Appendix E

Previous Environmental Documentation

Draft Environmental Assessment

Internal DNR Environmental Comments and Observations

Miscellaneious Environmental Correspondence

Eagle River Greenbelt Access Pathway

Project # 55715

Wetlands Delineation Report

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Eagle River Greenbelt Access Pathway
Table of Contents

Figures

List of Appendices

1—INTRODUCTION

This wetlands report documents the wetland conditions for the Eagle River Greenbelt Access and Pathway (ERGAP) project. The project corridor is in the Seward Meridian and begins in Township 14 North, Range 2 West, Sections 13 and 14, continues through Township 14 North, Range 1 West, Sections 16 through 26 and 36, and Township 14 North, Range 1 East, Section 31 and ends in Township 13 North, Range 1 East, Sections 5, 6, 8, 9, 16, 21 – 23, 26, and 27. The project topography can be viewed on USGS maps Anchorage A-7, B-7 and B-8. The Beginning of Project (BOP) is located at N 61° 19'15" W 149° 34' 12" and the End of Project (EOP) is located at N 61° 19"15" W149° 16'12". See Project Location Map in Figure 1 for more details.

The project proposes to build a 15.3-mile 8-foot wide paved multi-use pathway within the Eagle River Greenbelt, beginning at the Glenn Highway and ending at Eagle River Nature Center. The preferred alternative for the proposed pathway includes one Meadow Creek and five Eagle River bridge crossings, as well as other wetlands involvement. Three route alternatives and one no-build were studied in the Scoping phase of the project as required by the National Environmental Policy Act. The route chosen as the preferred alternative is studied in this wetland report.

This report addresses wetland impacts that must be considered in the design of the proposed pathway. A comprehensive field verification of wetland boundaries has been completed for the project area. In addition, other analyses of vegetation, soils, topography, and prior wetland mapping studies have been used in the wetland determination process. This document identifies wetland types, discusses the alignments' location with respect to wetlands, and describes impacts to wetland function and values.

Federal regulations and policies require projects to minimize their impacts on wetlands, and to locate projects in wetlands only if there is no practicable alternative with lesser adverse environmental impact. Development of the pathway route included selecting areas that limit wetland impact and identifying pathway construction methods that reduce both impacts to wetland acreage and disruption of associated functions, while still addressing the project purpose and balancing among other impacts.

1.2 PROJECT DESCRIPTION

The Eagle River Greenbelt Access and Pathway project is a collaborative effort between Alaska State Department of Transportation and Public Facilities (ADOT&PF), Alaska State Department of Natural Resources' (ADNR) Division of Parks and Outdoor Recreation (DPOR), and the Municipality of Anchorage (MOA). The project was approved for funding under the Transportation Enhancements portion of the Federal Highways program in 1995. The proposal included development of access points, bridges, and scenic viewing areas. It was evaluated by Anchorage's Metropolitan Area Transportation Solutions (AMATS) and in 2001, was accepted and approved for funding.

The project proposes to build nearly 15.3 miles of 8-foot wide paved bicycle/pedestrian pathway within the Eagle River Greenbelt, beginning at the Glenn Highway MP 13.4 and ending at the Eagle River Nature Center, Eagle River Road MP 12.7 near Eagle River, Alaska (see Project Map in Figure 2). Included in preliminary designs are four trailheads, one parking area, eight viewing areas, two caretaker cabins, six to ten bridges. Elevated pathway, bridges, and culverts will be used to minimize impact to water bodies. Easements or right-of-way (ROW) will need to be acquired to minimize impact to water bodies and wetlands.
The project area begins near the Glenn Highway at VFW Road, east through the wooded area

along Eagle River and then follows the abandoned Old Glenn Highway to Eagle River where a spur with a bridge crossing connects the pathway to Eagle River Campground on the south side of the River. The pathway continues east on the north side of the River, joining the pedestrian pathway along Eagle River Loop Road as it crosses over the River. On the south side of the river it connects to the existing pedestrian tunnel that goes under Eagle River Loop Road and connects to the old Homestead Road. The pathway follows the old Homestead Road for 1 mile before branching off the existing pathway and heading north towards the river to a proposed bridge. On the north side of the river a proposed spur connects the pathway to an existing community trail network. The pathway continues on the north side of the river until opposite the mouth of South Fork Eagle River. Here, a spur pathway to a riverside viewing deck is planned. The pathway continues east until the North Fork Access Parking lot where it connects to an old oxbow called the Moose Pond and then follows the Eagle River Road ROW from the Moose Pond to Eagle River Nature Center.

2—BACKGROUND INFORMATION

2.1 GENERAL WETLANDS BACKGROUND

This document makes reference to wetlands, waters of the U.S., and uplands. These terms are defined as the following for the purposes of this document:

Wetlands. Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 Code of Federal Regulations [CFR] Part 328.3(b)). Wetlands are a subset of "waters of the U.S." Note that the "wetlands" definition does not include unvegetated areas such as streams and ponds.

Waters of the U.S. Waters of the U.S. include other water bodies regulated by the U.S. Army Corps of Engineers, including lakes, ponds, mudflats, and streams, in addition to wetlands.

Uplands. Non-water and non-wetland areas.

As described in the 1987 U.S. Army Corps of Engineers wetlands delineation manual, wetlands must possess the following three characteristics (USACOEEL 1987):

1. *Hydrophytic Vegetation:* Vegetation community dominated by plant species that are typically adapted for life in saturated soils.

2. *Wetland Hydrology:* Inundation or saturation of the soil at some time during the growing season.

3. *Hydric Soils:* Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions.

2.2 WETLAND FUNCTIONS AND VALUES EVALUATION

2.2.1 Wetland Functions

Wetland functions are processes that take place in a wetland. These can be placed into three categories: 1) fish and wildlife habitat, 2) hydrologic processes, and 3) water quality improvement. The value of a wetland lies in the benefits that it provides to the natural environment or people. Determining the value of individual wetlands is difficult because they differ widely and do not all perform the same functions. However, it is generally accepted that impacts on wetland functions can eliminate or diminish the values of wetlands. Based on a literature review, the project area wetlands may have some of the following functions.

Fish and Wildlife Habitat:
Wetlands in the vicinity of Eagle River provide spawning, rearing, nesting, feeding, and resting habitat for aquatic and terrestrial species. They directly and indirectly supply food to animals including microorganisms, invertebrates, fish, birds, and mammals. Fish and wildlife species use wetland habitats for cover, freedom from disturbance, availability of food, availability of habitat features, and interspersion of vegetation and water. The project corridor crosses Eagle River, and several of its tributaries which may provide important spawning and rearing habitat for fish species.

Contiguous wetlands are wetlands immediately adjacent to rivers, tributaries, and lakes with hydrologic connections to these waterbodies. These wetlands have higher fish and wildlife habitat functions than fragmented wetlands, due to connectivity between water resources. Many of the wetlands in the project area are contiguous, forming a large, un-fragmented wetland that is considered to be of relatively high value in the Eagle River area. They are ranked very high for habitat in the Anchorage Wetlands Management Plan (AWMP). The disturbance or fill in these wetlands will be minimized to the maximum extent practicable.

Hydrologic Functions:
Wetlands provide flood control by storing and detaining storm water, and they moderate stream flows, which reduces bank erosion and channel bed scour. Freshwater wetlands can also function as ground water discharge and recharge sites, depending on their location and soil layers. Wetlands without impermeable soil layers and wetlands higher in a watershed are presumed to be more effective in recharging aquifers.

Water Quality:
In urban areas, the retention of nitrogen and phosphorus is one of the most positive attributes of wetlands, because downstream waterways could become so enriched that algae flourish and decompose, causing de-oxygenation of waters. Wetlands may also perform contaminant removal functions by receiving and storing toxins and immobilizing them by accumulation in organic soil layers.

Ecological Functions:
Wetlands retain nutrients from water entering the sites, incorporating them into plant tissue and sometimes into the peat soil. Nutrients can enter wetlands in one form and leave in another. Mosses often act as nutrient sinks and rapidly take up nutrients and retain them until their tissues decompose. Wetlands generally support higher levels of net primary production (NPP) than other ecosystems. This plant tissue may be consumed by organisms or chemically and physically altered through decomposition making it available to other

organisms. Decomposition and the rate at which nutrients are transformed to usable forms likely influences NPP and thus, food chain dynamics.

2.2.2 Socioeconomic Uses and Values:

Wetland values are the benefits to humans that are derived from a wetland's features, processes, or setting. These values are often subjective and may be specific to certain groups or individuals. In the project area, there may be wetland values that are consumptive such as subsistence harvesting of fish, game, and berries. Wetland characteristics may exist that are non-consumptive such as aesthetics, recreational and educational uses, and flood control protection of downstream developments. Wetlands in the project area are ranked very high for flood control and recreation in the AWMP.

3—METHODS

3.1 GEOGRAPHIC/GEOMORPHOLOGIC SCOPE

The project is within the geomorphologic area of the Eagle River floodplain. This wetlands report is based on a study of a 40-foot wide corridor within the project area.

The western portion of project is located between Eagle River, river miles 5.3 and 20.6 and can be accessed from Eagle River Road between the Glenn Highway at the mouth of Meadow Creek and the North Fork Access parking (see Project Map in Figure 2). The eastern portion of the pathway, beginning where the pathway joins the Eagle River Road right-of-way, was studied as part of the Eagle River Road MP 5.3 to 12.6 Categorical Exclusion (CE) Wetlands Report (2003). The eastern section of the pathway can be accessed from Eagle River Road.

3.2 WETLANDS TASK

Executive Order 11990, Protection of Wetlands, requires that there be no practicable alternative to the proposed action in wetlands and that the project include all practicable measures to minimize harm to wetlands, where avoidance is not possible. To that end, this report was conducted to be included in the Eagle River Greenbelt Access Pathway Project's Environmental Assessment document.

To begin the study, the 1996 Anchorage Wetlands Management Plan (AWMP) was reviewed to understand the assessment methods and the functions ascribed to the wetlands (MOA 1996). The Plan classified most of the project area as having "A" value wetlands citing their importance as wildlife habitat and to hydrology and water quality functions. It states that these wetlands should be preserved but that minor pathway amenities would be permissible if no other practicable location was possible and that further field delineation is required prior to permitting. Consequently, field mapping and delineation of wetlands was conducted for this project.

The purpose of this report is to describe this wetland delineation, the types and functions of wetlands found within the project area, and the wetland impacts associated within the current proposed project. To complete this task, DPOR reviewed all currently available wetland mapping of the project area including AWMP digital wetland boundaries (see MOA Wetlands Maps in Figure 3), U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps (see National Wetlands Inventory Map in Figure 4), and ADOT&PF Eagle River Road Rehabilitation MP 5.3 to 12.6 Wetlands Report 2003, in order to make an initial determination of

the presence of wetlands in the alternative sites. This was followed by on-site investigations conducted to ground-verify the maps and the report. Wetlands were determined according to the U.S. Army Corps of Engineers (USACE) 1987 Wetlands Delineation Manual.

The probable functions of the wetlands along the proposed pathway were then determined based primarily on professional judgment and, to a lesser degree, by following the Hydrogeomorphic (HGM) method using the Wetland Functional Assessment Guidebook (Jon Hall et al., 2003). Information considered in determining functions includes: topographic setting of the wetland, surface water and groundwater inputs, soil type (peat versus mineral), subsurface layers that would retard internal drainage, presence of a surface water outlet, potential for flooding, nearby land uses, vegetation types, reported and observed uses by wildlife, and types and degree of disturbance.

3.3 GIS MAPPING AND AIR PHOTO INTERPRETATION

Wetlands
Initially, 10" X 10" true color aerial photographs from AeroMap U.S. (taken 9/20/2001, 1" = 1000"scale) were studied for potential wetland areas in or near the project corridor. Vegetation clues were used by looking for saturation-adapted vegetation communities such as black spruce. Topography such as sloped surfaces were identified to support classifying an area as upland and a depression or flat topography served as indicators of potentially poor soil drainage. Darker might indicate surface saturation. Using this information, along with field verified data, preliminary wetland/upland boundaries were digitized along an average 40-foot wide (wider in areas with extensive wetlands in the vicinity) corridor surrounding each pathway alternative (Figures 5-22). Wetland types were coded using the USFWS NWI classification system derived from Cowardin et al. (1979) (see Figure 4 for Wetland NWI Attributes list).

The MOA assessed functions and values of Anchorage wetlands for the AWMP. The designation of wetlands as "A", "B", or "C" wetlands was based on the functions each wetland is thought to perform, and the value of each of those functions. Acreage of AWMP designated wetland types that would be impacted by the five proposed pathway alternatives is included in Table 1.

Review of the AWMP showed that the project crosses several wetlands mapped in the Plan. Wetland #141, Mouth of Meadow Creek and Wetland #143, Eagle River Greenbelt containing Eagle River and its tributaries, are designated as "A" wetlands, the highest value wetland designator in the AWMP to which very high habitat, flood control, and recreation values are attributed. These areas may be subject to individual section 404 permits for minor encroachments if these sites are the only practicable alternative for park amenities. The AWMP recommends that wetlands in #141 be maintained in an undisturbed state and that prior to permitting in #143, further field delineation is required.

Wetland #149, described as a large "Mixed Development" area, provides direct hydrological connection to Eagle River and has high hydrology, habitat and high species occurrence functions. The AWMP recommends that road crossings be minimized and non-dewatering techniques be incorporated into the design of this area. The intent of this designation is to maintain significant hydrology values and connections to Eagle River.

Wetland #150 is a stream corridor which crosses the project and is mapped in the ACMP as "A" wetlands. It is described as a high habitat and flood control functioning wetland, and recommends that these functions be preserved.

Table 1 below lists estimates of ACMP mapped "A", "B", and "C" designated wetlands impacted by each pathway alternative. Estimates were calculated for the 40-foot wide wetland study corridor.

Table 1: AWMP Designated Wetland Type Impacts to Pathway Alternatives

	Alternative 1	**Alternative 2**	**Alternative 3**	**Alternative 4**
Wetland Type	***acres***	***acres***	***acres***	***acres***
"A" wetlands	26.60	12.10	17.00	0
"B" wetlands	1.25	1.25	1.25	0
"C" wetlands	0	0	0	0
Total Acres of ACMP Mapped Wetlands Impacted	**27.85**	**13.35**	**18.25**	**0**

For wetlands information regarding AWMP mapped wetlands for the section of the project within the ADOT&PF Eagle River Road Rehabilitation MP 5.3 to 12.6 Project, see page 3 in the Wetlands Report in Appendix C. The report also includes other wetlands data for Eagle River Road MP 5.3 to 12.6 including impact assessment.

Vegetation
Vegetation communities were digitized and coded using The Alaska Vegetation Classification (Viereck et al, 1992). Mapped plant communities are included in Figures 5-22.

Soil Classification
The Soil Survey of the Anchorage Area, Alaska – digital soil mapping (USDA NRCS, 2001) Hydric Soils of Alaska (USDA NRCS 1995), and Field Indicators of Hydric Soils in Alaska, Draft (USDA NRCS, 2004) were used to locate soils in the project area.

Hydrology
Anadromous Streams: Southcentral Region – GIS data file (ADF&G, 2001) was used to locate streams, stream names, and fish data for those streams in the project area.

Biological Resources
Most of the project area is located within the Eagle River floodplain and within the Eagle River Greenbelt, which is managed by Alaska State Parks. The greenbelt provides habitat for small terrestrial mammals such as shrews, bats, rodents, ermine and hares and large land mammals such as lynx, black bear, brown bear, coyote, wolves, and moose. The area serves as a buffer and migration corridor for moose, brown bear, and black bear. Many types of birds including passerines, raptors, waterfowl and songbirds inhabit the project area.

3.4 FIELD INVESTIGATION

Using a GPS unit, DPOR Design and Engineering staff conducted field investigations May through September of 2003 to define several options for pathway alternatives. DPOR staff met

with Alaska Department of Fish and Game (ADF&G), U.S. Army Corps of Engineers (USACE), and MOA, ADNR Office of Habitat Management and Permitting (OHMP), U.S. Fish and Wildlife Service (USF&WS) personnel and walked portions of the pathway alternatives. During the trip evidence for identifying wildlife use corridors, anadromous fish waters, and important habitat buffers were discussed, as were wetland functions. Local residents were also consulted regarding recreation opportunities and aesthetic values of project area wetlands. Agency and public views were considered in choosing the pathway alternative to most likely become the preferred alternative helping to decide which potential wetland areas to concentrate the study on.

Field surveys were conducted between the Glenn Highway and North Fork Access parking from July through September of 2004 to verify wetland locations shown on NWI and AWMP wetland maps and on aerial photos. Field methods were based on the presence of three parameters: hydrophytic vegetation, hydric soils, and wetlands hydrology, as outlined in the USACE 1987 Wetlands Delineation Manual, and described below. Specific field methods generally followed *Section D, Routine Determinations, Subsection 2 – Onsite Inspection Necessary.* Field notes were recorded on the Wetlands Determination field data sheet. A Global Positioning (GPS) unit was used for mapping purposes. Boundaries were adjusted on the wetland project maps as appropriate. For areas that were similar to other sites where data forms had already been completed, notes about vegetation, hydrology, and soils were taken, but additional forms were not completed. Vegetation was examined using the USACE Alaska Wetlands Plant List. The results Eagle River Wetlands delineation and plant community studies can be viewed on Figures 5 – 15.

DOT&PF conducted a wetlands assessment in October of 2002 that was accepted by the agencies for the Eagle River Road Rehabilitation Project. The results of the Eagle River Road Wetlands delineation and plant community studies are included in Figures 16 through 22 and the data sheets in Appendix A. The DOT wetlands assessment can be found in Appendix C.

3.5 WETLAND FUNCTION AND VALUE ASSESSMENT

The physical features within the wetlands study that contribute to wetlands functions in the study area were identified by conducting a literature review of physical and ecological processes that occur in the project area. These indicators include the wetland's location relative to streams, the wetland's vegetation type, the amount of open water present, and the wetland's location in the watershed. For each wetland type, these indicators and observations were considered to define the project area's wetlands performance. Management practices and policies were reviewed for wetlands mapped in the AWMP and considered in the wetland value assessment. Public and agency comment were also taken into consideration when developing the functional analyses of the different wetland types within the APE.

3.6 IMPACT ASSESSMENT

Initially, project impacts were assessed for three alternative options; alternatives one, two and three based on interviews with Parks staff, aerial photos, and some observations. Pathway construction extents as well as three Eagle River and one creek crossing, viewpoint, parking lot, and spur pathway plans were included in the impact analysis. A rough estimate of the acreage of wetlands that would be affected under each project alternative was calculated using the three alternatives. The importance of wetland impacts of the three alternatives was analyzed by incorporating information both on acreage and on the functions and values of the wetland types impacted. Unless otherwise stated in the NWI code descriptions in 4.0, the wetlands' hydrologic regimes are saturated.

4—RESULTS AND DISCUSSION

Vegetation

Four plant community types occur in the project area; mixed broadleaf-needleleaf forest, needleleaf forest, broadleaf forest, tall shrub, and wet graminoid herbaceous. These community types are listed on the Wetland Delineation and Plant Community Maps for Alternative 2 (Preferred) in Figures 5-22. More information about plant species can be seen on the Wetlands Data Forms in Appendix A and in the Plant Species Index in Appendix B.

Mixed Broadleaf-needleleaf Forest

General characteristics of this mixed forest in the project area include an overstory of Paper Birch (*Betula papyrifera* - FACU) and White Spruce (*Picea glauca* - FACU) with an understory of Prickly Rose (*Rosa acicularis* - FACU), and Field Horsetail (*Equiesetum arvense* - FACU). Both Open Mixed Forest (OMF) with less than 25-60% canopy cover and Closed Mixed Forest (CMF) with 60-100% canopy cover (Viereck, 1997) were found in the project area. Wetland Data Forms and photographs in Appendix A describe species abundances found in this community type.

Needleleaf Forest

General characteristics of needleleaf forests in the project area include an overstory of Black Spruce (*Picea mariana* - FACW) with an understory of Alder (*Alnus sinuata*). Less often the needleleaf forest was characterized by an overstory of White Spruce (*Picea glauca* – FACU) and an understory of (*Rosa acicularus* – FACU) and Wood Horsetail (*Equisetum sylvaticum* – FACU). Both Open Needleleaf Forest (ONF) with less than 25-60% canopy cover and Closed Needleleaf Forest (CNF) with 60-100% canopy cover (Viereck, 1997) were found in the project area. Wetland Data Forms and photographs in Appendix A describe species abundances found in this community type.

Broadleaf Forest

General characteristics of broadleaf forests in the project area include an overstory dominated by an overstory of Paper Birch (*Betula Papyrifera* - FACU) with an understory of Prickly Rose (*Rosa acicularus – FACU*), Current (Ribes spp. – FAC) and Meadow Horsetail (*Equisetum pratense* – FACW). Both Open Broadleaf Forest (OBF) with less than 25-60% canopy cover and Closed Broadleaf Forest (CBF) with 60-100% canopy cover (Viereck, 1997) were found in the project area. Wetland Data Forms and photographs in Appendix A describe species abundances found in this community type.

Tall Shrub

General characteristics of the tall shrub plant community found in the project area a shrub overstory of Alder (*Alnus spp.* - FAC) and an understory dominated by Field Horsetail (*Equisetum arvense* - FACU) and Bluejoint Reed Grass (*Calamagrostis canadensis* – FAC). Both Open Tall Scrub (OTS) with less than 25-75% canopy cover and Closed Tall Scrub (CTS) with 75-100% canopy cover (Viereck, 1992) were found in the project area. Wetland Data Forms and photographs in Appendix A describe species abundances found in this community type. Wetland data forms and photographs in Appendix A describe species abundances found in this community type.

Wet Graminoid Herbaceous

The Wet Graminoid Herbaceous (WGH) plant community (Viereck, 1992) is found in one area just east of the MEA Powerline. General characteristics of this plant community in the project area were a grass-herb layer predominated by Water Sedge (*Carex aquatilis*), Marsh Cinquefoil (*Potentilla palustris*), and Sweet Gale (*Myrica gale*). This vegetation is defined as emergent and

characterized by erect, rooted, herbaceous plants that may be temporarily to permanently flooded at the base but do not tolerate prolonged inundation of the entire plant. (Cowardin et al., 1979).

