x 5=       1. Carex pachystachya     70     x     FAC     Column Totals:     (A)     (B)	Total	Cover: 45			FAC species	x 3=	
1. Carex pachystachya     70     x     FAC     Column Totals:     (A)     (B)	50% of total cover: 22	2.5 20% of to	otal cover:	9	FACU species	x 4=	
	Herb Stratum		-		UPL species	x 5=	
	1. Carex pachystachya	70	х	FAC	Column Totals: (A)	)	(B)
	2. Potentilla glaucophylla	20	x	FACW	Prevalence Index = B/A =	= 0	
3. Equisetum arvense 1 FAC	3. Equisetum arvense	1		FAC			
4. Hydrophytic Vegetation Indicators:	4.				Hydrophytic Vegetation Ind	icators:	
5 X Dominance Test is >50%	5.				X Dominance Test is >50	1%	
6 Prevalence Index is ≤3.0	6				Prevalence Index is ≤3	.0	
7. Morphological Adaptations <sup>1</sup> (Provide supporting	7				Morphological Adaptati	ons <sup>1</sup> (Provide	supporting
8. data in Remarks or on a separate sheet)					data in Remarks or	on a separate	sheet)
9. Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	9.					•	,
	10.					5	
Total Cover: 91 <sup>1</sup> Indicators of hydric soil and wetland hydrology must	Total	Cover: 91			<sup>1</sup> Indicators of hydric soil and	wetland hydro	loav must
50% of total cover: 45.5 20% of total cover: 18.2 be present, unless disturbed or problematic.			otal cover:	18.2			
Plot size (radius, or length x width) 5 ft radius % Bare Ground Hydrophytic	Plot size (radius, or length x width) 5	ft radius % B	are Ground		Hydrophytic		
% Cover of Wetland Bryophytes Total Cover of Bryophytes Vegetation Yes X No	% Cover of Wetland Bryophytes	Total Cover	of Bryophyte	s	Vegetation Yes	X No	
(Where applicable)			,,,,				
Remarks: Mysteryherb white flower. 5 %. Areas without vegetative cover are abundant with duff, leaf litter, and debris.	Remarks: Mysteryherb white flower. 5 %.	Areas without veget	ative cover a	re abundant			
		Ŭ					

US Army Corps of Engineers

Sampling	Point:	400
Sampling	F UIII.	400

Profile Description: (Describe to the de	epth needed to document the indicator or co	ofirm the absence of indicators )
Depth Matrix	Redox Features	mini the absence of mulcators.
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-20 10 YR 2/2 100		Peat Partially decomposed
		Roots and plant fiber
		<u> </u>
<sup>1</sup> Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, CS=Covered or Coated Sa	nd Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)
Thick Dark Surface (A12)		
Alaska Gleyed (A13)		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	primary indicator of wetland hydrology.
Alaska Gleyed Pores (A15)		ust be present unless disturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):	ç	
Type:		
Depth (inches):	Hvc	Iric Soil Present? Yes X No
Remarks:		
Remarks:		
HYDROLOGY		
HYDROLOGY Wetland Hydrology Indicators:	(finiant)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su		Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (B9)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) X High Water Table (A2)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B	Water-Stained Leaves (B9) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) X High Water Table (A2) X Saturation (A3)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15)	Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is set Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is set Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Water-Stained Leaves (B9) Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Salt Deposits (C5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is set Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	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)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is set Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is set Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is set         Surface Water (A1)         X         High Water Table (A2)         X         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is set Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is set         Surface Water (A1)         X         High Water Table (A2)         X         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)	Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	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)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is standard for the standa	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)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is signary for the second	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)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is statement)         Surface Water (A1)         X         High Water Table (A2)         X         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)	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)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is signed by Surface Water (A1)         X       High Water Table (A2)         X       Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)	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)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is signed water (A1)         X       Surface Water (A1)         X       High Water Table (A2)         X       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Surface Water Present?       Yes         Water Table Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)       X	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)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is signation of the second stress of th	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)         No       Depth (Inches): NA         No       Depth (Inches): 6         No       Depth (Inches): Surface	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)
HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator is signed water (A1)         X       Surface Water (A1)         X       High Water Table (A2)         X       Saturation (A3)         Water Marks (B1)       Sediment Deposits (B2)         Drift Deposits (B3)       Algal Mat or Crust (B4)         Iron Deposits (B5)       Surface Soil Cracks (B6)         Surface Water Present?       Yes         Water Table Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)       X	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)         No       Depth (Inches): NA         No       Depth (Inches): 6         No       Depth (Inches): Surface	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)

Project/Site: Angoon Airport - Echo Alignr	nent		Borough/City	: Hoonah / J	Angoon Sampling Date: 7-Jun-2018
Applicant/Owner: ADOT & PF					Sampling Point: 401u
nvestigator(s): J.Barna, L.Johnson, S.Ha	rtung, R.Gutie	rrez	Landform (hi	llside, terrace	e, hummocks, etc.): terrace
ocal relief (concave, convex, none): Flat			Slope (%):	0	
ubregion: Southeast Alaska		Lat: 57.48	6481		Long: -134.553739 Datum: NAD 83
oil Map Unit Name: None	-				NWI classification: PFO4B
re climatic / hydrologic conditions on the	site typical for	r this time of	year? Ye	s X No	(If no, explain in Remarks.)
re Vegetation Soil or Hydr	• •	ignificantly d	•	Are "Nor	mal Circumstances" present? Yes X No
		aturally prob			ed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Att	ach site m			,	locations, transects, important features, et
lydrophytic Vegetation Present?	Yes X	No			
lydric Soil Present?	Yes	No X		e Sampled A	
Vetland Hydrology Present?	Yes	No X	withi	n a Wetland	? Yes <u>No X</u>
Remarks: 50% of plot is on road bed					
/EGETATION – Use scientific r	lames of p		-		
Tree Stratum		Absolute % Cover	Dominant	Indicator	Dominance Test worksheet:
1.		% Cover	Species?	Status	Number of Dominant Species
2.		·			That Are OBL, FACW, or FAC: 2 (A)
3.		·			
4.		• •			Total Number of Dominant
	Total Cover:	·			Species Across All Strata: 3 (B)
50% of total cover:		20% of to	tal cover:		
Sapling/Shrub Stratum					Percent of Dominant Species
1. Picea sitchensis		10	Х	FACU	That Are OBL, FACW, or FAC: 67 (A/B)
2. Alnus viridis		3		FAC	
3. Salix sitchensis		15	Х	FAC	Prevalence Index worksheet:
4. Vaccinium ovalifolium		1	. <u></u>	FAC	Total % Cover of: Multiply by:
5					OBL species x 1=
6					FACW species x 2=
	Total Cover:	29		5.0	FAC species x 3=
50% of total cover: <u>Herb Stratum</u>	14.5	20% of to	tal cover:	5.8	FACU species x 4=
		25	v	EAC	UPL species $x 5=$
1. Equisetum arvense		35	X	FAC	Column Totals: (A) (B)
2. Taraxacum officinale		<u>1</u> 5		FACU	Prevalence Index = B/A =0
3. Chamaenerion angustifolium		5		FACU	Iludranhutia Vasatatian Indiaatara
4					Hydrophytic Vegetation Indicators:
5					X Dominance Test is >50%
6					Prevalence Index is ≤3.0
7					Morphological Adaptations <sup>1</sup> (Provide supporting
8					data in Remarks or on a separate sheet)
9					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	<b></b>	4.4			
	Total Cover:	41	tal covor:	8.2	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover:	20.5	20% of to		_	
				50	Hydrophytic
Plot size (radius, or length x width)	20.5	s% B	are Ground	50	Hydrophytic
50% of total cover:	20.5	s% B		50	

ampling Point:	401u
----------------	------

SOIL								Sampling Point:	401u	
Profile Des	scription: (Describe to t	he depth neede	d to document t	he indicator	or con	firm the a	bsence of i	ndicators.)		
Depth	Matrix	•		Features				,		
(inches)	Color (moist)	% Co	lor (moist)	% T	ype <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-16	10 yr 3/2		· · · ·					Road fill		
<sup>1</sup> Type: C=	Concentration, D=Depleti	ion, RM=Reduce	d Matrix, CS=Cov	vered or Coate	ed San	d Grains.	<sup>2</sup> Location	: PL=Pore Lining, M=Mat	rix.	
Hydric Soil	Indicators:	Indicato	rs for Problema	tic Hydric So	oils <sup>3</sup> :	h	ndicators fo	or Problematic Hydric Se	oils³:	
Histos	ol or Histel (A1)	Alasł	a Color Change	(TA4) <sup>4</sup>			Alaska G	leyed Without Hue 5Y or	Redder	
	Epipedon (A2)		a Alpine Swales			_	Underlyin	•		
	gen Sulfide (A4)		a Redox With 2.	,			•	plain in Remarks)		
	Dark Surface (A12)									
	Gleyed (A13)									
	Redox (A14)	<sup>3</sup> One inc	licator of hydroph	vtic venetatio	n one	primary in	dicator of we	etland hydrology		
	Gleyed Pores (A15)		• •			• •		isturbed or problematic.		
			tails of color char					·····		
Restrictive	Layer (if present):			-						
Type:	· · · · · · · · · · · · · · · · · · ·									
••	(inches):			esent?	Yes No X					
	(								_	
Remarks:										
HYDROLO	OGY									
Wetland Hy	drology Indicators:									
Primary In	dicators (any one indicato	or is sufficient)				Sec	condary Indi	cators (2 or more require	d)	
Surfac	e Water (A1)	Inuno	ation Visible on A	Aerial Imagery	y (B7)	V	Vater-Staine	d Leaves (B9)		
High W	/ater Table (A2)	Spar	sely Vegetated C	oncave Surfa	ce (B8)	8) Drainage Patterns (B10)				
Satura	tion (A3)		Deposits (B15)			C	oots (C3)			
Water	Marks (B1)	Hydro	ogen Sulfide Odo	r (C1)		Presence of Reduced Iron (C4)				
	ent Deposits (B2)		Season Water Tal	· · /		s				
	eposits (B3)	Othe	r (Explain in Rem	arks)		Stunted or Stressed Plants (D1)				
	/lat or Crust (B4)				Geomorphic	hic Position (D2)				
	eposits (B5)				•	Aquitard (D3)				
Surfac	e Soil Cracks (B6)			phic Relief (D4)						
						F	AC-Neutral	Test (D5)		
	ervations:		5 4 4 4	、 ···						
	ater Present? Yes	NoX	Depth (Inch		-					
	le Present? Yes	NoX	Depth (Inch	·	-	Motional		Dropont? Var	No. Y	
Saturation		No X	Depth (Inch	es): >16	-	wetland	Hydrology	Present? Yes	No <u>X</u>	
	apillary fringe) Recorded Data (stream ga	uge monitoring	well aerial abota		enectio	ne) if ave	ilable:			
Describe F	veconded Data (stream ga	auge, monitoring		s, previous in:	speciio	ns), ii ava				
Remarks:										
.smano.										