Soil Classification
Soil maps indicated the project area to be underlain primarily with soils from the Kashwitna-Kichatna complex consisting of well-drained coarse-silty loess over gravelly outwash (USDA, NRCS 2001). In sections within the inside of a large meander in the river, soils consisted primarily of the Moose River-Niklason complex consisting of poorly drained stratified alluvium. See Wetland Data Forms in Appendix A for more details on soils encountered in this study.

Hydrology
Two wetland types were found in the project area; Palustrine and Riverine. All wetlands were part of the Eagle River watershed.

4.1 WETLAND TYPE DESCRIPTIONS

Dominant wetland community types found in the study area are described below. Wetland boundaries and mapping codes are included on Figures 6 – 22. Scientific names for plant species are included in Appendix B. Classified systems of wetlands mapped in the project area include palustrine, and riverine wetlands. Much of the Palustrine wetlands in the project study area include small intermittent channelized drainages. These are indicated with an arrow in Figures 6 – 22.

4.1.1 Palustrine
Palustrine wetlands include all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, as well as ponds (Cowardin et al., 1979).

Mapping Codes: These wetlands may have the following NWI wetland classifications in the project area. These classifications are not limited to only this wetland type and may share NWI codes with other wetland types.

National Wetland Classifications for wetlands found in project area:

NWI Code	Description
PEM4B	Palustrine emergent saturated broad-leaved non-persistent wetland
PSS1B	Palustrine scrub-shrub saturated broad-leaved deciduous wetland
PSS1C	Palustrine scrub-shrub seasonal broad-leaved deciduous wetland
PSS1E	Palustrine scrub-shrub seasonally saturated broad-leaved deciduous wetland
PSS1J	Palustrine scrub-shrub intermittently flooded broad-leaved deciduous wetland
PSS1H	Palustrine scrub-shrub permanent broad-leaved deciduous wetland
PSS3K	Palustrine scrub-shrub artificial broad-leaved evergreen wetland
PSS3B	Palustrine scrub-shrub saturated broad-leaved evergreen wetland
PFO1B	Palustrine forested saturated broad-leaved deciduous wetland
PFO1E	Palustrine forested seasonally saturated broad-leaved deciduous wetland
PFO1H	Palustrine forested permanent broad-leaved deciduous wetland
PFO1K	Palustrine forested artificial broad-leaved deciduous wetland
PFO4B	Palustrine forested saturated needle-leaved evergreen wetland
PFO4E	Palustrine forested seasonally saturated needle-leaved evergreen wetland

Each type of wetland is described below. Anticipated project impacts for each type of wetland are summarized under Section 5.2.5 in Tables 1 and 2.

General Description:

Palustrine Emergent Wetlands

There is one 5-acre palustrine emergent wetland adjacent to the project area, located east of the powerline at waypoint 558. Emergent vegetation is defined as erect, rooted, herbaceous plants that may be temporarily to permanently flooded at the base but do not tolerate prolonged inundation of the entire plant (Cowardin et. al., 1979). The Wet Graminoid Herbaceous (WGH) plant community is found in this wetland with Water Sedge (*Carex aquatilis*), Marsh Cinquefoil (*Potentilla palustris*), and Sweet Gale (*Myrica gale)*, predominating. Wetland Data Forms and photographs in Appendix A describe species abundances found in this community type.

Palustrine Emergent Wetland Functions and Values: Palustrine emergent wetlands are rated high for groundwater recharge since saturated soils conduct water downward into groundwater. Effectiveness of this recharge function depends on the location of the wetland in the watershed (Adamus, 1987). If the wetlands are near a surface water outlet, it receives a high rating. Emergent wetlands adjacent to streams and rivers may provide storage during floods and reduce erosion and turbidity (Adamus, 1987). Palustrine emergent wetlands may provide waterfowl and shorebird habitat. Moose and bears may depend on the palustrine emergent wetlands as habitat.

Palustrine Scrub-Shrub Wetlands

Freshwater wetlands dominated by woody vegetation less than 20 feet tall, on saturated, organic soils (peat) represent palustrine scrub-shrub wetlands (Cowardin et al., 1979). Scrub shrub wetlands are located throughout the project area. They are common throughout the project site, occurring along in drainage areas and associated with scrub-shrub palustrine wetlands. The scrub-shrub wetlands in the project area are characterized by a shrub overstory of alder (FAC) and an understory dominated by field horsetail (FACU) and bluejoint grass (*Calamagrostis canadensis* – FAC). Wetland Data Forms and photographs in Appendix A describe species abundances found in this community type.

Palustrine Scrub-Shrub Wetland Functions and Values: Palustrine scrub-shrub wetlands may provide groundwater recharge and nutrient transformation but their effectiveness of these functions depends on the location of the wetland in the watershed (Adamus, 1987). Scrub-shrub wetlands can provide riparian support when in proximity to streams by stabilizing banks and reducing sediments and toxicants in the water (Adamus, 1987). They may also provide songbird nesting and rearing habitat. Bears may depend on the palustrine emergent wetlands as habitat.

Palustrine Forested Wetlands

Forested wetlands are dominated by trees taller than 20 feet (Cowardin et al. 1979). General characteristics of the vegetation in palustrine forested wetlands in the project area include an overstory dominated by Black Spruce (*Picea mariana* - FACW) with an understory of Alder (*Alnus sinuata*). These wetlands were found throughout the project area. Broadleaf forest communities also inhabited forested wetlands in drainage areas in the APE (waypoints C through E) and included an overstory dominated by Paper Birch (*Betula Papyrifera* - FACU) with an understory of Alnus spp. (*Alnus spp. – FAC*), and Bluejoint (*Calamagrostis canadensis* – FAC). Wetland Data Forms and photographs in Appendix A describe species abundances found in these community types.

Palustrine Forested Wetland Functions and Values: Palustrine forested wetlands in the project area provide groundwater recharge, discharge, and lateral flow; surface hydrologic control; and

nutrient transformation/export. Effectiveness of these functions depends on the location of the wetland in the watershed (Adamus, 1987). If the wetlands are near a surface water outlet, it receives a high rating. Forested wetlands adjacent to streams and rivers may provide storage during floods and reduce erosion and turbidity (Adamus, 1987). Forested wetlands in the project area may provide waterfowl and shorebird habitat. Moose and bears may depend on the palustrine forested wetlands as habitat.

4.1.2 Riverine

The Riverine system includes all wetlands and deepwater habitats contained within a channel (Cowardin et al., 1979).

R2UB2H	Riverine permanent lower perennial unconsolidated bottom sand
R3RB1H	Riverine permanent upper perennial rock bottom cobble/gravel

General Description: Riparian corridors are located along Eagle River and Meadow Creek. Adjacent to the creeks are generally either shrub/scrub wetlands or forested wetlands within the stream's floodplain.

Riverine Wetlands

Meadow Creek originates on the north side of Mt. Magnificent above downtown Eagle River (see Figure 6) and runs through urban areas of Eagle River Valley before draining into Eagle River just east of the Glenn Highway where the proposed ERGAP begins. Eagle River begins at the Crow Glacier, 12 miles upstream from the Eagle River Nature Center where the project begins, winds through the Eagle River Valley and drains into Knik Arm a few miles from the end of the project. Its riparian corridor provides important wildlife habitat as well as providing unique urban recreational and aesthetic opportunities. Examples of riparian wetlands are shown in photographs 1 and 2 of Appendix A. Riparian areas within the Eagle River Valley generally have perennial streams flowing within a channel and adjacent vegetation communities on narrow to broad floodplains. Common plant species in the vegetated floodplain of riparian areas in the project area include black spruce and alder. Other species that may exist in stream floodplains include an overstory of paper birch, cottonwood, and white spruce, with understory plants including bluejoint grass and horsetails.

Riverine Wetlands Functions and Values: Riverine wetlands in the project area provide groundwater recharge, discharge, and lateral flow; surface hydrologic control; and nutrient transformation/export. Effectiveness of these functions depends on the location of the wetland in the watershed (Adamus, 1987). When the streams and rivers flood over their banks, the vegetation and irregularities of the ground surface slow the flow of water and the low areas serve to temporarily store it protecting against flooding and erosion downstream. If ground-disturbing activities occur nearby, the riparian areas could serve as important filters of sediments and other pollutants. Plants in these riparian corridors provide shade for streams. They also create woody debris that provides substrate for invertebrates and stabilizes creek banks. Riverine wetlands in the project area may provide waterfowl and shorebird habitat. Moose, coyote, lynx and bears depend on the riverine wetlands as travel corridors and as breeding and resting habitat. Riparian areas along streams that support anadromous fish receive rich nutrient input each year when animals feed upon the fish and scatter their carcasses over the forest floor

4.2 UPLAND AREAS

Mixed Broadleaf-needleleaf Forest
Upland areas in the project area consist primarily of a mixed broadleaf-needleleaf forest community. This is the most abundant plant community type in the project area. It is characterized by an upper tree canopy dominated by both paper birch (*Betula papyrifera* – FACU) and white spruce (*Picea glauca* – FACU) with a sparse understory of Alder (spp. – FAC), Prickly Rose (Rosa acicularus - FACU), and Field Horsetail (Equisetum arvense – FACU). Wetland Data Forms and photographs in Appendix A describe species abundances found in this community type.

4.3 WATERBODIES

Waterbodies in the project area are Eagle River and Meadow Creek. Because both waterbodies are classified as riverine, they are discussed in section 4.1.2 of this report.

5-WETLANDS IMPACT

5.1 INTRODUCTION

In accordance with federal regulations and Executive Order 11990, Protection of Wetlands, federal project proponents must identify wetland impacts and must select an alternative that does not adversely affect wetlands if a less damaging practicable alternative exists. Effects of increased traffic through previously low-use wetland areas in combination with the fragmentation of wetlands could be the greatest impact to habitat quality.

Impacts to wetlands are unavoidable with a project such as this; all alternatives for a new pathway would affect wetlands. The MOA AWMP set forth two goals that acknowledged the balance that must be found between protection of wetland functions and providing for community development:

1. To minimize alterations to wetlands that modify natural movements of both surface and subsurface water, damage fish and wildlife habitat, adversely affect biological productivity, reduce flood storage capacity, or alter nutrient exchange characteristics.

2. To provide for the growing demand for community expansion, including residential and institutional housing, commercial and industrial establishments, and *transportation corridors* on a land base that is largely wetlands.

5.2 ESTIMATED WETLANDS IMPACTS FOR ALL ALTERNATIVES CONSIDERED

Along each pathway alternative corridor, wetland acreage impacts were estimated to understand how the project might affect wetland functions and values.

In Alternative 1 impacts and takings would occur in Eagle River, its tributaries and associated wetlands. Some of these same impacts would occur in Alternative 2 but there with fewer because, unlike Alternative 1, the last four miles of pathway is within the ADOT&PF right-of-way with impacts and takings in wetlands adjacent to the road. These wetlands are reverted wetlands from the lack of maintenance and poor ditch drainage and are of low value because they are not a good source of nutrition for wildlife. They also don't provide a considerable amount of shelter as they

consist predominately of sedges and grasses and other emergent vegetation. Alternative 3 has three more river crossings than the preferred alternative, but considering all river crossings are on long span bridges with approaches on elevated pathway, riverine impacts will be minimal.

A summary of wetlands impact along each alternative is included in Table 2 below. Fill volume is also included. For comparison purposes, impacts to uplands are included.

Table 2: Estimated Wetland, Waterbody, and Upland Impacts along Pathway Alternatives

	Alternative 1	**Alternative 2**	**Alternative 3**	**Alternative 4**
	acres	***acres***	***acres***	***acres***
Total Acres Wetlands Filled	14.2	6.7	10.88	0
Total Acres of Impacted Upland	*23.63*	*30.79*	*41.44*	*0*
Estimated Wetlands Fill Volume	*76,170*	*30,375*	*58,370*	*0*

These impact estimates were presented to Alaska Department of Fish and Game, Alaska Department of Natural Resources Office of Habitat Management Permitting, U. S. Fish and Wildlife Service and U. S. Army Corps of Engineers. They all agreed that Alternative 2 was their preferred alternative because it had less impact to wetlands and wetland resources (see Agency Responses in Section 5 of the Eagle River Greenbelt Access Pathway Environmental Assessment). The majority of the public was also in favor of Alternative 2 (see Scoping Report for Eagle River Greenbelt Access Pathway). Both group's opinions lead DPOR to the decision to abandon further wetland study in all but Alternative 2

5.2.1 Alternative 4 No-Build Alternative

The No-Build Alternative would have no direct affect on wetlands. Not building the pathway may however indirectly affect the wetlands if residents continue to use existing undeveloped trails, or create new ones in undeveloped areas. With no planning oversight, these user-developed trails may not be developed with minimum impact strategies, and may accelerate stream bank degradation which can lead to sedimentation and degraded water quality in local waterbodies.

5.3 ESTIMATED IMPACTS FOR PROPOSED PATHWAY (ALTERNATIVE 2)

5.3.1 Description of Proposed Pathway

The proposed 15.3-mile long pathway runs from the Glenn Highway at VFW Road, crosses Meadow Creek on a 20-foot span bridge (Bridge #1) and travels east through a wooded area with occasional palustrine wetlands and cross drainages. It then follows the abandoned Old Glenn Highway in a primarily upland habitat. A spur connects the pathway to Eagle River Campground on the south side of the river. The spur will include a 145-foot span bridge (Bridge #2) built using existing Old Glenn Highway abandoned bridge abutments. The pathway continues east on the

north side of the River in upland areas except in two areas of scrub shrub wetlands on its approach to Eagle River. To avoid an established neighborhood the pathway crosses Eagle River at Bridge #3 with a span of 130 feet. It then follows the south side of the river for a half mile and crosses the river again (to connect to an existing pedestrian trail on the north side) on Bridge #4 which includes a 160-foot span over Eagle River and 250 feet of elevated pathway. Then, the pathway joins the existing pedestrian pathway along Eagle River Loop Road as it crosses over the River. On the south side of the river it connects to the existing pedestrian tunnel that goes under Eagle River Loop Road and connects to the old Homestead Road. It follows this for 1 mile crossing forested and scrub-shrub wetlands before branching off the existing pathway and heading north towards the river to Bridge #5 which will span 170 feet and include 650 feet of elevated pathway. On the north side of the river a proposed spur will connect the pathway to an existing trail network. The pathway continues .75 miles on the north side of the river crossing scrub-shrub and forested palustrine wetlands. The pathway continues to a spot opposite the mouth of South Fork Eagle River where a spur pathway to a riverside viewing deck is planned. The pathway continues east 2.5 miles until the North Fork Access Parking lot, affecting scrub-shrub and forested palustrine wetlands along the way. From the North Fork Access Parking lot the pathway connects to an old oxbow called Moose Pond and then follows the Eagle River Road right-of-way to Eagle River Nature Center. The proposed pathway would impact a total of 6.7 acres of wetlands (Table 2).

5.3.2 Proposed Pathway Wetlands Impacts

The proposed pathway is a 15.3-mile long, 8-foot wide pathway with an estimated 20-foot wide impact area (Pathway Cross Section Figure 23). There will be acres of wetland impacted and 30,375 cubic yards of fill placed in wetlands. The pathway has six bridges (Table 3). All bridges are clear span with all abutments above OHW. Details of the wetlands impacts can be found in the Wetlands Delineation and Plant Community Maps in Figures 5 - 22.

Table 3. ERGAP Proposed Bridges

Bridge #	Water Body & Location	Span Length	Ft Elevated Walkway on Approach	Feet Above OHW
1	Meadow Creek	20'	0	15
2	Eagle River @ Campground	145'	0	15
3	Eagle River Canyon (West end)	130'	0	15
4	Eagle River Canyon (East end)	160'	250	15
5	Eagle River @ Driftwood Bay	170'	230	15
6	Old Oxbow of Eagle River	30'	0	5
11	North Fork Eagle River	80' +/-	0	15
12	North Fork Eagle River	120' +/-	0	15

5.3.3 Summary of Proposed Pathway Wetlands Impact

The proposed pathway will cause a total of 6.7 acres of Palustrine and Riverine wetlands impacts and takings to occur in Eagle River, its tributaries and associated wetlands. Most of the pathway is within the Eagle River Greenbelt and is constrained by Eagle River, private property or steep terrain. Therefore, the wetlands that are impacted are essentially unavoidable. The last four miles of pathway is within the ADOT&PF right-of-way therefore fewer wetlands will be impacted. Of those that are impacted, they are averted wetlands created from poor road ditch drainage. These wetlands are of low value since they are not a good source of food and don't provide a considerable amount of shelter because they consist of mostly sedges and grasses and other

wetlands are of low value since they are not a good source of food and don't provide a considerable amount of shelter because they consist of mostly sedges and grasses and other emergent vegetation. Riverine and Palustrine impacts at bridge crossings are expected to be minimal because all bridges are long span and approach to the bridges is on elevated pathway (Figure 24 Bridge Profiles and Typical Sections). Table 4 (below) is a summary of wetlands impacted by the project.

Table 4. Wetlands Impact Summary

WET #	LENGTH (ft)	CLASSIFICATION	Fill (sq ft)*
2	100	PSS	2000
3	80	PSS	1600
4	100	PSS	2000
5	100	PSS	2000
6	150	PSS	3000
7	200	PFO	4000
8	50	R4RB	1000
9	300	PSS	6000
9A	5	PFO	100
10	5	PFO	100
11	5	PFO	100
12	150	PFO	3000
13	5	PFO	100
14	5	PSS	100
15	200	PSS	4000
16	400	PFO	8000
17	10	0BF	200
18	5	PFO	100
19	5	PF0	100
20	20	PFO	400
21	10	PFO	200
24	15	PSS	300
25	300	PFO	6000
27	200	PFO	4000
28	100	PFO	2000
29	3000	PSS	60000
30	200	PSS	4000
31	5	PSS	100
33	500	PFO	10000
34	500	PFO	10000
35	30	PFO	600
38	300	PFO	6000
39	5	PSS	100
40	200	CBF	4000
41	15	PSS	300
42	6650	PSS	13300
43	10	R3RB	200
44	600	R3RB	12000
45	5	PSS	100
46	5	PSS	100
Total	14545		290900
			6 7 Acres*

* Note: Average pathway footprint fill width is estimated at 20 feet.

6—WETLAND IMPACT MITIGATION

Federal regulations and guidelines associated with Section 404 of the Clean Water Act require that project proponents eliminate or reduce adverse impacts on wetlands by taking certain specific steps during project planning. These mitigation steps will be implemented to the extent feasible before moving on to the next step, and their prescribed order are:

- Design the project to *avoid adverse impacts*.
- Incorporate measures to *minimize adverse impacts*.
- Plan to *restore sites* that may be temporarily adversely affected by the project.
- *Compensate for unavoidable adverse impacts* through preservation, restoration, or creation of wetlands.

6.1 IMPACT AVOIDANCE

The goal of the project is to provide a dedicated pedestrian access pathway between the Glenn Highway and Eagle River Nature Center via natural areas. Suitable upland-only alternatives cannot be identified because of the prominence of wetlands in natural areas along the route's length. Pathway alternatives using only existing roads and bridges would result in vehicle traffic and pedestrian safety issues. Multi-use pathway standards for safety, width, buffer zones, and access points also conflict with the ability to identify practicable upland-only alternatives. Total avoidance of wetlands with this project is not possible. However, each alignment has been designed to avoid impacts wherever possible.

6.2 IMPACT MINIMIZATION

The following minimization measures will be used.

- Wetlands fragmentation will be avoided. Pathway will be on wetland margins where possible.
- Pathway construction methods to maintain natural flow of surface water, such as elevated pathway or culverts, will be utilized in selected locations.
- Natural or artificial buffers between the constructed pathway and important wetland habitats used by wildlife will be provided.
- Existing wildlife movement corridors will be maintained in riverine areas.
- During construction erosion and sedimentation control measures will be employed with permanent measures being employed as early in construction as possible.
- Only clean fill material will be used for the pathway embankment.
- Permeable fill material will be utilized where feasible.
- Outside limits of disturbance will be staked prior to construction to ensure that impacts are limited to that area.
- Toes of slopes at ponds, stream and Eagle River crossings will be stabilized.
- Silt fences will be used adjacent to waterways just beyond the estimated toe of fill.
- The Municipality of Anchorage's 25-foot waterway setback will be adhered to where possible.
- Arched culverts will be used to cross larger seeps and channels.
- Over streams and Eagle River, long-span bridges and elevated pathway will be used.
- Elevated pathway design will be used at some wetland areas.
- Measures such as interpretive panels will be used to keep pathway traffic on the pathway and out of wetlands.

7—REFERENCES

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Delineation Forms and Photographs

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Barbara Wild / Bill Evans	Date: 7/16/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? (Yes) No Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: A-1 Plot ID: Wet #1 WP. 030

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. POBA	20%	T	FAC
2. Al spp	40%	S	FAC
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL. FACW or FAC (excluding FAC-).

Remarks: no understory because it was disturbed

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

- Depth of Surface Water: _____(in.)
- Depth to Free Water in Pit: _____(in.)
- Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- X Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: core 2 feet from stream - Meadow Creek

R3RB1H

SOILS

Map Unit Name (Series and Phase): Deception

Drainage Class: well-drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
~~___~~ ✓ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: Core sample - 4' from streamedge
cobble/gravel w/ sand

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild / Bill Gruns

Date: 7/16/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? (Yes) No
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: A7
Plot ID: Wet #2
WP005

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. Al sit		S	FAC
2. EQ.PR		F	FACW
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
X Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Core showed saturated no standing water

No Photo

SOILS

Map Unit Name (Series and Phase): Deception

Taxonomy (Subgroup): Typic Haplocryands

Drainage Class: well-drained

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-16					

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- X Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: core sample showed muck

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)

Wetland Hydrology Present? (Yes) No

Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks: drainage under ~~it~~ bridge

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara W. Id/Bill Evans	Date: 7/13/04 County: MOA State: AK
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: Transect ID: A-1 Plot ID: Dry #2 WP 015

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	20%	T	FACW
2. PIGL (Lut)	40%	T	FACW
3. EQAR	30%	F	FACW
4. ROAC	20%	S	FACW
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0

Remarks: just NW of wet area (014)

HYDROLOGY

- ___ Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - ___ Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

- Depth of Surface Water: _____(in.)
- Depth to Free Water in Pit: _____(in.)
- Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: dry

SOILS

Map Unit Name (Series and Phase): Deception

Drainage Class: Well drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-5	O1				organics
5-10	B	7.5YR 4/2			silt loam
10-14	B2	10YR 4/3			sandy loam

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks:

Hwy, Open mixed Forest
@ edge of wetland

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild Bill Evans

Date: 7/16/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? Yes (No)
Is the site significantly disturbed (Atypical Situation)? (Yes) No
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: A
Plot ID: Wet #4
WP 017

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	20%	T	FACW
2. PIGL (Lutz)	10%	T	FACW
3. EQAR	30%	F	FACW
4. ROA e	20%	S	FACW
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 3" (in.)
Depth to Free Water in Pit: 0" (in.)
Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
X Inundated in parts
X Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: dry except in drainage in plot

SOILS

Map Unit Name (Series and Phase): Deception

Drainage Class: Well-drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-5	O1				
5-10	B	7.5YR 4/2			
10-14	B2	10YR 4/3			

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: dry except in drainage in plot

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes No

Remarks: dry, surrounding drainage in plot

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild/Bill Evans	Date: 7/13/04 County: Lonoke State: AR
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: A-1 Plot ID: Dry#3 WP-078

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BCPA	40%	T	FACW
2. PLGC	20%	T	FACW
3. EQAR	30%	F	FACW
4. ROAC	20%	S	FACW
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0

Remarks:

HYDROLOGY

Recorded Data (Describe in Remarks):
- Stream, Lake, or Tide Gauge
- Aerial Photographs
- Other

No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- Inundated
- Saturated in Upper 12 Inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12 Inches
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Deweyton

Drainage Class: Well drained

Taxonomy (Subgroup): Typic Hapludults

Field Observations Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-5	O1				organics
5-10	B	7.5YR4/2			silt loam
10-14	B2	10YR4/3			Sandy loam

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

dry

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes (No) (Circle)		(Circle)
Wetland Hydrology Present?	Yes (No)		
Hydric Soils Present?	Yes (No)	Is this Sampling Point Within a Wetland?	Yes (No)

Remarks:

Dry. Open-mixed forest

U O M F

Approved by HQUSACE 3/92

CORPS OF ENGINEERS – ALASKA DISTRICT

DATA FORM

ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

no plants

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild

Date: 7/13/04
Borough: MOA
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: A-1
Plot ID: Dup #4
WP 024

Descriptive Location: Below residential area @ edge of flat area which lies between river and bluff to residential area. Dead robin found.

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Betula (sm.)		
2. CACA	80% Forb	FAC
3. EQAR	70% Forb	FACU(?)
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: Equisetum was light brown & dying - hard to ID. Alder in nearby areas but none in plot. Birch nearby + also dead one in plot

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: None (in.)
Depth to Free Water in Pit: None (in.)
Depth to Saturated Soil: None (in.)

Wetland Hydrology Indicators: None
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

CORPS OF ENGINEERS – ALASKA DISTRICT

DATA FORM

ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

SOILS

Map Unit Name (Series and Phase): Deception

Drainage Class: Well Drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-2	Oi				organics
2-6	B1	7.5YR 4/1			loam
6-16	B2	7.5YR 3/1	5/3	50%	clay loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ✓ Reducing Conditions
- ✓ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks).

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)

Wetland Hydrology Present? Yes (No)

Hydric Soils Present? Yes (No)

Is this Sampling Point Within a Wetland? Yes (No) (Circle)

Remarks: U.

OBF- made call because birch in plot (dead) + some nearby w/ alder

Approved by HQUSACE 3/92

CORPS OF ENGINEERS – ALASKA DISTRICT

DATA FORM

ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

no photo

Project/Site: ERGAP

Applicant/Owner:

Investigator: Barbara Wild

Date: 7/13/04

Borough: MOA

State: AK

Do Normal Circumstances exist on the site? (Yes) No

Is the site significantly disturbed (Atypical Situation)? Yes (No)

Is the area a potential Problem Area? Yes (No)

(If needed, explain on reverse.)

Community ID:

Transect ID: A-1

Plot ID: Dry-5 WP 026

Descriptive Location:

Between Eagle River Campground and first E.R. crossing / on north side of river.

Against toe of steep slope

VEGETATION

Dominant Plant Species		Stratum	Indicator
1. EQAR	80%	*Prim.	FACW
2. CACA	30%	G	FACW
3. PIGL	<20%	T	FACW
4. BEPA	<20%	T	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: * Primitive

HYDROLOGY

X Recorded Data (Describe in Remarks):

___ Stream, Lake, or Tide Gauge

X Aerial Photographs

___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: None (in.)

Depth to Free Water in Pit: 16"+ (in.)

Depth to Saturated Soil: 10" (in.)

Wetland Hydrology Indicators:

Primary Indicators:

___ Inundated

___ Saturated in Upper 12 Inches

___ Water Marks

___ Drift Lines

___ Sediment Deposits

___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):

___ Oxidized Root Channels in Upper 12 Inches

___ Water-Stained Leaves

___ Local Soil Survey Data

___ FAC-Neutral Test

___ Other (Explain in Remarks)

Remarks: Water below 16"

CORPS OF ENGINEERS – ALASKA DISTRICT

DATA FORM

ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

SOILS

Map Unit Name (Series and Phase): Deception

Drainage Class: Well Drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-3	O1				duff
3-13	B1	7.5Y 4/1			sandy loam
13-16	B2	7.5YR 3/1	7.5YR 5/3	50%	clay loam

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
_✓_ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks: U. OPF

Approved by HQUSACE 3/92

CORPS OF ENGINEERS – ALASKA DISTRICT

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

no photo

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild	Date: 7/13/04 Borough: MOA State: AK
Do Normal Circumstances exist on the site? **(Yes)** No Is the site significantly disturbed (Atypical Situation)? Yes **(No)** Is the area a potential Problem Area? Yes **(No)** (If needed, explain on reverse.)	Community ID: Transect ID: A-2 Plot ID: Wet #5 WP 027

Descriptive Location: Site @ [illegible] tall hill, [illegible] toe of slope and black spruce edge. Spring [illegible] running water @ edge of site.

VEGETATION

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. PIMA	10%		FACW	9.		
2. AL spp.	20%	S	FAC	10.		
3. RI spp.	40%	S	FAC	11.		
4. EQFL	20%	*Prim.	OBL	12.		
5. SPAG.	20%	Prim	OBL	13.		
6.				14.		
7.				15.		
8.				16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: * Primitive

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 16" (in.)

Depth to Free Water in Pit: 0" (in.)

Depth to Saturated Soil: 0" (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- X Inundated
- X Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Site @ pit saturated. Site @ edge had running water from spring which was also on site.

027

CORPS OF ENGINEERS – ALASKA DISTRICT

DATA FORM

ROUTINE WETLAND DETERMINATION

(1987 COE Wetlands Delineation Manual)

SOILS

Map Unit Name (Series and Phase): Doroshin

Drainage Class: Well Drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-18	Oi	7.5YR2.5/1			Organics

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- X Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Wet, standing water. Dry upslope.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)

Wetland Hydrology Present? (Yes) No

Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: W = WSS1 B

ONF

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild	Date: 7/16/04 County: MOA State: AK
Do Normal Circumstances exist on the site? Yes / No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: A-2 Plot ID: Wet#6 WP 057

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. Al spi	30%	S	FAC
2. EQPR	30%		FACW
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	1 (in.)
Depth to Free Water in Pit:	14 (in.)
Depth to Saturated Soil:	0 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- X Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: spring comes out of hill @ site

SOILS

Map Unit Name (Series and Phase): Deception

Drainage Class: Well drained

Taxonomy (Subgroup): Typic Haplocryod

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12					muck

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- X Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: wet peat

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)

Wetland Hydrology Present? (Yes) No

Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks:

Approved by HQUSACE 3/92

W = PSS1 E

CTS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild/Bill Evans/Serena Jones	Date: ~~7~~ 7/20/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: A-2 Plot ID: Dry #6 – WP 140

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	30%	T	FACU
2. PI MA	10%	T	FACW
3. ATH YR. F.F (lady fern)	30%	F	FAC
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ~~75~~ = 66%

Remarks: dead spruce in area

HYDROLOGY

___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: dry

SOILS

Map Unit Name (Series and Phase): Kushitna-Kichatna

Drainage Class: well drained

Taxonomy (Subgroup): Andic Haplocryods

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4	Oi				organics
4-10	A	10YR 5/1			Si loam
10-14	B2	5YR 3/4			Si Loam

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)		(Circle)
Wetland Hydrology Present?	Yes (No)	Is this Sampling Point Within a Wetland?	Yes (No)
Hydric Soils Present?	Yes (No)		

Remarks:

Approved by HQUSACE 3/92

U

O MF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERCAP Applicant/Owner: Investigator: Barbara Wild/Bil Eaves/Serena Ives	Date: 7/20/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: A-2 Plot ID: Wet #7 WP 146

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1.			
2. VIMA	30%	T	FACW
3. LE spp	80%	F	FACW
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:
Sphagnum 100% - permafrost area

HYDROLOGY

X
___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: ____ (in.)
Depth to Free Water in Pit: ____ (in.)
Depth to Saturated Soil: 8" (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
X Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:
no pit. Core sample showed damp peat (muck) to 8". Muck below then permafrost

SOILS

Map Unit Name (Series and Phase): Kashwitna-Kichatna

Taxonomy (Subgroup): Andic Haplocryods

Drainage Class: well drained
Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8	Oi				organics
8-(46+	A				ash/peat

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks:

Approved by HQUSACE 3/92

W = PF04B
CNF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: E & G A P
Applicant/Owner:
Investigator: Barbara Wild/Bill Ewers/ Steve Jones

Date: 9/20/04
County: NOA
State: AK

Do Normal Circumstances exist on the site? ~~Yes~~ (No)
Is the site significantly disturbed (Atypical Situation)? (Yes) (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: A-2
Plot ID: Wet 8
089-061

Storm water drainage ditch, emptying culvert from 061 on Eagle Rive Loop Road to East. @ S. to @ edge of river - 089.

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1.			
2. no veg - gravel disturbed			
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- X Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____(in.)

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)*

Remarks: artificial, intermittent drainage.

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes No (Circle)	(Circle)
Wetland Hydrology Present?	Yes No	
Hydric Soils Present?	Yes No	Is this Sampling Point Within a Wetland? Yes No

Remarks:

Approved by HQUSACE 3/92

R4 RB K Artificial Rock Bottom Intermittent Riverine

Wet #1

Wet #8 (circled)

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild/Bill Evans

Date: 7/16/05
County: MOA
State: AK

Do Normal Circumstances exist on the site? Yes (No)
Is the site significantly disturbed (Atypical Situation)? (Yes) No
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: B-1
Plot ID: Wet 9
WP084

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. Eriophorum	30%		FACW+
2. LE GR	50%	E	FACW
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Sphagnum in area - 70%

HYDROLOGY

✓ Recorded Data (Describe in Remarks):
- Stream, Lake, or Tide Gauge
- X Aerial Photographs
- Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: — (in.)
Depth to Free Water in Pit: 4" (in.)
Depth to Saturated Soil: 0" (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- X Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Clam Gulch - Doroshin - Jacobsen Drainage Class: Very poorly drained
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-16					muck

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: core showed muck

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Inlet of culvert from wetland @ site

Approved by HQUSACE 3/92

PSS3B

~~ELS~~ W GH

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Bill Evans/Barbara Wild	Date: 6/10/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? (Yes) No Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: B-1 Plot ID: 9A WP-103

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	40%	T	FACW
2. AL spp	20%		FAC
3. CACA	50%		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 66%

Remarks: 6

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:
Depth of Surface Water: _____(in.)
Depth to Free Water in Pit: _____(in.)
Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators:
Primary Indicators:
X Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
X Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: cross drainage ditch (6"-20" wide)
no pit dug

SOILS

Map Unit Name (Series and Phase): Kashwitna-Kichatna

Drainage Class: well drained

Field Observations

Taxonomy (Subgroup): _____

Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	Oi				
2-6	E	10YR 4/2			
6+		impenetrable			cobble

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: Core only - impenetrable below 6" - cobble

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)

Is this Sampling Point Within a Wetland? (Yes) No

drainage ditch

Remarks:

PF-01 H

OBF

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild/Sarah Mascó

Date: 7/27/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? Yes (No)
Is the site significantly disturbed (Atypical Situation)? (Yes) No
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: B-1
Plot ID: Wet 10
WP-106

VEGETATION

Dominant Plant Species		Stratum	Indicator
1. BEPA	40%	T	FACW
2. AL spp	20%	S	FAC
3. CACA	40%	F	FACW
4. EPAN	20%	F	FACW
5.			
6.			
7.			
8.			

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 50%

emarks:

HYDROLOGY

Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____(in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☒ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

emarks: cross drainage ditch across road (6"-20" wide)
no pit dug

SOILS

Map Unit Name (Series and Phase): Kashwitna-Kichatna

Drainage Class: well drained

Field Observations Confirm Mapped Type? YES ☒ NO ☐

Taxonomy (Subgroup): Typic Haplocryods

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	Oi				organics
2-6	E	10YR 4/2			silt loam
6-7	Boulders to deeper		- cobble		cobble

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: core sample only
dry except in drainage

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(YES)	NO
Wetland Hydrology Present?	(YES)	NO
Hydric Soils Present?	YES	(NO)

Is this Sampling Point Within a Wetland? (YES) NO
drainage ditch -

Remarks:

W = PFO1 H
OBF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild/Sarah Masco	Date: 7/27/05 County: MOA State: AK
Do Normal Circumstances exist on the site? Yes (No) Is the site significantly disturbed (Atypical Situation)? (Yes) No Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: B-1 Plot ID: -Wet 11 WP 157

VEGETATION

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. BEPA	80%	T	FAC	9.		
2. POBA	50%	T	FACU	10.		
3. Al sp	20%	S	FAC	11.		
4. Aconitum	≤20%	F	FAC	12.		
5. Polemonium	≤20%	F	FAC	13.		
6. CACA	80%	F	FAC	14.		
7.				15.		
8.				16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 75%

Remarks: gravel road transects site, uphill of road is birch community downhill is alder, monkshood, jacobs ladder
See above for %'s

Populus were young - 3' tall saplings

HYDROLOGY

[x] Recorded Data (Describe in Remarks): [ ] Stream, Lake, or Tide Gauge [x] Aerial Photographs [ ] Other [ ] No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: [x] Inundated [ ] Saturated in Upper 12 Inches [ ] Water Marks [ ] Drift Lines [ ] Sediment Deposits [x] Drainage Patterns in Wetlands Secondary Indicators (2 or more required): [ ] Oxidized Root Channels in Upper 12 Inches [ ] Water-Stained Leaves [ ] Local Soil Survey Data [ ] FAC-Neutral Test [ ] Other (Explain in Remarks)
Field Observations: Depth of Surface Water: 2 (in.) Depth to Free Water in Pit: -- (in.) Depth to Saturated Soil: -- (in.)	

Remarks: stream - 36" wide - crossing
no pit dug

SOILS

Map Unit Name (Series and Phase): Kashwitna Kichatna

Drainage Class: well drained

Field Observations Confirm Mapped Type? YES ☒ NO ☐

Taxonomy (Subgroup): Typic Haplocryads

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	Oi				organics
2-6	E	10YR 4/2			silt loam
6-?	Bauldn't go deeper				cobbles

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (YES) NO

Wetland Hydrology Present? (YES) NO

Hydric Soils Present? YES (NO)

Is this Sampling Point Within a Wetland? (YES) NO

Remarks: drainage ditch - stream crossing

no photo

W - PFO1 H

CBF

Wet #10

Wet #11

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild/Sarah Mascó

Date: 7/27/05
County: Mat
State: AK

Do Normal Circumstances exist on the site? Yes (No)
Is the site significantly disturbed (Atypical Situation)? (Yes) No
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: B-1
Plot ID: Wet 12
WP 162

VEGETATION

Dominant Plant Species		Stratum	Indicator
1. SEPA	30%	T	FACU
2. AL spp	80%	S	FAC
3. RI·b·s	20%	S	FAC
4. CACA	60%		FAC
5.			
6.			
7.			
8.			

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 75%.

emarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2 (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: — (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☒ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

emarks:
drainage ditch
no pit dug - just core

SOILS

Map Unit Name (Series and Phase): Kashwitna Kichatna Drainage Class: well drained

Taxonomy (Subgroup): Typic Haplocryod Field Observations Confirm Mapped Type? YES ☒ NO ☐

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	Oi				organics
2-6	E	10YR 4/2			cobble
6-?	B	couldn't go deeper	~cobble		cobble

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: drainage ditch

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (YES) NO

Wetland Hydrology Present? (YES) NO

Hydric Soils Present? YES (NO)

Is this Sampling Point Within a Wetland? (YES) NO

Remarks: drainage across road

W-PFO1 #

CBE

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild

Date: 7/27/05
County: MCA
State: AK

Do Normal Circumstances exist on the site? Yes No
Is the site significantly disturbed (Atypical Situation)? Yes No
Is the area a potential Problem Area? Yes No
(If needed, explain on reverse.)

Community ID:
Transect ID: B-1
Plot ID: Dry #7
WP - F

VEGETATION

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. PIMA	30%	T	FACW	9.		
2. LE spp	40%	S	FACW	10.		
3. VAUL	20%	S	FAC	11.		
4. EQSY	20%	F	FACU	12.		
5.				13.		
6. Sphagnum - 5" thick				14.		
7. Lichens				15.		
8.				16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 75%

marks:
Veg. @ site looked wet because of lichens & sphagnum

HYDROLOGY

- [x] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [x] Aerial Photographs
  - [ ] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: none (in.)

Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12 Inches
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

marks:
core taken - dry

SOILS

Map Unit Name (Series and Phase): Kashwitna Kichatna Drainage Class: well-drained

Field Observations

Taxonomy (Subgroup): Typic Haplocryepts Confirm Mapped Type? YES ☒ NO ☐

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6	Oe				organics
6-10	E	10YR 4/2			silt sand
10-14	B	7.5YR 4/6			sand & gravel

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: core sample only
dug

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (YES) NO
Wetland Hydrology Present? YES (NO)
Hydric Soils Present? YES (NO)

Is this Sampling Point Within a Wetland? YES (NO)

Remarks: upland - uphill site - above Homestead Trail Road
this site was 20' uphill (South) from road.

U
ONF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild / Sarah Mascó

Date: 7/27/05
County: MOA
State: AK

Do Normal Circumstances exist on the site? Yes (No)
Is the site significantly disturbed (Atypical Situation)? (Yes) No
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: B-2
Plot ID: Wet 13
WP- 6574

VEGETATION

Dominant Plant Species		Stratum	Indicator
1. Al spp	90%	S	FAC-
2. ROAC	20%	S	FACW
3. CACA	50%	F	FAC
4. Polemonium	20%	F	FAC
5.			
6.			
7.			
8.			

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 75%

emarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2 (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: — (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☒ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

marks: Core only - stream crossing

SOILS

Map Unit Name (Series and Phase): Kashwitna - Kichatna
Drainage Class: well drained
Field Observations Confirm Mapped Type? YES ☒ NO ☐

Taxonomy (Subgroup): Typic Haplocryods

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	Oi				organics
2-6	E	10YR 4/2			silt loam
6-?	B: couldn't penetrate deeper - cobble				cobble

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: core sample only
somewhat dry except in drainage

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (YES) NO
Wetland Hydrology Present? (YES) NO
Hydric Soils Present? ~~YES~~ NO

Is this Sampling Point Within a Wetland? (YES) NO

Remarks:
tannins

W - 0551 #
CTS

Wet #12

Wet #13

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Barbara Wild & Sarah Masco	Date: 7/27/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: B-2 Plot ID: Dry-8 WP-H

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIGL	35%	T	FACU
2. BEPA	5%	T	FACU
3. SA spp	5%	S	FAC
4. LEGR	50%	S	FACW
5. VA VI	15%	F	FAC
6. VA UL	5%	F	FAC
7. EPAN	5%	F	FACU
8. SPHAGNUM	60%	Prim	OBL
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: * Primitive: Sphagnum not included in above calculation but considered.

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: none (in.)

Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Moose River - Niklason

Drainage Class: Moderately well drained

Taxonomy (Subgroup): Typic Cryaquents

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-5	O2				coarse silty loam
5-16	A	2.5Y 3/2	no mottles		

Hydric Soil Indicators: none

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)		(Circle)
Wetland Hydrology Present?	Yes (No)	Is this Sampling Point Within a Wetland?	Yes (No)
Hydric Soils Present?	Yes (No)		

Remarks:

Approved by HQUSACE 3/92

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O NF

Dry -8

Dry -8 (close-up)

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild & Sara Mastic	Date: 7/22/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: B-2 Plot ID: Dry #9 WP# 1

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIGL	30%	T	FACU
2. BEPA	5%	T	FACU
3. SA spp	5%	S	FAC
4. ROAC	20%	S	FACU
5. VAVI	15%	F	FAC
6. SPHAGNUM	60%	*Prim	OBL
7. EQSY	20%		FACU
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: * Primitive. Considered an early secondarily. All dominant species except sphagnum are upland.