WETLAND DETERMINATION DATA FORM – Alaska Region

Applicant/Comer         ADD 12 PF         Sampling Font: 402u           Investigator(s):Bama, L. Johnson, S. Hartung, R.Gutierrez	3			
Local relief (concave, convex, none): Convex       Slope (%): 5         Subregion:       Southeast Alaska       Lat: 57.486774       Long: 134.555349       Datum: NAD 8         Subregion:       Southeast Alaska       Lat: 57.486774       Long: 134.555349       Datum: NAD 8         Are climatic / hydrologic conditions on the site typical for this time of year?       Yes       X No       (ff no, explain in Remarks.)         Are Vegetation       Soil       or Hydrology       influentation or Hydrology       Influentation or Hydrology       No         SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important feature Hydrohytic Vegetation Present?       Yes       No       X         Hydrobytic Vegetation Present?       Yes       No       X       is the Sampled Area         Welland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       Areas without vegetative cover are abundant with duff, leaf litter, and debris.       Soil moist       Soil moist       Status       Number of Dominant Species       That Are OBL, FACW, or FAC:       2         1. Picea sitchensis       10       Total Cover:       60       X       FACU       Number of Dominant Species         3. Vaccinium ovalifolium       40       X FAC       FACU	Sampling Point: 402u			
Subregion:         Southeast Alaska         Lat:         57.486774         Long:         134.555349         Datum: NAD 8: NWI diasification:         PFO4B           Soil Mare Vegetation         Soil or Hydrology         significantly disturbed?         Are 'Normal Circumstances' present?         Yes         X No         X         Are 'Normal Circumstances' present?         Yes         X No           Are Vegetation         Soil or Hydrology         naturally problematic?         (If needed, explain any answers in Remarks.)         No           SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature         Hydrophytic Vegetation Present?         Yes         No         X         is the Sampled Area           Wetland Hydrology Present?         Yes         No         X         is the Sampled Area           Wetland Hydrology Present?         Yes         No         X         is the Sampled Area           Wetland Hydrology Present?         Yes         No         X         is the Sampled Area           Soil moist         Soil moist         FACU         Number of Dominance Test worksheet:         Number of Dominant Species           1         Picea sitchensis         10         FACU         FACU         Number of Dominant Species           1         Facu         50% of total cover:         5				
Soil Map Unit Name:       None       If NWI classification:       PFO4B         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       inaturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature         Hydrophytic Vegetation Present?       Yes       No       X         Hydrophytic Vegetation Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         VEGETATION - Use scientific names of plants. List all species in the plot.       Dominant       Indicator         1       Preces				
Soil Map Unit Name:       None       If NWI classification:       PFO4B         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       inaturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important feature         Hydrophytic Vegetation Present?       Yes       No       X         Hydrophytic Vegetation Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       is the Sampled Area         VEGETATION - Use scientific names of plants. List all species in the plot.       Dominant       Indicator         1       Preces	3			
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 no, explain in Remarks.)         SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important featur         Hydrophytic Vegetation Present?       Yes       No       X         Hydrology Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Soil moist       VEGETATION – Use scientific names of plants. List all species in the plot.       Indicator       Status       Number of Dominant Species         1. Pice sitchensis       10       FACU       Number of Dominant Species       Total Cover:       12         3.       Total Cover:       30       Z0% of total cover:       12       Percent of Dominant Species       50         4.       Total Cover:       10       FACU       Total % Cover of:       Multiply by:         5.       Gotal cover:       10 </td <td></td>				
Are Vegetation       Soil       or Hydrology       significantly disturbed?       Are "Normal Circumstances" present?       Yes       X       No         Vere Vegetation       Soil       or Hydrology       naturally problematic?       (If needed, explain any answers in Remarks.)       No       X       No         SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important feature       Hydrology       No       X       Is the Sampled Area         Hydrology Present?       Yes       No       X       is the Sampled Area       No       X         Vetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       Areas without vegetative cover are abundant with duff, leaf litter, and debris.       Soil moist       Soil moist       No       X         VEGETATION – Use scientific names of plants. List all species in the plot.       Dominant       Indicator       Number of Dominant Species       That Are OBL, FACU       Number of Dominant Species         1. Picea sitchensis       90       X       FAC       Total Number of Dominant Species       That Are OBL, FACW, or FAC:       2         3				
Are VegetationSoilor Hydrologynaturally problematic?       (If needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important feature tydrophytic Vegetation Present?       YesNoX         Hydrophytic Vegetation Present?       YesNoX       is the Sampled Area         Wetland Hydrology Present?       YesNoX       within a Wetland?       NoX         Remarks:       Area without vegetative cover are abundant with duff, leaf litter, and debris.       Soil moist       Soil moist         VEGETATION – Use scientific names of plants. List all species in the plot.         Iree stratum       % Cover       Species?       Status         1. Picea stichensis       10       FACU       Number of Dominant Species         2. Tauga heterophylla       5       FACU       Percent of Dominant Species         3. Vaccinium ovalifolium       40       X       FACU         4				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important featur         Hydrophytic Vegetation Present?       Yes       No       X       Is the Sampled Area         Hydric Soil Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       Areas without vegetative cover are abundant with duff, leaf litter, and debris.       Soil moist       Soil moist       Soil moist       Dominant       Indicator       Dominance Test worksheet:       No       X         1. Picea sitchensis       10       Species?       Statu       Number of Dominant Species       That Are OBL, FACU       Number of Dominant Species         2. Tauga heterophylla       5       FACU       Total Number of Dominant Species       That Are OBL, FACW, or FAC:       2         3. vaccinium ovalifolium       40       X       FACU       Prevalence Index worksheet:       Multiply by:         1. Corrus canadensis       50       X       FACU       FACU       FACU       FACU Species       90       X =				
Hydrophytic Vegetation Present?       Yes       No       X       Is the Sampled Area         Vetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       Areas without vegetative cover are abundant with duff, leaf litter, and debris.       Soil moist       Soil moist       Yes       No       X         VEGETATION – Use scientific names of plants. List all species in the plot.         Iree stratum         1. Picea sitchensis       % Cover       Species?       FACU       Number of Dominant Species         2. Tsuga heterophylla       50       X       FAC       Total Cover:       10         2. Menziesia ferruginea       45       X       FACU       Prevalence Index worksheet:       Total Cover:         3. Vaccinium ovalifolium       40       X       FAC       FACU       Prevalence Index worksheet:       Total Cover:       50         4. Picea sitchensis       50       X       FAC       FACU       Prevalence Index worksheet:       Total Cover:       50         3. Vaccinium ovalifolium       40       X       FAC       FACU       FACU       Secies       x 2 =       FACU       FACU species       x 1 =       FACU species       x 2 =       <				
Hydric Soil Present?       Yes       No       X       Is the Sampled Area within a Wetland?       Yes       No       X         Remarks:       Areas without vegetative cover are abundant with duff, leaf litter, and debris.       Soil moist       Soil moist         VECETATION – Use scientific names of plants. List all species in the plot.       Dominant       Indicator       Dominance Test worksheet:         1       Picea sitchensis       10       FACU       No       X       Total Cover:       20         3       Total Cover:       60       20% of total cover:       12       Percent of Dominant Species       Total Number of Dominant Species         1. Tsuga heterophylla       5       FAC       Total Number of Dominant Species       Total Number of Dominant Species         2. Menziesia ferruginea       45       X       FACU       Percent of Dominant Species       Total % Cover of:       50         3. Vaccinium ovalifolium       40       X       FAC       Prevalence Index worksheet:       Total % Cover of:       Multiply by:         5.       50% of total cover:       50       20% of total cover:       20       FACU       Prevalence Index worksheet:       Total % Cover of:       Multiply by:         6.	es, etc.			
Wetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       Areas without vegetative cover are abundant with duff, leaf litter, and debris.       Soil moist       Soil moist       Soil moist         VEGETATION – Use scientific names of plants. List all species in the plot.         Interstructure         1       Picea sitchensis       10       Species?       Status       Nomarce Test worksheet:         1       Picea sitchensis       10       FACU       Number of Dominant Species       1         2       Total Cover:       60       20% of total cover:       12       Percent of Dominant Species         50% of total cover:       30       20% of total cover:       12       Percent of Dominant Species       50         1       Tsuga heterophylla       5       FACU       FACU       Prevalence Index worksheet:       4         2       Maccinium valifolium       40       X       FACU       Prevalence Index worksheet:       50         1       Tsuga heterophylla       5       FACU       Prevalence Index worksheet:       50         1       Total Cover:       50       20% of total cover:       20       7       A       5      <				
Remarks: Areas without vegetative cover are abundant with duff, leaf litter, and debris.         Soil moist         VEGETATION – Use scientific names of plants. List all species in the plot.         Indicator         Absolute       Dominant       Indicator         Yee Stratum       Absolute       Dominant       Indicator         1. Picea sitchensis       10       FACU       Number of Dominant Species         2. Tsuga heterophylla       50       X       FACU         3.       Total Cover:       30       20% of total cover:       12         Sapling/Shrub Stratum       5       FACU       Percent of Dominant Species         1. Tsuga heterophylla       5       FACU       Percent of Dominant Species         2. Menziesia ferruginea       45       X       FACU         3. Vaccinium ovalifolium       40       X       FACU         4. Picea sitchensis       10       FACU       Multiply by:         5. So% of total cover:       20       20       FACU         1. Cornus canadensis       50       X       FACU         1. Cornus canadensis       50       X       FACU         2. Menziesia ferruginea       50       X       FACU				
Soil moist         VEGETATION - Use scientific names of plants. List all species in the plot.         Image: Index species in the plot.       Dominant       Indicator       Dominant       Number of Dominant Species         1. Picea sitchensis       10       FACU       Number of Dominant Species       Number of Dominant Species         3.       50       X       FAC       That Are OBL, FACW, or FAC:       2         5.       50% of total cover:       30       20% of total cover:       12         Sagling/Shrub Stratum       5       FAC       FACU       FACU         1. Tsuga heterophylla       5       FAC       FACU       Prevalence Index worksheet:       4         2. Menziesia ferruginea       45       X       FACU       Prevalence Index worksheet:       10       FACU         4.       Picea sitchensis       10       FACU       Prevalence Index worksheet:       10       FACU         5.       50% of total cover:       50       20% of total cover:       20       Prevalence Index worksheet:       10       FACU         1. Cornus canadensis       50       X       FACU       FACU species       10       FACU         2.       Total Cover:       100       Z       S <td< td=""><td></td></td<>				
Soil moist         VEGETATION - Use scientific names of plants. List all species in the plot.         Image: Index species in the plot in the species in the plot.       Dominant indicator in the species in the plot.         Image: Index species in the plot in the species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index species in the plot.       Image: Index species in the plot.         Image: Index sp				
VEGETATION – Use scientific names of plants. List all species in the plot.         Indicator         Indication       Dominant       Indicator         1. Picea sitchensis       10       FACU       Status         1. Picea sitchensis       10       FACU       Number of Dominant Species         2. Tsuga heterophylla       50       X       FAC         3.       Total Cover:       60       Total Number of Dominant Species         50% of total cover:       30       20% of total cover:       12         Percent of Dominant Species       That Are OBL, FACW, or FAC:       50         2. Menziesia ferruginea       5       FAC         3. Vaccinium ovalifolium       40       X         4. Picea sitchensis       10       FACU         50% of total cover:       100       FACU         Verseise       90       x 3 = 270         FAC Species       90       x 3 = 270         FACU       50% of total cover:       100         50% of total cover:       50       20% of total cover:       20         1. Cornus canadensis       50       X       FACU         2.       50% of total cover:       50       X         3.       50 <td></td>				
Iree Stratum       Absolute       Dominant       Indicator         1. Picea sitchensis       10       FACU       Number of Dominant Species         2. Tsuga heterophylla       50       X       FAC       That Are OBL, FACW, or FAC:       2         3.       50       X       FAC       Total Number of Dominant Species       10       Total Number of Dominant Species         3.       50% of total cover:       30       20% of total cover:       12       Percent of Dominant Species         1. Tsuga heterophylla       5       FAC       Total Number of Dominant Species       10         2. Menziesia ferruginea       45       X       FACU       Total % Cover of:       Multiply by:         3. Vaccinium ovalifolium       40       X       FAC       Total % Cover of:       Multiply by:         0BL species       x 1=       FACU       FACU species       x 1=       FACU species       x 2=         50% of total cover:       50       20% of total cover:       20       Del species       x 4=       420         UPL species       50       X       FACU       FACU species       x 5=       -         1. Cornus canadensis       50       X       FACU       FACU       EACU species       x 5=				
Iree Stratum       % Cover       Species?       Status         1. Picea sitchensis       10       FACU         2. Tsuga heterophylla       50       X       FAC         3.       Total Cover:       60       Total Number of Dominant Species         4.       Total Cover:       60       Total Number of Dominant Species         50% of total cover:       30       20% of total cover:       12         Sapling/Shrub Stratum       5       FAC       Percent of Dominant Species         1. Tsuga heterophylla       5       FAC       Percent of Dominant Species         1. Tsuga heterophylla       5       FAC       Percent of Dominant Species         3. Vaccinium ovalifolium       40       X       FAC         4. Picea sitchensis       10       FACU       Total % Cover of:       Multiply by:         50% of total cover:       50       100       FACU       Total % Cover of:       Multiply by:         50% of total cover:       50       20% of total cover:       20       Prevalence Index worksheet:       Total % Cover of:       Multiply by:         50% of total cover:       50       20% of total cover:       20       FACU       Species       x 4 = 420         UPL species       x 5= <t< td=""><td></td></t<>				
1. Picea sitchensis       10       FACU       Number of Dominant Species         2. Tsuga heterophylla       50       X       FAC       That Are OBL, FACW, or FAC:       2         3.       Total Cover:       60       Total Number of Dominant       Species Across All Strata:       4         4.       Total Cover:       30       20% of total cover:       12       Percent of Dominant Species         5.       Total Cover:       30       20% of total cover:       12       Percent of Dominant Species         1. Tsuga heterophylla       5       FAC       That Are OBL, FACW, or FAC:       50         2.       Menziesia ferruginea       45       X       FACU         3. Vaccinium ovalifolium       40       X       FAC         4.       FACU       Total Cover:       10       FACU         50% of total cover:       50       20% of total cover:       20         1. Cornus canadensis       50       X       FACU       FACU         1.       Total Cover:       50       X       FACU         1. Cornus canadensis       50       X       FACU       FACU         1.       Cornus canadensis       50       X       FACU         2.       Soft<				
2. Tsuga heterophylla       50       X       FAC       That Are OBL, FACW, or FAC:       2         3.       Total Cover:       60       Total Number of Dominant       Species Across All Strata:       4         Sapling/Shrub Stratum       5       FAC       Total Number of Dominant Species       That Are OBL, FACW, or FAC:       50         Sapling/Shrub Stratum       5       FAC       Percent of Dominant Species       50         1. Tsuga heterophylla       5       FAC       FACU       Percent of Dominant Species         3. Vaccinium ovalifolium       45       X       FACU       Prevalence Index worksheet:         4. Picca sitchensis       10       FACU       Total % Cover of:       Multiply by:         50% of total cover:       50       20% of total cover:       20       OBL species       x 1 =         6.				
3.	(A)			
Total Cover:       60       20% of total cover:       12       Species Across All Strata:       4         Sapling/Shrub Stratum       5       FAC       Percent of Dominant Species       That Are OBL, FACW, or FAC:       50         Marziesia ferruginea       45       X       FACU       Prevalence Index worksheet:       10         Vaccinium ovalifolium       40       X       FAC       Total % Cover of:       Multiply by:         0       FACU       FACU       FACU       Total % Cover of:       Multiply by:         5       0       FACU       FACU       Total % Cover of:       Multiply by:         5       0       FACU       FACU       FACU       FACU       FACU         10       FACU       FACU       FACU       Total % Cover of:       Multiply by:       10         5       0       20% of total cover:       100       FACU       FACU       FACU species       90       x 3=       270         FACU Species       90       x 3=       270       FACU species       105       x 4=       420         UPL species       50       X       FACU       FACU       Prevalence Index is 510       690         2       1       0       50				
50% of total cover:3020% of total cover:12Sapling/Shrub Stratum5FAC1. Tsuga heterophylla5FAC2. Menziesia ferruginea45X3. Vaccinium ovalifolium40X4. Picea sitchensis10565.50% of total cover:1005655.50% of total cover:10050% of total cover:5020% of total cover:2050% of total cover:5020% of total cover:2050% of total cover:5020% of total cover:201. Cornus canadensis5023456788178178178178178178177878778 <td></td>				
Sapling/Shrub Stratum       Percent of Dominant Species         1. Tsuga heterophylla       5       FAC         2. Menziesia ferruginea       45       X         3. Vaccinium ovalifolium       40       X         4. Picea sitchensis       10       FAC         5.       10       FAC         7.       Total Cover:       10         5.       50% of total cover:       50         7.       50% of total cover:       50         7.       7.       7.         8.       7.       7.	(B)			
1.       Tsuga heterophylla       5       FAC       FAC       That Are OBL, FACW, or FAC:       50         2.       Menziesia ferruginea       45       X       FACU       Prevalence Index worksheet:       10         3.       Vaccinium ovalifolium       40       X       FAC       Prevalence Index worksheet:       Multiply by:         5.       10       FACU       Vactinium ovalifolium       x 1=       FACU       Total % Cover of:       Multiply by:         6.       Total Cover:       100       FACU       FACU species       x 2=       FACU species       x 2=       FACU species       x 2=       FACU species       FACU species       105       x 4=       420         1.       Cornus canadensis       50       X       FACU       FACU species       105       x 4=       420         1.       Cornus canadensis       50       X       FACU       FACU species       105       x 4=       420         2.       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       . <td< td=""><td><u> </u></td></td<>	<u> </u>			
1.       Tsuga heterophylla       5       FAC       FAC       That Are OBL, FACW, or FAC:       50         2.       Menziesia ferruginea       45       X       FACU       Prevalence Index worksheet:       10         3.       Vaccinium ovalifolium       40       X       FAC       Prevalence Index worksheet:       Multiply by:         5.       10       FACU       Vactinium ovalifolium       x 1=       FACU       Total % Cover of:       Multiply by:         6.       Total Cover:       100       FACU       FACU species       x 2=       FACU species       x 2=       FACU species       x 2=       FACU species       FACU species       105       x 4=       420         1.       Cornus canadensis       50       X       FACU       FACU species       105       x 4=       420         1.       Cornus canadensis       50       X       FACU       FACU species       105       x 4=       420         2.       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       .       . <td< td=""><td></td></td<>				
2.       Menziesia ferruginea       45       X       FACU         3.       Vaccinium ovalifolium       40       X       FAC         4.       Picea sitchensis       10       FACU         5.       10       FACU       Total % Cover of:       Multiply by:         6.       7.       Total Cover:       100       FACU       FACU       FACU         7.       7.       7.       Total cover:       50       X       FACU       FACU       Multiply by:       X 1=         7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.       7.	(A/B)			
4.Picea sitchensis10FACUTotal % Cover of: $X 1 =$ Multiply by: $X 1 =$ 5 <t< td=""><td></td></t<>				
5. $x = 1 = 1$ 6. $x = 1 = 1$ 50% of total cover:       100         50% of total cover:       20         FACW species $x = 2 = 1$ FACU species       90 $x = 270$ FACU species       105 $x = 420$ UPL species       195       (A)       690         Prevalence Index = B/A =       3.54       3.54         S       Image: Solution of the species is solution indicators:       Dominance Test is solution indicators:         Dominance Test is solution indicators is solution in the species is solution in the speci				
6.Total Cover:100FACW species $x 2 =$ 50% of total cover:5020% of total cover:20FAC species90 $x 3 =$ 270Herb Stratum50 $x$ FACUFACU species105 $x 4 =$ 4201. Cornus canadensis50 $x$ FACUFACUFACU6902. $x 5 =$ 3. $x =$ $x 5 =$ $x 5 =$ $x 5 =$ $x 5 =$ 4. $x =$ $x =$ $x 5 =$ $x 5 =$ $x 5 =$ 5. $x =$ $x =$ $x =$ $x =$ $x =$ 6. $x =$ $x =$ $x =$ $x =$ $x =$ 7. $x =$ $x =$ $x =$ $x =$ $x =$ 8. $x =$ </td <td>_</td>	_			
Total Cover:100 20% of total cover:FAC species90 105x 3=270 4201. Cornus canadensis50XFACUFACU species105x 4=4202.50XFACUColumn Totals:195(A)6903.6.6.6.6.6.6.7.6.7.6.7.6.7.6.7.6.7.6.7.6.7.6.7.6.7.6.7.6.7.6.7.6.7.6.7.6.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7. <t< td=""><td>_</td></t<>	_			
50% of total cover:5020% of total cover:20FACU species105x 4=4201. Cornus canadensis50XFACUUPL speciesx 5=Column Totals:195(A)6902	-			
Herb Stratum       UPL species       x 5=         1. Cornus canadensis       50       X       FACU       Column Totals:       195       (A)       690         2.	_			
1. Cornus canadensis       50       X       FACU       Column Totals:       195       (A)       690         2.	_			
2.       Prevalence Index = B/A = 3.54         3.       Hydrophytic Vegetation Indicators:         4.       Dominance Test is >50%         6.       Prevalence Index is <3.0	-			
3.	(B)			
4.	-			
5.				
6.        Prevalence Index is ≤3.0         7.        Morphological Adaptations <sup>1</sup> (Provide sup data in Remarks or on a separate sheet)         8.        data in Remarks or on a separate sheet)				
7.     Morphological Adaptations <sup>1</sup> (Provide sup data in Remarks or on a separate she				
8 data in Remarks or on a separate she	norting			
	,			
	piain)			
Total Cover:       50 <sup>1</sup> Indicators of hydric soil and wetland hydrology         50% of total cover:       25       20% of total cover:       10       be present, unless disturbed or problematic.	y must			
Plot size (radius, or length x width) 5 ft radius % Bare Ground Hydrophytic				
	x			
(Where applicable)	X			
Remarks: Areas without vegetative cover are abundant with duff, leaf litter, and debris.				

Sampling	Point:	402u

	scription: (Describe to	the depth				nfirm the	e absence of in	dicators.)		
Depth (in a b a a )	Matrix	0/		ox Features		. 2	Tauton	Demedia		
(inches) 0-8	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
	7.5 YR 2.5/2	100					Silt alou loom	Nived with other soil 10 VP 2/1		
8-11	10 YR 4/1	100					Silt clay loam	Mixed with other soil, 10 YR 2/1		
11-20	7.5 YR 4/6	100						7.5 YR 5/6 4/6		
<sup>1</sup> Type: C=	Concentration, D=Deple	ation RM=R	educed Matrix_CS=C	overed or C	oated Sa	nd Grain	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.		
	Indicators:		dicators for Problem		-			r Problematic Hydric Soils <sup>3</sup> :		
Histos	ol or Histel (A1)		Alaska Color Chang	e (TA4) <sup>4</sup>			Alaska Gl	eyed Without Hue 5Y or Redder		
	Epipedon (A2)		Alaska Alpine Swale				Underlying	•		
	gen Sulfide (A4)		Alaska Redox With 2					plain in Remarks)		
	Dark Surface (A12)			2.01 1100						
	Gleyed (A13)									
	Redox (A14)	<sup>3</sup> C	one indicator of hydro	nhytic yogot	ation one	primon	indicator of wa	tland hydrology		
	Gleyed Pores (A15)	C						sturbed or problematic.		
	Gleyed Foles (A15)	4	Give details of color ch			ust be pi	coont unicoo ui	subce of problematic.		
		G		lange in Rei	narks.					
	Layer (if present):									
Туре:			-							
Depth	(inches):		-		Hyd	Iric Soil	Present?	res No <u>X</u>		
Remarks:										
HYDROL										
-	/drology Indicators:		4)							
· · · · ·	dicators (any one indica	tor is sufficie						ators (2 or more required)		
	e Water (A1)		Inundation Visible or		••••		_Water-Stained	( )		
~	/ater Table (A2)		Sparsely Vegetated		urface (B8	3)	Drainage Patt			
	tion (A3)		Marl Deposits (B15)				_	ospheres along Living Roots (C3)		
	Marks (B1)		Hydrogen Sulfide Od	. ,			_	Reduced Iron (C4)		
	ent Deposits (B2)		Dry-Season Water T	. ,			Salt Deposits			
	eposits (B3)		Other (Explain in Re	emarks)		Stunted or Stressed Plants (D1) Geomorphic Position (D2)				
	Aat or Crust (B4)						_ `	. ,		
	eposits (B5) e Soil Cracks (B6)						Shallow Aquita			
Surfac	e Soll Cracks (BO)						FAC-Neutral 1	bhic Relief (D4)		
								lest (D5)		
Field Obs	ervations:									
	ater Present? Yes	N	o X Depth (In	ches): N	4					
	le Present? Yes	No								
Saturation	-	No		·		Wetla	nd Hydrology F	Present? Yes No X		
(includes c	(includes capillary fringe)									
	Recorded Data (stream	gauge, moni	toring well, aerial pho	tos, previou	s inspecti	ons), if a	available:			
Remarks:	Soil moist									

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Angoon Airport - Echo Alignment		Borough/City	: Hoonah / /	Angoon	Sampling Da	te: 7-Jun-20	018
Applicant/Owner: ADOT & PF					Sampling Po	int: 403u	
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Gutie	errez	Landform (hil	lside, terrace	, hummocks, etc.):	Hillock		
Local relief (concave, convex, none): None		Slope (%):	5				
Subregion: Southeast Alaska	Lat: 57.48			Long: -134.55929	6	Datum: NA	7 83
Soil Map Unit Name: None		54200			ication: N/A	Datam. N.	5 00
		f					
Are climatic / hydrologic conditions on the site typical for		-		(If no, explain	,		
Are Vegetation Soil or Hydrology	significantly	disturbed?		mal Circumstances"		′es <u>X</u>	No
Are Vegetation Soil or Hydrology	naturally pro	blematic?	(If neede	d, explain any answe	ers in Remarks	.)	
SUMMARY OF FINDINGS – Attach site n	nap show	ing sampl	ing point	locations, trans	ects, impo	rtant fea	tures, etc
Hydrophytic Vegetation Present? Yes	No X						
Hydric Soil Present? Yes	No X	Is the	Sampled A	rea			
Wetland Hydrology Present? Yes	No X	withi	n a Wetland	? Yes	No	Х	
Remarks: Areas without vegetative cover are abund	ant with duff	, leat litter, an	d debris.				
Moist but not saturated							
VEGETATION – Use scientific names of p	olants. Lis	st all speci	es in the <sub>l</sub>	olot.			
	Absolute	Dominant	Indicator	Dominance Test v	vorksheet:		
Tree Stratum	% Cover	Species?	Status				
1. Tsuga heterophylla	60	Х	FAC	Number of Domina	nt Species		
2.				That Are OBL, FAC	CW, or FAC:	2	(A)
3.					-		
4.				Total Number of Do	ominant		
Total Cover:				Species Across All	Strata:	4	(B)
50% of total cover: 30	20% of to	otal cover:	12		-		
Sapling/Shrub Stratum		-		Percent of Domina	nt Species		
1. Menziesia ferruginea	50	Х	FACU	That Are OBL, FAC	CW, or FAC:	50	(A/B)
2. Vaccinium parvifolium	10		FACU		-		
3. Vaccinium ovalifolium	20	Х	FAC	Prevalence Index	x worksheet:		
4.				Total % Cove	r of:	Multiply by:	:
5.				OBL species	х	1=	
6.				FACW species	x	2=	
Total Cover:	80			FAC species	80 x	3= 240	
50% of total cover: 40	20% of to	otal cover:	16	FACU species	100 x	4= 400	
Herb Stratum		-		UPL species	x	5=	
1. Cornus canadensis	40	х	FACU	Column Totals:	180 (A)	640	(B)
2.		·		Prevalence In	dex = B/A =	3.56	
3.		·			-		
4	-	·		Hydrophytic Veg	etation Indica	itors:	
5	-				Test is >50%	1013.	
5 6.	_	·			Index is ≤3.0		
		·			cal Adaptations	<sup>1</sup> (Drovido (	upporting
7		·					
8					Remarks or on		,
9				Problematic	Hydrophytic V	regetation	(Explain)
10				1			
Total Cover:				<sup>1</sup> Indicators of hyd			
50% of total cover: 20	20% of to	otal cover:	8	be present, unles	s disturbed or	problematic	).
Plot size (radius, or length x width) 5 ft radiu	s %E	Bare Ground		Hydrophytic			
% Cover of Wetland Bryophytes		r of Bryophyte	s	Vegetation	Yes	No	х
(Where applicable)		. Si Diyopiiyid		Present?			~
Remarks: Areas without vegetative cover are abu	ndant with d	uff. leaf litter	and debris	. rosonti			
		,,					
US Army Corps of Engineers						Alaska	a Version 2.0

ampling	Point:	403ı
---------	--------	------

SOIL									Sampling Po	int: 403u		
Profile Des	scription: (Describe	to the dep	th needed to	document t	the indicat	tor or co	onfirm th	e absence of in	dicators.)			
Depth	Matrix Redox Fea								,			
(inches)	Color (moist)	%	Color	moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	R	emarks		
0-20	10 YR 2/2	100		<u> </u>				)rganic, fibrou				
			· · · · · · · · · · · · · · · · · · ·									
			· · · · · · · · · · · · · · · · · · ·									
<sup>1</sup> Type: C=	Concentration, D=De	pletion, RM	=Reduced M	atrix, CS=Co	vered or C	oated Sa	and Graii	ns. <sup>2</sup> Location:	PL=Pore Linin	g, M=Matrix.		
Hydric Soil	Indicators:		Indicators f	or Problema	atic Hydric	Soils <sup>3</sup> :		Indicators for	Problematic	Hydric Soils <sup>3</sup> :		
Histos	ol or Histel (A1)		Alaska (	olor Change	$(TA4)^4$			Alaska Gle	wed Without H	lue 5Y or Redder		
	Epipedon (A2)			lpine Swales				Underlying	-			
	,			edox With 2.					blain in Remarl			
	jen Sulfide (A4) Dark Surface (A12)		Alaska P		or nue					(3)		
	Gleyed (A13)											
	,		30									
	Redox (A14)							y indicator of we				
Alaska	Gleyed Pores (A15)						nust be p	resent unless dis	sturbed or prot	plematic.		
			<sup>⁺</sup> Give details	s of color cha	inge in Rer	narks.						
Restrictive	Layer (if present):											
Type:												
Depth	(inches):					Hy	dric Soil	Present?	'es	No <u>X</u>		
HYDROL												
-	drology Indicators:											
	dicators (any one indi	cator is suff						Secondary Indic		re required)		
	e Water (A1)			on Visible on		•••	·	Water-Stained	( )			
Ŭ	/ater Table (A2)			Vegetated C	Concave Su	urface (B		Drainage Patte				
	tion (A3)			osits (B15)	( <b>-</b> ()				g Living Roots (C3)			
	Marks (B1)			n Sulfide Odd	· · /			Presence of R	•	24)		
	ent Deposits (B2)		Dry-Season Water Table (C2)					Salt Deposits	. ,	D4)		
	eposits (B3)		Other (E	xplain in Rem	narks)			Stunted or Stressed Plants (D1)				
	lat or Crust (B4)					Position (D2)						
	eposits (B5)				Shallow Aquita							
Surfac	e Soil Cracks (B6)							Microtopograp		)		
								FAC-Neutral T	est (D5)			
Field Obe												
Field Obs	ervations: ater Present? Yes		No X	Depth (Incl	hes): N/	4						
	le Present? Yes		No X	Depth (Incl Depth (Incl								
Saturation			No X	Depth (Incl Depth (Incl			Wotla	and Hydrology F	Present?	res No X		
	apillary fringe)		<u>x</u>			-						
	Recorded Data (strean	n daude m	onitorina wel	aerial photo	os previou	s inspec	tions) if	available <sup>.</sup>				
Decomport		. gaage, m	e	, aona prote	, proviou							
Remarks:	Moist but not saturat	ed										

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM -	Alaska	Region
TELEARD DETERMINATION DATA FORM	Alusinu	region

Project/Site: Angoon Airport - Echo Alignment		Borough/City:	Hoonah /	Angoon	Sampling	-		18
Applicant/Owner: ADOT & PF				<u> </u>	Sampling	Point:	404W	
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Gutier	rez	```	side, terrace	e, hummocks, etc.):	Terrace			
Local relief (concave, convex, none): Concave		Slope (%):	3					
Subregion: Southeast Alaska	Lat: 57.48	34295		Long: -134.559486			um: NAD	83
Soil Map Unit Name: None				NWI classifi	cation: N/	A		
Are climatic / hydrologic conditions on the site typical for	this time o	f year? Yes	X No	(If no, explain	in Remark	s.)		
Are Vegetation Soil or Hydrology si	gnificantly	disturbed?	Are "Nor	mal Circumstances"	present?	Yes	1 X	No
Are Vegetation Soil or Hydrology na	aturally pro	blematic?	(If neede	ed, explain any answe	ers in Rema	arks.)		
SUMMARY OF FINDINGS – Attach site ma	ap show	ing sampli	ng point	locations, trans	ects, im	porta	nt feat	ures, etc.
Hydrophytic Vegetation Present? Yes X	No	• •	0.			•		
Hydric Soil Present? Yes X	No	Is the	Sampled A	rea				
Wetland Hydrology Present? Yes X	No	withir	n a Wetland	? Yes X	N	c		
Demarke: Shrube on the fringe, and as and water nero	lov in the e	optor Arooo y	ithout yogo	tativa aquar ara abun	dont with d	uff loo	littor on	d dobrio
Remarks: Shrubs on the fringe, sedge and water pars hydric soil indicators for problem soils: Alas			-					la depris.
Plot taken on edge of fen wetland and not f			2.51 flue w		s anu 10 p		more	
ů – Elektrik	,							
VEGETATION – Use scientific names of pl		-		Dominance Test v	orkohoot			
Tree Stratum		Dominant Species?	Indicator Status	Dominance Test w	orksneet			
1	70 00101	opeoleo:	Olalus	Number of Domina	nt Species			
2.				That Are OBL, FAC			1	(A)
3.				,				_ ( )
4.				Total Number of Do	ominant			
Total Cover:				Species Across All	Strata:		3	(B)
50% of total cover:	20% of to	otal cover:						
Sapling/Shrub Stratum	_			Percent of Dominal	•			
1. Picea sitchensis	5	$\frac{X}{X}$	FACU	That Are OBL, FAC	W, or FAC		33	(A/B)
2. Rubus spectabilis	10		FACU	Dravalance Index		- 4 -		
3 4		·		Prevalence Index Total % Cover			Itiply by:	
5.		·		OBL species	70	x 1=	70	
6.				FACW species		x 2=		_
Total Cover:	15			FAC species	30	x 3=	90	_
50% of total cover: 7.5	20% of to	otal cover:	3	FACU species	20	x 4=	80	
Herb Stratum		-		UPL species		x 5=		_
1. Carex lyngbyei	50	Х	OBL	Column Totals:	120 (A	.)	240	(B)
2. Oenanthe sarmentosa	20		OBL	Prevalence In	dex = B/A		2.00	
3. Maianthemum dilatatum	20		FAC					
4. Equisetum arvense	10		FAC	Hydrophytic Veg			8:	
5. Cornus canadensis	5	·	FACU	Dominance				
6				X Prevalence				
7		·	. <u> </u>	Morphologic				
8					Remarks o			
9				Problematic	Hyarophy	uc vege	etation (	⊨xpiain)
10	105	·		1 Indiant	nia a a !! -	- الممين ا	ا ا - برط ام	
Total Cover: 50% of total cover: 52.5		otal cover:	21	<sup>1</sup> Indicators of hyd be present, unles			•	•••
Plot size (radius, or length x width) 5 ft radius	% E	are Ground		Hydrophytic				
% Cover of Wetland Bryophytes	Total Cove	r of Bryophyte	s	Vegetation	Yes	Х	No	
(Where applicable)				Present?				
Remarks: Shrubs on the fringe, sedge and water pa	arsley in the	e center. Area	s without ve	getative cover are ab	undant wit	h duff, l	eaf litter,	and debris.

Sampling	Point:	404w
1 5		

	Color (moist)	%	Color (r	moiet)	%	T. m a 1	Loc <sup>2</sup>	Texture	Remarks
(inches) 0-4	2.5 Y 4/1	60	5YR		40	Type <sup>1</sup> C	M	Silt clay	Remarks
4-20	2.5 Y 4/1	75	7.5 YF		25	C	M	Silt loam	
							_		
							_		
								·	
	Concentration, D=Depl						nd Grain		PL=Pore Lining, M=Matrix.
yaric Soli	Indicators:	I	ndicators to	or Problemat	tic Hyaria	c Solis :		Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histoso	ol or Histel (A1)	_	Alaska Co	olor Change	(TA4) <sup>4</sup>			Alaska Gley	ed Without Hue 5Y or Redder
Histic E	Epipedon (A2)		Alaska Al	pine Swales	(TA5)			Underlying	Layer
Hydrog	en Sulfide (A4)	_	Alaska Re	edox With 2.8	5Y Hue			X Other (Expl	ain in Remarks)
	Oark Surface (A12)	_							
	Gleyed (A13)	-							
	Redox (A14) Gleyed Pores (A15)	3						indicator of weth resent unless dist	and hydrology, urbed or problematic.
		4	Give details	of color char	nge in Re	marks.			
estrictive	Layer (if present):								
Type: Depth ( Remarks: x concentr	ations in pore linings w	ith chroma	and value o	f 4 or more. /	Although	2.5Y hue	e with ch	roma of 3 or less	and 10 percent or more in the pore linings, the tech
Type: Depth ( Remarks: ox concentr scription exp	hydric soil indicators f ations in pore linings w plains that this indicato	ith chroma	and value o	f 4 or more. /	Although	2.5Y hue	e with ch	roma of 3 or less	and 10 percent or more
Type: Depth ( Remarks: ox concentr cription exp YDROLC	hydric soil indicators f ations in pore linings w plains that this indicato	ith chroma	and value o	f 4 or more. /	Although	2.5Y hue	e with ch	roma of 3 or less	and 10 percent or more
Type: Depth ( Remarks: ox concentr cription exp YDROLC /etland Hy	hydric soil indicators fr ations in pore linings w plains that this indicato	ith chroma rs is comm	and value o on inwetland	f 4 or more. /	Although	2.5Y hue	e with ch concent	roma of 3 or less rations are not or	and 10 percent or more
Type: Depth ( Remarks: ix concentr cription exp YDROLC /etland Hy Primary Inc	hydric soil indicators fr ations in pore linings w plains that this indicato DGY drology Indicators:	ith chroma rs is comm	and value o on inwetland ient)	f 4 or more. /	Although ition area	2.5Y hue the redox s.	e with ch concent	roma of 3 or less rations are not or	and 10 percent or more in the pore linings, the tech tors (2 or more required)
Type: Depth ( Remarks: ox concentr cription exp YDROLC /etland Hy Primary Inc Surface X High W	hydric soil indicators frations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators) water (A1) ater Table (A2)	ith chroma rs is comm	and value o on inwetland ient) Inundation	f 4 or more. / I fringe transi	Although ition areas Aerial Ima	2.5Y hue the redox s.	e with ch concent	roma of 3 or less rations are not or <u>Secondary Indica</u> Water-Stained Drainage Patte	and 10 percent or more the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10)
Type: Depth ( Remarks: ox concentr Cription exp YDROLO Vetland Hy Primary Inco Surface X High W X Saturat	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indica e Water (A1) dater Table (A2) ion (A3)	ith chroma rs is comm	and value o on inwetland ient) Inundation Sparsely ' Marl Depo	f 4 or more. / I fringe transi n Visible on / Vegetated Co psits (B15)	Although ition areas Aerial Ima oncave S	2.5Y hue the redox s.	e with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo	and 10 percent or more the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3
Type: Depth ( Remarks: ox concentr Scription exp YDROLO Vetland Hy Primary Inc Surface X High W X Saturat Water I	hydric soil indicators frations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicate e Water (A1) dater Table (A2) ion (A3) Marks (B1)	ith chroma rs is comm	and value o on inwetland ient) Inundation Sparsely Marl Depo Hydrogen	f 4 or more. / I fringe transi n Visible on A Vegetated Co osits (B15) Sulfide Odo	Although ition areas Aerial Ima oncave S or (C1)	2.5Y hue the redox s.	e with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re	and 10 percent or more the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4)
Type: Depth ( Remarks: ox concentr Cription exp YDROLO Vetland Hy Primary Inc Surface X High W X Saturat Water I Sedime	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicate e Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)	ith chroma rs is comm	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Seaso	f 4 or more. / I fringe transi n Visible on A Vegetated Co osits (B15) Sulfide Odo on Water Tal	Although ition areas Aerial Ima oncave S or (C1) ble (C2)	2.5Y hue the redox s.	e with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ((	and 10 percent or more the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4) C5)
Type: Depth ( Remarks: ox concentr cription exp YDROLO Vetland Hy Primary Inco Surface X High W X Saturat Water I Sedime Drift De	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators (any one indicators) dicators (any one indicators) dicat	ith chroma rs is comm	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Seaso	f 4 or more. / I fringe transi n Visible on A Vegetated Co osits (B15) Sulfide Odo	Although ition areas Aerial Ima oncave S or (C1) ble (C2)	2.5Y hue the redox s.	with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (( Stunted or Stre	and 10 percent or more the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 iduced Iron (C4) C5) ssed Plants (D1)
Type: Depth ( Remarks: ox concentr cription exp YDROLO Vetland Hy Primary Inco X High W X Saturat Water I Sedime Drift De Algal M	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators (any one indicators) dicators (any one indicators) dicat	ith chroma rs is comm	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Seaso	f 4 or more. / I fringe transi n Visible on A Vegetated Co osits (B15) Sulfide Odo on Water Tal	Although ition areas Aerial Ima oncave S or (C1) ble (C2)	2.5Y hue the redox s.	e with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre Geomorphic Po	and 10 percent or more a the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4) C5) ssed Plants (D1) ssition (D2)
Type: Depth ( Remarks: cription exp YDROLC /etland Hy Primary Inc Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5)	ith chroma rs is comm	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Seaso	f 4 or more. / I fringe transi n Visible on A Vegetated Co osits (B15) Sulfide Odo on Water Tal	Although ition areas Aerial Ima oncave S or (C1) ble (C2)	2.5Y hue the redox s.	with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre Geomorphic Po Shallow Aquita	and 10 percent or more a the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3)
Type: Depth ( Remarks: ox concentr cription exp YDROLC Yetland Hy Primary Inc Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators (any one indicators) dicators (any one indicators) dicat	ith chroma rs is comm	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Seaso	f 4 or more. / I fringe transi n Visible on A Vegetated Co osits (B15) Sulfide Odo on Water Tal	Although ition areas Aerial Ima oncave S or (C1) ble (C2)	2.5Y hue the redox s.	with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits ( Stunted or Stre Geomorphic Po	and 10 percent or more a the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) hic Relief (D4)
Type: Depth ( Remarks: ox concentr cription exp YDROLC /etland Hy Primary Inco Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Surface	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators) dicators (any one indicat	ith chroma rs is comm	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Seaso	f 4 or more. / I fringe transi n Visible on A Vegetated Co osits (B15) Sulfide Odo on Water Tal	Although ition areas Aerial Ima oncave S or (C1) ble (C2)	2.5Y hue the redox s.	with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (0 Stunted or Stre Geomorphic Po Shallow Aquitan Microtopograph	and 10 percent or more a the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) hic Relief (D4)
Type: Depth ( Remarks: ox concentr Scription exp YDROLO Vetland Hy Primary Inco Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Surface	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators) dicators (any one indicat	ith chroma rs is comm ator is suffic - - - - - - - -	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Seaso	f 4 or more. / I fringe transi n Visible on A Vegetated Co osits (B15) Sulfide Odo on Water Tal	Although ition areas Aerial Ima oncave S or (C1) ble (C2) larks)	2.5Y hue the redox s. agery (B7) urface (B8	with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (0 Stunted or Stre Geomorphic Po Shallow Aquitan Microtopograph	and 10 percent or more a the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) hic Relief (D4)
Type: Depth ( Remarks: ox concentr Scription exp YDROLO Vetland Hy Primary Inco Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Surface Surface	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators) dicators (any one indicators) dicator (any one indicator	ith chroma rs is comm ator is suffic 	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Sease Other (Ex	f 4 or more. / I fringe transi n Visible on / Vegetated Co osits (B15) Sulfide Odo on Water Tal plain in Rem	Although ition areas Aerial Ima oncave S or (C1) ble (C2) larks)	A	with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (0 Stunted or Stre Geomorphic Po Shallow Aquitan Microtopograph	and 10 percent or more a the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) hic Relief (D4)
Type: Depth ( Remarks: ox concentr Scription exp YDROLO Vetland Hy Primary Inco Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Surface Surface	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators) dicators (any one indicators) dicator (any one indicator	ith chroma rs is comm ator is suffic 	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Sease Other (Ex	f 4 or more. / I fringe transi n Visible on / Vegetated Co osits (B15) Sulfide Odo on Water Tal plain in Rem Depth (Inch	Although i ition areas Aerial Ima oncave S or (C1) ble (C2) harks) nes): <u>N</u>	A 3	e with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (0 Stunted or Stre Geomorphic Po Shallow Aquitan Microtopograph	and 10 percent or more the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) nic Relief (D4) est (D5)
Type: Depth ( Remarks: ox concentr cription exp YDROLC /etland Hy Primary Inc Surface X High W X Saturat Water I Sedime Drift De Algal M Iron De Surface Surface Surface Surface Wa Water Tabl Saturation I (includes ca	hydric soil indicators fr ations in pore linings w plains that this indicato OGY drology Indicators: dicators (any one indicators) dicators (any one indicators) dicator (any one indicato	ith chroma rs is comm ator is suffic 	and value o on inwetland ient) Inundation Sparsely ' Marl Depo Hydrogen Dry-Seas Other (Ex Other (Ex	f 4 or more. / I fringe transi n Visible on A Vegetated Co osits (B15) Sulfide Odo on Water Tal plain in Rem Depth (Inch Depth (Inch	Although i ition areas Aerial Ima oncave S or (C1) ble (C2) harks) hes): <u>N</u> hes): <u>1</u> hes): <u>6</u>	A A A A A A A A A A A A A A	with ch concent	roma of 3 or less rations are not or Secondary Indica Water-Stained Drainage Patte Oxidized Rhizo Presence of Re Salt Deposits (( Stunted or Stre Geomorphic Po Shallow Aquitar Microtopograph FAC-Neutral Te	and 10 percent or more the pore linings, the tech tors (2 or more required) Leaves (B9) rns (B10) spheres along Living Roots (C3 educed Iron (C4) C5) ssed Plants (D1) osition (D2) rd (D3) nic Relief (D4) est (D5)

US Army Corps of Engineers
WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Angoon Airport - Echo Alignme	ent	i	Borough/City	: Hoonah / A	Angoon	Sampling Da		018
Applicant/Owner: ADOT & PF						Sampling Poi	int: 405u	
Investigator(s): J.Barna, L.Johnson, S.Hartu	ing, R.Gutier	rez l	Landform (hil	lside, terrace	, hummocks, etc.):	Hill		
Local relief (concave, convex, none): None		\$	Slope (%):	5				
Subregion: Southeast Alaska		Lat: 57.48	4548		Long: -134.56002	ſ	Datum: NA[	D 83
Soil Map Unit Name: None					NWI classifi	cation: PFO4	в	
Are climatic / hydrologic conditions on the si	ite typical for	this time of	year? Yes	s X No	(If no, explain			
Are Vegetation Soil or Hydrol	• •	gnificantly d	-		mal Circumstances" p	,	es X	No
Are Vegetation Soil or Hydrole	ogyna	turally prob	iematic?	(It neede	d, explain any answe	rs in Remarks	.)	
SUMMARY OF FINDINGS – Atta	ch site ma	ap showi	ng sampli	ing point	locations, trans	ects, impo	rtant feat	tures, etc
, , , , , , , , , , , , , , , , , , , ,	/es	No X						
Hydric Soil Present?	/es	No X	Is the	Sampled A	rea			
Wetland Hydrology Present?	/es	No X	withi	n a Wetland	? Yes	No	Х	
		t suith als off	loof litter on	d debrie				
Remarks: Areas without vegetative cover	are abundar	n with dull,	iear iller, and	d debris.				
Moist but not saturated								
VEGETATION – Use scientific na	mes of pla		-					
			Dominant	Indicator	Dominance Test w	orksheet:		
Tree Stratum			Species?	Status				
1. Tsuga heterophylla		50	X	FAC	Number of Dominal	•		
2. Picea sitchensis		3		FACU	That Are OBL, FAC	W, or FAC:	2	(A)
3.					Tatal Number of Da			
4					Total Number of Do			
	otal Cover:	53	4 - 1	10.0	Species Across All	Strata:	4	(B)
50% of total cover:	26.5	20% of to	tal cover:	10.6				
Sapling/Shrub Stratum		50	N/	FAOL	Percent of Dominar	•	50	
1. Menziesia ferruginea		50	X	FACU	That Are OBL, FAC	, vv, or FAC:	50	(A/B)
2. Vaccinium parvifolium		10		FACU	<u> </u>	<u> </u>		
3. Vaccinium ovalifolium		20	X	FAC	Prevalence Index			
4. Sorbus sitchensis		5		FACU	Total % Cover		Multiply by	
5					OBL species		1=	
6					FACW species	x :		
	otal Cover:	85			FAC species	80 x 3		
50% of total cover:	42.5	20% of to	tal cover:	17	FACU species		4= 452	
Herb Stratum					UPL species	x		<u> </u>
1. Cornus canadensis		40	<u> </u>	FACU	Column Totals:	193 (A)	692	(B)
2. Maianthemum dilatatum		10		FAC	Prevalence Inc	dex = B/A =	3.59	
3. Streptopus amplexifolius		5		FACU				
4					Hydrophytic Vege		tors:	
5					Dominance	Test is >50%		
6.						Index is ≤3.0		
7.					Morphologic	al Adaptations	s <sup>1</sup> (Provide s	supporting
8.					data in F	Remarks or on	a separate	sheet)
9.						Hydrophytic V	•	,
10.					—	· · ·	-	,
	otal Cover:	55			<sup>1</sup> Indicators of hyd	ric soil and we	tland hvdrol	oav must
50% of total cover:	27.5	20% of to	tal cover:	11	be present, unles			
			-	<u> </u>	· · · ·			
Plot size (radius, or length x width)	5 ft radius		are Ground		Hydrophytic			
% Cover of Wetland Bryophytes		Fotal Cover	of Bryophyte	s	Vegetation	Yes	No	Х
(Where applicable)					Present?			
Remarks: Areas without vegetative co	ver are abund	dant with du	iff, leaf litter,	and debris.				
							A I I	
US Army Corps of Engineers							Alaska	Version 2.0

ampling Point	: 405u
---------------	--------

SOIL								Sampling Po	int: 405u
Profile Description: (Describ	be to the dept	h needed to	document t	he indicat	or or co	nfirm th	e absence of in	dicators.)	
Depth Matri	-			Features		•••••			
(inches) Color (moist)	%	Color (		%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	R	emarks
0-16 5YR 3/2					турс	200	)rganic, fibrou		
						·	0 /		
						·			
			·						
<sup>1</sup> Type: C=Concentration, D=E	Depletion, RM=	Reduced M	atrix, CS=Co	vered or C	oated Sa	and Grain	ns. <sup>2</sup> Location:	PL=Pore Linir	ıg, M=Matrix.
Hydric Soil Indicators:			or Problema						Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)		Alaska C	olor Change	(TA4) <sup>4</sup>			Alaska Gle	wed Without F	lue 5Y or Redde
Histic Epipedon (A2)	-		lpine Swales				Underlying	-	
	-							olain in Remar	kc)
Hydrogen Sulfide (A4)	-	Alaska R	edox With 2.	STHUE					<u>xs)</u>
Thick Dark Surface (A12)									
Alaska Gleyed (A13)		30							
Alaska Redox (A14)							y indicator of we		
Alaska Gleyed Pores (A15						iust be p	resent unless dis	sturbed or prof	plematic.
		Give details	of color cha	nge in Rer	narks.				
Restrictive Layer (if present):									
Туре:								_	
Depth (inches):					Hyd	dric Soil	Present? Y	es	No <u>X</u>
IYDROLOGY									
Wetland Hydrology Indicators									
Primary Indicators (any one in	dicator is suffi	cient)					Secondary Indic	ators (2 or mo	re required)
Surface Water (A1)	-		n Visible on A		,	· · · · · · · · · · · · · · · · · · ·	Water-Stained	( )	
High Water Table (A2)	-		Vegetated C	oncave Su	urface (B	8)	Drainage Patte		
Saturation (A3)	-		osits (B15)						g Living Roots (C
Water Marks (B1)	-		n Sulfide Odo	` '			Presence of R	•	24)
Sediment Deposits (B2)	-		on Water Ta	· · ·			Salt Deposits	. ,	
Drift Deposits (B3)	-	Other (E	oplain in Rem	narks)			Stunted or Str		D1)
Algal Mat or Crust (B4)							Geomorphic P	· · /	
Iron Deposits (B5)					Shallow Aquitard (D3)				
Surface Soil Cracks (B6)							Microtopograp		)
							FAC-Neutral T	est (D5)	
Field Observations:									
Field Observations: Surface Water Present? Y	66	No Y	Depth (Inch		<u>`</u>				
		No <u>X</u> No X	Depth (Inch						
		No X	Depth (Inch Depth (Inch			Wetla	nd Hydrology F	Present?	Yes No X
(includes capillary fringe)		<u> </u>							
Describe Recorded Data (stre	am daude mo	nitoring well	aerial photo	s. previou	s inspect	ions) if	available <sup>.</sup>		
Describe Recorded Data (site	ani gauge, mo		, achai photo	s, previou	s mapeer				
Moint hut not to	ratad								
marks: Moist but not satu	lated								