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	none	(in.)
Depth to Free Water in Pit:	none	(in.)
Depth to Saturated Soil:	none	(in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Moose River - Niklason

Drainage Class: Mod. well drained

Taxonomy (Subgroup): Typic Cryaquents

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators: none

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: Didn't dig pit - took soil core. Core was dry course silty loam, same as site H.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks:

Approved by HQUSACE 3/92

U

ONF

Wet #10

Wet #11

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild / Sarah Masco

Date: 7/27/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: B-2
Plot ID: Wet 14
WP-K

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIGL	15%	T	FACW
2. AL spp	30%	S	FAC
3. ROAC	10%	S	FACW
4. COCA	10%	F	FACW
5. CACA	60%	F	FAC
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____(in.)
Depth to Free Water in Pit: _____(in.)
Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
X Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Site characterized by compressed, wet, leaf detritus.

SOILS

Map Unit Name (Series and Phase): Moose River-Niklason

Drainage Class: Mod. well drained

Taxonomy (Subgroup): Typic Cryaquents

Field Observations Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc
0-3	O1				Slightly decayed
3-4	O				Fibrous
4-8	A1	10Y 3/1	10YR3/4	40%	Sand
8-7	A2	10YR4/1	none		Silt/loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- X Reducing Conditions
- X Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Mottling/redoxomorphic only indicators, but were present in higher & lower levels.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Though now dry, appears to be wet for part of the growing season. Terrain was undulating possibly caused by pooling water from snow build up. Redoxomorphic soil features could from seasonal frost but soil, at the dryest time of year was moist, so errid towards wet.

Approved by HQUSACE 3/92

W - PSS1 C

OTS

Wet #14 Vegetation

Wet #14 Soil Pit

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild/Sarah Nasco	Date: 7/27/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: B-2 Plot ID: Dry #10 WPL

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIGL	30%	T	FACW
2. AL sp.	20%	S	FAC
3. RUID	20%	S	FAC
4. EQSY	20%	*Prim	FACW
5. MEPA	30%	F	FACW
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 25%

Remarks: * Primitive

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: None (in.)
Depth to Free Water in Pit: none (in.)
Depth to Saturated Soil: None (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
X Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Pond just outside of 30' delineation site.

SOILS

Map Unit Name (Series and Phase): Moose River - Niklason

Drainage Class: mod. well-drained

Taxonomy (Subgroup): Typic Cryoquents

Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- X Reducing Conditions
- X Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Didn't dig pit, only took core sample. Same as J.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? (Yes) No

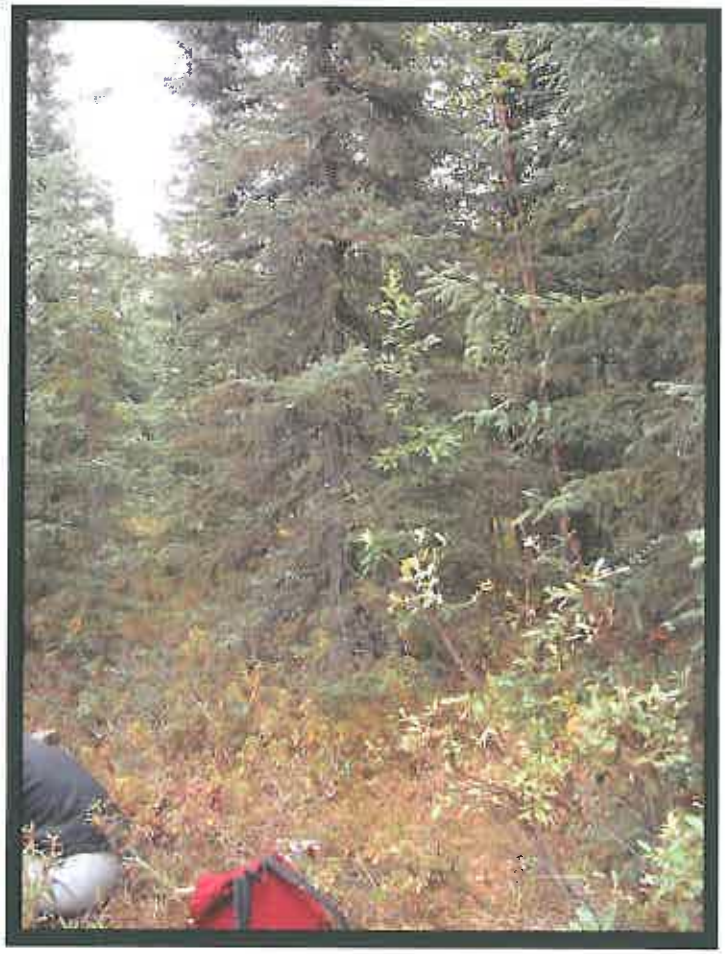
(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

Approved by HQUSACE 3/92

U

ONF



Dry-9

Dry-10

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Barbara Wild / Serena Jones	Date: 8/2/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: C-1 Plot ID: Dry #11 WP # M

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIAL	5%	T	FACU
2. ALRU	80%	S	FAC
3. VIED	20%	S	FACU
4. ROAC	10%	S	FACU
5. THFO	5%	F	FACU
6. CO spp	5%	F	
7. CACA	20%	G	FAC
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 60%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	none	(in.)
Depth to Free Water in Pit:	N/A	(in.)
Depth to Saturated Soil:	12"	(in.)

Wetland Hydrology Indicators:
Primary Indicators:
- N Inundated
- N Saturated in Upper 12 Inches
- N Water Marks
- N Drift Lines
- N Sediment Deposits
- N Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- N Oxidized Root Channels in Upper 12 Inches
- N Water-Stained Leaves
- N Local Soil Survey Data
- N FAC-Neutral Test
- — Other (Explain in Remarks)

Remarks: Water below 12"

SOILS

Map Unit Name (Series and Phase): Kashwitna/Kichatna

Drainage Class: Well drained

Taxonomy (Subgroup): Typic Haplocryalds

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4	O2				
4-16	B	7.5YR3/2	--	--	silt loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

Major root zone to 12".

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)		(Circle)
Wetland Hydrology Present?	Yes (No)	Is this Sampling Point Within a Wetland?	Yes (No)
Hydric Soils Present?	Yes (No)		

Remarks: Photo

Approved by HQUSACE 3/92

ONF

Dry-11

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAF Applicant/Owner: Investigator: Barbara Wild	Date: 8/2/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: C-1 Plot ID: WP-N Wet 15

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIMA	10%	T	FACW
2. ALRU	70%	S	FAC
3. RIHU	30%	S	FAC
4. EQ PR	30%	*Prim	FACW
5. CACA	30%	G	FAC
6.			
7.			
8.			

Other Dominant Plant Species	% Cover	Stratum	Indicator
9. POPA	5%	F	OBL
10. RAES	10%	F	FACW
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: * Primitive

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)
Depth to Free Water in Pit: none (in.)
Depth to Saturated Soil: 4 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
X Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Kashwitna (Kichatna) — Drainage Class: well drained

Taxonomy (Subgroup): Typic Haplocryads — Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4"	O2				organics
4-12	A	7.5YR 5/1	—	—	silt loam
12-16	B	7.5YR 4/1	—	—	sandy loam
16+8	C	7.5YR 4/1	—	—	sandy gravel

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- X Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- X High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Wet from A horizon.
6" cobble close to surface

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Pit 4

Approved by HQUSACE 3/92

W - PSS1 B
CTS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild	Date: 9/2/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: C-1 Plot ID: Wet 16 0 - 193

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	80%	T	FACU	9.			
2. PIGL	10%	T	FACU	10.			
3. ROAC	10%	S	FACU	11.			
4. VIED	10%	S	FACU	12.			
5. COCA*	80%	F	FACU	13.			
6. EGPR	90%		FACW	14.			
7.				15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: * [illegible] did not include Cornus canadensis in calc as it can hybrid w/ C. suecica (FAC)

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: 16 (in.)

Depth to Saturated Soil: 9 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
X Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Kashwitna-Kichatna

Drainage Class: well-drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12	O2				organic
12-18	A	5YR 3/2	—	—	silt loam/gravel *

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: gravel particle size .5 cm to 1 cm
Fit mapped soil type with thick organic mat

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Plot adjacent to (20' away) open area wetlands.
Pit was 6' from wet, moss covered wet area,

Approved by HQUSACE 3/92

WPF01B

C.BF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild/Bill Evans/Serena Jones

Date: 9/2/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? Yes No
Is the site significantly disturbed (Atypical Situation)? Yes No
Is the area a potential Problem Area? Yes No
(If needed, explain on reverse.)

Community ID:
Transect ID: C-1
Plot ID: Dry #12
WP- PJ

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	50%	T	FACU	9.			
2. PIcea (snag)	30%	T	N/A	10.			
3. ROAC	70%	S	FACU	11.			
4. RIGL	20%	S	FACU	12.			
5. OPHO (devil's club)	20%	S	FACU	13.			
6. MEPA (bluebell)		F	FACU	14.			
7. EQPR	80%	*F	FACW	15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 15%

Remarks: * primitive

HYDROLOGY

Y Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
x Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: 5 (in.)

Depth to Saturated Soil: 1 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
X Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: On bench @ toe of slope (below Eagle Crossing) and above slope to wet area.
Small drainage just outside plot.

SOILS

Map Unit Name (Series and Phase): Kashwitna (Kichatna)
Drainage Class: well drained
Field Observations Confirm Mapped Type? (Yes) No
Taxonomy (Subgroup): Typic Haplocryods

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4	O1				organic matter
4-16	A1	7.5YR 3/1			organics + clay
16-24	B	7.5YR 5/1	—	—	clay

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- X Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: capillary fringe in A1
water draining from hill above (to North) to slope 2 the south, cross trail. Soil type facilitated rapid drainage and aspect also facilitated rapid drainage.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks: no photo
Wet soils & hydrology could not support wet vegetation because of slope aspect (steep).

Approved by HQUSACE 3/92

OBF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild/Bill Evans/Steven Jones	Date: 8/2/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: C-1 Plot ID: Dry #13 WP-Q (186)

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	Dominant Plant Species	% Cover	Stratum	Indicator
1.				9.			
2.				10.			
3.				11.			
4.				12.			
5.				13.			
6.				14.			
7.				15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: Very similar to "P". Didn't delineate because looked same as "P"

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
X Other "P" delineation
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: ________(in.)

Depth to Free Water in Pit: ________(in.)

Depth to Saturated Soil: ________(in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
✓ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Core showed saturation in upper 12".

SOILS

Map Unit Name (Series and Phase): Kashwitna-Kichatna

Drainage Class: well drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- X Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Didn't dig pit but core showed similar soils to "P" - wet

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes (No) (Circle)	(Circle)	
Wetland Hydrology Present?	(Yes) No	Is this Sampling Point Within a Wetland?	Yes (No)
Hydric Soils Present?	(Yes) No		

Remarks: well drained soil on slope caused no presence of hydrophytic vegetation. Site is @ last end of area where water drained off of slope to north, flowing towards the river.

Approved by HQUSACE 3/92

OBF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara/Bill Evans Wild	Date: 8/17/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: C-1 Plot ID: Dry #14 WP-4 (360)

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	30%	T	FACU
2. PIGL	10	T	FACU
3.			
4. ROAC	15%	S	FACU
5. RI sp.	10	S	FAC
6.			
7. EQPR	85%	*Prim.	FACW
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: * Primitive

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: none (in.)

Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Kashwitna-Kichatna

Drainage Class: Well-Drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-3	O2				organics
3-5	A2	10YR 5/3			clay loam
5-16	B2	10YR 6/4			loam
16+					gravel

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks: Although site is adjacent to springs, site is dry because is far enough away.

Approved by HQUSACE 3/92

OBF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild

Date: 8/2/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: C-1
Plot ID: Dry #15 WP T

VEGETATION

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. BEPA	80%	T	FACU	9.		
2. PIGL	20%	T	FACU	10.		
3. AL spp	15%	S	FAC	11.		
4. RI spp	10%	S	FAC	12.		
5. ROAC	20%	S	FAC	13.		
6. EQSY	40%	F	FACU	14.		
7.				15.		
8.				16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 25%

marks:

HYDROLOGY

- [X] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [X] Aerial Photographs
  - [ ] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: no (in.)

Depth to Free Water in Pit: no (in.)

Depth to Saturated Soil: no (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12 Inches
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

marks: no hydrology indicators for sample I very dry

SOILS

Map Unit Name (Series and Phase): Kashwitna-Kichatna

Drainage Class: well drained

Field Observations

Taxonomy (Subgroup): Typic Haplocryods

Confirm Mapped Type? YES ☒ NO ☐

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Soil Core showed 0-3 organics, 3-5 clay (10YR 5/3) loam, 5-16 loam (10YR 6/4)

WETLAND DETERMINATION

Hydrophytic Vegetation Present? YES (NO)

Wetland Hydrology Present? YES (NO)

Hydric Soils Present? YES (NO)

Is this Sampling Point Within a Wetland? YES (NO)

Remarks:

T

CMF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: EARGAP Dutch Harbor Bay Loop Applicant/Owner: Investigator: Sarah Masco, Barbara Wild	Date: 8/20/04 County: UMIAK State: AK
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: Transect ID: C-1 Plot ID: Dry #16 WP V0613

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	90%	T	FACW
2. PIGL	15%	T	FACW
3. AL SP	15%	S	FAC
4. ROAC	5%	S	FACW
5. EQSY	15%	F	FACW
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0%

Remarks: open understory
low forb layer
young spruce

HYDROLOGY

- [X] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [X] Aerial Photographs
  - [ ] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: none (in.)

Depth to Saturated Soil: 1" (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [X] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12 Inches
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Kashwitna Kichatna

Taxonomy (Subgroup): Typic Haplocryods

Drainage Class: well-drained

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1	O				
1-5	A	10YR 5/2			clay loam
5-10	B	10/YR 6/4			loamy sand
10-16	C	10YR 6/2			gravel in silt loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- X Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Standing water & saturated soils

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes (No)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks: This was a hard call because soil was wet. Recent rain & sites position @ base of slope could have caused wet soils but maybe this hydrology is not frequent because did not support wet plants. Also, soil did not display gleying or redoximorphic features.

Approved by HQUSACE 3/92

C. MF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ICAP Applicant/Owner: Investigator: Barbara Wilt / Bill Evans	Date: 8/17/04 County: ANCA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: C1 Plot ID: Dry #17 WP - W (764)

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIMA	50%	T	FACW
2. ROAC	20%	S	FACU
3. RUCH	20%	E	FACW
4. Carex spp. ?	20%	E	—
5. LEGR	20%	E	FACW
6. EQSY	80%	E	FACU
7. Lycopodium	30%	—	—
8. Sphagnum	80%	—	thick!

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 60 %

Remarks: Carex could not be id'd because no flower

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)
Depth to Free Water in Pit: none (in.)
Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Soil core dry

SOILS

Map Unit Name (Series and Phase): Koshwitna - Kichatna

Drainage Class: well-drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: Core showed 6" of O horizon (Fibric), 2 inches of clay - 10YR 5/2 and then impenetrable due to gravel.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks:

Approved by HQUSACE 3/92

CMC

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild/Bill Evans	Date: 8/17/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: C-1 Plot ID: Pny #18 WP234

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIMA	20%	T	FACW
2. AL spp	20%	S	FAC
3. LE spp	20%	F	FACW
4. LO spp ?	20%	F	--
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 66%

Remarks: cornus canad not to id'd - no flower.

HYDROLOGY

✓ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ✓ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: none (in.) Depth to Free Water in Pit: none (in.) Depth to Saturated Soil: none (in.)	

Remarks: Core sample - dry

SOILS

Map Unit Name
(Series and Phase): Kashwitna-Kichatna

Drainage Class: well-drained

Taxonomy (Subgroup): Typic Haplocryods

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: Core showed 2" organics (OI) 12" 10YR 5/2 then 4" 10YR 6/3 gravel in silt/loam

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)		(Circle)
Wetland Hydrology Present?	Yes (No)	Is this Sampling Point Within a Wetland?	Yes (No)
Hydric Soils Present?	Yes (No)		

Remarks:

Approved by HQUSACE 3/92

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DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Barbara Wild/Bill Evans	Date: 8/17/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: 02 Plot ID: Dry#19 WP-257

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIMA	20%	T	FACW
2. LE spp	20%	F	FACW
3. VAVI	30%	F	FAC
4. TRBOL	05%	F	FAC
5. CO -	10%	-	-
6. EQAR	40%	F	FACW
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 75%

Remarks: Could not id. Carex - not flowering,

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: none (in.)

Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Soil core was moist

SOILS

Map Unit Name (Series and Phase): Jacobsen-Disappear-Dorosh (3-10% slope)

Drainage Class: Very poorly drained

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-10	Oa				muck
10-14	C	10YR 6/3			gravelly loamy sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- X High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: moist organics but not wet
soil listed on hydric soils list

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks: site on slight slope so may drain just enough to keep dry.

Approved by HQUSACE 3/92

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O NF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild / Bill Evans

Date: 8/20/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: C-2
Plot ID: Wet 17
WP- 311

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. POBA	80%	T	FACU
2. RIBES spp	30	S	FAC
3. CACA	40	F	FAC
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 66%

Remarks:

HYDROLOGY

X
___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6 (in.)
Depth to Free Water in Pit: — (in.)
Depth to Saturated Soil: — (in.)

Wetland Hydrology Indicators:
Primary Indicators:
X Inundated
X Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: site had drainage - permanent - through plot

SOILS

Map Unit Name (Series and Phase): Kashwitna - Kichatna

Drainage Class: well drained

Field Observations
Confirm Mapped Type? (Yes) No

Taxonomy (Subgroup): Typic Haplocryands

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: cone - circuit penetrate - cobble / sam wet near stream - unnamed drainage

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: drainage on steep slope w/ cottonwoods

R 3 R B H

O B F

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Driftwood Bay Applicant/Owner: Investigator: Susan Masica / Barbara Wild	Date: 8/20/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: C-2 Plot ID: WPAB Wet #18

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. CACA	30%	G	FAC
2. PIMA	40%	T	FACW
3. POFR	10%	S	FAC
4. RUCH	5%	S	
5. GELI	30%	S	FACU
6. VAUL	5%	S	FAC
7. LEGR	30%	F	FACW
8. ROAC	5%	S	
SABA	5%		

Dominant Plant Species	% Cover	Stratum	Indicator
9. Moss	10		
10. EPNI	5		
11. EQAR	70%	F	FACU
12. ALRU	5	S	FAC
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 60%

Remarks:

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

- Depth of Surface Water: — (in.)
- Depth to Free Water in Pit: — (in.)
- Depth to Saturated Soil: — (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- X Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

(3 1020 5 layers)

Map Unit Name (Series and Phase): Jacobsen Disappear - Doroshin

Taxonomy (Subgroup): Terric Cryohemists

Drainage Class: very poorly drained

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-5	Oi				organics
5-10	Oe				"
10-14	Oa				"
14-14	A	5YR 5/4	7.5YR 4/6	5% - 1cm	loamy sand

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: saturated soil within 12"
Possible gleying
Mottling slight & inconsistent
Seasonal Frost (possibly)
} All Greater than 12"

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: site is open canopy w/ thick ylayer in that point trail goes through middle.

W - PF04 B

ONF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Barbara Wild / BJ Evans	Date: 8/25/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: C Plot ID: Wet #19 WP314

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIGL	10%	T	FACW
2. PIMA	10%	T	FACW
3. ALSpp.	20%	S	FAC
4. POFR	40%	S	FAC
5. Ledum sp.	30%	S	FACW
6. EQAR	30%	F	FACW
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 75%

Remarks:

HYDROLOGY

- (X) Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - (X) Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	None (in.)
Depth to Free Water in Pit:	12" (in.)
Depth to Saturated Soil:	8" (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- (X) Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Kashwitna-Kichatna
Drainage Class: Well-drained
Taxonomy (Subgroup): Haplocryod
Field Observations Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-14	Oe				muck
14-16	B	10GY 4/1			clay

Hydric Soil Indicators:

- ___ Histosol
- X Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:
in possible seasonal drainage area.

Approved by HQUSACE 3/92

W-PF04 E

CMF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Barbara Wild/Bill Evans	Date: 8/25 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: C-2 Plot ID: Dry #20 WP 315

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. AL spp	30%	S	FAC
2. RI spp	20%	S	FAC
3. ATHYR FEL	20%	E	FAC
4. CAC A	50%	F	FAC
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- X Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: none (in.)

Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: dry

SOILS

Map Unit Name (Series and Phase): Jacobsen-Disappear Complex (7+2% slope)
Drainage Class: poorly drained
Field Observations
Taxonomy (Subgroup): _____
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
2-1	Oi				
1-11	E	10YR 5/4			clay loam
11-14		10YR 5/4	-	-	clay loam w/ gravel

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks: Pit soil was very dry
high point in trail

Approved by HQUSACE 3/92

OTS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: #RGAP
Applicant/Owner:
Investigator: Barbara Wild/Serena Jones

Date: 8/25/04
County: NOA
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: C-2
Plot ID: D-3 Wet 20

VEGETATION

Dominant Plant Species		Stratum	Indicator
1.	PIMA 30%	T	FACW
2.	BO FR 20%	S	FAC
3.	RO AC 20%	S	FACU
4.	VA UL 20%	S	FAC
5.	VAVI 20%	F	FAC
6.			
7.			
8.			

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 80%

marks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: — (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: 12" (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☒ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

marks:
drainage in test area - outside test area had dry point did not sample in all D series.

SOILS

Map Unit Name (Series and Phase): Jacobsen-Disappear-Dorshin (7-12% slope)
Drainage Class: very poorly drained
Field Observations
Confirm Mapped Type? YES ☒ NO ☐

Taxonomy (Subgroup): Histic Cryaquepts

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8	O				muck
8-10+?	A				

core couldn't go lower than 10" - cobbly

Hydric Soil Indicators:

- ☐ Histosol
- ☒ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☒ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (YES) NO
Wetland Hydrology Present? (YES) NO
Hydric Soils Present? (YES) NO

Is this Sampling Point Within a Wetland? (YES) NO

Remarks: This page includes D1 - D4 because all the same veg, soils, hydrology.