US Army Corps of Engineers

Project/Site: Angoon Airport - Echo Alignment		Borough/City	/: Hoonah /	Angoon	Sampling Date:	7-Jun-2018
Applicant/Owner: ADOT & PF		_			Sampling Point:	406w
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.	Gutierrez	Landform (hi	llside, terrac	e, hummocks, etc.):	Terrace	
Local relief (concave, convex, none): Concave		Slope (%):	2			
Subregion: Southeast Alaska	Lat: 57.4	84088		Long: -134.56006	6 Da	tum: NAD 83
Soil Map Unit Name: None					fication: PFO4B	
Are climatic / hydrologic conditions on the site typic	cal for this time	of year? Ye	s X No	(If no, explain	in Remarks.)	
Are Vegetation Soil or Hydrology	significantly	-	Are "No	rmal Circumstances"	present? Yes	X No
Are Vegetation Soil or Hydrology				ed, explain any answ		
			,		,	
SUMMARY OF FINDINGS – Attach sit	e map show	ving sampl	ling point	locations, trans	sects, importa	ant features, et
Hydrophytic Vegetation Present? Yes	X No					
Hydric Soil Present? Yes	X No	Is the	e Sampled A	Area		
Wetland Hydrology Present? Yes	X No	withi	n a Wetland	l? Yes x	K No	
Remarks: Areas without vegetative cover are ab		f loof littor on	d dobric			
Remarks. Areas without vegetative cover are at		i, lear liller, ar	la deblis.			
Expect watertable to rise after more ti	me					
VEGETATION – Use scientific names	of plants. Li	st all speci	ies in the	nlot		
	Absolute		Indicator	Dominance Test	worksheet:	
Tree Stratum		r Species?	Status			
1. Tsuga heterophylla	50	<u> </u>	FAC	Number of Domina	ant Species	
2.		_		That Are OBL, FA	CW, or FAC:	4 (A)
3.		_				
4.		_		Total Number of D		
Total Co		<del>.</del>	10	Species Across Al	Strata:	4 (B)
50% of total cover: 25	20% of 1	total cover:	10			
Sapling/Shrub Stratum				Percent of Domina	•	400 (A/D)
1. Tsuga heterophylla	30	<u> </u>	FAC	That Are OBL, FA	JW, or FAC:	100 (A/B)
2. Vaccinium ovalifolium	25	X	FAC	<b>—</b>		
3. Oplopanax horridus 4.	10	_	FACU	Prevalence Inde Total % Cove		ultiply by:
5.			·	OBL species	x 1=	ultiply by:
6.		_		FACW species	x 2=	
Total Co	over: 65		·	FAC species	x 3=	
50% of total cover: 32.5		total cover:	13	FACU species	x 3= x 4=	
Herb Stratum	2070 01		10	UPL species	x 5=	
1. Lysichiton americanus	50	Х	OBL	Column Totals:	(A)	(B)
2. Gymnocarpium dryopteris	10		FACU	Prevalence Ir	. ,	(=)
3. Cornus canadensis	5		FACU			<u> </u>
4. Athyrium cyclosorum	15		FAC	Hydrophytic Vec	etation Indicator	'S:
5. Streptopus amplexifolius	10		FACU	X Dominance		••
6.					Index is ≤3.0	
7.		_				Provide supporting
8.			·		Remarks or on a	
9.			·		c Hydrophytic Veg	
10.			·	_	, ,,	· · · · · · · · · · · · · · · · · · ·
Total Co	over: 90		·	<sup>1</sup> Indicators of hvo	dric soil and wetla	nd hydrology must
50% of total cover: 45		total cover:	18		ss disturbed or pro	
Plot size (radius, or length x width) 5 ft r		Bare Ground		Hydrophytic		
· · · · · · · · · · · · · · · · · · ·		er of Bryophyte	26			No
% Cover of Wetland Bryophytes (Where applicable)				Vegetation Present?	Yes X	No
Remarks: Areas without vegetative cover are	abundant with o	duff, leaf litter	and debris	IF IESEIIL!		
		aan, iour intor,				
US Army Corps of Engineers						Alaska Version 2

ampling Point:	406w
----------------	------

SOIL			Sampling Point: 406w
Profile Description: (Describe to t	the depth needed to document the indicator or	confirm the absence of	indicators.)
Depth Matrix	Redox Features		,
(inches) Color (moist)	% Color (moist) % Type	e <sup>1</sup> Loc <sup>2</sup> Texture	Remarks
0-20 10 YR 2/1	100	Peat	
<sup>1</sup> Type: C=Concentration, D=Deplet	ion, RM=Reduced Matrix, CS=Covered or Coated	Sand Grains. <sup>2</sup> Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils	<sup>3</sup> : Indicators	for Problematic Hydric Soils <sup>a</sup> :
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska	Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		ing Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue		Explain in Remarks)
Thick Dark Surface (A12)			
Alaska Gleyed (A13)			
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation,	one primary indicator of y	wetland bydrology
Alaska Gleyed Pores (A15)	and an appropriate landscape position		
	<sup>4</sup> Give details of color change in Remarks.		
Restrictive Layer (if present):			
Туре:			
Depth (inches):	I	Hydric Soil Present?	Yes X No
Deveselation			
Remarks:			
HYDROLOGY Wetland Hydrology Indicators:			
Primary Indicators (any one indicator	pris sufficient)	Secondary Inc	dicators (2 or more required)
			· · · · ·
Surface Water (A1) X High Water Table (A2)	Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface	·	ied Leaves (B9) atterns (B10)
X Saturation (A3)	Marl Deposits (B15)		nizospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		f Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposi	( )
Drift Deposits (B3)	Other (Explain in Remarks)		Stressed Plants (D1)
Algal Mat or Crust (B4)		X Geomorphic	
Iron Deposits (B5)		Shallow Aqu	. ,
Surface Soil Cracks (B6)			raphic Relief (D4)
		FAC-Neutra	
Field Observations:			
Surface Water Present? Yes	No X Depth (Inches): NA		
	X No Depth (Inches): 12		
	X No Depth (Inches): Surface	Wetland Hydrolog	y Present? Yes X No
(includes capillary fringe)			· · · · · · · · · · · · · · · · · · ·
	auge, monitoring well, aerial photos, previous insp	ections), if available:	
Remarks: Expect watertable to rise	e after more time		
#NAME?			
NAME?			

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Angoon Airport - Echo Alignment	Borough/City	: Hoonah / Angoon	Sampling Date: 7-Jun-2018
Applicant/Owner: ADOT & PF	Sampling Point: 407u		
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Gutie	rrez Landform (hi	lside, terrace, hummo	cks, etc.): Slope
Local relief (concave, convex, none): Convex	Slope (%):	5	
Subregion: Southeast Alaska	Lat: 57.483371	Long:	-134.557048 Datum: NAD 83
Soil Map Unit Name: None			NWI classification: PFO4B
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes	s X No (If	no, explain in Remarks.)
Are Vegetation Soil or Hydrology s	ignificantly disturbed?	Are "Normal Circu	imstances" present? Yes X No
Are Vegetation Soil or Hydrology n	aturally problematic?	(If needed, explai	n any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing sampl	ing point locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X	No		
Hydric Soil Present? Yes	No X Is the	Sampled Area	
Wetland Hydrology Present? Yes	No X withi	n a Wetland?	Yes No X
Remarks: Slope between open peatland. Areas witho		bundant with duff loa	flitter and debris
Remarks: Slope between open peatland. Areas witho	ut vegetative cover are a	ibunuani with dull, lea	
Slightly moist			
VEGETATION – Use scientific names of p	ants I ist all speci	es in the plot	
	Absolute Dominant		ance Test worksheet:
Tree Stratum	% Cover Species?	Status	
1. Tsuga heterophylla	75 X	FAC Numbe	r of Dominant Species
2.		That Ar	e OBL, FACW, or FAC: <u>3</u> (A)
3			
4			umber of Dominant
Total Cover: 50% of total cover: 37.5	75 20% of total cover:	15 Species	s Across All Strata:4 (B)
			t of Dominant Spacing
<u>Sapling/Shrub Stratum</u> 1. Menziesia ferruginea	10		t of Dominant Species e OBL, FACW, or FAC: 75 (A/B)
2. Cornus alba	35 X	FAC	
3. Vaccinium ovalifolium	10		lence Index worksheet:
4. Oplopanax horridus	10	FACU To	otal % Cover of: Multiply by:
5.		OBL sp	ecies x 1=
6.		FACW	species x 2=
Total Cover:	65	FAC sp	
50% of total cover: 32.5	20% of total cover:		species x 4=
Herb Stratum	50	UPL sp	
1. Cornus canadensis	<u>50 X</u>		n Totals:(A)(B)
2. Maianthemum dilatatum	20 X		evalence Index = B/A = 0
3. Streptopus amplexifolius	5	FACU	phytic Vegetation Indicators:
4			Dominance Test is >50%
6.	·		Prevalence Index is ≤3.0
7.			Morphological Adaptations <sup>1</sup> (Provide supporting
8.			data in Remarks or on a separate sheet)
9.		———	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10.			
Total Cover:	75	<sup>1</sup> Indic	ators of hydric soil and wetland hydrology must
50% of total cover: 37.5	20% of total cover:		esent, unless disturbed or problematic.
Plot size (radius, or length x width) 5 ft radius	% Bare Ground	Hydrop	hvtic
% Cover of Wetland Bryophytes	Total Cover of Bryophyte		-
(Where applicable)		Present	
Remarks: Slope between open peatland. Areas wit	hout vegetative cover an		

ampling	Point:	407u
---------	--------	------

SOIL			Sampling Point: 407u
Profile Description: (Describe to the	e depth needed to document the indicator or co	nfirm the absence of in	dicators.)
Depth Matrix	Redox Features		- ,
(inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks
	100	)rganic, fibrou	
		,	
		2	
	n, RM=Reduced Matrix, CS=Covered or Coated Sa		PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gle	yed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying	Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue		lain in Remarks)
Thick Dark Surface (A12)		、 .	,
Alaska Gleyed (A13)			
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	a primary indicator of wet	and hydrology
	and an appropriate landscape position m		
Alaska Gleyed Pores (A15)		ust be present unless dis	turbed of problematic.
	<sup>4</sup> Give details of color change in Remarks.		
Restrictive Layer (if present):			
Туре:			
Depth (inches):	Нус	Iric Soil Present? Y	es <u> </u>
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (any one indicator i	s sufficient)	Secondary Indica	ators (2 or more required)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)		
High Water Table (A2)	Sparsely Vegetated Concave Surface (B		
Saturation (A3)	Marl Deposits (B15)	· ·	spheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		educed Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (	( )
Drift Deposits (B3)	Other (Explain in Remarks)		essed Plants (D1)
Algal Mat or Crust (B4)		Geomorphic P	
Iron Deposits (B5)		Shallow Aquita	( )
Surface Soil Cracks (B6)		Microtopograp	. ,
		FAC-Neutral T	
			est (D3)
Field Observations:			
Surface Water Present? Yes	No X Depth (Inches): NA		
Water Table Present? Yes	No X Depth (Inches): >16		
Saturation Present? Yes	No X Depth (Inches): >16	Wetland Hydrology P	resent? Yes <u>No X</u>
(includes capillary fringe)			
Describe Recorded Data (stream gaug	ge, monitoring well, aerial photos, previous inspect	ions), if available:	
Remarks: Slightly moist			

Project/Site: Angoon Airport - Echo Alignment				Borough/City:	Hoonah / An	igoon	Samplir	Sampling Date: 7-Jun-2018			
Applicant/Owner:	ADOT & PF						Samplir	ng Point:	408w		
Investigator(s): J.Ba	arna, L.Johnso	on, S.Hartung, I	R.Gutierrez	Landform (hills	side, terrace,	hummocks, etc.):	Terrace,	base of slo	ре		
Local relief (concave	e, convex, no	ne): None		Slope (%): 2							
Subregion:	Southeast A	laska	Lat:	57.483314		Long: -134.5572	277	Dati	um: N/	AD 83	
Soil Map Unit Name	: None					NWI class	sification: I	PFO4B			
Are climatic / hydrol	ogic conditior	is on the site ty	pical for this	time of year? Yes	X No	(If no, expla	in in Remai	ˈks.)			
Are Vegetation	Soil	or Hydrology	signific	cantly disturbed?	Are "Norm	al Circumstances	" present?	Yes	Х	No	
Are Vegetation	Soil	or Hydrology	natura	Illy problematic?	(If needed,	explain any ans	wers in Rer	narks.)			
SUMMARY OF	FINDING	3 – Attach s	site map s	showing sampling	ng point lo	ocations, trar	nsects, ir	nporta	nt fe	atures, etc	
Hydrophytic Vegeta	tion Present?	Yes	X No								
Hydric Soil Present?	?	Yes	X No	Is the	Sampled Are	a					
Wetland Hydrology	Present?	Yes	X No	within	a Wetland?	Yes	<u>x</u> I	No			

Remarks: Areas without vegetative cover are abundant with duff, leaf litter, and debris.

#### VEGETATION – Use scientific names of plants. List all species in the plot.

	Absolute Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover Species?	Status	
1. Tsuga heterophylla	20 X	FAC	Number of Dominant Species
2.			That Are OBL, FACW, or FAC: 4 (A)
3.			
4.			Total Number of Dominant
Total Cover:	20		Species Across All Strata: 4 (B)
50% of total cover: 10	20% of total cover:	4	
Sapling/Shrub Stratum	-		Percent of Dominant Species
1. Tsuga heterophylla	15 X	FAC	That Are OBL, FACW, or FAC: 100 (A/B)
2. Vaccinium ovalifolium	10	FAC	
3. Oplopanax horridus	10	FACU	Prevalence Index worksheet:
4. Cornus alba	10	FAC	Total % Cover of: Multiply by:
5. Ribes bracteosum	20 X	FAC	OBL species x 1=
6.			FACW species x 2=
Total Cover:	65		FAC species x 3=
50% of total cover: 32.5	20% of total cover:	13	FACU species x 4=
Herb Stratum	-		UPL species x 5=
1. Lysichiton americanus	40 X	OBL	Column Totals: (A) (B)
2. Gymnocarpium dryopteris	10	FACU	Prevalence Index = $B/A = 0$
3 Cornus canadensis	5	FACU	
4. Athyrium cyclosorum	15	FAC	Hydrophytic Vegetation Indicators:
5. Streptopus amplexifolius	10	FACU	X Dominance Test is >50%
		TACO	
6			Prevalence Index is ≤3.0
7			Morphological Adaptations <sup>1</sup> (Provide supporting
8			data in Remarks or on a separate sheet)
9			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
10			
Total Cover:	80		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
50% of total cover: 40	20% of total cover:	16	be present, unless disturbed or problematic.
Plot size (radius, or length x width) 5 ft radius	% Bare Ground		Hydrophytic
	Total Cover of Bryophyte	S	Vegetation Yes X No
(Where applicable)			Present?
Remarks: Areas without vegetative cover are abune	dant with duff, leaf litter,	and debris.	

Sampling Point:	408w
oumpning i onit.	-000

Depth Matrix	Redox Features	<u> </u>	<b>_</b> .
<u> </u>	6 Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Textu	
0-20 10 YR 2/1 10	00	Pea	t
<sup>1</sup> Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or Coated Sa	nd Grains. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :		ors for Problematic Hydric Soils <sup>3</sup> :
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alas	ka Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		erlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue		er (Explain in Remarks)
Thick Dark Surface (A12)			( I )
Alaska Gleyed (A13)			
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	primary indicator	of wetland hydrology
Alaska Gleyed Pores (A15)	and an appropriate landscape position mu		
	<sup>4</sup> Give details of color change in Remarks.		·
estrictive Layer (if present):			
I VDe:			
Type: Depth (inches):	Hyd	ric Soil Present?	Yes X No
Depth (inches):	Hyd	ric Soil Present?	Yes <u>X</u> No
Depth (inches): Remarks:	Hyd	ric Soil Present?	Yes <u>X</u> No
Depth (inches): Remarks: YDROLOGY /etland Hydrology Indicators:		ric Soil Present?	Yes <u>X</u> No
Depth (inches): Remarks: YDROLOGY /etland Hydrology Indicators:			Yes X No
Depth (inches): Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1)		Secondary	
Depth (inches): Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8	<u>Secondary</u> Water-S )Drainage	/ Indicators (2 or more required) itained Leaves (B9) e Patterns (B10)
Depth (inches): Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15)	<u>Secondary</u> Water-S Drainag Oxidized	<u>/ Indicators (2 or more required)</u> itained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3
Depth (inches): Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	<u>Secondary</u> Water-S )Drainage Oxidized Presend	/ Indicators (2 or more required) itained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 æ of Reduced Iron (C4)
Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Water-S )Drainage Oxidized Presend Salt Dep	/ Indicators (2 or more required) tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 se of Reduced Iron (C4) posits (C5)
Depth (inches): Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted	r Indicators (2 or more required) tained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 te of Reduced Iron (C4) posits (C5) or Stressed Plants (D1)
Depth (inches): Remarks: YDROLOGY Yetland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2)
Depth (inches): Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor Shallow	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 be of Reduced Iron (C4) bosits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3)
Depth (inches): Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4)
Depth (inches): Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3)
Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4)
Depth (inches): Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations:	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4)
Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes	sufficient) 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)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4)
Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes	sufficient)  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)  No X Depth (Inches): NA	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor Shallow Microtop	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)
Depth (inches): Remarks: YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes Water Table Present? Yes X	sufficient)        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)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor Shallow Microtop FAC-Ne	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)
Depth (inches): Remarks: YDROLOGY /etland Hydrology Indicators: Primary Indicators (any one indicator is Surface Water (A1) X High Water Table (A2) X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes X Saturation Present? Yes X (includes capillary fringe)	sufficient)        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)	Secondary Water-S Drainage Oxidized Presenc Salt Dep Stunted X Geomor Shallow Microtop FAC-Ne	/ Indicators (2 or more required) stained Leaves (B9) e Patterns (B10) d Rhizospheres along Living Roots (C3 ee of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) pographic Relief (D4) utral Test (D5)

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM – Alaska R	eaion

Borough/City:	: Hoonah / Angoon	Sampling Date: 7-Jun-2018
		Sampling Point: 409u
		): Slope
Slope (%):	5	
Lat: 57.4836	Long: -134.554	563 Datum: NAD 83
	NWI clas	sification: PFO4B
r this time of year? Yes	s X No (If no, expla	ain in Remarks.)
significantly disturbed?	Are "Normal Circumstance	s" present? Yes X No
naturally problematic?	(If needed, explain any ans	swers in Remarks.)
No X		
	-	
No <u>X</u> within	n a Wetland? Yes	<u>No X</u>
ver are abundant with duff	, leaf litter, and debris.	
lants. List all speci	es in the plot.	
Absolute Dominant	Indicator Dominance Tes	st worksheet:
% Cover Species?	Status	
75 X	FAC Number of Dom	•
<u> </u>	That Are OBL, F	FACW, or FAC: <u>2</u> (A)
	_ , , , , , , , , , , , , , , ,	
	•	All Strata: 5 (B)
		in ant Chaption
5 Y		•
		dex worksheet:
2		
•	OBL species	x 1=
	FACW species	x 2=
22	FAC species	85 x 3= 255
20% of total cover:	4.4 FACU species	17 x 4= 68
-		x 5=
5 X	FACU Column Totals:	102 (A) 323 (B)
	Prevalence	e Index = B/A = 3.17
		egetation Indicators:
	Dominan	ice Test is >50%
	Prevalen	ce Index is ≤3.0
	Morpholo	ogical Adaptations <sup>1</sup> (Provide supporting
		in Remarks or on a separate sheet)
	Problema	atic Hydrophytic Vegetation <sup>1</sup> (Explain)
·		
		hydric soil and wetland hydrology must
20% of total cover:	1 be present, un	less disturbed or problematic.
-		
s % Bare Ground	Hydrophytic	
s % Bare Ground Total Cover of Bryophyte		Yes NoX
	errez       Landform (hill         Slope (%):       Lat: $57.4836$ or this time of year?       Yes         significantly disturbed?       naturally problematic?         nap showing sample       No         No       X       Is the         No       X       within         ver are abundant with duff       Absolute       Dominant         % Cover       Species?       75         75       X       10         20% of total cover:       5       X         10       X       2         20% of total cover:       5       X         5       X       10       10         22       20% of total cover:       5       X         5       X       10       10         2       20% of total cover:       5       10         5       X       10       10         2       20% of total cover:       5       10         5       X       10       10       10         2       20% of total cover:       5       10       10         5       X       10       10       10       10         10       10<	Slope (%):       5         Lat:       57.4836       Long: -134.554         NWI class       NWI class         r this time of year?       Yes       X       No         naturally problematic?       (If needed, explain any ansest ap showing sampling point locations, training point locations, trainterpoint, training point locations, training point locations, tr

ampling	Point:	409ı
---------	--------	------

SOIL						Sampling Point:	409u
Profile Description: (	Describe to the de	pth needed to document the indi	cator or co	nfirm th	e absence of in	dicators.)	
Depth	Matrix	Redox Featur				,	
(inches) Color (inches)	moist) %	Color (moist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-16 10 YF	R 2/2 100				)rganic, fibrou		
<sup>1</sup> Type: C=Concentration	n, D=Depletion, R	M=Reduced Matrix, CS=Covered o	r Coated Sa	and Grair	ns. <sup>2</sup> Location:	PL=Pore Lining, M=N	latrix.
Hydric Soil Indicators:		Indicators for Problematic Hyd	ric Soils <sup>3</sup> :		Indicators for	Problematic Hydric	Soils <sup>3</sup> :
Histosol or Histel (A	<b>N1</b> )	Alaska Color Change (TA4) <sup>4</sup>			Alaska Gle	eyed Without Hue 5Y	or Redder
Histic Epipedon (A2	,	Alaska Alpine Swales (TA5)			Underlying	•	
Hydrogen Sulfide (A	,	Alaska Redox With 2.5Y Hue				lain in Remarks)	
Thick Dark Surface	,					,	
Alaska Gleyed (A13	. ,						
Alaska Redox (A14	,	<sup>3</sup> One indicator of hydrophytic veg	netation on	e primar	v indicator of wet	land hydrology	
Alaska Gleyed Pore	,	and an appropriate landscape					<b>.</b>
		<sup>4</sup> Give details of color change in F	•	F			
Restrictive Layer (if pre	esent):						
Type:	· · · · · ·						
Depth (inches):			Hvo	dric Soil	Present? Y	'es No	х
			,				
Remarks:							
HYDROLOGY							
Wetland Hydrology Ind							D.
Primary Indicators (any						ators (2 or more requ	red)
Surface Water (A1)		Inundation Visible on Aerial Ir	0,0,0		Water-Stained	( )	
High Water Table (	A2)	Sparsely Vegetated Concave	Surface (B	8)	Drainage Patte		
Saturation (A3)		Marl Deposits (B15)			Oxidized Rhizospheres along Living Roots (C3)		
Water Marks (B1)		Hydrogen Sulfide Odor (C1)				educed Iron (C4)	
Sediment Deposits	(B2)	Dry-Season Water Table (C2)	)		Salt Deposits (	. ,	
Drift Deposits (B3)		Other (Explain in Remarks)				essed Plants (D1)	
Algal Mat or Crust (	.84)				Geomorphic P	( )	
Iron Deposits (B5)					Shallow Aquita		
Surface Soil Cracks	s (B6)				Microtopograp		
					FAC-Neutral T	est (D5)	
Field Observations: Surface Water Present	2 Vec	No X Donth (Inchas);	ΝΔ				
Water Table Present?	? Yes Yes	NoXDepth (Inches):NoXDepth (Inches):	NA >16				
Saturation Present?	Yes		>16	Wetla	nd Hydrology P	Present? Yes	No X
(includes capillary fring							
	,	monitoring well, aerial photos, previ	ous inspect	ions), if a	available:		
				,			
Remarks: Slightly mo	ist						

Project/Site: Angoon	Airport - Echo Alignment		Borough/City:	Hoonah /	Angoon	Sampling D	Date: 7-Jun-201	8
Applicant/Owner: A	DOT & PF					Sampling F	Point: 410w	
Investigator(s): J.Barn	a, L.Johnson, S.Hartung	R.Gutierrez	Landform (hill	side, terrace	e, hummocks, etc.):	Base of knot		
Local relief (concave,	convex, none): None		Slope (%):	1				
Subregion: S	outheast Alaska	Lat: 57	.48393		Long: -134.55453	1	Datum: NAD	83
Soil Map Unit Name:	None				NWI classifi	cation: PFC	04B	
Are climatic / hydrolog	ic conditions on the site t	ypical for this time	of year? Yes	X No	(If no, explain	in Remarks.	)	
Are Vegetation	Soil or Hydrology	significant	ly disturbed?	Are "Nor	mal Circumstances"	present?	Yes X N	0
Are Vegetation	Soil or Hydrology	naturally p	roblematic?	(If neede	ed, explain any answe	rs in Remar	ks.)	
· ·				,			,	
SUMMARY OF F	INDINGS – Attach	site map sho	wing sampli	ng point	locations, trans	ects, imp	ortant featu	ires, e
Hydrophytic Vegetatio	n Present? Yes	X No						
Hydric Soil Present?	Yes	X No	Is the	Sampled A	rea			
Wetland Hydrology Pr	esent? Yes	X No	withir	n a Wetland	? Yes x	No		
VEGETATION -	Use scientific name	es of plants. L	ist all specie	es in the	plot.			
		Absolu		Indicator	Dominance Test w	orksheet:		
Tree Stratum		% Cov	er Species?	Status				
1. Tsuga heterophyll	а	25	1	FAC	Number of Domina			
2. 3.					That Are OBL, FAC	W, or FAC:	6	(A)
3. 					Total Number of Do	minant		
	Tota	Cover: 25			Species Across All		7	(B)
5			f total cover:	5		oliulu.	· ·	_ (2)
Sapling/Shrub Stratu	m		-		Percent of Dominal	nt Species		
1. Tsuga heterophyll	a	15	1	FAC	That Are OBL, FAC		86	(A/B)
2. Vaccinium ovalifol	ium	10	1	FAC				
3. Oplopanax horridu	S	15	1	FACU	Prevalence Index			
4. Cornus alba		10	1	FAC	Total % Cove		Multiply by:	_
5.					OBL species		x 1=	_
6.					FACW species		x 2=	

5 6					OBL species	X 1: X 2:	
	Total Cover:	50			FAC species	x 3:	=
50% of total cover:	25	20% of tota	al cover:	10	FACU species	x 4:	
<u>Herb Stratum</u>					UPL species	x 5:	=
1. Lysichiton americanus		30	1	OBL	Column Totals:	(A)	(B)
2. Gymnocarpium dryopteris		5		FACU	Prevalence Index	k = B/A =	0
3. Cornus canadensis		5		FACU			
4. Athyrium cyclosorum		25	1	FAC	Hydrophytic Vegeta	tion Indicato	ors:
5. Maianthemum dilatatum		5		FAC	X Dominance Te	st is >50%	
6.					Prevalence Inc	lex is ≤3.0	
7.					Morphological	Adaptations <sup>1</sup>	(Provide supporting
8.					data in Rer	marks or on a	separate sheet)
9.					Problematic H	drophytic Ve	getation <sup>1</sup> (Explain)
10.					·		,
	Total Cover:	70			<sup>1</sup> Indicators of hydric	soil and wetla	and hydrology must
50% of total cover:	35	20% of tota	al cover:	14	be present, unless d		, .,
Plot size (radius, or length x width)	5 ft radius	% Ba	re Ground		Hydrophytic		
% Cover of Wetland Bryophytes		Total Cover of	of Bryophyte	s	Vegetation Y	es X	No
(Where applicable)					Present?		
Remarks: Areas without vegetative c	over are abun	dant with duf	f, leaf litter,	and debris.			

US Army Corps of Engineers

ampling	Point:	410w
---------	--------	------

SOIL			Sam	pling Point: 410w
Profile Description: (Describe to	the depth needed to document the ind	icator or confirm the a	absence of indicato	ors.)
Depth Matrix	Redox Featu			
(inches) Color (moist)	% Color (moist) %	Type <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-20 10 YR 2/1	100		Peat	
<sup>1</sup> Type: C=Concentration, D=Deple	tion, RM=Reduced Matrix, CS=Covered c	or Coated Sand Grains.	<sup>2</sup> Location: PL=Pc	ore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hyd	dric Soils <sup>3</sup> : I	Indicators for Probl	lematic Hydric Soils <sup>3</sup> :
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>		Alaska Gleyed W	/ithout Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	-	Underlying Layer	
X Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	3	Other (Explain in	
Thick Dark Surface (A12)	—	-	_ 、	
Alaska Gleyed (A13)				
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic ve	aetation. one primarv ir	ndicator of wetland h	vdroloav.
Alaska Gleyed Pores (A15)	and an appropriate landscap			
	<sup>4</sup> Give details of color change in			·
Restrictive Layer (if present):				
Type:		Undria Cail D	vecent? Vec	V No
Depth (inches):		Hydric Soil Pi	resent? Yes _	<u>X</u> No
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (any one indicat	or is sufficient)	Se	condary Indicators (	2 or more required)
Surface Water (A1)	Inundation Visible on Aerial I		Water-Stained Leave	
X High Water Table (A2)	Sparsely Vegetated Concave		Drainage Patterns (E	( )
X Saturation (A3)	Marl Deposits (B15)		•	es along Living Roots (C3)
Water Marks (B1)	X Hydrogen Sulfide Odor (C1)		Presence of Reduce	, ,
Sediment Deposits (B2)	Dry-Season Water Table (C2		Salt Deposits (C5)	
Drift Deposits (B3)	Other (Explain in Remarks)	·	Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)			Geomorphic Position	
Iron Deposits (B5)		5	Shallow Aquitard (D3	3)
Surface Soil Cracks (B6)			Microtopographic Re	
		F	FAC-Neutral Test (D	5)
Field Observations:				
Surface Water Present? Yes	No X Depth (Inches):	NA		
	X No Depth (Inches):	3	d Ubuduala ant Dua	
_	X No Depth (Inches): S	wetland	d Hydrology Presen	t? Yes <u>X</u> No
(includes capillary fringe)		iaua inana ati \ . !?	-ilahla:	
Describe Recorded Data (stream g	auge, monitoring well, aerial photos, prev	ious inspections), if ava	aliadie:	
emarks:				

Project/Site: Angoon Airport - Echo Alignme	nt	E	Borough/City:	Hoonah /	Angoon	Sampling Date:	7-Jun-201	18
Applicant/Owner: ADOT & PF						Sampling Point:	: 411w	
Investigator(s): J.Barna, L.Johnson, S.Hartu	ng, R.Gutier	rez L	_andform (hill	lside, terrace	e, hummocks, etc.):	Terrace		
Local relief (concave, convex, none): Conca			Slope (%):	2	,			
Subregion: Southeast Alaska		Lat: 57.48	• • • •		Long: -134.556388	3 Da	tum: NAD	83
Soil Map Unit Name: None		Eut. 07.10				cation: PFO4B		00
Are climatic / hydrologic conditions on the sit	e typical for	this time of	year? Yes	X No	(If no, explain			
Are Vegetation Soil or Hydrolo	•	gnificantly di	•		mal Circumstances" p	,	ХN	0
					•		<u> </u>	
Are Vegetation Soil or Hydrold	gyna	aturally prob	iematic?	(ii neede	ed, explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS – Attac	h site ma	ap showi	ng sampli	ing point	locations, trans	ects, importa	ant featu	ures, etc
Hydrophytic Vegetation Present? Y	es X	No		• •				
	es X	No	Is the	Sampled A	rea			
,	es X	No		n a Wetland		No		
		NO	within					
Remarks: Areas without vegetative cover	are abundar	nt with duff,	leaf litter, and	d debris.				
VEGETATION – Use scientific na	nes of pl	ants. List	t all specie	es in the	plot.			
		Absolute	Dominant	Indicator	Dominance Test w	/orksheet:		
Tree Stratum			Species?	Status				
1. Tsuga heterophylla		40	1	FAC	Number of Dominal	•	-	(4)
2. Picea sitchensis 3.		10	1	FACU	That Are OBL, FAC	, vv, or FAC:	5	(A)
4.					Total Number of Do	ominant		
	otal Cover:	50			Species Across All		8	(B)
50% of total cover:	25	20% of tot	tal cover:	10			•	(=)
Sapling/Shrub Stratum			-		Percent of Dominar	nt Species		
1. Tsuga heterophylla		15	1	FAC	That Are OBL, FAC	•	63	(A/B)
2. Vaccinium ovalifolium		45	1	FAC				
3. Oplopanax horridus		15	1	FACU	Prevalence Index	worksheet:		
4. Rubus spectabilis		5	1	FACU	Total % Cover		ultiply by:	_
5. Menziesia ferruginea		5		FACU	OBL species	x 1=		
6					FACW species	x 2=		
	otal Cover:	85			FAC species	x 3=		_
50% of total cover: Herb Stratum	42.5	20% of tot	tal cover:	17	FACU species	x 4=		_
1. Lysichiton americanus		20	1	OBL	UPL species Column Totals:	x 5=		(B)
2. Gymnocarpium dryopteris		5	1	FACU	Prevalence Inc	(A)	0	(D)
3. Cornus canadensis		5		FACU	r revalence int		0	_
4. Athyrium cyclosorum		25	1	FAC	Hydrophytic Veg	etation Indicato	re ·	
5. Maianthemum dilatatum		5		FAC	X Dominance		13.	
6.				17.0		Index is ≤3.0		
7						al Adaptations <sup>1</sup> (	Provide su	Ipporting
8.						Remarks or on a		
9.						Hydrophytic Veg	•	,
10.						,,	,	·····)
	otal Cover:	60			<sup>1</sup> Indicators of hyd	ric soil and wetla	nd hydrolo	av must
50% of total cover:	30	20% of tot	tal cover:	12	be present, unles		•	37
			-	.=				
	5 ft radius		are Ground		Hydrophytic	Vee Y	NI -	
% Cover of Wetland Bryophytes		i otal Cover	of Bryophyte	s	Vegetation	Yes X	No	
Remarks: Areas without vegetative cov	er are ahun	dant with du	ff leaf litter	and debris	Present?			
Remarko. Areas without vegetative cov			in, iour intol, i					

ampling Point:	411w
----------------	------

SOIL		Sampling Point: 411w
Profile Description: (Describe to t	he depth needed to document the indicator or con	nfirm the absence of indicators.)
Depth Matrix	Redox Features	· · · · · · · · · · · · · · · · · · ·
(inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-20 10 YR 2/1	100	Peat
<sup>1</sup> Type: C=Concentration D=Deplet	ion, RM=Reduced Matrix, CS=Covered or Coated Sar	nd Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
-		•
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)
Thick Dark Surface (A12)		
Alaska Gleyed (A13)		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	primary indicator of wetland hydrology,
Alaska Gleyed Pores (A15)	and an appropriate landscape position mu	ust be present unless disturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):		
Type:		
Depth (inches):	Hvd	Iric Soil Present? Yes X No
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:	······································	
Primary Indicators (any one indicato		Secondary Indicators (2 or more required)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	
X High Water Table (A2)	Sparsely Vegetated Concave Surface (B8	
X Saturation (A3)	Marl Deposits (B15)	Oxidized Rhizospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		X Geomorphic Position (D2)
Iron Deposits (B5)		Shallow Aquitard (D3)
Surface Soil Cracks (B6)		Microtopographic Relief (D4)
		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	No X Depth (Inches): N/A	
	X No Depth (Inches): 5	
Saturation Present? Yes	X No Depth (Inches): Surface	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream ga	auge, monitoring well, aerial photos, previous inspection	ons), if available:
Remarks:		

US Army Corps of Engineers

Project/Site: Angoon Airport - Echo Alignment	Boroug	h/City: Hoonah /	Angoon	Sampling Date	e: 7-Jun-20	18
Applicant/Owner: ADOT & PF				Sampling Poir	nt: 412u	
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Gutie	rrez Landfo	rm (hillside, terrace	e, hummocks, etc.):	Hummock		
Local relief (concave, convex, none): Flat	Slope	%): 0				
Subregion: Southeast Alaska	Lat: 57.481652	. , <u> </u>	Long: -134.556328		Datum: NAD	83
Soil Map Unit Name: None			- °	cation: PFO4B		
Are climatic / hydrologic conditions on the site typical for	this time of year?	Yes X No	(If no, explain i			
	ignificantly disturbe		mal Circumstances" p	,	es X N	lo
			•			
Are Vegetation Soil or Hydrology n	aturally problemati	c? (ii neede	ed, explain any answe	is in Remarks.	)	
SUMMARY OF FINDINGS - Attach site m	ap showing sa	ampling point	locations, transe	ects, impor	tant feat	ures, etc.
Hydrophytic Vegetation Present? Yes X	No			-		
Hydric Soil Present? Yes	No X	Is the Sampled A	rea			
Wetland Hydrology Present? Yes		within a Wetland		No	x	
			· 163		<u>^</u>	
Remarks: In area recently cleared for trail. Areas with	out vegetative cov	er are abundant wi	th duff, leaf litter, and	debris.		
VEGETATION – Use scientific names of p	ants. List all s	pecies in the	plot.			
	Absolute Dom	nant Indicator	Dominance Test w	orksheet:		
Tree Stratum	% Cover Spec					
1. Tsuga heterophylla	60	K FAC	Number of Dominar	•		
2			That Are OBL, FAC	W, or FAC:	3	(A)
3.			Total Number of Do	minont		
4Total Cover:	60		Species Across All		5	(B)
50% of total cover: 30	20% of total cov	er: 12	Species Across Air		5	(B)
Sapling/Shrub Stratum	2070 01 10101 001		Percent of Dominan	t Species		
1. Tsuga heterophylla	5	FAC	That Are OBL, FAC		60	(A/B)
2. Oplopanax horridus		K FACU	- , -	, _		
3. Menziesia ferruginea	15	FACU	Prevalence Index	worksheet:		
4. Vaccinium ovalifolium	30	K FAC	Total % Cover	of: I	Multiply by:	
5. Vaccinium parvifolium	2	FACU	OBL species	x 1	=	
6.			FACW species	x 2	!=	
Total Cover:	82		FAC species	x 3	=	
50% of total cover: 41	20% of total cov	er: 16.4	FACU species	x 4	.=	
Herb Stratum			UPL species	x 5	j=	
1. Streptopus amplexifolius	5	FACU	Column Totals:	(A)		(B)
2. Cornus canadensis		K FACU	Prevalence Inc	lex = B/A =	0	_
3. Athyrium cyclosorum		K FAC				
4. Gymnocarpium dryopteris	10	FACU	Hydrophytic Vege		ors:	
5			X Dominance			
6			Prevalence I			
7				al Adaptations <sup>1</sup>		
8				Remarks or on a	•	,
9			Problematic	Hydrophytic Ve	egetation (I	=xplain)
10			1			
Total Cover:	60	10	<sup>1</sup> Indicators of hydr			
50% of total cover: <u>30</u>	20% of total cov	er: 12	be present, unless	s aisturbed or p	problematic.	
Plot size (radius, or length x width) 5 ft radius	% Bare Gr	ound	Hydrophytic			
% Cover of Wetland Bryophytes	Total Cover of Bry	ophytes	Vegetation	Yes X	No	
(Where applicable)			Present?		_	
Remarks: In area recently cleared for trail. Areas v	ithout vegetative o	over are abundant	with duff, leaf litter, an	nd debris.		

US Army Corps of Engineers

mpling	Point:	412u
--------	--------	------

SOIL		Sampling Point: 412u
Profile Description: (Describe to the	depth needed to document the indicator or cont	irm the absence of indicators.)
Depth Matrix	- Redox Features	
(inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-16 10 yr 2/2		Road fill
<sup>1</sup> Type: C=Concentration, D=Depletion	, RM=Reduced Matrix, CS=Covered or Coated San	d Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
		Other (Explain in Remarks)
Hydrogen Sulfide (A4) Thick Dark Surface (A12)	Alaska Redox With 2.5Y Hue	
Alaska Gleyed (A13)	30	
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	
Alaska Gleyed Pores (A15)		st be present unless disturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):		
Туре:		
Depth (inches):	Hydr	ic Soil Present? Yes <u>No X</u>
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is	s sufficient)	Secondary Indicators (2 or more required)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (B9)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)	
Saturation (A3)	Marl Deposits (B15)	Oxidized Rhizospheres along Living Roots (C3
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Geomorphic Position (D2)
Iron Deposits (B5)		Shallow Aquitard (D3)
Surface Soil Cracks (B6)		Microtopographic Relief (D4)
		FAC-Neutral Test (D5)
Field Observations:	I	
Surface Water Present? Yes	No X Depth (Inches): NA	
Water Table Present? Yes	No X Depth (Inches): >16	
Saturation Present? Yes	No X Depth (Inches): >16	Wetland Hydrology Present? Yes No X
(includes capillary fringe)		
	e, monitoring well, aerial photos, previous inspectio	ns), if available:
Remarks:		