W-PF04 C

ONF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild	Date: 8/18/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-B Plot ID: 1 Wet 21 267

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIGL	20%	T	FACW
2. PI MA	15%	T	FACW
3. ROAC	30%	S	FACW
4. AL Spp	15%	S	FAC
5. EQFL	30%	F	OBL
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 33%

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: — (in.)
Depth to Free Water in Pit: 14 (in.)
Depth to Saturated Soil: 12 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
X Local Soil Survey Data
___ FAC-Neutral Test
X Other (Explain in Remarks)

Remarks: Saturated @ 12" —

SOILS

Map Unit Name (Series and Phase): Jacobsen Disappear - Dovoshin (7-12% slope)
Taxonomy (Subgroup): Histic Cryaquepts

Drainage Class: very poorly drained
Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	Oa				
2-12	A	Gley 3/10Y			silt loam
12-16	E	Gley 3/10Y	10YR5/4	10% 2 cm	silt loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- X Reducing Conditions
- X Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

W - PFO4 B
O NF

Wet #16 Soil Pit

Wet #21 Soil Pit

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Barbara Wild	Date: 8/18/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: C-2 Plot ID: Dry#21 WP 267A

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIMA	25%	T	FACW
2. EQFL	20%	F	OBL
3. SHAGNUM	80%	--	--
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Shagnum not used in count
non-dominant plants all upland - ROAC.

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:
Depth of Surface Water: — (in.)
Depth to Free Water in Pit: — (in.)
Depth to Saturated Soil: — (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: Dry pit

SOILS

Map Unit Name (Series and Phase): Jacobsen - Disappear - Dawshe (7-13% slopes)

Drainage Class: Very poorly drained

Field Observations Confirm Mapped Type? Yes (No)

Taxonomy (Subgroup): Terric Borohemists

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-5	Oe				
5-8	A1	10YR5/4			loam
8-12	A2	10YR3/1			silt loam
12-16	E	10YR4/3			silt loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ✓ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: no evidence of occasional flooding

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	
Wetland Hydrology Present?	Yes (No)	
Hydric Soils Present?	Yes (No)	Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks:

Approved by HQUSACE 3/92

U

ONF

Dry-21

Dry-21 (close-up)

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild	Date: 8/18/04 County: NOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-2 Plot ID: Wet 22 268

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIMA	20%	T	FACW
2. EQFL	30%	F	OBL
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	___ (in.)
Depth to Free Water in Pit:	___ (in.)
Depth to Saturated Soil:	14 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

-12"0's (?)

SOILS

Map Unit Name (Series and Phase): Jacobson - Disapped - Dorosha(?)

Taxonomy (Subgroup): Terric Borohemists

Drainage Class: Very

Field Observations Confirm Mapped Type? **(Yes)** No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12	Oe				muck
12-16	A	10YR 5/4			loam

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? **(Yes)** No (Circle)

Wetland Hydrology Present? Yes **(No)**

Hydric Soils Present? **(Yes)** No

Is this Sampling Point Within a Wetland? (Circle) **(Yes)** No

Remarks: Made the call for wet because veg's + soils strongly erred towards wet and dry spell could have caused dry soils. They were slightly damp soils.

Approved by HQUSACE 3/92

W - PF04 E

O NF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Driftwood Bay Applicant/Owner: ____ Investigator: Sarah Masco/Barbara Wild	Date: 8/20/04 County: MOA State: AK West of Powerline
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ____ Transect ID: C-2 Plot ID: AA Wet 23

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. ALNUS	25%	T	FAC
2. PIGL	15%	T	FACU
3. PIMA	15%	T	FACW
4. POAC	5%	F	FAC
5. RUPE	5%	F	FAC
6. EQSY	5%	F	FAC
7. CACA	25%	G	FAC
8. COCA ?	5%	F	?FACU
9. LEGR	5%	F	FAC
10. EQAR	5%	F	FACW
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Cornus can't be id'd -- no flower.

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	— (in.)
Depth to Free Water in Pit:	14" (in.)
Depth to Saturated Soil:	6" (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- X Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Moose River-Niklason complex (1-12% slopes)
Drainage Class: very poorly drained
Taxonomy (Subgroup): Typic Cryaquepts
Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4	Oe				
4-8	A	Gley 3/10Y			loam sandy
8-15	C(E?)	Gley 3/10Y	10YR 5/4	30%/1cm	loamy sandy

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- X Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

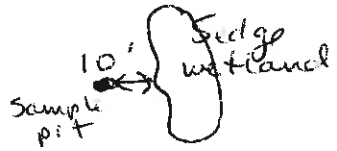
Remarks: Water in bottom of pit, redoximorphic features
pit in lowpoint, may not be representative

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Borderline - could be due to seasonal frost-free
water was >12", but dry year



Approved by HQUSACE 3/92

W-PFO4 E
OMF

Wet #22 Soil Pit

Wet #23 Soil Pit

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: E.R.G.A.P. II
Applicant/Owner:
Investigator: Barbara Wick/Serena Jones

Date: 8/24/05
County: Matanuska-Susitna
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: C-2
Plot ID: Wet 24
316-320

VEGETATION

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. PIMA	20%	T	FACW	9.		
2. Al spp	70%	S	FAC	10.		
3. ROAC	20%	S	FACU	11.		
4. EQPR	70%	E	FACW	12.		
5.				13.		
6.				14.		
7.				15.		
8. Sphagnum	70%			16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 75%

marks:

HYDROLOGY

(X) Recorded Data (Describe in Remarks):
- ( ) Stream, Lake, or Tide Gauge
- (X) Aerial Photographs
- ( ) Other

( ) No Recorded Data Available

Field Observations:

Depth of Surface Water: — (in.)

Depth to Free Water in Pit: 10 (in.)

Depth to Saturated Soil: 4 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ( ) Inundated
- (X) Saturated in Upper 12 Inches
- ( ) Water Marks
- ( ) Drift Lines
- ( ) Sediment Deposits
- ( ) Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ( ) Oxidized Root Channels in Upper 12 Inches
- ( ) Water-Stained Leaves
- ( ) Local Soil Survey Data
- ( ) FAC-Neutral Test
- ( ) Other (Explain in Remarks)

marks:

SOILS

Map Unit Name (Series and Phase): Jacobsen-Disappear-Dovesh Drainage Class: very poorly drained

Field Observations

Taxonomy (Subgroup): Hist. Cryoquepts Confirm Mapped Type? YES [X] NO [ ]

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-15					muck
15+		10YR 5/2			loam - gravel

Hydric Soil Indicators:

- [X] Histosol
- [ ] Histic Epipedon
- [ ] Sulfidic Odor
- [ ] Aquic Moisture Regime
- [ ] Reducing Conditions
- [ ] Gleyed or Low-Chroma Colors
- [ ] Concretions
- [ ] High Organic Content in Surface Layer in Sandy Soils
- [ ] Organic Streaking in Sandy Soils
- [ ] Listed on Local Hydric Soils List
- [ ] Listed on National Hydric Soils List
- [ ] Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (YES) NO

Wetland Hydrology Present? (YES) NO

Hydric Soils Present? (YES) NO

Is this Sampling Point Within a Wetland? (YES) NO

Remarks:

W - PSS1 B

CTS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild

Date: 8/30/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: D-1
Plot ID: Wet 25
325

VEGETATION

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. PIMA	30%	T	FACW	9.		
2. BEGL	30%	S	FACW	10.		
3. POFR	30%	S	FAC	11.		
4. LEGR	30%	S	FACW	12.		
5.				13.		
6. sphagnum				14.		
7.				15.		
8.				16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 100%

narks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

Field Observations: core sample

Depth of Surface Water: 2 (in.)

Depth to Free Water in Pit: 0 (in.)

Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☒ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

marks:

SOILS

Map Unit Name (Series and Phase): Icknum peat

Drainage Class: Very poorly drained

Field Observations Confirm Mapped Type? YES [X] NO [ ]

Taxonomy (Subgroup): Euic Fluvaquentic Cryohemists

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-10	Oe				muck
10-14	A	7.5YR 3/1			silt loam

Hydric Soil Indicators:

- [ ] Histosol
- [ ] Histic Epipedon
- [ ] Sulfidic Odor
- [X] Aquic Moisture Regime
- [ ] Reducing Conditions
- [ ] Gleyed or Low-Chroma Colors
- [ ] Concretions
- [ ] High Organic Content in Surface Layer in Sandy Soils
- [ ] Organic Streaking in Sandy Soils
- [ ] Listed on Local Hydric Soils List
- [ ] Listed on National Hydric Soils List
- [ ] Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (YES) NO

Wetland Hydrology Present? (YES) NO

Hydric Soils Present? (YES) NO

Is this Sampling Point Within a Wetland? (YES) NO

Remarks: Very wet - @ edge of large open wetland good view of upper valley & glaciers

W - PFO 1/4 B
ONF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Sarah Masco/Barbara Wild

Date: 8/30/05
County: Mo A
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: D-1
Plot ID: Dry 22
WP 551

VEGETATION

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. PIMA	30%	T	FACW	9.		
2. LEGO	30%	S	FACW	10.		
3. ALNUS	10%	T	FAC	11.		
4. EQAR	70%	F	FACW	12.		
5. SALIX		S	FAC	13.		
6.				14.		
7.				15.		
8.				16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 66%

emarks:

HYDROLOGY

(X) Recorded Data (Describe in Remarks):
- [ ] Stream, Lake, or Tide Gauge
- [X] Aerial Photographs
- [ ] Other

[ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: 0 (in.)

Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12 Inches
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

marks: no hydrology indicators, not wet

SOILS

Map Unit Name (Series and Phase): Jacobsen-Disappear-Boroshi (1-12% slopes) Drainage Class: very poorly drained

Field Observations

Taxonomy (Subgroup): Histic Cryoquepts Confirm Mapped Type? YES ☒ NO ☐

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-7	Oe				muck
7-11	A	2.5Y 2.5/1			silt loam
11-13	B	7.5 4/1			cobbly silt/sand
13-15	B_2	10Y 3/1 (Gley)	5YR 4/6	95/2	

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: some possible gleying, but very slight & inconsistent, also some orange mottling but very slight and inconsistent deeper than 12" maybe seasonal front

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (YES) NO

Wetland Hydrology Present? YES (NO)

Hydric Soils Present? (YES) NO

Is this Sampling Point Within a Wetland? YES (NO)

Remarks: This is a damp site but not wetland. no hydrology or soil indicators are present. slope is probably steep enough to ensure sufficient drainage

heard marsh hawk hunting by river

7F

ONF

Dry 22 Vegetation

Dry22 Soil Pit

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild / Sarah Masco

Date: 8/30/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? Yes No
Is the site significantly disturbed (Atypical Situation)? Yes No
Is the area a potential Problem Area? Yes No
(If needed, explain on reverse.)

Community ID:
Transect ID: O-1
Plot ID: Wet 26 WP_558

VEGETATION

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Carex sp	80%	F	OBL	9.		
2. POPA Lustris	80%	F	OBL	10.		
3. RA Lapponic.	20%	F	OBL	11.		
4. MYGA	60%	F	OBL	12.		
5.				13.		
6. Spagnum	80%			14.		
7.				15.		
8.				16.		

ent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-):

emarks:

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0-4 (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☒ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

marks: Couldn't dig pit - not enough soil present

SOILS

Map Unit Name (Series and Phase): Icknum peat

Drainage Class: very poorly drained

Field Observations
Confirm Mapped Type? YES ☑ NO ☐

Taxonomy (Subgroup): Euic Fluvaqueatic Cryohemists

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
		peat in plant material + water			

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☑ Sulfidic Odor
- ☒ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Couldn't reach soil from where we stood, were on floating mat of plants & peat
sulfidic odor prevalent

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (YES) NO
Wetland Hydrology Present? (YES) NO
Hydric Soils Present? (YES) NO

Is this Sampling Point Within a Wetland? (YES) NO

Remarks:
Conduct HGM wetlands delineation for Function, But mostly for practice. Site is slightly developed uphill from site so curve out not as pristine as one would expect for a virtually untouched Sacre plot in the MOA. had a beautiful view of upper Valley & glaciers. only land between Wetland & trail was a natural levee (small - not much of an area to build trail on like we hoped.

~~W~~ PEM4 B
W G H

Wet #25

Wet #26

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild / Bill Evans	Date: 9/9/04 County: MO 4 State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: O-1 Plot ID Wet 27 348

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	Dominant Plant Species	% Cover	Stratum	Indicator
1. PI MA	30	T	FACW	9.			
2. LE sp.	20%	S	FACW	10.			
3. CA CA	80%	F	FAC	11.			
4.				12.			
5.				13.			
6.				14.			
7.				15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: 4 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: no pit - just core sample - saturated soils @ 4".

SOILS

Map Unit Name (Series and Phase): Moose River - Niklason

Drainage Class: Very Poorly drained

Taxonomy (Subgroup): Typic Cryoquent

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4	Oi				organics
4-8	A	2.5Y 3/2			silt loam
8-14	C	5Y 4/1			Silt Loam/sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- X High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Core sample showed moist soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

W - PFO4 E
O NF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERCAP Applicant/Owner: _____ Investigator: Barbara Wild/Bill Evans	Date: 9/4/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: D-1 Plot ID: WET 28 354

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. ~~3~~ EPA	20%	T	FACW
2. AL SPP	20%	S	FAC
3. CACA	70%	F	FAC
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 75%

Remarks: White spruce in area but none in plot

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	none (in.)
Depth to Free Water in Pit:	none (in.)
Depth to Saturated Soil:	2 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- X Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Core taken

SOILS

Map Unit Name (Series and Phase): Moose River - Nikiason
Drainage Class: very poorly drained
Taxonomy (Subgroup): Typic Cryaquent
Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	Oi				
2-14	A	5GY 4/1			sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- X Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- + Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Core sample - wet sand

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: site @ outlet of drainage into Eagle River

Approved by HQUSACE 3/92

W-PF01 E
CBF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wilt/Bill Eaton	Date: 9/9/04 County: Mc A State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: 07 Plot ID: Dry 23 WP 351

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	20%	T	FACW
2. ALBES ssp	20%	S	FAC
3. CACA	90%	F	FAC
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 75%

Remarks: dead + down BEPA & PIGL

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: none (in.)

Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: could only penetrate to 12" - gravel

SOILS

Map Unit Name (Series and Phase): Moose River - (Niklasim)

Drainage Class: very poorly drained

Taxonomy (Subgroup): Typic Cryaquent

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4	O				organics
4-10	A	2.5Y 4/2			sand
10-12	C	2.5Y 4/2	+ gravel		sand & gravel

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Core sample taken - hard to penetrate to 14"

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)		(Circle)
Wetland Hydrology Present?	Yes (No)	Is this Sampling Point Within a Wetland?	Yes (No)
Hydric Soils Present?	Yes (No)		

Remarks:

Approved by HQUSACE 3/92

T

OBF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild/Ken Morton	Date: 10/22/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: D-2 Plot ID: Wet 29 903-906

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. Alnus	80%	S	FAC
2. CACA	20%	E	FAC
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

- (X) Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - (X) Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

- Depth of Surface Water: none (in.)
- Depth to Free Water in Pit: 0 (in.)
- Depth to Saturated Soil: 6 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- (X) Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks) 3.

Remarks: Core sample only, no pit

SOILS

Map Unit Name (Series and Phase): Moose River/Niklason

Drainage Class: Moderately well drained

Taxonomy (Subgroup): _____

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-5	Oi				muck
5-12	A	10YR3/2			silt loam
12-14	C	5G4/1			sand loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- X High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Sites @ southern edge of large (5 acre) sedge wetland and @ northern edge of riverbank. Site 5 @ higher spot between river's edge + bog. "still "wet" though.

Approved by HQUSACE 3/92

PSS1 B

CTS

Wet #28

Wet #29 looking North

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: CRGAP Applicant/Owner: Investigator: Barbara Wild	Date: 10/21/04 County: MCA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: D-2 Plot ID: WP 543 Dry-24

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIMA	40%	T	FACW
2. Al spp	30%	S	FAC
3. CACA	50%	F	FAC
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 75%

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)
Depth to Free Water in Pit: none (in.)
Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Moose River Niklasun — Drainage Class: very poorly drained

Taxonomy (Subgroup): Typic Cryaquent — Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12	Oi				organics
12-16"	A				grave/-organics

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ✓ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: soil Refl dry but fit definition of histosol + on list.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks:

Approved by HQUSACE 3/92

U

ONF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Whited	Date: 10/8/04 County: Mat A State: AK
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: Transect ID: E-1 Plot ID: Wet 30 524

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. FI MA	20%	T	FACW
2. PE GL	20%	T	FACW
3. AL spp	40%	S	FAC
4. SAAR	20%		FAC
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 75%

Remarks:

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	none	(in.)
Depth to Free Water in Pit:	none	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- X Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- X Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Moos River, Niklason
Taxonomy (Subgroup): Typic Cryaquent
Drainage Class: very poorly drained
Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	Oi				Organics
2-6	A	5YR 5/4	10YR 4/3	20cm/20%	10cm - Sand
6-16	A2	5YR 5/4			loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- X Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: Mottles on root channels

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks:

Approved by HQUSACE 3/92

W-PSS1 J
OTS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild	Date: 10/9/04 County: NA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-1 Plot ID: Wet 31 522

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. ALSpp	20%	T	FAC
2. ROAC	30%	S	FACU
3. COCA	20%	F	
4. CAPA	80%	F	FACW
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 66%

Remarks: Alder had lichens on bark
didn't use dogwood - not known

HYDROLOGY

(X) Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- (Y) Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: None (in.)

Depth to Free Water in Pit: None (in.)

Depth to Saturated Soil: None (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: dry pit

SOILS

Map Unit Name (Series and Phase): Moose River - Niklason
Taxonomy (Subgroup): Typic Cryaquent
Drainage Class: very poorly drained
Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc
0-2	O				organics
2-10	A	10YR 5/1			loam
10-14	C	10YR 3.5/1	7.5YR 5/4	10%/2cm	loam-sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- X Reducing Conditions
- X Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- X Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: root channel ~~aerial~~ redox evidence
dry soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks: Border of wet area, hard call but considering it was late fall & had been dry - only lightly considered dry soils

Approved by HQUSACE 3/92

W - PSS1 E

OTS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Bill Evans	Date: 10/7/04 County: MOA State: AK
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: Transect ID: E-1 Plot ID: Wet 32 521

edge of wet delineated in 520-52? (WP)
wet as per Bill E. - no delineation

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	Dominant Plant Species	% Cover	Stratum	Indicator
1. PCvIA	3022			9.			
2.				10.			
3.				11.			
4.				12.			
5.				13.			
6.				14.			
7.				15.			
8.				16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: ________(in.)

Depth to Free Water in Pit: ________(in.)

Depth to Saturated Soil: ________(in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name
(Series and Phase): _____ Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes No (Circle)	(Circle)
Wetland Hydrology Present?	Yes No	
Hydric Soils Present?	Yes No	Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

W - PF04 B

ONF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP
Applicant/Owner:
Investigator: Barbara Wild/Bill Evans

Date: 10/5/04
County: MOA
State: AK

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: E-1
Plot ID: Wet 33 508

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PEMA	30	T	FACW
2. LEGR	90	S	FACW
3. VAVI	20	F	FAC
4. EMNI	20	F	FAC
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100 %

Remarks: Sphagnum - 100%

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:
Depth of Surface Water: 0 (in.)
Depth to Free Water in Pit: — (in.)
Depth to Saturated Soil: — (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: dry - no hydrologic indicators

SOILS

Map Unit Name (Series and Phase): Moose River Niklason

Drainage Class: moderately well-drained

Taxonomy (Subgroup): _____

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4	Oe				organics
4-7	A	10YR 5/2	none	-	organics mixed w/silt
7-18	C	10Y 3/1	10YR 4/1	30%	loamy sand

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- X Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) (Circle)

Remarks: No hydrologic indicators / sandy well drain soil but mottling presence indicates wet made call for wet not only because of mottling but also because plants are wetland.