			•		: 7-Jun-20	10
tionnom	Landfarma (bil	laida tamaaa	hummente etc.)		L. 413W	
tierrez			e, nummocks, etc.):	Slope		
		3				
Lat: 57.48	31604		- °		atum: NAL	0.83
	-			,		
_ · ·					s X	No
_naturally pro	blematic?	(If neede	ed, explain any answe	ers in Remarks.)		
map show	ing sampl	ing point	locations, trans	sects, import	ant feat	tures, etc
No						
No	Is the	Sampled A	rea			
No	withi	n a Wetland	? Yes <u>x</u>	<u>No</u>		
dant with duff	leaf litter an	d debris				
	, .eu, u					
plants, Lis	st all speci	es in the	plot.			
-	-	Indicator		worksheet:		
% Cover	Species?	Status				
50	х	FAC				
5		FACU	That Are OBL, FAC	CW, or FAC:	3	(A)
			Total Number of D	ominant		
	·				5	(B)
	otal cover:	11	Species Across Air		5	(D)
-			Percent of Domina	nt Species		
10		FAC		•	60	(A/B)
45	Х	FAC				
15	x	FACU				
10		FACU				
			· · ·			
	·					
	otal cover:	16				
		10				
5		OBL				(B)
10		FACU		. ,	0	(-)
5	·	FACU		· · ·	-	
35	x	FAC	Hydrophytic Veg	etation Indicato	rs:	
	·		X Dominance	Test is >50%		
					•	,
	·		Problematio	c Hydrophytic Ve	getation' (	Explain)
			1			
	atal an	4.4				
-	•	11	· · ·	ss aisturbed or pi	opiematic	
	-		Hydrophytic			
Total Cove	r of Bryophyte	es	Vegetation	Yes X	No	
			Present?			
oundant with d	utf, leaf litter,	and debris.				
	Lat: 57.44 for this time of significantly naturally pro map show No No No No No No No So So So So So So So So So S	Slope (%):         Lat:       57.481604         for this time of year?       Yes         significantly disturbed?       naturally problematic?         map showing sampl       No         No       Is the         No       Species?         50       x         10	Slope (%):       3         Lat: $57.481604$ for this time of year?       Yes       X       No         significantly disturbed?       Are "Nor         naturally problematic?       (If neede         map showing sampling point         No       Is the Sampled A         No       Is the Sampled A         No       within a Wetland         Indant with duff, leaf litter, and debris.         Fplants. List all species in the         Absolute       Dominant         Indicator         % Cover       Species?         50       x         50       x         FACU         50       x         50       x         50       x         760       x         <	Slope (%):       3         Lat:       57.481604       Long:-134.55439         for this time of year?       Yes       X       No       (If no, explain significantly disturbed?       Are "Normal Circumstances"         naturally problematic?       (If needed, explain any answer map showing sampling point locations, transmer map showing sampling point lo	Itierrez       Landform (hillside, terrace, hummocks, etc.):       Slope (%):       3         Lat:       57.481604       Long: 134.554399       D         for this time of year?       Yes       X       No       (If no, explain in Remarks.)         significantly disturbed?       Are "Normal Circumstances" present?       Yes       X         naturally problematic?       (If needed, explain any answers in Remarks.)         map showing sampling point locations, transects, import         No       Is the Sampled Area         Number of Dominant Species       Natare OBL, FACW, or FAC:         Total Number of Dominant Species       That Are OBL, FAC	Slope (%):       3       Datum: NAD         Lat:       57.481604       Long: -134.55439       Datum: NAD         for this time of year?       Yes       X       No       (If no, explain in Remarks.)         significantly disturbed?       Are "Normal Circumstances" present?       Yes       X         naturally problematic?       (If needed, explain any answers in Remarks.)         map showing sampling point locations, transects, important feat         No       is the Sampled Area         No       is the Sampled Area         No       within a Wetland?       Yes       x         Absolute       Dominant       Indicator         % Cover       Species?       Status         5       FACU       Number of Dominant Species         7       Total Number of Dominant Species       That Are OBL, FACW, or FAC:       60         45       x       FAC       FACU       Percent of Dominant Species       x 1=         10       FACU       FACU       Total Number of Dominant Species       x 1=         10       FACU       FACU       Prevalence Index worksheet:       Multiply by:         10       FACU       FACU       Prevalence Index B/A =       0         5       OBL <td< td=""></td<>

ampling	Point:	413w
---------	--------	------

SOIL			Sampling Point: 413w
Profile Description: (Describe to	the depth needed to document the indicator or con	firm the absence of in	dicators.)
Depth Matrix	Redox Features		
(inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks
0-20 10 YR 2/1	100	Peat	
<sup>1</sup> Type: C=Concentration, D=Deple	tion, RM=Reduced Matrix, CS=Covered or Coated Sar	nd Grains. <sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :		r Problematic Hydric Soils <sup>3</sup> :
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gl	eyed Without Hue 5Y or Redder
	Alaska Alpine Swales (TA5)		•
Histic Epipedon (A2)		Underlying	
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue		olain in Remarks)
Thick Dark Surface (A12)			
Alaska Gleyed (A13)	3		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one		
Alaska Gleyed Pores (A15)	and an appropriate landscape position mu	ist be present unless di	sturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.		
Restrictive Layer (if present):			
Туре:			
Depth (inches):	Hyd	ric Soil Present?	res X No
Remarks:			
nomano.			
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (any one indicat	or is sufficient)	Secondary Indic	ators (2 or more required)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Water-Stained	
X High Water Table (A2)	Sparsely Vegetated Concave Surface (B8		( <i>)</i>
X Saturation (A3)	Marl Deposits (B15)		ospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits	( )
Drift Deposits (B3)	Other (Explain in Remarks)		essed Plants (D1)
Algal Mat or Crust (B4)		Geomorphic F	
Iron Deposits (B5)		Shallow Aquita	
Surface Soil Cracks (B6)			phic Relief (D4)
		FAC-Neutral 1	
			001 (20)
Field Observations:	r		
	No. Y Donth (Inchos): NA		
—	No         X         Depth (Inches):         NA           X         No         Depth (Inches):         4		
	X No Depth (Inches): 4 X No Depth (Inches): Surface	Wetland Hydrology F	Present? Yes X No
(includes capillary fringe)			
	ا auge, monitoring well, aerial photos, previous inspectio	ons) if available	
Essence Recorded Data (sireally			
Remarks: In a mosaic, upland hu	mmocks		

Project/Site: Angoon Airport - Echo Alignment	Borough/City	y: Hoonah / A	ngoon	Sampling Date: 7	7-Jun-2018	
Applicant/Owner: ADOT & PF				Sampling Point: 4	414u	
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Guti	errez Landform (h	illside, terrace,	hummocks, etc.):	Hummock		
Local relief (concave, convex, none): Flat	Slope (%):	0				
Subregion: Southeast Alaska	Lat: 57.481657		Long: -134.554295	Datı	um: NAD 83	
Soil Map Unit Name: None			NWI classific	cation: PFO4B		
Are climatic / hydrologic conditions on the site typical f	or this time of year? Ye	es X No	(If no, explain i	n Remarks.)		
	significantly disturbed?	Are "Norm	 nal Circumstances" p	oresent? Yes	X No	
Are Vegetation Soil or Hydrology			l, explain any answer			
				,		
SUMMARY OF FINDINGS – Attach site n	nap showing samp	ling point l	ocations, transe	ects, importa	nt feature	s, etc
Hydrophytic Vegetation Present? Yes	No X					
Hydric Soil Present? Yes		e Sampled Ar	ea			
Wetland Hydrology Present? Yes		in a Wetland?		No X		
Remarks: Areas without vegetative cover are abunc	lant with duff, leaf litter, ar	nd debris.				
VEGETATION – Use scientific names of	plants. List all spec	ies in the p	lot.			
	Absolute Dominant	Indicator	Dominance Test w	orksheet:		
Tree Stratum	% Cover Species?	Status				
1. Tsuga heterophylla	25 X	FAC	Number of Dominan			
2. Picea sitchensis	10X	FACU	That Are OBL, FAC	W, or FAC:	2	(A)
3			Total Number of De	minont		
4Tatal Cauca	35		Total Number of Do		F	
Total Cover 50% of total cover: 17.5	20% of total cover:	7	Species Across All S		5	(B)
			Dereent of Dominan	t Species		
<u>Sapling/Shrub Stratum</u> 1. Tsuga heterophylla	5	FAC	Percent of Dominan That Are OBL, FAC		40 (/	A/B)
2. Oplopanax horridus	$-\frac{5}{2}$	FAC	That AIC ODE, I AO	w, or i Ao.	(/	<b>ң</b> в)
3. Menziesia ferruginea		FACU	Prevalence Index	workshoot:		
4. Vaccinium ovalifolium	$-\frac{35}{30}$ $\times$	FAC	Total % Cover		Itiply by:	
5. Vaccinium parvifolium	- <u> </u>	FACU	OBL species	x 1=		
6.			FACW species	x 2=		
Total Cover	: 102		FAC species	60 x 3=	180	
50% of total cover: 51	20% of total cover:	20.4		127 x 4=	508	
Herb Stratum			UPL species	x 5=		
 1.				187 (A)	688 (F	B)
2. Cornus canadensis	40 X	FACU	Prevalence Ind	. ,	3.68	,
3.						
4			Hydrophytic Vege	tation Indicators	:	
5	<b>_</b>			Test is >50%	•	
6.	<b>_</b>		Prevalence I			
7.				al Adaptations <sup>1</sup> (P	rovide suppo	ortina
0				Remarks or on a se		-
0				Hydrophytic Vege		,
9 10.	<u> </u>					/
Total Cover	. 40		<sup>1</sup> Indicators of hydr	ric soil and wetlen	d hydrology r	must
50% of total cover: 20	20% of total cover:	8	be present, unless		, .,	nust
Plot size (radius, or length x width) 5 ft radiu	s % Bare Ground		Hydrophytic			
% Cover of Wetland Bryophytes	Total Cover of Bryophyte	es	Vegetation	Yes	No X	(
(Where applicable)			Present?			
Remarks: Areas without vegetative cover are abu	undant with duff, leaf litter,					
US Army Corps of Engineers					Alaska Vers	sion 2.0

mpling	Point:	414u
--------	--------	------

SOIL		Sampling Point: 414u
Profile Description: (Describe to the	depth needed to document the indicator or confi	irm the absence of indicators.)
Depth Matrix	- Redox Features	
(inches) Color (moist)	% Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-20 10 yr 2/2		Road fill
<sup>1</sup> Type: C=Concentration D=Depletion	RM=Reduced Matrix, CS=Covered or Coated Sand	d Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
	Alaska Calar Change $(\mathbf{T}\mathbf{A}\mathbf{A})^4$	
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)
Thick Dark Surface (A12)		
Alaska Gleyed (A13)		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one p	
Alaska Gleyed Pores (A15)	and an appropriate landscape position mus	t be present unless disturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):		
Туре:		
Depth (inches):	Hydri	c Soil Present? Yes <u>No X</u>
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is	sufficient)	Secondary Indicators (2 or more required)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9)
Saturation (A3)	Marl Deposits (B15)	Drainage Patterns (B10) Oxidized Rhizospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C5)
Drift Deposits (B3)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Geomorphic Position (D2)
Iron Deposits (B5)		Shallow Aquitard (D3)
Surface Soil Cracks (B6)		Microtopographic Relief (D4)
		FAC-Neutral Test (D5)
Field Observations:		
	No. X Dopth (Inches): NA	
Surface Water Present? Yes Water Table Present? Yes	No X Depth (Inches): NA No X Depth (Inches): >16	
Saturation Present? Yes		Wetland Hydrology Present? Yes No X
(includes capillary fringe)		
	e, monitoring well, aerial photos, previous inspection	ns) if available
Seconde Recorded Data (Sireani yauyi		
Remarks:		

Project/Site: Angoon Airport - Echo Alignme	ent		Borough/City:	Hoonah / A	Angoon	Sampling Da	te: 7-Jun-20	18
Applicant/Owner: ADOT & PF						Sampling Po	int: 415	
Investigator(s): J.Barna, L.Johnson, S.Hart	ung, R.Gutier	rez	Landform (hill	lside, terrace	, hummocks, etc.):	Hummock		
Local relief (concave, convex, none): Flat	0		Slope (%):	0	,			
Subregion: Southeast Alaska		Lat: 57.48			Long: -134.552534	1	Datum: NAD	83
Soil Map Unit Name: None					· ·	r cation: PFO4		00
•	vite turning for	this time of	f year? Yes	V No				
Are climatic / hydrologic conditions on the s					(If no, explain	,		
	···	gnificantly o			mal Circumstances" p		es X N	NO
Are Vegetation Soil or Hydro	logyna	iturally prot	plematic?	(If neede	d, explain any answe	rs in Remarks	5.)	
SUMMARY OF FINDINGS – Atta	ch site ma	no showi	ing sampli	ina point	locations. trans	ects. impo	rtant feat	ures. etc
		-	ing oumpi	ng point			- tailt iout	ai ee, ete
, , , ,	Yes	No X						
<b>,</b>		No X		Sampled A				
Wetland Hydrology Present?	Yes	No X	withir	n a Wetland	? Yes	No	X	
VEGETATION – Use scientific na	ames of pla	<b>ants. Lis</b> Absolute	-	es in the I	olot. Dominance Test w	orkshaat:		
Tree Stratum			Species?	Status	Dominance Test w	orksneet:		
1. Tsuga heterophylla		20	X	FAC	Number of Dominal	nt Species		
2.		20	X	TAO	That Are OBL, FAC	•	2	(A)
3.					,			( )
4.					Total Number of Do	ominant		
	Total Cover:	20			Species Across All	Strata:	4	(B)
50% of total cover:	10	20% of to	otal cover:	4		-		
Sapling/Shrub Stratum					Percent of Dominar			
1					That Are OBL, FAC	W, or FAC:	50	(A/B)
2.								
3. Picea sitchensis		5		FACU	Prevalence Index			
<ol> <li>Vaccinium ovalifolium</li> <li>Rubus spectabilis</li> </ol>		50 35	<u> </u>	FAC FACU	Total % Cover OBL species		Multiply by: 1=	_
6.		- 35		FACU	FACW species		2=	
	Total Cover:	90			FAC species		3= 210	
50% of total cover:	45		otal cover:	18	FACU species		4= 340	_
Herb Stratum					UPL species		5=	_
1.		5			Column Totals:	155 (A)	550	(B)
2. Cornus canadensis		45	X	FACU	Prevalence Inc	dex = B/A =	3.55	_ ` '
3.						-		_
4.					Hydrophytic Veg	etation Indica	tors:	
5.					Dominance	Test is >50%		
6.					Prevalence	Index is ≤3.0		
7.					Morphologic	al Adaptations	s <sup>1</sup> (Provide si	upporting
8						Remarks or on	•	,
9					Problematic	Hydrophytic V	/egetation <sup>1</sup> (I	Explain)
10				_				
	Total Cover:	50		_	<sup>1</sup> Indicators of hyd		•	ogy must
50% of total cover:	25	20% of to	otal cover:	10	be present, unles	s disturbed or	problematic.	
Plot size (radius, or length x width)	5 ft radius	% B	are Ground		Hydrophytic			
% Cover of Wetland Bryophytes			of Bryophyte	s	Vegetation	Yes	No	х
(Where applicable)			,, <b>.</b> .		Present?			
Remarks: In area recently cleared for	trail; mystery	herb 5 leav	ves 5%. Areas	s without veg		Indant with du	ff, leaf litter, a	and debris.

US Army Corps of Engineers

Sampling Funt. 415	Sampling	Point:	415
--------------------	----------	--------	-----

		~		
(inches) Color (moist)	%         Color (moist)         %         Type	Loc <sup>2</sup>	Texture	Remarks
0-20 10 yr 2/2	100			Road fill
<sup>1</sup> Type: C=Concentration, D=Depletion	n, RM=Reduced Matrix, CS=Covered or Coated S	and Grain	s. <sup>2</sup> Location: PL	.=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup>		Indicators for P	roblematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>		Alaska Gleve	ed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		Underlying L	
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue			in in Remarks)
Thick Dark Surface (A12)				
Alaska Gleyed (A13)				
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, o	ne primary	indicator of wetla	nd hydrology,
Alaska Gleyed Pores (A15)	and an appropriate landscape position	nust be pr	esent unless distu	rbed or problematic.
—	<sup>4</sup> Give details of color change in Remarks.			
Restrictive Layer (if present):				
Туре:				
,ı				
Depth (inches):	H	dric Soil	Present? Yes	s No X
Depth (inches):	H	/dric Soil	Present? Yes	s No <u>X</u>
Depth (inches): Remarks:	H:	/dric Soil	Present? Yes	s No <u>X</u>
	H;	ydric Soil	Present? Yes	s No <u>X</u>
Remarks:	H;	ydric Soil	Present? Yes	s No <u>_ X _</u>
Remarks:	H:	/dric Soil	Present? Yes	s No <u>_ X</u>
Remarks:				s NoX
Remarks: HYDROLOGY Wetland Hydrology Indicators:		<u>S</u>		ors (2 or more required)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator	is sufficient)	<u>S</u> S	Secondary Indicato	ors (2 or more required) eaves (B9)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1)	is sufficient) Inundation Visible on Aerial Imagery (B	<u>S</u> S	Secondary Indicato Water-Stained Lu Drainage Patterr	ors (2 or more required) eaves (B9)
Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator         Surface Water (A1)         High Water Table (A2)	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (	<u>S</u> S	Secondary Indicato Water-Stained Lu Drainage Patterr	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	<u>S</u> S	Secondary Indicato Water-Stained L Drainage Patterr Oxidized Rhizosp	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	<u>S</u> S	Secondary Indicato Water-Stained L Drainage Patterr Oxidized Rhizos Presence of Red Salt Deposits (C Stunted or Stress	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	<u>S</u> S	Secondary Indicato Water-Stained L Drainage Patterr Oxidized Rhizos Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 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)	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	<u>S</u> S	Secondary Indicato Water-Stained L Drainage Patterr Oxidized Rhizosp Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos Shallow Aquitard	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	<u>S</u> S	Secondary Indicato Water-Stained Li Drainage Patterr Oxidized Rhizosp Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 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)	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	<u>S</u> S	Secondary Indicato Water-Stained L Drainage Patterr Oxidized Rhizosp Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos Shallow Aquitard	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 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)	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (I Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	<u>S</u> S	Secondary Indicato Water-Stained Li Drainage Patterr Oxidized Rhizosp Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 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) Field Observations:	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	<u>S</u> S	Secondary Indicato Water-Stained Li Drainage Patterr Oxidized Rhizosp Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4)
Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator         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)	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No X Depth (Inches): NA	<u>S</u> S	Secondary Indicato Water-Stained Li Drainage Patterr Oxidized Rhizosp Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ors (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator 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) Field Observations:	is sufficient) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	<u>S</u>	Secondary Indicato Water-Stained Li Drainage Patterr Oxidized Rhizosp Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic	ers (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4) t (D5)
Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator         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)	is sufficient) Inundation Visible on Aerial Imagery (B' Sparsely Vegetated Concave Surface (I) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No X Depth (Inches): NA No X Depth (Inches): >16	<u>S</u>	Secondary Indicato Water-Stained Lu Drainage Patterr Oxidized Rhizosp Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ers (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4) t (D5)
Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicator         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)	is sufficient) Inundation Visible on Aerial Imagery (B' Sparsely Vegetated Concave Surface (I) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No X Depth (Inches): NA No X Depth (Inches): >16	7) 38) 	Secondary Indicato Water-Stained Lu Drainage Patterr Oxidized Rhizosy Presence of Red Salt Deposits (C Stunted or Stress Geomorphic Pos Shallow Aquitard Microtopographic FAC-Neutral Tes	ers (2 or more required) eaves (B9) is (B10) oheres along Living Roots (C3) uced Iron (C4) 5) sed Plants (D1) ition (D2) (D3) c Relief (D4) t (D5)

WETLAND DETERMINATION DATA FORM – Alaska Region
METERING DETERMINATION DATA FORM Ausku Region

Project/Site: Angoon Airport - Echo Alignment	E	Borough/City	Hoonah /	Angoon	Sampling	_		18
Applicant/Owner: ADOT & PF		15 (1.1)		( )	Sampling		IOW	
Investigator(s): J.Barna, L.Johnson, S.Hartung, R.Gut			Iside, terrace	e, hummocks, etc.):	Base of slop	ре		
Local relief (concave, convex, none): Concave		Slope (%):	3					
Subregion: Southeast Alaska	Lat: 57.483	3872		Long: -134.55276	3	Datu	m: NAD	83
Soil Map Unit Name: None				NWI classifi	cation: PF	O4B		
Are climatic / hydrologic conditions on the site typical f	or this time of	year? Yes	s X No	(If no, explain	in Remarks	.)		
Are Vegetation Soil or Hydrology	significantly d	isturbed?	Are "Nor	mal Circumstances"	present?	Yes	X N	0
	naturally prob			ed, explain any answe		rks)		
	naturally prob	iomado.	(1110000	sa, explain any anone				
SUMMARY OF FINDINGS – Attach site r	nap showi	ng sampli	ing point	locations, trans	ects, im	portar	nt featu	ires, etc.
Hydrophytic Vegetation Present? Yes X	No							
Hydric Soil Present? Yes X	No	Is the	Sampled A	rea				
Wetland Hydrology Present? Yes X	No	withi	n a Wetland	? Yes <u>x</u>	No			
Remarks: Logged area, cut logs, 5-leaf mystery her	b. Areas witho	ut vegetative	e cover are a	abundant with duff. lea	af litter, and	debris.		
In a mosaic, upland hummocks								
VEGETATION – Use scientific names of		-		•	<u> </u>			
Tree Stratum		Dominant	Indicator	Dominance Test w	/orksheet:			
Tree Stratum		Species?	Status	Number of Demine	nt Casalas			
1. Tsuga heterophylla 2.	50	X	FAC	Number of Domina That Are OBL, FAC	•		3	(A)
3.				That Ale OBL, FAC	W, UI FAC.	·	3	(A)
4.				Total Number of Do	ominant			
Total Cover	: 50			Species Across All			4	(B)
50% of total cover: 25	20% of tot	tal cover:	10		onata.		•	(5)
Sapling/Shrub Stratum		-	-	Percent of Domina	nt Species			
1. Picea sitchensis	5		FACU	That Are OBL, FAC	•	:	75	(A/B)
2. Vaccinium ovalifolium	45	X	FAC	- , -	, -		-	
3. Oplopanax horridus	15		FACU	Prevalence Index	workshee	et:		
4. Menziesia ferruginea	10		FACU	Total % Cove			tiply by:	
5. Rubus spectabilis	5		FACU	OBL species		x 1=		
6.				FACW species		x 2=		
Total Cover	: 80			FAC species		x 3=		
50% of total cover: 40	20% of tot	tal cover:	16	FACU species		x 4=		_
Herb Stratum		-		UPL species		x 5=		_
1. Lysichiton americanus	5		OBL	Column Totals:	(A)			(B)
2. Gymnocarpium dryopteris	15	Х	FACU	Prevalence In	. ,	-	0	
3. Cornus canadensis	5		FACU					_
4. Athyrium cyclosorum	40	X	FAC	Hydrophytic Veg	etation Ind	icators		
5.				X Dominance				
6.				Prevalence				
7.				Morphologic			ovide su	pporting
8.					Remarks or			
9.				Problematic			•	,
9 10.					. iya opriyu	s voger		
Total Cover	: 65			<sup>1</sup> Indicators of hyd	ric soil and	wetland	l hydrolo	av must
50% of total cover: 32.5	20% of tot	tal cover:	13	be present, unles			•	
Plot size (radius, or length x width) 5 ft radiu	us % Ba	are Ground		Hydrophytic				
% Cover of Wetland Bryophytes		of Bryophyte	s	Vegetation	Yes	х	No	
(Where applicable)		o. Diyopiiyid		Present?		~		
Remarks: Logged area, cut logs, 5-leaf mystery l	nerb. Areas wit	thout vegetat	tive cover ar		leaf litter a	nd debr	is.	
			u					

US Army Corps of Engineers

ampling	Point:	416w
---------	--------	------

SOIL			Sa	mpling Point: 416w		
Profile Description: (Describe to	the depth needed to document	t the indicator or confir	m the absence of indica	ators.)		
Depth Matrix	-	ox Features		,		
(inches) Color (moist)	% Color (moist)	% Type <sup>1</sup> L	.oc <sup>2</sup> Texture	Remarks		
0-20 10 YR 2/1	100	<u></u>	Peat			
<sup>1</sup> Type: C=Concentration, D=Depl	tion, RM=Reduced Matrix, CS=C	overed or Coated Sand	Grains. <sup>2</sup> Location: PL=	Pore Lining, M=Matrix.		
Hydric Soil Indicators:	Indicators for Problem	natic Hydric Soils <sup>3</sup> :	Indicators for Pro	oblematic Hydric Soils <sup>3</sup> :		
X Histosol or Histel (A1)	Alaska Color Chang	e (TA4) <sup>4</sup>	Alaska Gleved	Without Hue 5Y or Redder		
Histic Epipedon (A2)	Alaska Alpine Swale		Underlying Lay			
Hydrogen Sulfide (A4)	Alaska Redox With 2		Other (Explain			
Thick Dark Surface (A12)		2.51 1100		in Kondikoj		
Alaska Gleyed (A13)						
	<sup>3</sup> One indicator of budge		in an indiantan af watland			
Alaska Redox (A14)			imary indicator of wetland be present unless disturb			
Alaska Gleyed Pores (A15)			be present unless disturt	ed of problematic.		
	<sup>4</sup> Give details of color ch	ange in Remarks.				
Restrictive Layer (if present):						
Туре:						
Depth (inches):		Hydric	Soil Present? Yes	<u>X</u> No		
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (any one indica	or is sufficient)		Secondary Indicators	s (2 or more required)		
Surface Water (A1)		n Aerial Imagery (B7)	Water-Stained Lea	aves (B9)		
X High Water Table (A2)		Concave Surface (B8)				
X Saturation (A3)	Marl Deposits (B15)		Oxidized Rhizospheres along Living Roots (C3			
Water Marks (B1)	Hydrogen Sulfide Od	( )	Presence of Redu	( )		
Sediment Deposits (B2)	Dry-Season Water 1	( )	Salt Deposits (C5)			
Drift Deposits (B3)	Other (Explain in Re	emarks)	Stunted or Stresse			
Algal Mat or Crust (B4)			Geomorphic Posit			
Iron Deposits (B5)			Shallow Aquitard (			
Surface Soil Cracks (B6)			Microtopographic	. ,		
			FAC-Neutral Test	(D5)		
Field Observations:						
Surface Water Present? Yes	No X Depth (In					
Water Table Present? Yes	X No Depth (In		Votional Understame Pro	anto Vac V Na		
Saturation Present? Yes	X No Depth (In	ches): Surface V	Vetland Hydrology Pres	ent? Yes <u>X</u> No		
(includes capillary fringe)	augo monitoring wall parist the	too provious increations				
Describe Recorded Data (stream	auge, monitoring well, aenal pho	tos, previous inspections	s, ii avaliable:			
	mmaaka					
emarks: In a mosaic, upland h	ITTTOCKS					

US Army Corps of Engineers

WETLAND DETERMINATION DATA FORM -	Alaska	Region
TELEAND DETERMINATION DATA FORM =	πιασκα	Region

Project/Site: Angoon Airport - Echo Align	ment	E	Borough/City:	Hoonah /	Angoon	Sampling	-		18
Applicant/Owner: ADOT & PF			16 /1 11		( )	Sampling 	Point: 4	+17W	
Investigator(s): J.Barna, L.Johnson, S.Ha	-				e, hummocks, etc.):	Terrace			
Local relief (concave, convex, none): Con			Slope (%):	2					
Subregion: Southeast Alaska		Lat: 57.478	892		Long: -134.55995			m: NAD	83
Soil Map Unit Name: None					NWI classif	cation: PF	O4B		
Are climatic / hydrologic conditions on the	site typical for	this time of	year? Yes	s X No	(If no, explain	in Remarks	s.)		
Are Vegetation Soil or Hydr	rology si	gnificantly di	isturbed?	Are "No	rmal Circumstances"	present?	Yes	X N	0
Are Vegetation Soil or Hydr	rology na	aturally prob	lematic?	(If neede	ed, explain any answe	ers in Rema	arks.)		
								_	
SUMMARY OF FINDINGS – Att	tach site ma	ap showi	ng sampli	ing point	locations, trans	ects, im	portar	nt featu	ures, etc.
Hydrophytic Vegetation Present?	Yes X	No							
Hydric Soil Present?	Yes X	No	Is the	Sampled A	rea				
Wetland Hydrology Present?	Yes X	No	withir	n a Wetland	l? Yes x	No	)		
Remarks: > 2 large snags - 15" severa	I small snags	5 leaf myster	ry herh mos	s & down wo	od				
	i olitali oliago, e	lear myster	ry noib, most	o down we					
hummocks									
VEGETATION – Use scientific r	names of pl	ants. List	all specie	es in the	plot.				
			Dominant	Indicator	Dominance Test v	vorksheet:			
Tree Stratum		% Cover	Species?	Status					
1. Tsuga heterophylla		50	Х	FAC	Number of Domina	nt Species			
2. Picea sitchensis		5		FACU	That Are OBL, FAC	W, or FAC	:	4	(A)
3									
4					Total Number of Do				-
	Total Cover:	55		44	Species Across All	Strata:		4	(B)
50% of total cover:	27.5	20% of tot		11					
Sapling/Shrub Stratum		10		540	Percent of Dominal	•		100	
<ol> <li>Tsuga heterophylla</li> <li>Vaccinium ovalifolium</li> </ol>		<u> </u>		FAC FAC	That Are OBL, FAC	JVV, OF FAC	·	100	(A/B)
3.		60	X	FAC	Drevelance Index				
4. Menziesia ferruginea		15		FACU	Prevalence Index Total % Cove			tiply by:	
5.		10		TAGO	OBL species	01.	x 1=	upiy by.	_
6.					FACW species		x 2=		
	Total Cover:	85			FAC species		x 3=		_
50% of total cover:	42.5	20% of tot	tal cover	17	FACU species		x 4=		_
Herb Stratum		20/0 01 101	-		UPL species		x 5=		
1. Lysichiton americanus		20	х	OBL	Column Totals:	(A)	-		(B)
2. Maianthemum dilatatum		5	x	FAC	Prevalence In			0	_ ` '
3.								-	
4.					Hydrophytic Veg	etation Ind	icators	:	
5.					X Dominance	Test is >50	)%		
6.					Prevalence				
7.					Morphologic			rovide su	pporting
8.						Remarks or	•		•••••
9.					Problematic			•	,
10.					1—		-	,	
	Total Cover:	25			<sup>1</sup> Indicators of hyd	Iric soil and	wetland	d hydrolo	gy must
50% of total cover:	12.5	20% of tot	tal cover:	5	be present, unles				
Plot size (radius, or length x width)	5 ft radius	% Ba	are Ground		Hydrophytic				
% Cover of Wetland Bryophytes			of Bryophyte	s	Vegetation	Yes	х	No	
(Where applicable)			or bryophyte		Present?		<u> </u>		
Remarks: > 2 large snags - 15" seve	eral small snag	s. 5 leaf mvs	sterv herh m	oss & down					
		, <b>.</b>	.,,						

US Army Corps of Engineers

Sampling	Point:	417w
Gamping	i onit.	

Profile Description: (Describe to the	lepth needed to document the indicator or cor	firm the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	6 Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture Remarks
0-20 10 YR 2/1 10		Peat
<sup>1</sup> Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, CS=Covered or Coated Sar	nd Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :	Indicators for Problematic Hydric Soils <sup>3</sup> :
X Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>	Alaska Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)
Thick Dark Surface (A12)	_	
Alaska Gleyed (A13)		
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic vegetation, one	primary indicator of wetland hydrology.
Alaska Gleyed Pores (A15)		ist be present unless disturbed or problematic.
	<sup>4</sup> Give details of color change in Remarks.	
Restrictive Layer (if present):	- 3	
Type:		
Depth (inches):	Hvd	ric Soil Present? Yes X No
	Hyu	
Remarks:		
HYDROLOGY Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is	sufficient)	Secondary Indicators (2 or more required)
· · · ·		Secondary Indicators (2 or more required)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (B9)
X High Water Table (A2)	Sparsely Vegetated Concave Surface (B8	
X Saturation (A3)	Marl Deposits (B15)	Oxidized Rhizospheres along Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Presence of Reduced Iron (C4)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Salt Deposits (C5)
Drift Deposits (B3) Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2) Shallow Aquitard (D3)
Surface Soil Cracks (B6)		Microtopographic Relief (D4)
		FAC-Neutral Test (D5)
Field Observations:	Ι	
Surface Water Present? Yes	No X Depth (Inches): NA	
Water Table Present? Yes X	No Depth (Inches): 8	
Saturation Present? Yes X	No Depth (Inches): Surface	Wetland Hydrology Present? Yes X No
	· · · · /	· ··· _ ·
(includes capillary fringe)		
(includes capillary fringe) Describe Recorded Data (stream gauge	, monitoring well, aerial photos, previous inspection	ons), if available:
· · · · · · · · · · · · · · · · · · ·	, monitoring well, aerial photos, previous inspection	ons), if available:
· · · · · · · · · · · · · · · · · · ·	, monitoring well, aerial photos, previous inspection	ons), if available:

Applicant/Owner:       ADD 74 FF       Sample Johnson, Si Hartung, R. Gutternzy       Landferm (hilliside, terrace, hurnmock, etc.):       Hurnmock         Load treff (concave, convex, none): Flat       Slope (%): 0       0       Datamak. Lohnson, Si Hartung, R. Gutternzy       Landferm (hilliside, terrace, hurnmock, etc.):       Hurnmock         Subregion:       Southeast Alaska       Lat: 57.478784       Long: 134.59015       Datamak.)         Ave Usedation       Soli       or Hydrology       institute of year's Yes       No       No         Ave Usedation       Soli       or Hydrology       institute of year's Yes       No       No         Ave Usedation       Soli       or Hydrology       naturally problematic?       (if no.explain in Remarks.)       No         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et Hydrology Present?       Yes       No       X         Vestand Hydrology Present?       Yes       No       X       is the Sampled Area         Westand Hydrology Present?       Yes       No       X       is the Sampled Area         Vestantam       Absolute       Dominant       Indicator       Non X       Non X         Vestantam       Absolute       Dominant       Indicator       No       X         Vestantam	Project/Site: Angoon Airport - Echo Alig	gnment		Borough/City:	Hoonah / A	Angoon	Sampling Dat	e: 7-Jun-20	18
Local relif (concave, convex, none): Flat       Stope (%):       0         Subregion:       Southeast Alaska       Lat: 57.478784       Long::134.559915       Datum: NAD 83         Sold Map Unit Name:       No       X       No							Sampling Poin	nt: 418u	
Subregin:         Southeast Alaska         Lat:         57.478784         Long: 124 55915         Datum: NAD 83           Soil Map Unit Name:         None         None         NWI classification:         PFO4B           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.)         X         No           SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, ef         Hydrophytic Vegetation Present?         Yes         No         X         Is the Sampled Area           Welland Hydrology Present?         Yes         No         X         Is the Sampled Area           VEGETATION - Use scientific names of plants. List all species in the plot.         Total Present?         No         X           1         Total cover:         15         Soll         Soll         Total Needes         Total Needes           2         Total Cover:         15         X         FACU         Prevalence Index worksheet:         Total Needes         Xoll           1         Tugg heterophylia         15         Soll fotal cover:         15         Soll <td>Investigator(s): J.Barna, L.Johnson, S.</td> <td>Hartung, R.Gutier</td> <td>rez</td> <td>Landform (hil</td> <td>lside, terrace</td> <td>, hummocks, etc.):</td> <td>Hummock</td> <td></td> <td></td>	Investigator(s): J.Barna, L.Johnson, S.	Hartung, R.Gutier	rez	Landform (hil	lside, terrace	, hummocks, etc.):	Hummock		
Soli Map Unit Name:       None       NWI classification:       PFC49         Are climatic / hydrologic conditions on the site typical for this time of year?       Yes       X. No       (if no, explain in Remarks.)         Are Vegetation       Soli or Hydrology       naturally problematic?       Yes       X. No       (if needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et hydrophyto Vegetation Present?       Yes       No       X         Hydrophyto Vegetation Present?       Yes       No       X       is the Sampled Area         Wettand Hydrology Present?       Yes       No       X       is the Sampled Area         Wettand Hydrology Present?       Yes       No       X       is the Sampled Area         Wettand Hydrology Present?       Yes       No       X       is the Sampled Area         Wettand Hydrology Present?       Yes       No       X       is the Sampled Area         VEGETATION - Use scientific names of plants. List all species in the plot.       Total Number of Dominant Species       That Are OBL, FACU, or FAC:       2       (A)         1       Tuge heterophylla       30       X       FACU       FACU       Total Number of Dominant Species       Species       X = -       A)       A) <td< td=""><td>Local relief (concave, convex, none): <u>F</u></td><td>lat</td><td></td><td>Slope (%):</td><td>0</td><td></td><td></td><td></td><td></td></td<>	Local relief (concave, convex, none): <u>F</u>	lat		Slope (%):	0				
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (ff no, explain in Remarks.) Are Vegetation Soil or Hydrology atgnificantly disturbed? Yes Are Normal Circumstances' present? Yes X No Are Vegetation Present? Yes No X is the Sampled Area Witchand Hydrology Present? Yes No X is the Sampled Area Witchand Hydrology Present? Yes No X is the Sampled Area Witchand Hydrology Present? Yes No X is the Sampled Area WEGETATION – Use scientific names of plants. List all species in the plot. Tee Stratum 6 200%, 100% moss cover WEGETATION – Use scientific names of plants. List all species in the plot. Tee Stratum 7 200% of total cover: 15 3. 4. 2. 3. 4. 2. 4. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5			Lat: 57.47	78784		Long: -134.559915	<u>ت ا</u>	Datum: NAD	83
Are Vegetation       Soll       or Hydrology       significantly disturbed?       Are "Normal Circumstances" present?       Yes       X No         SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, el dydrobytic Vegetation Present?       Yes       No       X         Hydro Soil Present?       Yes       No       X       Is the Sampled Area         Watand Hydrology Present?       Yes       No       X       Is the Sampled Area         Watand Hydrology Present?       Yes       No       X       Is the Sampled Area         Watand Hydrology Present?       Yes       No       X       Is the Sampled Area         Watand Hydrology Present?       Yes       No       X       Is the Sampled Area         Watand Hydrology Present?       Yes       No       X       Is the Sampled Area         Watand Hydrology Present?       Yes       No       X       Is the Sampled Area         Watand Hydrology Present?       Yes       No       X       Is the Sampled Area         Yes       Sole of Intal Scote Coll       No       X       No       X         I       Total Present?       Yes       No       X       Is the Sample Area         1       Total Cover:       30       X	Soil Map Unit Name: None					NWI classifi	cation: PFO4E	3	
Are VegetationSoll or Hydrology naturally problematic?       (if needed, explain any answers in Remarks.)         SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, et -ydrophytic Vegetation Present? Yes NoX is the Sampled Area Wetland Hydrology Present? Yes NoX within a Wetland? Yes NoX         Remarks:       5 leaf mystery herb 20%; 100% moss cover         VEGETATION - Use scientific names of plants. List all species in the plot.         Iree Stratum       Absolute Dominant Indicator	Are climatic / hydrologic conditions on t	the site typical for	this time of	f year? Yes	S X No	(If no, explain	in Remarks.)		
SUMMARY OF FINDINCS – Attach site map showing sampling point locations, transects, important features, ef         Yes       No       X         tydit Soil Present?       Yes       No       X         tydit Soil Present?       Yes       No       X         Weisent?       Yes       No       X         Ves       No       X         Total Cover:       30       X       FACU         Total Cover:	Are Vegetation Soil or Hy	ydrology si	gnificantly o	disturbed?	Are "Nori	mal Circumstances" p	present? Ye	es <u>X</u> N	lo
Hydrophytic Vegetation Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       5 leaf mystery herb 20%; 100% moss cover       Yes       No       X       within a Wetland?       Yes       No       X         VECETATION – Use scientific names of plants. List all species in the plot.       Indicator       Dominant       Indicator       Dominant       Secies?       Status       Number of Dominant Species         1.       Total Cover:       30       X       FAC       Total Number of Dominant       Species Across All Strata:       5       (B)         2.       Menziesia ferruginea       30       X       FACU       Total Number of Dominant       Species Across All Strata:       5       (B)         3.       Yaccinium part/folium       15       X       FACU       FACU       Prevalence Index worksheet:       Multiply by:       (B)         4.       Total Cover:       95       X       FAC       FACU       FACU       Prevalence Index worksheet:       No       X       Secies Across All Strata:       5       (B)         3.       Yaccinium part/folium       15       X <t< td=""><td>Are Vegetation Soil or H</td><td>ydrologyna</td><td>aturally prob</td><td>blematic?</td><td>(If neede</td><td>d, explain any answe</td><td>rs in Remarks.</td><td>.)</td><td></td></t<>	Are Vegetation Soil or H	ydrologyna	aturally prob	blematic?	(If neede	d, explain any answe	rs in Remarks.	.)	
Hydrophytic Vegetation Present?       Yes       No       X       is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       5 leaf mystery herb 20%; 100% moss cover       Yes       No       X       within a Wetland?       Yes       No       X         VECETATION – Use scientific names of plants. List all species in the plot.       Indicator       Dominant       Indicator       Dominant       Secies?       Status       Number of Dominant Species         1.       Total Cover:       30       X       FAC       Total Number of Dominant       Species Across All Strata:       5       (B)         2.       Menziesia ferruginea       30       X       FACU       Total Number of Dominant       Species Across All Strata:       5       (B)         3.       Yaccinium part/folium       15       X       FACU       FACU       Prevalence Index worksheet:       Multiply by:       (B)         4.       Total Cover:       95       X       FAC       FACU       FACU       Prevalence Index worksheet:       No       X       Secies Across All Strata:       5       (B)         3.       Yaccinium part/folium       15       X <t< td=""><td></td><td>Attach aita m</td><td>an ahawi</td><td>ina namali</td><td>ne noint</td><td>locationa trana</td><td>aata imna</td><td>stant faat</td><td></td></t<>		Attach aita m	an ahawi	ina namali	ne noint	locationa trana	aata imna	stant faat	
Hydric Soli Present?       Yes       No       X       Is the Sampled Area         Wetland Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       5 leaf mystery herb 20%; 100% moss cover       Absolute       Dominant       Indicator       Portionant       Indicator         YEGETATION - Use scientific names of plants. List all species in the plot.       Dominant       Indicator       No       X         1       Tege Stratum       Absolute       Dominant       Indicator       Number of Dominant Species       That Are OBL, FACW, or FAC:       2       (A)         1       Total Cover:       30       X       FAC       FAC       Percent of Dominant Species       (B)         2       Total Cover:       15       X       FACU       Percent of Dominant Species       (A)       (A)         3       Total Cover:       15       X       FACU       Prevalence Index worksheet:       Total Area       (A)       (A)         2       Menziesia ferruginea       30       X       FACU       Prevalence Index worksheet:       Total Cover:       10       X       FACU       Prevalence Index worksheet:       Total Cover:       10       X       FACU       Prevalence		Attach site ma	ap snow	ing sampli	ing point	locations, trans	ects, impor	tant reatt	ures, et
Wetand Hydrology Present?       Yes       No       X       within a Wetland?       Yes       No       X         Remarks:       5 leaf mystery herb 20%; 100% moss cover       Status       5       No       X         Iree Stratum       Absolute       Dominant       Indicator       Number of Dominant Species         1.       Tauga heterophylla       30       X       FAC       Number of Dominant Species         3.       Total Cover:       15       20% of total cover:       6       FACU       Total Number of Dominant Species         1.       Total Cover:       15       X       FACU       FACU       Percent of Dominant Species         2.       Menziesia ferruginea       30       X       FACU       Total Number of Dominant Species         3.       Vaccinium parvifolium       15       X       FACU       Pervalence Index worksheet:       Total Cover:       40       (A/B)         4.       Vaccinium ovalifolium       15       X       FACU       Total Cover:       50% of total cover:       41       12         50% of total cover:       47.5       20% of total cover:       19       UP species       x 1=       FACU       FACU       Column Totals:       135       (A)       460       (B									
Remarks: 5 leaf mystery herb 20%; 100% moss cover         VEGETATION – Use scientific names of plants. List all species in the plot.         Intere Stratum         1. Tsuga heterophylia       30       X       FAC         2. 3.       Total Cover:       30       X       FAC         4		Yes			-				
VEGETATION – Use scientific names of plants. List all species in the plot.         Interestratum         Insuga heterophylla       30       X       FAC         3.       30       X       FAC         4.       30       X       FAC         50% of total cover:       30       X       FAC         50% of total cover:       15       20% of total cover:       6         Sapling/Shrub Stratum       15       20% of total cover:       6         2.       Menziesia ferruginea       30       X       FACU         3.       Vaccinium ovalifolium       15       X       FACU         4.       So% of total cover:       95       Yesces       X = 1         50% of total cover:       47.5       20% of total cover:       19       Prevalence index worksheet:       Multiply by:         7.       Total Cover:       95       20% of total cover:       19       Prevalence index = 1/A =       3.41         2.       Corrus canadensis       10       X       FACU       Prevalence index = 1/A =       3.41         2.       Corrus canadensis       10       X       FACU       Prevalence index = 1/A =       3.41         9.       So% of total c	Netland Hydrology Present?	Yes	No X	withir	n a Wetland	? Yes	No	X	
VEGETATION - Use scientific names of plants. List all species in the plot.         Iree Stratum         1. Tsuga heterophylla       30       X       FAC         2.       30       X       FAC         3.       30       X       FAC         4.       30       X       FAC         50% of total cover:       30       X       FAC         50% of total cover:       15       20% of total cover:       6         Sapling/Shrub Stratum       15       X       FACU         1.       70 Menziesia ferruginea       30       X       FACU         3.       Vaaccinium parvifolium       15       X       FACU         4.       50% of total cover:       95       Yatal Nerolesia ferruginea       30       X         3.       Vaaccinium parvifolium       15       X       FACU       Prevalence Index worksheet:         1.       Yata Pools for total cover:       95       Yata Pools for total cover:       19       Prevalence Index = B/A =	Remarks: 5 leaf mystery herb 20%:	100% moss cove	r						
Iree Stratum       Absolute       Dominant       Indicator         1. Tsuga heterophylla       30       X       FAC         2.       30       X       FAC         3.       30       X       FAC         4.       50% of total cover:       30       X         50% of total cover:       15       20% of total cover:       6         Saping/Shrub Stratum       1       5       (A)         1.       2.       Accinium parvifolium       15       X       FACU         3.       30       X       FACU       Percent of Dominant Species       Total % Cover of:       40       (A/B)         3.       30       X       FACU       FACU       Total % Cover of:       Multiply by:       5       (A)       50%       X accinium parvifolium       15       X       FACU       Total % Cover of:       Multiply by:       0BL species       x 1 =	······································		-						
Iree Stratum       Absolue       Dominant       Indicator         1. Tsuga heterophylla       30       X       FAC         2.       30       X       FAC         3.       30       X       FAC         4.       50% of total cover:       30       X         50% of total cover:       15       20% of total cover:       6         Saping/Shrub Stratum       30       X       FACU         1.       2.       Accinium parvifolium       15       X         3.       30       X       FACU       Percent of Dominant Species         3.       30       X       FACU       Total % cover of:       40       (A/B)         3.       300       X       FACU       Prevalence Index worksheet:       5       (B)         3.       300       X       FACU       Total % cover of:       Multiply by:       (A/B)         4.       50       X       FACU       FACU       Species       x 1=       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       - <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
Iree Stratum       Absolue       Dominant       Indicator         1. Tsuga heterophylla       30       X       FAC         2.       30       X       FAC         3.       30       X       FAC         4.       50% of total cover:       30       X         50% of total cover:       15       20% of total cover:       6         Saping/Shrub Stratum       30       X       FACU         1.       2.       Accinium parvifolium       15       X         3.       30       X       FACU       Percent of Dominant Species         3.       30       X       FACU       Total % cover of:       40       (A/B)         3.       300       X       FACU       Prevalence Index worksheet:       5       (B)         3.       300       X       FACU       Total % cover of:       Multiply by:       (A/B)         4.       50       X       FACU       FACU       Species       x 1=       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       - <t< td=""><td>VEGETATION – Use scientific</td><td>names of pl</td><td>ants. Lis</td><td>t all specie</td><td>es in the r</td><td>plot.</td><td></td><td></td><td></td></t<>	VEGETATION – Use scientific	names of pl	ants. Lis	t all specie	es in the r	plot.			
Irree Stratum       % Cover       Species?       Status       Number of Dominant Species         1. Tsuga heterophylia       30       X       FAC       That Are OBL, FACW, or FAC:       2       (A)         3.       Total Cover:       30       X       FAC       Total Number of Dominant Species       That Are OBL, FACW, or FAC:       2       (A)         3.       Total Cover:       15       20% of Total cover:       6       Percent of Dominant Species       1       (A)         2.       Marziesia ferruginea       30       X       FACU       FACU       Prevalence Index worksheet:       (A)         2.       Marziesia ferruginea       30       X       FACU       Prevalence Index worksheet:       (A)         3.       Vaccinium ovalifolium       50       X       FAC       OBL species       x 1=         5.0% of total cover:       47.5       20% of Total cover:       19       UP species       55       x 4=       220         1.				-			orksheet:		
2	Tree Stratum								
3.	1. Tsuga heterophylla		30	Х	FAC	Number of Dominal	nt Species		
4.						That Are OBL, FAC	W, or FAC:	2	(A)
Solve of total cover:       Total Cover:       30       20% of total cover:       6         Sapling/Shrub Stratum       15       20% of total cover:       6         Percent of Dominant Species       That Are OBL, FACU       Prevalence Index worksheet:         1.       15       X       FACU         3. Vaccinium parvifolium       15       X       FACU         4. Vaccinium ovalifolium       50       X       FACU         5.       50% of total cover:       95       FACU         5.       50% of total cover:       47.5       20% of total cover:       19         Herb Stratum       10       X       FACU       Prevalence Index worksheet:         1.       2       Cornus canadensis       10       X       FACU         3.       2       Cornus canadensis       10       X       FACU         4.						Total Number of De	unin ant		
50% of total cover:       15       20% of total cover:       6         Sapling/Shrub Stratum         Percent of Dominant Species         1.             3. Vaccinium parvifolium         FACU       Prevalence Index worksheet:         4. Vaccinium ovalifolium           Multiply by:         5.            Multiply by:         6.               1.               2. Cornus canadensis               3.                2. Cornus canadensis                3.                  2. Cornus canadensis	4	Total Cavar	20					F	(P)
Saping/Shrub Stratum       1       Percent of Dominant Species         1.       30       X       FACU         2. Menziesia ferruginea       30       X       FACU         4. Vaccinium parvifolium       15       X       FACU         4. Vaccinium ovalifolium       50       X       FACU         5.       50       X       FAC         6.       Total Cover:       95         50% of total cover:       47.5       20% of total cover:       19         Herb Stratum       10       X       FACU       Prevalence Index worksheet:         1.       -       -       FACU species       x 1=         2. Cornus canadensis       10       X       FACU       Prevalence Index = B/A =       3.41         3.       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -	50% of total cover			otal cover:	6	Species Across Air		5	(D)
1.       30       X       FACU       FACU       That Are OBL, FACW, or FAC:       40       (A/B)         2.       Menziesia ferruginea       30       X       FACU       Prevalence Index worksheet:       (A/B)         3.       Vaccinium ovalifolium       50       X       FACU       Prevalence Index worksheet:       Multiply by:         5.       50% of total cover:       95			2070 01 10	-	<u> </u>	Percent of Dominar	ut Species		
2. Menziesia ferruginea       30       X       FACU         3. Vaccinium parvifolium       15       X       FACU         4. Vaccinium ovalifolium       50       X       FAC         5.       50% of total cover:       95       FACU       Total % Cover of:       Multiply by:         5.       50% of total cover:       95       7       FACU       FACU       Total % Cover of:       Multiply by:         5.       50% of total cover:       47.5       20% of total cover:       19       FACU species       80       x 3 =       240         FACU species       55       x 4 =       220       UPL species       55       x 4 =       220         10       X       FACU       FACU species       55       x 4 =       3.41         2.       Cornus canadensis       10       X       FACU       Facu species       55       460       (B)         3.								40	(A/B)
Number of the second	2. Menziesia ferruginea		30	Х	FACU	,	· _		_ ` `
5.			15	Х	FACU	Prevalence Index	worksheet:		
6.	4. Vaccinium ovalifolium		50	Х	FAC		of:	Multiply by:	
Total Cover:       95         50% of total cover:       47.5         20% of total cover:       19         1.       10         2. Cornus canadensis       10         3.       10         4.       10         5.       10         6.       10         7.       10         8.       10         9.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.       10         10.									
50% of total cover:       47.5       20% of total cover:       19       FACU species       55       x 4 =       220         1.       2.       Cornus canadensis       10       X       FACU       Prevalence       Index = B/A =       3.41         3.       4.	6								
Herb Stratum       UPL species       x 5=         1.       .       .       .         2.       Cornus canadensis       10       X       FACU         3.       .       .       .       .         4.       .       .       .       .         5.       .       .       .       .         6.       .       .       .       .         7.       .       .       .       .         8.       .       .       .       .         9.       .       .       .       .         10.       .       .       .       .         9.       .       .       .       .         9.       .       .       .       .         9.       .       .       .       .         10.       .       .       .       .         50% of total cover:       .       .       .       .         9.       .       .       .       .       .         10.       .       .       .       .       .         10.       .       .       .       .				. 4 . 1	10				
1.		: 47.5	20% of to	tal cover:	19				
2. Cornus canadensis       10       X       FACU       Prevalence Index = B/A =3.41         3.									(B)
3.			10	X	FACU		. ,	-	_(D)
4.					17100			0.41	
5.	4.					Hydrophytic Veg	etation Indicat	ors:	
7.	5.								
8.	6.					Prevalence	Index is ≤3.0		
9	7.					Morphologic	al Adaptations	<sup>1</sup> (Provide sı	upporting
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       Hydrophytic         % Cover of Wetland Bryophytes (Where applicable)       Total Cover of Bryophytes       Vegetation       Yes       No       X	8.					data in F	Remarks or on	a separate s	sheet)
Total Cover:       10       1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         50% of total cover:       5       20% of total cover:       2         Plot size (radius, or length x width)       5 ft radius       % Bare Ground       Hydrophytic         % Cover of Wetland Bryophytes (Where applicable)       Total Cover of Bryophytes       Vegetation       Yes       No       X	9.					Problematic	Hydrophytic V	egetation <sup>1</sup> (E	Explain)
50% of total cover:       5       20% of total cover:       2       be present, unless disturbed or problematic.         Plot size (radius, or length x width)       5       ft radius       % Bare Ground       Hydrophytic         % Cover of Wetland Bryophytes       Total Cover of Bryophytes       Vegetation       Yes       No       X         (Where applicable)       Present?       Vegetation       Yes       Yes       Yes       Yes	10								
% Cover of Wetland Bryophytes       Total Cover of Bryophytes       Vegetation       Yes       No       X         (Where applicable)       Present?	50% of total cover			otal cover:	2				ogy must
% Cover of Wetland Bryophytes       Total Cover of Bryophytes       Vegetation       Yes       No       X         (Where applicable)       Present?	Plot size (radius or length x width)	5 ft radius	% R	are Ground		Hydrophytic			
(Where applicable) Present?				-	s		Yes	No	x
				. S. Bryophyle		-			
	· · · · · · · · · · · · · · · · · · ·	//; 100% moss co	ver						
US Army Corps of Engineers Alaska Version 2									