ONF

Approved by HQUSACE 3/92

PF04B

ONF

Wet #33 Vegetation

Wet #33 Soil Pit

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild	Date: 10/5/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-T Plot ID: Wet 34 502

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIMA	60	T	FACW
2. Al spp	20	S	FAC
3. LEGR	20	S	FACW
4. EQPP	30	F	FACW
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks:

HYDROLOGY

- ✓ Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

no pit

Field Observations:

Depth of Surface Water:	2" (in.)
Depth to Free Water in Pit:	— (in.)
Depth to Saturated Soil:	— (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- X Inundated
- X Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:
drainage in plot - 6" wide gravel bottom

SOILS

Map Unit Name (Series and Phase): Moose River Niklason

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes No

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12	O				organics w/
12-14	C	N 4/1			loam/gravel

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

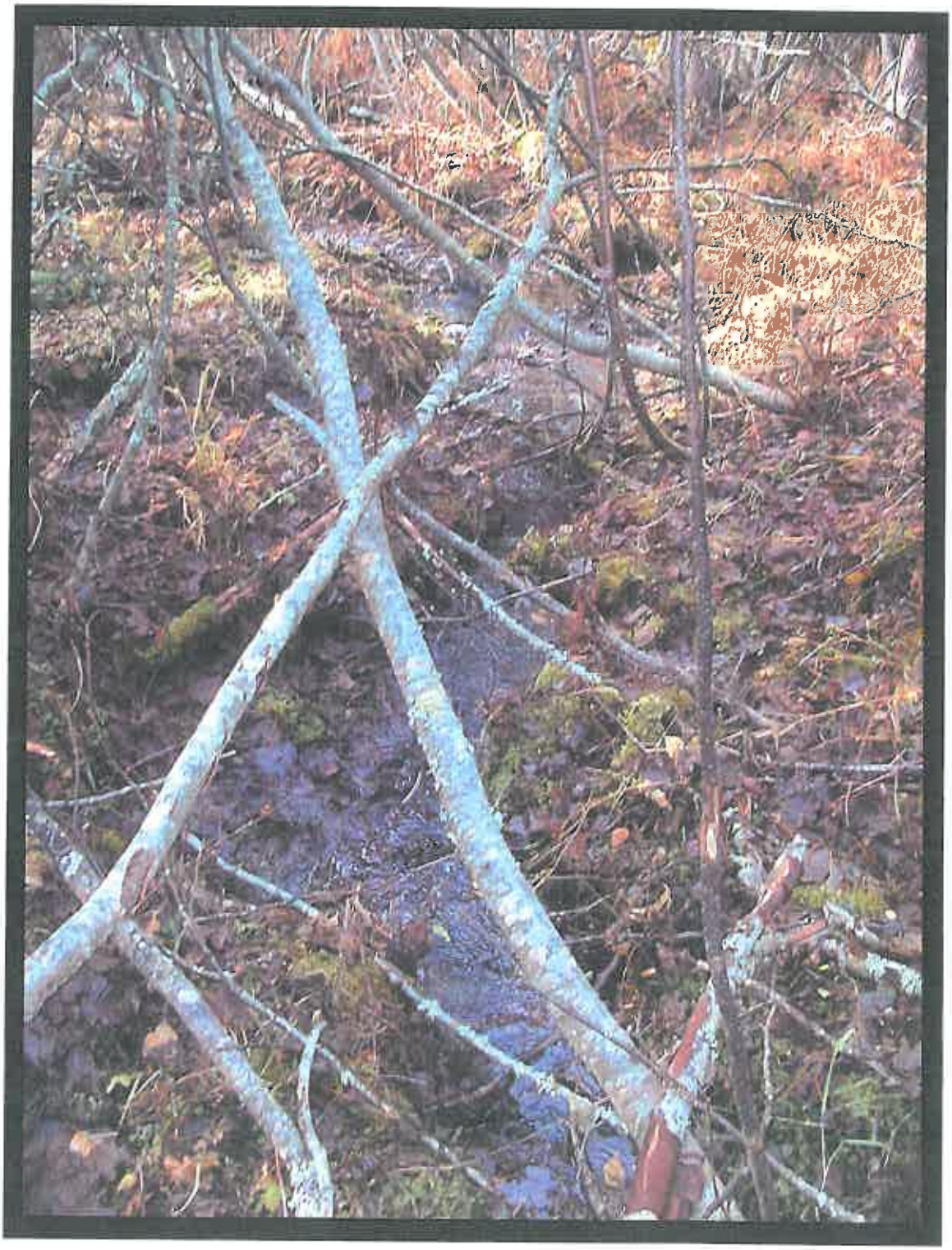
(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

W - PFO4 E

C NF

Approved by HQUSACE 3/92



Wet #34

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wick	Date: 10/5/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-1 Plot ID: Wet 35 500

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PTMA	60	T	FACW
2. ALSI	20%	S	FAC
3. LEGR	20%	S	FACW
4. EQPP	30%	F	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
___ Aerial Photographs
___ Other
___ No Recorded Data Available

no pit

Field Observations:

Depth of Surface Water: 2" (in.)
Depth to Free Water in Pit: — (in.)
Depth to Saturated Soil: — (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: drainage in plot — 6" wide gravel bottom

SOILS

Map Unit Name (Series and Phase): Moose River Nicolson

Drainage Class: _____

Field Observations

Taxonomy (Subgroup): _____

Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12	O				Organics mat
12-14+	C	N4/1			loam/gravel

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)

Wetland Hydrology Present? (Yes) No

Hydric Soils Present? (Yes) No

(Circle)

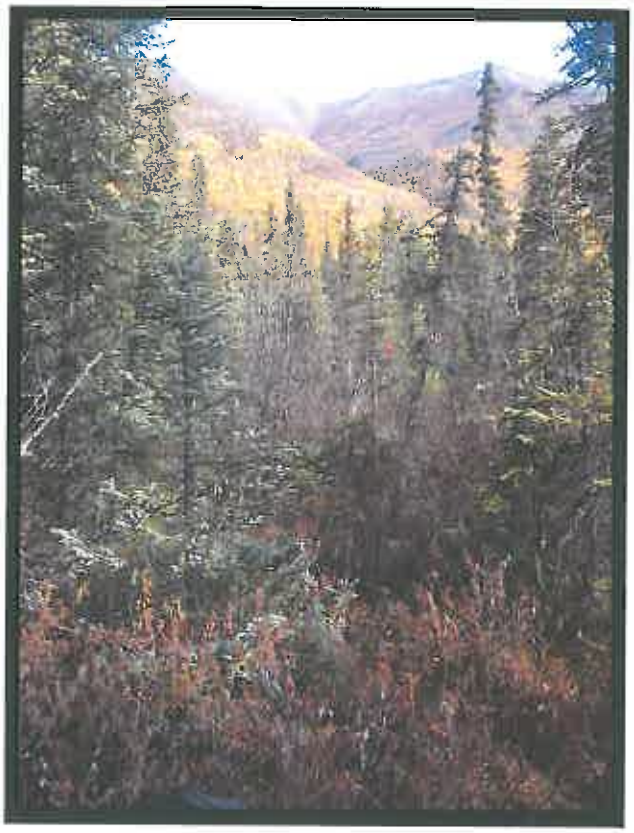
Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

W - PF04 E

CNF



Wet #35 Vegetation

Wet #35 Soil Pit

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wald	Date: 10/3/04 County: MEA State: AK
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: Transect ID: E-1 Plot ID: WP 488 Dry 25

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	20%	T	FACU
2. PIGL (Cutz)	10%	T	FACU
3. ALsp.	20%	S	FAC
4. ROAC	20%	S	FACU
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 25%

Remarks:

HYDROLOGY

X
___ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)
Depth to Free Water in Pit: none (in.)
Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Moose River Niklason

Drainage Class: Poorly drained

Taxonomy (Subgroup): Typic Cryaquept

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8	O				dry organics
8-16	B	5YR 5/6			sandy gravel

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes (No) (Circle)	(Circle)	
Wetland Hydrology Present?	Yes (No)	Is this Sampling Point Within a Wetland?	Yes (No)
Hydric Soils Present?	Yes (No)		

Remarks:

Approved by HQUSACE 3/92

V

OMF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERG AP Applicant/Owner: Investigator: Barbara Wild	Date: 9/17/15 County: NOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-1 Plot ID: Dry 26 WP 373

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	20%	T	FACW
2. LEDUM spp	30%	S	FACW
3. ROAC	30%	S	FACW
4. RIBES spp	20%	S	FAC
5. Cornus spp	—	—	—
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks: Cornus not used in count — no flower. For I.D.

HYDROLOGY

✓ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ✓ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
Field Observations: Depth of Surface Water: none (in.) Depth to Free Water in Pit: none (in.) Depth to Saturated Soil: none (in.)	

Remarks: dry pore sample

SOILS

Map Unit Name (Series and Phase): Kashwitna Kichatna

Drainage Class: well drained

Taxonomy (Subgroup): Typic Haplorthods

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-3	Oi				organics
3-16	E	10YR 5/1			clay

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: dry soils

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? Yes (No)

(Circle)
Is this Sampling Point Within a Wetland? Yes (No)

Remarks: this site is between boundary line between Parks & Private land so that here is @ top of bank above wetland locals call the Skating Pond.

Approved by HQUSACE 3/92

TS

OBF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Barbara Wild	Date: 9/15/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: E-1 Plot ID: Wet 36 375

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. ALRU	50%	S	FAC
2. CAC4	40%	H	FAC
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12			
13.			
14			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks. ~~100%~~

HYDROLOGY

✓ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ✓ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	none	(in.)
Depth to Free Water in Pit:	8	(in.)
Depth to Saturated Soil:	4	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ✓ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Kashwitna Richatna
Drainage Class: well drained
Taxonomy (Subgroup): Typic Haplocryands
Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc
0-10	Oa				muck
10-16	E	10YR 5/1			clay

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- X Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: wet soil

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: site @ toe of slope @ edge of wetland

Approved by HQUSACE 3/92

W - PSS1 E

UTS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild / Bill Evans	Date: 9/17/04 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-2 Plot ID: Wet 37 384

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BIMA	20%	T	FACW
2. LEGR	30%	S	FACW
3.			
4.			
5. Sphagnum			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks:

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

- Depth of Surface Water: 1 (in.)
- Depth to Free Water in Pit: ___ (in.)
- Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- X Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Shallow drainage running through plot

SOILS

Map Unit Name (Series and Phase): Kashwitna Kichatna

Drainage Class: well drained

Field Observations

Taxonomy (Subgroup): Typic Haplocryads

Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc
0-12	Oa				muck
12-14+	E	10YR 5/1			clay

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)

Wetland Hydrology Present? (Yes) No

Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks:

Approved by HQUSACE 3/92

W PF04 B

CNF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: _____	Date: 9/20/04 County: Mat-Su State: AK
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: _____ Transect ID: E-2 Plot ID: Wet38 423

sites are almost identical so used one sheet

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEMI	20%	T	FACW
2. CAC4	50%	F	FAC
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

Remarks:

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

- Depth of Surface Water: 1 (in.)
- Depth to Free Water in Pit: ~~0~~ (in.)
- Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- X Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Kashwitna Kichatna
Drainage Class: well drained
Taxonomy (Subgroup): Typic Haplocryands
Field Observations
Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12	Oa				muck
12-14	E	10YR 5/1			silty

Hydric Soil Indicators:

- ? Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	Is this Sampling Point Within a Wetland? (Yes) No
Hydric Soils Present?	(Yes) No	

Remarks:

Approved by HQUSACE 3/92

W PF04 B
ONF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERG+P Applicant/Owner: Investigator: Burban Wild/B.R Evans	Date: 9/20/04 County: MCA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-2 Plot ID: Ay 27 WP 424

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator	Dominant Plant Species	% Cover	Stratum	Indicator
1. Al spp	30%	S	FAC(	9.			
2. CACA	90%	F	FAC	10.			
3. VIED	20%		FACU	11.			
4.				12.			
5.				13.			
6.				14.			
7.				15.			
8.				16			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-) 66%

Remarks:

HYDROLOGY

✓ Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
✓ Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: none (in.)

Depth to Free Water in Pit: none (in.)

Depth to Saturated Soil: none (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name (Series and Phase): Koshwitna Kichatna

Drainage Class: well drained

Taxonomy (Subgroup): Typic Haplocryaol

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	Oi				organics
2-6	E	10YR 4/1			s. l. loam
6-12	B	7.5YR 4/6			sandy loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No	(Circle)	
Wetland Hydrology Present?	Yes (No)		
Hydric Soils Present?	Yes (No)		
Is this Sampling Point Within a Wetland?		(Circle) Yes (No)	

Remarks:

Approved by HQUSACE 3/92

OTS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ECGAP Applicant/Owner: Investigator: Barbara Wald/Bill Evans	Date: 9/24/04 County: Linn State: AK
Do Normal Circumstances exist on the site? Yes (No) Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-2 Plot ID: Wet 39 438

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. VIEO	75%	S	FACU
2. SARA (Alder)	10%	S	FACU
3. ROAC	10%	S	FACU
4. EQAR	50%	F	FACW
5. Puccinellia tnf.	80%	F	FACW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 33%

Remarks:

HYDROLOGY

- ✓ Recorded Data (Describe in Remarks):
  - Stream, Lake, or Tide Gauge
  - ✓ Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

- Depth of Surface Water: ___ (in.)
- Depth to Free Water in Pit: ___ (in.)
- Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ___ Inundated
- ✓ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Culvert drains 75' uphill from site
core sample was wet peat

SOILS

Map Unit Name (Series and Phase): Kashwitna Richter
Drainage Class: well drained
Taxonomy (Subgroup): Typic Haplocryod
Field Observations Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-15	Oe				muck

Hydric Soil Indicators:

- X Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (No) (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: The site was inundated (seasonally probably) from water from culvert above site, so soils & hydrology were wet but not enough to cause upland shrubs to die out yet. Because of the predominance of wetland grass - made the call for wetland.

Approved by HQUSACE 3/92

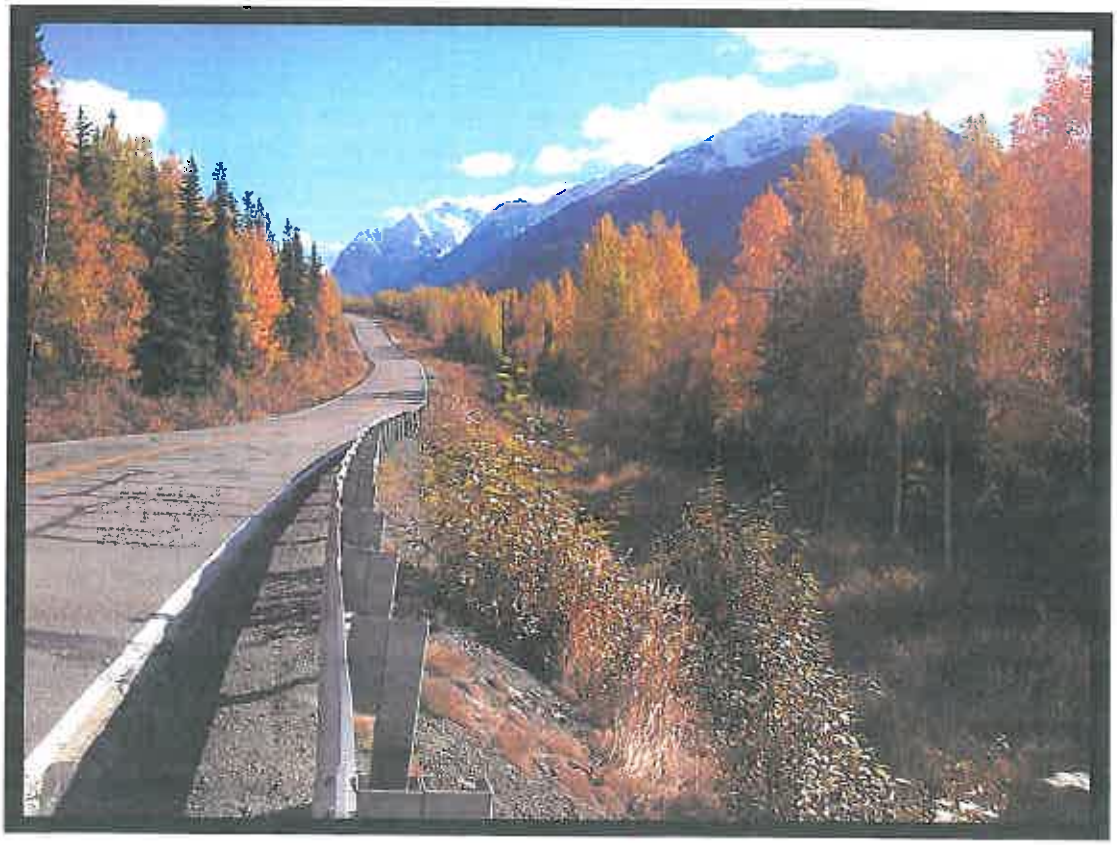
Problem Area -

(W) PSS3 K

plant community not the problem area

Maybe OTS

Wet #36



Wet #39

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Barbara Wild	Date: 9/24/04 County: Matanuska State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: E-3 Plot ID: WP 435 Dry 28

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. PIGL (Lat2)	75%	T	FACW
2. VIED	40%	S	FACW
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)
Depth to Free Water in Pit: N/A (in.)
Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: dry - core sample

SOILS

Map Unit Name (Series and Phase): Jacobsen-Disappear-Dorrshire Drainage Class: very poorly drained
Field Observations Confirm Mapped Type? **(Yes)** No

Taxonomy (Subgroup): Histic Cryaquepts

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8	Oe				muck
8-14	A	10YR 3/1			gravel/loam

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- _X_ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes **(No)** (Circle)	
Wetland Hydrology Present?	Yes **(No)**	
Hydric Soils Present?	Yes **(No)**	Is this Sampling Point Within a Wetland? (Circle) Yes **(No)**

Remarks:

Approved by HQUSACE 3/92

U

CNF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Bill Evans/Barb Wild	Date: 9/15/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: E-3 Plot ID: WET #40 WP 401

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. Alnus Sp.	30%	S	FAC
2. CACA	40%	F	FAC
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- X Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6 (in.)

Depth to Free Water in Pit: – (in.)

Depth to Saturated Soil: – (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- X Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: No pit dug - drainage ditch w/ water in it, in plot

SOILS

Map Unit Name (Series and Phase): Jacobsen - Disappear - Borsh Drainage Class: very poorly drained

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

- ___ Histosol
- ___ Histic Epipedon
- ___ Sulfidic Odor
- ___ Aquic Moisture Regime
- ___ Reducing Conditions
- ___ Gleyed or Low-Chroma Colors
- ___ Concretions
- ___ High Organic Content in Surface Layer in Sandy Soils
- ___ Organic Streaking in Sandy Soils
- ___ Listed on Local Hydric Soils List
- ___ Listed on National Hydric Soils List
- ___ Other (Explain in Remarks)

Remarks: no pit dug because wet drainage ditch w/ 6" water, in plot.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: PSS

OTS

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Barbara Wild / Bill Evans	Date: 9/15/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: F-1 Plot ID: Wet 41

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. CACA	80%	E	FAC
2. EPAN	20%	E	FACU
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks:

HYDROLOGY

___ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	6"	(in.)
Depth to Free Water in Pit:	N/A	(in.)
Depth to Saturated Soil:	N/A	(in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ___ Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: Site @ outlet of 48" existing culvert
no pit dug

SOILS

Map Unit Name (Series and Phase): Moose River Muck Loam Complex
Drainage Class: ___
Taxonomy (Subgroup): ___
Field Observations Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	Yes No	Is this Sampling Point Within a Wetland? (Yes) No

Remarks:

No

Approved by HQUSACE 3/92

R3 RB1

Wet #40

Wet #41

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Bill Evans/Barbara Wild	Date: 9/15/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: G-1 Plot ID: Wet42

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. CACA	40%	F	FAC
2. RUID	20%	S	FAC
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
- X Stream, Lake, or Tide Gauge
- X Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 6" (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- X Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: drainage (6" deep) in plot from culvert

SOILS

Map Unit Name (Series and Phase): Kashwitna-Kichatna Complex Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: didn't dig pit - most of site in drainage, under water

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Site @ outlet for 24" culvert
Site 20' south of Eagle R. Road

Approved by HQUSACE 3/92

PSS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Bill Evans / Barbara Wild	Date: 9/15/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: 6-1 Plot ID: Wet 43

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. CACA	40%	F	FAC
2. EPAN	20%	F	FACU
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50%

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 10" (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
___ Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: 48" culvert w/ deep water - 10" - 10' from outlet. - 3' wide drainage

SOILS

Map Unit Name
(Series and Phase): Kashwitna - Kichatna

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: didn't dig pit - site wet

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Site was 20' downslope of (South) Eagle River Rd.

Approved by HQUSACE 3/92

R3RB1

Wet #42

Wet #43

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: Bill Evans/Barbara Wilcox	Date: 9/15/05 County: _____ State: _____
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: H-1 Plot ID: Wet 44

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. LEPA	30%	T	FACW
2. VIED	20%	S	FACW
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 15" (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
X Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: S.I. 10' down stream from 2, 48" culverts which form 12' wide drainage - Falling Water Creek

SOILS

Map Unit Name (Series and Phase): Kashwitna - Kichatna Complex Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: didn't dig pit - inundated & then gravel/cobble on banks

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: site 20' south, downslope of (south) Eagle River Road

Approved by HQUSACE 3/92

R3RB1

MBF

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: Investigator: Bill Evans / Barb Wild	Date: 9/15/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: H-1 Plot ID: Wet 45.

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. BEPA	30%	T	FACW
2. PIGL	20%	T	FACW
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0

Remarks:

HYDROLOGY

X Recorded Data (Describe in Remarks):
___ Stream, Lake, or Tide Gauge
X Aerial Photographs
___ Other
___ No Recorded Data Available

Field Observations:

Depth of Surface Water: t (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
X Inundated
___ Saturated in Upper 12 Inches
___ Water Marks
___ Drift Lines
___ Sediment Deposits
___ Drainage Patterns in Wetlands
Secondary Indicators (2 or more required):
___ Oxidized Root Channels in Upper 12 Inches
___ Water-Stained Leaves
___ Local Soil Survey Data
___ FAC-Neutral Test
___ Other (Explain in Remarks)

Remarks: @ outfall end of culvert w/ some water flow but very little this time of yr.

SOILS

Map Unit Name (Series and Phase): Kashwitna - Kichatna Complex Drainage Class: _____

Taxonomy (Subgroup): _____ Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks: Didn't dig pit - inundated in drainage & cobble on banks

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ~~Yes~~ No (Circle)
Wetland Hydrology Present? ~~Yes~~ No
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: called wet because of standing water come from 28" culvert - alongside - (South) Eagle River Road

Approved by HQUSACE 3/92

PSS

MBF

Wet #44

Wet #45

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: ERGAP Applicant/Owner: _____ Investigator: _____	Date: 9/15/05 County: MOA State: AK
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: _____ Transect ID: H-1 Plot ID: wet-46

VEGETATION

Dominant Plant Species	% Cover	Stratum	Indicator
1. Al sp	40%	S	FAC
2. CACA	50%	F	FAC
3.			
4.			
5.			
6.			
7.			
8.			

Dominant Plant Species	% Cover	Stratum	Indicator
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks:

HYDROLOGY

✓ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- Y Aerial Photographs
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 3 (in.)

Depth to Free Water in Pit: _____ (in.)

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- Y Inundated
- ___ Saturated in Upper 12 Inches
- ___ Water Marks
- ___ Drift Lines
- ___ Sediment Deposits
- ___ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ___ Oxidized Root Channels in Upper 12 Inches
- ___ Water-Stained Leaves
- ___ Local Soil Survey Data
- ___ FAC-Neutral Test
- ___ Other (Explain in Remarks)

Remarks: 6" deep - 1' wide drainage in plot from 24" culvert from under E.R. Rd.

SOILS

Map Unit Name (Series and Phase): Kashwitna - Kichatna Complex
Drainage Class: _____
Taxonomy (Subgroup): _____
Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.