Sampling	Point:	418u
Camping		4100

(inches) Color (moist)	% Color (moist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-20 10 yr 2/2	100				Road fill
<sup>1</sup> Type: C=Concentration, D=Deple	tion, RM=Reduced Matrix, CS=Covered	or Coated Sa	nd Grains.	<sup>2</sup> Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hy	dric Soils <sup>3</sup> :	Ir	dicators for P	Problematic Hydric Soils <sup>3</sup> :
Histosol or Histel (A1)	Alaska Color Change (TA4) <sup>4</sup>			Alaska Gleve	ed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		_	Underlying L	
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hu	e			in in Remarks)
Thick Dark Surface (A12)	—				
Alaska Gleyed (A13)					
Alaska Redox (A14)	<sup>3</sup> One indicator of hydrophytic ve	getation, one	e primary in	dicator of wetla	nd hydrology,
Alaska Gleyed Pores (A15)	and an appropriate landscap	e position m	ust be prese	ent unless distu	irbed or problematic.
	<sup>4</sup> Give details of color change in	Remarks.			
Restrictive Layer (if present):					
Туре:					
Depth (inches):		Hyd	Iric Soil Pro	esent? Ye	s <u> </u>
		Нус	Iric Soil Pro	esent? Ye	s <u>No X</u>
Depth (inches): Remarks:		Нус	Iric Soil Pro	esent? Ye	s <u>No X</u>
		Нус	lric Soil Pro	esent? Ye	s No <u>X</u>
		Нус	Iric Soil Pro	esent? Ye	s No <u>X</u>
Remarks:		Нус	Iric Soil Pre	esent? Ye	s No <u>X</u>
Remarks:	or is sufficient)	Нус			s NoX
Remarks: HYDROLOGY Wetland Hydrology Indicators:	or is sufficient) Inundation Visible on Aerial		Sec		ors (2 or more required)
Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicat		Imagery (B7)		ondary Indicate	ors (2 or more required) eaves (B9)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15)	Imagery (B7) e Surface (B8		ondary Indicato /ater-Stained L rainage Pattern xidized Rhizos	ors (2 or more required) eaves (B9) ns (B10) pheres along Living Roots (C3)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Imagery (B7) e Surface (Bł		ondary Indicato /ater-Stained L rainage Pattern xidized Rhizos resence of Rec	ors (2 or more required) eaves (B9) ns (B10) pheres along Living Roots (C3) duced Iron (C4)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Imagery (B7) e Surface (Bł	<u>Sec</u> W D P S	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C	ors (2 or more required) eaves (B9) ns (B10) pheres along Living Roots (C3) duced Iron (C4) 5)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Imagery (B7) e Surface (Bł	Sec W D C P S S	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C tunted or Stres	ors (2 or more required) eaves (B9) ns (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Imagery (B7) e Surface (Bł	- <u>Sec</u> - W 3)D C S S S	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos	ors (2 or more required) eaves (B9) ns (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicat 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)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Imagery (B7) e Surface (Bł	S  S S S S S	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos hallow Aquitare	ors (2 or more required) eaves (B9) ns (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2) d (D3)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicat Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Imagery (B7) e Surface (Bł	3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos hallow Aquitard licrotopographi	ors (2 or more required) eaves (B9) hs (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2) d (D3) c Relief (D4)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicat 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)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Imagery (B7) e Surface (Bł	3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos hallow Aquitare	ors (2 or more required) eaves (B9) hs (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2) d (D3) c Relief (D4)
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicat 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)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Imagery (B7) e Surface (Bł	3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos hallow Aquitard licrotopographi	ors (2 or more required) eaves (B9) hs (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2) d (D3) c Relief (D4)
Remarks: <b>HYDROLOGY</b> Wetland Hydrology Indicators: Primary Indicators (any one indicat 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)	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Imagery (B7) e Surface (Bł	3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos hallow Aquitard licrotopographi	ors (2 or more required) eaves (B9) hs (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2) d (D3) c Relief (D4)
Remarks: <b>HYDROLOGY</b> Wetland Hydrology Indicators: Primary Indicators (any one indicat 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) Field Observations:	Inundation Visible on Aerial Sparsely Vegetated Concave Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2 Other (Explain in Remarks)	Imagery (B7) e Surface (B8 2)	3) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos hallow Aquitard licrotopographi	ors (2 or more required) eaves (B9) hs (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2) d (D3) c Relief (D4)
Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicat         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)	No X Depth (Inches):	Imagery (B7) e Surface (B8 2)	S N S S S S S S F	ondary Indicate /ater-Stained L rainage Pattern xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos hallow Aquitard licrotopographi	ors (2 or more required) eaves (B9) ns (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2) d (D3) c Relief (D4) st (D5)
Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicat         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)	Inundation Visible on Aerial         Sparsely Vegetated Concave         Marl Deposits (B15)         Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)         No       X         Depth (Inches):         No       X         Depth (Inches):         No       X         Depth (Inches):         No       X	Imagery (B7) e Surface (B8 2) <u>NA &gt;16 &gt;16</u>	- <u>Sec</u> W 3) D C S S S G S S F Wetland	ondary Indicato /ater-Stained L rainage Patteri xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos hallow Aquitarc licrotopographi AC-Neutral Tes <b>Hydrology Pre</b>	ors (2 or more required) eaves (B9) ns (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2) d (D3) c Relief (D4) st (D5)
Remarks:         HYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (any one indicat         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)	Inundation Visible on Aerial         Sparsely Vegetated Concave         Marl Deposits (B15)         Hydrogen Sulfide Odor (C1)         Dry-Season Water Table (C2)         Other (Explain in Remarks)         No       X         Depth (Inches):         No       X         Depth (Inches):	Imagery (B7) e Surface (B8 2) <u>NA &gt;16 &gt;16</u>	- <u>Sec</u> W 3) D C S S S G S S F Wetland	ondary Indicato /ater-Stained L rainage Patteri xidized Rhizos resence of Rec alt Deposits (C tunted or Stres eomorphic Pos hallow Aquitarc licrotopographi AC-Neutral Tes <b>Hydrology Pre</b>	ors (2 or more required) eaves (B9) ns (B10) pheres along Living Roots (C3) duced Iron (C4) 5) sed Plants (D1) sition (D2) d (D3) c Relief (D4) st (D5)

# **APPENDIX D:**

# **GROUND LEVEL COLOR PHOTOGRAPHS**


































## APPENDIX E

## LITERATURE CITED

- Cowardin, L.M., V. Carter, F.C. Golet, E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Home Page. (Version 04DEC98). Online source: http://www.npwrc.usgs.gov/resource/1998/classwet/classwet.htm.
- Environmental Laboratory (USACE). 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station: Vicksburg, Mississippi.
- Environmental Science Associates (ESA). 2016. Memorandum: Angoon Airport Alternative 12a Stream 10 Realignment Feasibility Study. Prepared for: State of Alaska Department of Transportation & Public Facilities. 9 November 2016.
- Federal Aviation Administration (FAA). 2016. Final Environmental Impact Statement and Section 4(f) Evaluation; Angoon Airport. September 2016.
- Google Earth Pro. 2018. Aerial Imagery of the Project Study Area. Accessed: 24 June 2018.
- Hitchcock, C.L. and A. Cronquist. 1976. Flora of the Pacific Northwest. University of Washington Press, Seattle, WA. 730 pp.
- 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.
- Lichvar, R.W. 2013. National Wetland Plant List, Website Version 3.1. Accessed: September 2013. Available: <u>http://rsgisias.crrel.usace.army.mil/NWPL/</u>.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 Wetland Ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X. Online source: http://www.phytoneuron.net/.
- Munsell® Soil Color Charts (Munsell). 2009. Year 2009 Revised Edition. Gretag/Macbeth Publishing, NY.
- Natural Resources Conservation Service United States Department of Agriculture (NRCS-USDA). 2008. Hydrogeomorphic Wetland Classification System: An Overview and Modification to Better Meet the Needs of the Natural Resources Conservation Service. Technical Note No. 190–8–76. February 2008.
- Pojar, J. and A. MacKinnon. 2004. Plants of the Pacific Northwest Coast Washington Oregon BC & Alaska; 2nd Edition. Lone Pine Publishing. Redmond, Washington.
- Powell, J., D. D'Amore, R. Thompson, T. Brock, P. Huberth, B. Bigelow, and M.T. Walter. 2003. Wetland Functional Assessment Guidebook Operational Draft Guidebook for Assessing the Functions of Riverine and Slope River Proximal Wetlands in Coastal Southeast & Southcentral Alaska Using the HGM Approach. Prepared for: State of Alaska, Department of Environmental Conservation. Juneau, AK. June 2003.
- R&M Engineering, Inc. (2004). Angoon Airport Reconnaissance Study. Accessed: http://dot.alaska.gov/sereg/projects/angoon\_airport/assets/2004\_Recon\_Study/2004\_recon\_study. pdf.
- 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.

- State of Alaska Department of Transportation & Public Facilities (ADOT&PF). 2018. Angoon Airport Scooping Report. Prepared for: Alaska Department of Transportation & Public Facilities, Southcoast Region, Design & Engineering Services. March 2018.
- State of Alaska Department of Transportation & Public Facilities (ADOT&PF). 2007. Angoon Airport Master Plan.
- SWCA Environmental Consultants (SWCA). 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.
- SWCA Environmental Consultants (SWCA). 2014. 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 and the Alaska Department of Transportation and Public Facilities. Prepared by SWCA Environmental Consultants. January 2014.
- U.S. Army Corps of Engineers (USACE). 2005. Regulatory Guidance Letter No. 05-05: Ordinary High Water Mark Identification. December 7, 2005.
- U.S. Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0). Wetlands Regulatory Assistance Program, ERDC/EL TR-07-24. U.S. Army Corps of Engineers Research and Development Center, Vicksburg, MS. September 2007.
- U.S. Department of Agriculture (USDA). 2018a. USDA Field Office Climate Data; WETS Table. WETS Station: Juneau International Airport, AK. Accessed: 24 August 2018. Available: <u>https://efotg.sc.egov.usda.gov/</u>.
- U.S. Department of Agriculture (USDA). 2018b. USDA Field Office Climate Data; Daily Precipitation Reports. WETS Station: Juneau International Airport, AK. Accessed: 24 August 2018. Available: <u>https://efotg.sc.egov.usda.gov/</u>.
- 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. Accessed: October 2013. Available: <u>ftp://ftp-fc.sc.egov.usda.gov/AK/soils/AKFieldIndicators.pdf</u>
- U.S. Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS). 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. Accessed October 2013. Available: <u>ftp://ftpfc.sc.egov.usda.gov/NSSC/Hydric\_Soils/FieldIndicators\_v7.pdf</u>.
- U.S. Fish and Wildlife Service (USFWS). 2018. National Wetlands Inventory Website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Accessed: 1 August 2018. Available: <u>http://www.fws.gov/wetlands/</u>.
- Viereck, L.A. and E.L. Little, Jr. 2007. Alaska Trees and Shrubs; Second Edition. Snowy Owl Books; University of Alaska Press. Fairbanks, Alaska.
- X-Rite. 2000. Year 2000 Revised Washable Edition, Munsell Soil Color Charts. Grand Rapids, Michigan: X-Rite.