Hydric Soil Indicators:

___ Histosol
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes No

(Circle)
Is this Sampling Point Within a Wetland? Yes No

Remarks:
No pit dug because mandated site @ outlet of 24" culvert under road

Approved by HQUSACE 3/92

PSS
MBF

Wet #46

Representative Plant Communities in Project Area - Photographs

OMF (Open Mixed Forest)

OTS (Open Tall Scrub)

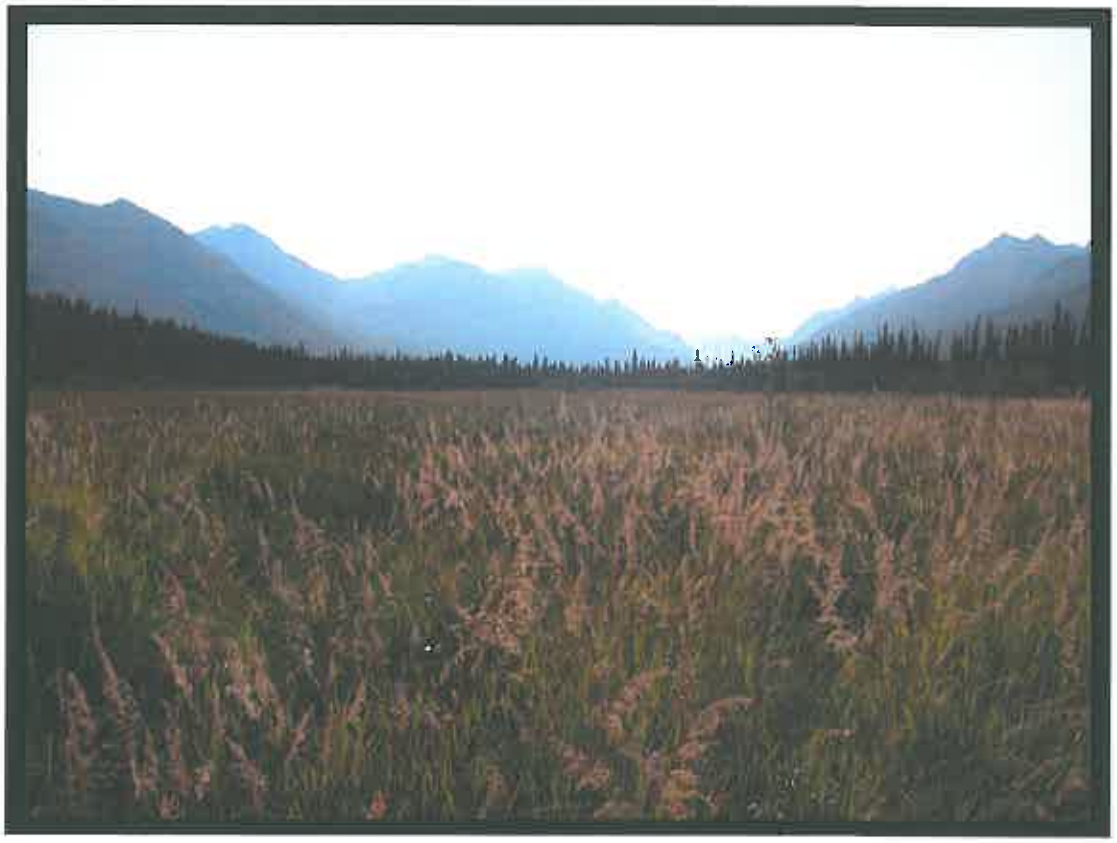
ONF (Open Needleleaf Forest)

CTS (Closed Tall Scrub)

OBF (Open Broadleaf Forest)

CBF (Closed Broadleaf Forest)

CMF (Closed Mixed Forest)



WGH (Wet Graminoid Herbaceous)

CNF (Closed Needleleaf Forest)

Scrub Shrub

MEMORANDUM

Department of Natural Resources

State of Alaska
Division of Parks and Outdoor Recreation
Design and Construction Section

TO: Michael Schroeder

DATE: April 4, 2006

PHONE/FAX: 269-8754/269-8917

FROM: Barbara Wild

SUBJECT: Eagle River Greenbelt Access Pathway Environmental Assessment

I have some concerns regarding the status of the Eagle River Greenbelt Access Pathway Project environmental document. As you are aware, it is well behind schedule and I am not sure when it will be ready. I feel as if I have lost all control of the document. In an attempt to understand how we can get the project back on some sort of predictable schedule, I have put some thought into what has happened so far, and where we will go from here. My general feeling is that it has been an inefficient review process for the following reasons:

1. Too many new people are asked to come into the project and review it. This causes delays while people get up to speed and while they repeat tasks that are already completed, or, give direction that counters previous direction. To date, 7 DOT Environmental staff have come in and out of the project, 3 before I was even involved.

2. The initial review, scheduled for early summer of '04, was delayed. I took a draft of the EA and Wetlands Report over to DOT in June and it was never reviewed. While I understand they were short staffed, it didn't diminish my need for a good thorough look at the first draft. I am not inexperienced at writing large detailed documents, and this early review is crucial to creating a thorough, well organized product. This is when omissions and incorrect organization are corrected. It is when the success of the product is defined.

3. Reviews and subsequent assignments are delayed and disingenuous. The first review from DOT in September '05 by a new Team Leader was thorough. Since then this Team Leader seems to have put the project on the back burner. Reviews have been scanty, address only one or two sections at a time, take only a few hours to complete, and leave me waiting a week or two for comments. This review method creates a disjointed, disorganized document.

4. Reviews seem to be attempts to placate my requests to keep the project on schedule and to buy more time for projects higher on DOT's priority list. Two examples illustrate this:

- A month ago I inquired about the status of the EA and Wetlands Report. I was asked to create cover pages while a new DOT Environmental Analyst proof read the reports. These are end-stage tasks so I assumed we were almost ready for Jerry's review. A month later, I was still receiving requests for figures already given to DOT and vague assignments about sections that needed work.

- A week ago I was told ERGAP must wait while "brush fires were put out" on DOT projects. I expressed my desire to keep the project moving so an Environmental Analyst from another team was asked to look at the EA in the meantime. It was a step backward and caused another delay, but the review revealed that the EA needed to be reorganized - something that should have been done last June. This leaves DNR wondering if we should continue responding to these reviews without evaluating DNR and DOT goals for the environmental stage of not only ERGAP, but all of our joint projects.

Having stated my strong opinion regarding the events leading to the uncertain status of the ERGAP project, I would like to assuage the situation by adding, it is my sincere desire to learn from this experience, and to use it to improve our relationship with DOT Environmental. I believe this is key to building on the original premise of Jerry Ruehle and Daryl Haggstrom, that the DNR Park's Environmental Analyst position can streamline the environmental stage of Park's FHWA projects, and in turn, give back to DOT by having a position w/in our section that alleviates their need to take our FHWA projects through the environmental process. It can and should be a win-win situation, and I am hoping we can get back on track. Until then, I have a few suggestions:

- DNR meet with Jerry Ruehle and possibly Gerry Kintz to come to an agreement as to the priority of the project, and what its deadlines are.

- Request that the ERGAP project be assigned to a DOT Environmental Team Leader that has DOT Environmental experience, is able to meet the deadlines outlined for the project and whose priorities mesh with this project. I have success working with Environmental Analyst Sara Lindberg who is working on two Eagle River area projects. She is very thorough, organized and able to meet deadlines. That would put Brian as the Team Leader who is very knowledgeable, thorough and timely.

- Examine our other DOT/FHWA projects for both timeline coordination and appropriate Team Leader. Our DOT/FHWA projects are:

  Deep Creek North and South
  Denali View South (only needs NOT filed after sufficient veg. coverage)
  Hatcher Pass MP 17.5-24
  Hatcher Pass Pullouts (only needs NOT filed after sufficient veg. coverage)
  Kenai River Trail
  Potter Marsh Phase I & II

ERGAP EA Schedule History v3

12/12/03 Chuck Casper to Dan Golden saying OHA Research complete

6/10/04 Barb to Dan saying Mike Schroeder new project mgr., and is asking if EA is expected to be complete by October.

6/10/04 Dan says October completion is "Still the plan"

6/10/04-10/15/04 **Wetlands and trail alignment field data collected by DNR.**

11/1/04 Jerry to Dan Consult w/FHWA regarding appropriate class of environmental document, draft memo summarizing scoping to justify EA

11/2/04 Decision made by Jerry that Sarah Masco does EA and Barb does Wetlands Report and public scoping section of Scoping Report

2/14/05 Jerry to Gerry Kintz, Susan Wick, Kim Rice, Rob Campbell and FHWA (Dale Lewis) and Barb reporting consultation w/FHWA on appropriate class of environmental document is an EA conducted w/in scope of EIS because potential for substantial controversy from adjacent property owners.

2/14/05 Barb to Jerry stating I will take up where Sarah left off in EA and will finish wetlands report.

2/14/05 Sarah Masco leaves DOT

6/1/05 Barb to Jerry requesting guidance on avoidance alternative discussion in EA

6/3/05 Barb gave Jerry rough draft of EA and Wetland Report w/Graphics

6/16/05 Barb to Jerry – please review tribal consultation letters for FHWA

6/28/05 Barb to Jerry – review tribal letters yet for EA?
Here is rough draft of EA schedule:
7/1/05 rough draft to Jerry for guidance
7/12//05 rough draft to Jerry/DOT for comment
8/2/05 draft to FHWA for one month review

6/29/05 Jerry to Barb - Schedule okay but when EA comes in I can't review "in timely fashion". Haven't reviewed tribal letters yet.

7/5/05 Barb to Jerry – need guidance regarding EFH need and corridor width.
Review tribal letters yet?

7/5/05 Jerry to Barb – Yes EFH Assessment, yes 40/width okay, sent tribal letters. "…don't have time to review this... as soon as we get more staff….don't expect to get things to get done very quickly on this end as we have no one to review things."

7/8/05 NMFS Concurrence, "No EFH affect"

7/12/05 Barb to Jerry – please send environmental commitment info – hope you still have time to review EA – we are still working on graphics.

7/15/05 Barb to Jerry – I need EA advice soon, here are the gaps…. bringing over draft today. NOTE: WETLANDS GRAPHICS COMPLETE.

8/31/05 Teresa Zimmerman (new Team Leader) to Barb saying she is reviewing document. NOTE: JERRY, NOR ANYONE AT DOT, HAD REVIEWED ANYTHING BUT TRIBAL/SHPO LETTERS AT THIS POINT.

8/31/05 to 9/20/05 Teresa reviews EA and Wetlands- comments on hard copy.

9/21/05 Barb sends corrections to Teresa

10/05 ERGAP is #2 on AMATs priority list for Design & ROW in 2006 and Construct in 2009

10/10/05 Teresa to Barb – pulled off ERGAP today

10/11/05 Teresa to Barb – will need Coast Guard Permit – NOTE: ON PHONE CONVERSATION TERESA TOLD BARB CAN TAKE UP TO YEAR

10/11/05 Mike Schroeder consulted w/ USCG as per direction from the DOT Environmental Manual and found no CG permit needed

10/11/05 Barb to Teresa needs guidance – should I apply for COE permits?

10/11/05 Teresa to Barb – can draft but still need JD
NOTE: I DRAFTED JD REQUEST IN SEPT. WETLAND DOC REVIEW COULD HAVE BEEN GIVEN DOT PRIORITY TO GET TO COE. INSTEAD TIME WASTED CHECK TO SEE IF I HAD CORRECT JD FORM – WHICH I DID AND HAVING DOT DRAFTING SECTION SEND ME COE DRAWING GUIDELINES WHICH I WAS ALREADY VERY FAMILIAR WITH.

10/12/05 Teresa to Barb – Guidance (late) – expand Affected Environment section.

10/24/05 Jerry to Gerry Kintz, Teresa, Barb. DNR wants to obligate Phase 2 Design money By January 1, 2006 but EA and FONSI will be required by 12/05. But, this is not Possible because EA not finished so new schedule:

12/1/05	EA to FHWA
12/15/06	EA back from FHWA
12/15 – 2/15	DNR/DOT address FHWA comments
3/1/06	EA to Public
3/15 – 5/1/06	Distribution
4/15/06	Public Hearing
5/1 – 6/15/06	Prepare Draft FONSI and respond to comments
6/15-7/15/06	Submit to FHWA and revise per FHWA
7/15/06	Approve FONSI

10/27/05 Barb to Teresa requesting Jerry's 4(f) comments, Air Qual., Contaminated Sites

10/31/05 Have Superfund/Contaminated Sites updates but am waiting for your comments.

11/2/05 Add it and resend EA

11/15/05 Barb to Teresa, responding to Teresa's request to explain pathway route better

11/15/05 Barb to Teresa regarding my omission on reviewing Water Body Involvement and can't get to it today, can she? And she says yes.

12/1/05 Barb to Teresa and Jerry – schedule reminder – need to keep it

12/12/05 Barb to Teresa need response from EA review, and if can't work on it I will I will also do Water Body Involvement section discussed in 11/15/05 email – if That helps speed things up, but don't want to until I hear from her because don't want two versions going.

12/12/05 Teresa to Barb "May as well sit back and not worry over things we can't control." We are waiting to get 4(f) answer from FHWA. Write Water Section.

1/11/06 Barb to Teresa - Here is Water section and how is rest of EA/4(f) review going?

1/11/06 Teresa to Barb - 4(f) finished I just need to finish formatting and reviewing I'm on another project now and will be back on ERGAP EA next week.

2/1/06 Barb to Teresa – finished with review? Need to keep on schedule.

2/2/06 Teresa to Barb – am working on it, we can keep same schedule.

2/16/06 Teresa to Barb – brand new E. Analyst is proof reading EA tomorrow. Need current Wetland Figures.

2/17/06	Barb to Teresa – you already have most up to date (revised) wetland figures. NOTE: I GAVE DOT WETLANDS REPORT AND FIGURES IN SEPTEMBER
2/21/06	Teresa to Barb: Need EA figures. NOTE: I TOOK THEM TO HER THIS DAY BUT WERE SAME AS ONES FROM JULY – I GUESS THEY DIDN'T MAKE COPIES
2/22/06	Teresa to Barb: Is wetlands report still valid? Send me copies. NOTE: NO CHANGES HAD BEEN MADE TO REPORT SINCE JULY.
2/22/06	Barb to Teresa sending JD and cover ltr (from September) and took over 2 copies of wetlands report.
2/22/06	Barb and Teresa email conversation w/Barb explaining COE involvement NOTE: THIS INFO COULD BE FOUND IN EA APPENDICES THAT TERESA HAD.
2/23/06	Barb to Teresa explaining, again, COE involvement.
2/24/06	More discussion on Barb giving them graphics. NOTE: THEY HAD DISC. Also, EA and Wetlands cover done by Barb and sent over
3/1/06	Barb to Teresa – here is latest wetland report edits. NOTE: BARB'S MISTAKE
3/2/06	Teresa to Barb – Waiting for FHWA review of COE JD.
3/06	ERGAP Design Fund moved to 2009. Project 8th on AMATS list
3/6/06	Teresa to Barb – Still waiting for COE JD FHWA review, but if you want you can keep reviewing document.
3/7/06	Teresa to Barb – I can get back on ERGAP tomorrow, EA looks close for Jerry's review.
3/16/06	Teresa to Barb – Info regarding her communication w/ADEC regarding Contaminated Sites NOTE: I DID THIS IN OCTOBER.
3/24/06	Teresa to Barb can you work on Wetlands Impacts and Wildlife Impacts in EA and send to Sarah Lindberg?
3/29/06	Barb sends updates on EA to Sarah Lindberg.
4/12/06	Jerry to Mike – Jerry agrees that EA should be able to go to FHWA before 12/15/06

7/27/06	**Wetlands JD/report accepted by COE**
10/5/06	**Barb completes EA and sends to Teresa**
1/26/07	Teresa asked about EAs verbiage regarding trail accessibility, said was conflicting. I agreed, discussed this w/Mike and bill and Mike Schroeder said he agreed w/Bill that trail will be ADA accessible w/hardened surface and compacted D-1.
2/23/07	Teresa says Jerry wants to address ADF&G comments.
3/7/07	Barb sends EFH to Teresa.
3/8/07	Barb sends PDF figure as requested by Teresa, for use in Fish Habitat mapping.
5/2/07	Barb asks Teresa if anyone was able to work w/PDF to use as a base map for Fish Habitat figure? Teresa replied that she has a draft fish habitat map that she needs to review and send to ADFG for review. She added that the EA was not ready for Jerry's review yet.
6/13/07	Barb/Teresa discussion on scoping meeting early in project, Barb says Dan Golden held that meeting and he didn't generate meeting report. Teresa asks about ROW, I said on phone that Bill and Mike S. were working on this.
8/21/07	Barb asks Teresa if she can help move the EA forward? Teresa says she has draft fish habitat section map that she needs to review and send to ADFG for review She added that the EA is not ready for Jerry's review yet.
11/8/07	AMATS- ERGAP moved to passed 2011 – listed on projects removed from Federal Funding List

DOT 12/13/07 ERGAP Comments

DNR arranged into categories for better reading but did not edit.

ADF&G Wildlife

- Updating the bear attack info. I believe more bear attacks have occurred since 2003.
- Indirect effects of increased use needs to be covered in the Social and **Wildlife** sections.
- Wildlife Impacts need to be completed, and then reviewed by ADFG before FHWA review.
- Human disturbance and habitat fragmentation has not been fully addressed. Effects to wildlife have not been reviewed by ADFG (Ellen Simpson), who had 7 pages of comments to the project. She requested additional wildlife studies as no site specific data is available. The studies were not conducted.
- The potential for an increase in bear attacks is not fully covered. Seasonal trail closures (which is what happens at the Nature Center now) would need to be addressed. ADFG suggested seasonal and night time closures.
- We did not collect information about bear and other wildlife use of the floodplain, as ADFG requested.
- ADFG requested a ½-mile or more buffer zone from salmon spawning areas to avoid disturbing brown bears. This has not been addressed.
- Purpose and need has not been accepted by the ADFG.
- In a 6/24/02 ER/Chugiak Parks & Rec Board of Supervisors meeting, Bill Evans introduced the project and how it would be developed, by using public input about special areas, problem areas, wildlife habitat, working with habitat, F&G, and talking about the sensitive habitat areas, etc. Commitments were made for future studies and investigation of the environment that were not followed through.
- In the scoping report, Bill Evans e-mail to Cliff Eames, Ak Center for Environment, made commitments to work with ADFG to understand bear habitat and reduce bear human conflicts. Also committed to evaluate and answer scoping comments, responding to comments, and posting responses on web site. Responses to scoping comments are not included in the Scoping Report. They need to be made available for FHWA to review.

ADNR OHMP Fish

- We did a minimal amount of fisheries investigation and the info needs to be added to the EA. We also have a draft EFH Assessment that needs to be finished, and consultation with NMFS based on new info. (I can't find the outgoing NMFS consultation, so I don't know what they agreed was "no adverse effect.")

ADNR OPMP

- Coastal Zone impacts need further review. The CZ Plan states the area is managed for water supply, open space, recreation, and habitat. Impacts to habitat may be unacceptable to agencies and the public, which would become evident during the CZ review.

NMFS EFH

- Finishing EFH assessment and sending in for NMFS consultation.

- We did a minimal amount of fisheries investigation and the info needs to be added to the EA. We also have a draft EFH Assessment that needs to be finished, and consultation with NMFS based on new info. (I can't find the outgoing NMFS consultation, so I don't know what they agreed was "no adverse effect.")

FEMA Floodplain

- The Floodplains section has no reference to any hydraulic studies required by 23CFR 650, Subpart A (flooding risks, etc.). The pathway would be encroaching on the flood plain.
- Paul Janke needs to review Floodplain section, which needs to be expanded in accordance with the Tech Advisory. This may change considerably after the Bridge Section review.

COE

- Wetlands impacts have been written, but were the avoidance measures really taken? Was the pathway located on wetland margins where possible? Buffers from spawning areas are not what ADFG recommended for bears. Will wildlife movement corridors be maintained? When we don't know the corridors? Etc.

Public

- The issue with private, nearby landowners not wanting increased pressure on the Park's resources (not just NIMBYs) was brought up repeatedly throughout scoping (according to the Scoping Report) and was not addressed in the EA, Social Impacts, which only discusses the positive impact on neighborhoods by providing for public parking and legal access. In addition, the "4:1 in favor comments" ratio stated in the EA doesn't seem to be realistic judging by the scoping report. I haven't actually counted though, and I noticed some of the "in favor" comments were qualified with "as long as habitat, wildlife isn't harmed, etc."
- Indirect effects of increased use needs to be covered in the Social and Wildlife sections.

ROW

- Bill Evans (Scoping report, ER/Chugiak Parks & Rec Board Meeting) said ROW research needed to be done. Are we sure that the State owns the whole ROW?
- ROW needs to be added to 4.4, and the fact that imminent domain won't be able to be used for a recreational trail. How will this be addressed? Is another route planned?
- Eklutna, Inc., a property owner on the proposed ROW, were very clear that they were unwilling to sell property for a pathway. As Chuck Casper's e-mail to Mike Schroeder reads, "They had a variety of reasons and appear to be entrenched in their position."

Noise

- Noise impacts needs to be expanded, especially for wildlife. ADFG/USFWS would need to buy in to the impact assessment.

ADA

- Paved/unpaved has not been resolved in the public record. Some absolutely want paved, resource agencies want unpaved to slow traffic, ADA needs a hard surface.

Bridge

- Has Bridge Design seen the bridge plans? Last time I had a project with multiple bridges, Bridge Design shortened all the clear spans (to reduce costs) and the result was more wetland fill.

Environmental Justice

- Analysis for Environmental Justice needs to be added.

Joint Development Analysis

- Analysis for Joint Development needs to be added.

Construction Impacts

- Construction impacts needs to be reviewed by Construction Section. Not sure "minor" traffic delays is accurate for the 4 miles of trail adjacent to the road.

Short-term use and Irreversible

- Text for the Short-term use and Irreversible sections needs to be written.

Comments and Coordination

- The entire Comments and Coordination section needs to be revised after reading the Scoping Report.

Figures

- The figures are primarily for wetlands, and we generally have a "land use" figure in our EAs. We'd need to show which parcels would be acquired, whether privately owned, etc. Also, we have new ROW info for the road project. We'd also need to add the fish streams that we found in the 1-day field investigation. Wildlife Corridors, or figures showing high value habitat seems reasonable.

Scoping Report

- Scoping meetings were conducted in 2003 and Feb.2004, 4 to 5 years ago. Since that time the Coastal Trail EIS was completed, and a no-build was selected. Public and agency sentiment on trails through sensitive wildlife habitat may have changed. In 2003 and 2004, agencies and public were concerned about wildlife/human interactions, wetlands impacts, and fish habitat.
- I'm a bit confused by the Scoping Report. Outgoing scoping letters don't seem to be included, the 2 figures show 2 alternatives, although scoping mentions 3 alternatives, and a summaries of the comments doesn't include the emphasis on wildlife habitat and fragmentation that I think is presented in the comments.

EFH Assessment
Eagle River Greenbelt Access Pathway

I. **Project Description:** The Eagle River Greenbelt Access Pathway project is a cooperative effort between the Municipality of Anchorage (MOA), Alaska Department of Transportation and Public Facilities (ADOT &PF), and Alaska Department of Natural Resources Division of Parks and Outdoor Recreation (ADNR DPOR). It proposes to build nearly 14 miles of 8-foot wide paved bicycle/pedestrian pathway within the Eagle River Greenbelt, beginning at the Glenn Highway MP 13.4 and ending at the Eagle River Nature Center, Eagle River Road MP 12.7 near Eagle River, Alaska (see Location Map in Figure 1). Elevated pathway, bridges, and culverts will be used to minimize impact to water bodies. Easements or right-of-way (ROW) will be acquired to minimize impact to water also.

Purpose and Need Statement
The purpose of this project is to provide safe and legal pedestrian and bicycle access to the Eagle River Greenbelt. It would connect existing trails and create new trails for the public while minimizing environmental and human impact.

See Figures 1 and 2 for details of these actions.

II. **Analysis of Effect to EFH:** There are four Alaska Department of Fish and Game cataloged streams within the project's area of potential effect (APE): Eagle River (247-50-10110), North Fork Eagle River (247-50-10110-2033), South Fork Eagle River (247-50-10110-2070), and Meadow Creek (247-50-10110-2053). These streams are designated as EFH for four species of Pacific Salmon (see table below) and are managed by the Magnuson-Stevens Fisheries Conservation Management Act (the Act).

Cataloged Streams in Project's APE

Township, Range, Section	Anchorage Quad	Catalog Number	Name	Species, habitat type
14N 1E 31	B-7	247-50-10110	Eagle River	Sr
14N 1W 16	B-7	247-50-10110	Eagle River	Ps,CHs, Pp,CHp
13N 1E 25	A-6	247-50-10110	Eagle River	COp
14N 1W 22	B-7	247-50-10110	Eagle River	Ps,CHs
13N 1E 36	A-6	247-50-10110	Eagle River	Kr
14N 2W 14	B-7	247-50-10110-2053	Meadow Creek	Ks
14N 2W 11	B-7	247-50-10110-2053	Meadow Creek	Ks
14N 1W 25-26	B-7	247-50-10110-2033	North Fork Eagle River	COp
14N 1W 21	B-7	247-50-10110-	South Fork Eagle River	Ks, Kp, Pp

14N 1W 16	B-7	2070 247-50-10110- 2070	South Fork Eagle River Ks,Pp

Key
S = Sockeye Salmon r= Rearing
K = King Salmon s= spawning
CO = Coho Salmon p= Present

It is anticipated that this project will not directly affect EFH in these streams. Preliminary consultation with the National Marine Fisheries Service (NMFS), responsible for EFH under the Act, revealed that because all bridges will be clear span, and the pathway design involves no in-water work of the above mentioned anadromous streams, NMFS needs no further consultation regarding this project.

III. **Proposed Conservation Measures:** Bridge designs have been developed in consultation with Alaska Department of Fish and Game (ADF&G) and Office of Habitat Management and Permitting (OHMP). Construction of this project will require an ADNR Title 41 Permit, and a U.S. Army Corps of Engineers (COE) Permit. By design the permit stipulations will protect the fisheries resources known to inhabit the project area and will protect the EFH areas that support fish. The project specifications will include special conditions for the implementation and maintenance of BMPs during construction to minimize project impacts to water quality. These include:

- All necessary permits and agency approvals will be obtained prior to construction.
- All staging, fueling, and servicing operations will be conducted at least 100 feet from the river channel.
- The project will require the construction contractor to prepare a Stormwater Pollution Prevention Plan that will include a Hazardous Materials Control Plan.

Most mitigation in this project is achieved by avoiding or minimizing impacts to wetlands. However, some mitigation may be achieved through the use of interpretive panels and possibly compensatory mitigation measures.

IV. **Agency Determination:** Based on the scope and nature of impacts expected from the project and the mitigation measures identified above, the ADOT&PF on behalf of the FHWA has determined that there will be no substantial adverse individual or cumulative effects on EFH in the project area.

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

CENTRAL REGION DESIGN AND CONSTRUCTION
PRELIMINARY DESIGN AND ENVIRONMENTAL SECTION

FRANK H. MURKOWSKI, GOVERNOR

4111 AVIATION AVENUE
P.O. BOX 196900
ANCHORAGE, ALASKA 99519-6900
(FAX) 243-6927 – TDD 269-0473
(907) 269-0542

March 7, 2006

Re: POA 2003-215
Eagle River Greenbelt Access Pathway Project
Request for Jurisdictional Determination
State Project No. 55715

William Keller, South Section Chief
U.S. Army Corps of Engineers
CEPOA-CO-R-S
P.O. Box 6898
Elmendorf AFB, Alaska 99506-6898

Dear Mr. Keller,

The Alaska Department of Transportation and Public Facilities (DOT&PF) and the Alaska Department of Natural Resources, Division of Parks (DPOR), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is preparing an Environmental Assessment for the proposed construction of a pedestrian/bicycle trail in the Eagle River Greenbelt. The project begins at the Glenn Highway MP 13.4 and ends at Eagle River Nature Center Eagle River Road MP 12.7. The project location begins in Township 14 North, Range 2 West, Sections 13 and 14, continues through Township 14 North, Range 1 West, Sections 16 through 26 and 36, and Township 14 North, Range 1 East, Section 31 and ends in Township 13 North, Range 1 East, Sections 5, 6, 8, 9, 16, 21 – 23, 26, and 27, Seward Meridian. The project topography can be viewed on USGS maps Anchorage A-7, B-7 and B-8. The Beginning of Project (BOP) is located at 61° 19'15" W 149° 34' 12" and the End of Project (EOP) is located at N61 14.106 W149 16.145.

In accordance with the 1992 Permit Accord between our agencies, I am writing to inform you that DOT&PF has determined that the proposed action would affect U.S. Army Corps of Engineers jurisdictional wetlands and request your concurrence. All of the wetlands in the project area appear to be jurisdictional. No work is planned below Ordinary High Water for Eagle River or its tributaries.

To assist you in your evaluation of our determination, I have enclosed a Wetlands Evaluation Report co-prepared by DPOR and DOT&PF and a Preliminary Regulatory Assessment form. The report and supporting Wetland Data Sheets and photographs were used to aid in the evaluation of alternatives to avoid and minimize adverse impacts to both waters of the U.S. and wetlands to the greatest extent possible.

Please review the enclosed report and respond back to Teresa Zimmerman, Environmental Team Leader, at the address above, by telephone 269-0551 or by e-mail at teresa_zimmerman@dot.state.ak.us.

Sincerely,

Bill Ballard

Bill Ballard
Statewide Environmental Coordinator

enclosures: USACE Preliminary Regulatory Assessment
ERGAP Wetlands Evaluation

cc w/o enclosures:
Mike Goodwin, Acting Chugach State Park Superintendent, ADNR/DPOR
Michael Schroeder, Project Manager, ADNR/DPOR
Bill Evans, Landscape Specialist, ADNR/DPOR
Jerry Ruehle, Central Region Environmental Coordinator
Teresa Zimmerman, Environmental Team Leader, DOT&PF

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
ALASKA DIVISION
709 West Ninth Street, Room 851
P.O. Box 21648
Juneau, Alaska 99802
907-586-7418 | 907-586-7420 FAX

Date 8/01/05
Proj. #: 55215

	P	A	D	E
Preliminary Design & Environmental				
Section Chief		X		
Env. Coordinator				
Env. Team Leader				
Env. Analyst			X	
Project File				
Central File			X	

July 25, 2005

REFER TO
HDA-AK
File #: CA-TEA-0001(265)/55715

Ms. Margaret Brown, President and CEO
Cook Inlet Region, Inc.
P.O. Box 93330
Anchorage, Alaska 99509

SUBJECT: Eagle River Greenbelt Access and Pathway (ERGAP) Finding of No Historic Properties Affected pursuant to 36 CFR 800.4(d)(1)

Dear Ms. Brown:

The Alaska Department of Natural Resources Division of Parks and Outdoor Recreation (DPOR) and Alaska Department of Transportation and Public Facilities (AKDOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to build an 8-foot wide paved bicycle/pedestrian pathway within the Eagle River Greenbelt, beginning at Glenn Highway MP 13.4 and ending at the Eagle River Nature Center, Eagle River Road MP 12.7 (see Project Map in Figure 1). The proposed project can be viewed on USGS maps Anchorage A-7 and B-7, Seward Meridian. It begins in Township 14 North, Range 2 West, Sections 13 and 14, continues through Township 14 North, Range 1 West, Sections 16 through 26 and 36, and Township 14 North, Range 1 East, Section 31 and ends in Township 13 North, Range 1 East, Sections 5, 6, 8, 9, 16, 21 – 25. Pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act, the FHWA finds that no historic properties would be affected by the proposed project.

Three pathway alternatives were considered for this project. Alternative II was chosen as the preferred alternative. The project's Area of Potential Affect (APE) is a 40-foot wide corridor the approximate 12-mile length of Alternative II (see Project Map in Figure 1).

The Alaska Heritage Resources Survey (AHRS) database was reviewed to identify any historic properties within the APE. The list indicates ANC-214, the Crow Pass Trail (ANC-214) between Girdwood and Eagle River as being within the project vicinity. The Crow Pass Trail is a branch of the Iditarod National Historic Trail system that was the winter route from Seward to Knik.

In June of 2004 staff from the Office of History and Archaeology (OHA) completed survey field work within the APE (survey report enclosed). The OHA identified the following cultural resources, although none were considered historically significant (see Figure 3 in the enclosed survey report for site locations). In agreement with the OHA's report recommendations, we have determined that these sites are not eligible for inclusion in the National Register of Historic Places.

- ANC-1419, a can midden and unidentified 180-foot long remnant trail segment that are not associated with any specific trail system
- ANC-1420, a cabin site foundation (150 feet north of APE) that is less than 50 years old
- ANC-1528, cluster of discontinuous trail segments of recent development and not associated with a specific trail system
- three plywood and tarp campsites that appear to have been constructed within the last 5 years

If you wish to comment on this finding, I can be reached at the above contact information. In addition, Mr. Dale J. Lewis, Central Region Liaison Engineer, is available at the same address above, by telephone at 907-586-7429 or by e-mail at dale.j.lewis@fhwa.dot.gov. However, please note that to receive consideration, your comments must be received within thirty days of your receipt of this correspondence. However, please note that to receive consideration, your comments must be received within thirty days of your receipt of this correspondence.

Sincerely,

David C. Miller
Division Administrator

Enclosures:

Figure 1 Project Map
Cultural Resource Reconnaissance of the Eagle River Greenbelt Access and Pathway (OHA, December 2004)

cc w/o enclosures:

Gerry Kintz, P.E., AKDOT&PF, Engineering Manager
Jerry Ruehle, AKDOT&PF Central Region, Regional Environmental Coordinator
Laurie Mulcahy, AKDOT&PF HQ, Environmental Program Manager
Mike Schroeder, P.E., ADNR DPOR, Project Manager

U.S. DEPARTMENT OF TRANSPORTATION
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Date: 8/1/05
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	P	D	F
Preliminary Design & Environmental	A	A	E
	R		

Section Chief
Env. Coordinator
Env. Team Leader
Env. Analyst B. Wild
Project File

July 25, 2005

REFER TO
HDA-AK
File #: CA-TEA-0001(265)/55715

Mr. Lee Stephan, CEO
Native Village of Eklutna
26339 Eklutna Village Road
Chugiak, Alaska 99567

SUBJECT: Eagle River Greenbelt Access and Pathway (ERGAP) Finding of No Historic Properties Affected pursuant to 36 CFR 800.4(d)(1)

Dear Mr. Stephan:

The Alaska Department of Natural Resources Division of Parks and Outdoor Recreation (DPOR) and Alaska Department of Transportation and Public Facilities (AKDOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to build an 8-foot wide paved bicycle/pedestrian pathway within the Eagle River Greenbelt, beginning at Glenn Highway MP 13.4 and ending at the Eagle River Nature Center, Eagle River Road MP 12.7 (see Project Map in Figure 1). The proposed project can be viewed on USGS maps Anchorage A-7 and B-7, Seward Meridian. It begins in Township 14 North, Range 2 West, Sections 13 and 14, continues through Township 14 North, Range 1 West, Sections 16 through 26 and 36, and Township 14 North, Range 1 East, Section 31 and ends in Township 13 North, Range 1 East, Sections 5, 6, 8, 9, 16, 21 – 25. Pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act, the FHWA finds that no historic properties would be affected by the proposed project.

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If you wish to comment on this finding, I can be reached at the above contact information. In addition, Mr. Dale J. Lewis, Central Region Liaison Engineer, is available at the same address above, by telephone at 907-586-7429 or by e-mail at dale.j.lewis@fhwa.dot.gov. However, please note that to receive consideration, your comments must be received within thirty days of your receipt of this correspondence. However, please note that to receive consideration, your comments must be received within thirty days of your receipt of this correspondence.

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David C. Miller
Division Administrator

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cc w/o enclosures:

Gerry Kintz, P.E., AKDOT&PF, Engineering Manager
Jerry Ruehle, AKDOT&PF Central Region, Regional Environmental Coordinator
Laurie Mulcahy, AKDOT&PF HQ, Environmental Program Manager
Mike Schroeder, P.E., ADNR DPOR, Project Manager

U.S. DEPARTMENT OF TRANSPORTATION
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Date: 8/01/05
Proj. #: 55715

	PDE	PAER
Preliminary Design & Environmental		
Section Chief		X
Env. Coordinator		
Env. Team Leader		
Env. Analyst		X
Project File	(2)	X
Central File		

July 25, 2005

REFER TO
HDA-AK
File #: CA-TEA-0001(265)/55715

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

SUBJECT: Eagle River Greenbelt Access and Pathway (ERGAP) Finding of No Historic Properties Affected pursuant to 36 CFR 800.4(d)(1)

Dear Ms. Bittner:

The Alaska Department of Natural Resources Division of Parks and Outdoor Recreation (DPOR) and Alaska Department of Transportation and Public Facilities (AKDOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to build an 8-foot wide paved bicycle/pedestrian pathway within the Eagle River Greenbelt, beginning at Glenn Highway MP 13.4 and ending at the Eagle River Nature Center, Eagle River Road MP 12.7 (see Project Map in Figure 1). The proposed project can be viewed on USGS maps Anchorage A-7 and B-7, Seward Meridian. It begins in Township 14 North, Range 2 West, Sections 13 and 14, continues through Township 14 North, Range 1 West, Sections 16 through 26 and 36, and Township 14 North, Range 1 East, Section 31 and ends in Township 13 North, Range 1 East, Sections 5, 6, 8, 9, 16, 21 – 25. Pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act, the FHWA finds that no historic properties would be affected by the proposed project.

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- three plywood and tarp campsites that appear to have been constructed within the last 5 years.

Please direct your concurrence or comments to me at the address above, by telephone at 907-586-7429 or by e-mail at dale.j.lewis@fhwa.dot.gov

Sincerely,

Dale J. Lewis
Central Region Liaison Engineer
Federal Highway Administration

Enclosures:

Figure 1 Project Map
Cultural Resource Reconnaissance of the Eagle River Greenbelt Access and Pathway (OHA, December 2004)

cc w/o enclosures:

Gerry Kintz, P.E., AKDOT&PF, Engineering Manager
Jerry Ruehle, AKDOT&PF Central Region, Regional Environmental Coordinator
Laurie Mulcahy, AKDOT&PF HQ, Environmental Program Manager
Mike Schroeder, P.E., ADNR DPOR, Project Manager

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
ALASKA DIVISION
709 West Ninth Street, Room 851
P.O. Box 21648
Juneau, Alaska 99802
907-586-7418 | 907-586-7420 FAX

Date: 8/01/05
Proj. #: 55715

PDF			X			X			X
PAPER		N	(1)					(2)	X
Preliminary Design & Environmental	Section Chief	Project Manager	Env. Coordinator	Env. Team Leader	Env. Analyst B. Wild			Project File	Central File

July 25, 2005

REFER TO
HDA-AK
File #: CA-TEA-0001(265)/55715

Mr. Bill Price, CEO
Eklutna, Inc.
16516 Centerfield Dr., Ste. 201
Eagle River, Alaska 99577

SUBJECT: Eagle River Greenbelt Access and Pathway (ERGAP) Finding of No Historic Properties Affected pursuant to 36 CFR 800.4(d)(1)

Dear Mr. Price:

The Alaska Department of Natural Resources Division of Parks and Outdoor Recreation (DPOR) and Alaska Department of Transportation and Public Facilities (AKDOT&PF), in cooperation with the Alaska Division of the Federal Highway Administration (FHWA), is proposing to build an 8-foot wide paved bicycle/pedestrian pathway within the Eagle River Greenbelt, beginning at Glenn Highway MP 13.4 and ending at the Eagle River Nature Center, Eagle River Road MP 12.7 (see Project Map in Figure 1). The proposed project can be viewed on USGS maps Anchorage A-7 and B-7, Seward Meridian. It begins in Township 14 North, Range 2 West, Sections 13 and 14, continues through Township 14 North, Range 1 West, Sections 16 through 26 and 36, and Township 14 North, Range 1 East, Section 31 and ends in Township 13 North, Range 1 East, Sections 5, 6, 8, 9, 16, 21 – 25. Pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act, the FHWA finds that no historic properties would be affected by the proposed project.

Three pathway alternatives were considered for this project. Alternative II was chosen as the preferred alternative. The project's Area of Potential Affect (APE) is a 40-foot wide corridor the approximate 12-mile length of Alternative II (see Project Map in Figure 1).

The Alaska Heritage Resources Survey (AHRS) database was reviewed to identify any historic properties within the APE. The list indicates ANC-214, the Crow Pass Trail (ANC-214) between Girdwood and Eagle River as being within the project vicinity. The Crow Pass Trail is a branch of the Iditarod National Historic Trail system that was the winter route from Seward to Knik.

In June of 2004 staff from the Office of History and Archaeology (OHA) completed survey field work within the APE (survey report enclosed). The OHA identified the following cultural resources, although none were considered historically significant (see Figure 3 in the enclosed survey report for site locations). In agreement with the OHA's report recommendations, we have determined that these sites are not eligible for inclusion in the National Register of Historic Places.

- ANC-1419, a can midden and unidentified 180-foot long remnant trail segment that are not associated with any specific trail system
- ANC-1420, a cabin site foundation (150 feet north of APE) that is less than 50 years old
- ANC-1528, cluster of discontinuous trail segments of recent development and not associated with a specific trail system
- three plywood and tarp campsites that appear to have been constructed within the last 5 years

If you wish to comment on this finding, I can be reached at the above contact information. In addition, Mr. Dale J. Lewis, Central Region Liaison Engineer, is available at the same address above, by telephone at 907-586-7429 or by e-mail at dale.j.lewis@fhwa.dot.gov. However, please note that to receive consideration, your comments must be received within thirty days of your receipt of this correspondence. However, please note that to receive consideration, your comments must be received within thirty days of your receipt of this correspondence.

Sincerely,

David C. Miller
Division Administrator

Enclosures:

Figure 1 Project Map
Cultural Resource Reconnaissance of the Eagle River Greenbelt Access and Pathway (OHA, December 2004)

cc w/o enclosures:

Gerry Kintz, P.E., AKDOT&PF, Engineering Manager
Jerry Ruehle, AKDOT&PF Central Region, Regional Environmental Coordinator
Laurie Mulcahy, AKDOT&PF HQ, Environmental Program Manager
Mike Schroeder, P.E., ADNR DPOR, Project Manager

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF PARKS AND OUTDOOR RECREATION
OFFICE OF HISTORY AND ARCHAEOLOGY

FRANK H. MURKOWSKI, GOVERNOR

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Date: 8,8,05
Proj. #55715

Preliminary Design & Environmental	PAPER	PDF
Section Chief		
Project Manager		X
Env. Coordinator	(1)	
Env. Team Leader		
Env. Analyst		
B. Wild		X
Project File	(2)	
Central File	X	

August 4, 2005

File No.: 3130-1R FHWA
3330-6N ANC-1419, ANC-1420, ANC-1528

SUBJECT: Eagle River greenbelt access and pathway, Eagle River, Alaska
Project No. 55715

Dale J. Lewis
Federal Highway Administration
Alaska Division
709 West Ninth Street, Room 851
P. O. Box 21648
Juneau, AK 99802

Dear Mr. Lewis,

The State Historic Preservation Office received on July 28, 2005 your letter and attached report titled *Cultural Resource reconnaissance of the Eagle River greenbelt access and pathway, Eagle River, Alaska, ADOT & PF Project Number 55715* by Daniel R. Thompson and Alan D. DePew. We have reviewed your undertaking for conflicts with cultural resources under Section 106 of the National Historic Preservation Act. We concur that the following three sites are not eligible for the National Register of Historic Places:

- ANC-1419 (Can midden and trail)
- ANC-1420 (Cabin foundation)
- ANC-1528 (Cluster of trails)

We also concur that no historic properties are affected by this project. Please contact Stefanie Ludwig at 269-8720 if you have any questions or if we can be of further assistance.

Sincerely,

Joan M. Antonson

Judith E. Bittner
Deputy State Historic Preservation Officer

JEB:sll

Cc: Jerry Ruehle, DOT & PF, South central Region, Regional Environmental Coordinator