

**DRAFT ENVIRONMENTAL ASSESSMENT  
HOMER BELUGA LAKE FLOATPLANE FACILITIES IMPROVEMENTS**

**59°38'35.33" NORTH LATITUDE AND 151°29'47.18" WEST LONGITUDE  
SECTION 21, TOWNSHIP 06 SOUTH, RANGE 13 WEST, SEWARD MERIDIAN**

**January 2016**

**State Project Number Z577770000**



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**DRAFT ENVIRONMENTAL ASSESSMENT**

**Homer/Beluga Lake Floatplane Facilities Improvements  
State Project Number: Z577770000**

Prepared for:  
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Federal Aviation Administration  
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January 2016

***This Environmental Assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.***

\_\_\_\_\_  
Responsible FAA Official

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Date

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## LIST OF ACRONYMS

AADT	Annual Average Daily Traffic
AC	(Federal Aviation Administration) Advisory Circular
ACGP	Alaska Construction General Permit
ADF&G	State of Alaska Department of Fish and Game
AIP	Airport Improvement Program
AHRS	Alaska Heritage Resources Survey
AKEPIC	Alaska Exotic Plants Information Clearinghouse
AKILF	Alaska In-Lieu Fee
ALP	Airport Layout Plan
APDES	Alaska Pollution Discharge Elimination System
APE	area of potential effect
ARFF	Aircraft Rescue and Fire Fighting
ARFF/SRE	Airport rescue and firefighting and snow removal equipment
AWC	Anadromous Waters Catalog
BCC	Migratory Birds of Conservation Concern
BFEs	Base Flood Elevations
BMPs	Best Management Practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CMP	corrugated metal pipe
CO <sub>2</sub> Eq	carbon dioxide equivalents
CWA	Clean Water Act
CY	cubic yards
dB	decibels
DEC	State of Alaska Department of Environmental Conservation
DNL	Day-Night Average Sound Level
DNR	State of Alaska Department of Natural Resources
DOT	United States Department of Transportation
DOT&PF	State of Alaska Department of Transportation and Public Facilities
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Site Assessment
ESCP	Erosion and Sediment Control Plan
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FR	Federal Register
GA	general aviation
GC-1	General Commercial 1 zoning
GC-2	General Commercial 2 zoning
GIS	Geographic(al) Information System(s)
GWTF	Global Warming Task Force
HACHA	Homer Airport Critical Habitat Area
HMCP	Hazardous Materials Control Plan
ILMA	Interagency Land Management Agreement
ILS	Instrument Landing System
IPaC	(USFWS) Information, Planning, and Conservation System
KBCHA	Kachemak Bay Critical Habitat Area

## LIST OF ACRONYMS, CONTINUED

kWh	.....	kilowatt-hours
LEDPA	.....	least environmentally damaging practicable alternative
MBTA	.....	Migratory Bird Treaty Act
MHW	.....	Mean High Water
NAAQS	.....	National Ambient Air Quality Standards
NDB	.....	Non-directional Beacon
NEPA	.....	National Environmental Policy Act
NFIP	.....	National Flood Insurance Program
NHPA	.....	National Historic Preservation Act
NOI	.....	Notice of Intent
NPDES	.....	National Pollution Discharge Elimination System
NRHP	.....	National Register of Historic Places
OHWM	.....	ordinary high water mark
OSR	.....	Open Space Recreational
RCRA	.....	Resource Conservation and Recovery Act of 1976
REC	.....	recognized environmental condition
SHPO	.....	State Historic Preservation Officer
SWPPP	.....	Storm Water Pollution Prevention Plan
TCF	.....	The Conservation Fund
U.S.	.....	United States
USACE	.....	United States Army Corps of Engineers
U.S.C.	.....	United States Code
USFWS	.....	United States Fish and Wildlife Service
USGS	.....	United States Geological Survey
vpd	.....	vehicles per day

## DEFINITIONS

Airport Layout Plan (ALP): The plan of an airport showing the layout of existing and proposed airport facilities.

Airport: An area of land or water that is used or intended to be used for the landing and takeoff of aircraft and includes its buildings and facilities, if any (Reference: Title 14 Code of Federal Regulations (CFR) Part 1, Definitions and Abbreviations). For this purpose, the term “airport” includes airport, heliport, helistop, vertiport, gliderport, seaplane base, ultra-light flight park, manned balloon launching facility, or other aircraft landing or takeoff areas.

Floatplanes: Airplanes that have been fitted with floats for landing on water.

Hazardous Wildlife: Species of wildlife (birds, mammals, reptiles), including feral animals and domesticated animals not under control, that are associated with aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a strike hazard.

Non-directional Beacon (NDB): a ground-based, low-frequency radio transmitter used as an instrument approach for airports and offshore platforms.

Public-use Airport: Any airport that is available for use by the general public without a requirement for prior approval of the owner or operator. (Reference: Federal Aviation Administration (FAA) Order 5010.4 and Advisory Circular (AC) 150/5200-35A, Submitting the Airport Master Record in Order to Activate a New Airport).

Seaplane Base: A dedicated area of water used or intended to be used for the landing and takeoff of seaplanes, water taxiing, anchoring, ramp service, possibly with shoreline, and on-shore facilities.

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## **1.0 PROJECT BACKGROUND AND PURPOSE AND NEED FOR THE PROPOSED ACTION**

### **1.1 Introduction**

The State of Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is proposing to construct new floatplane haul-out facilities at the Homer Airport. The improvements include a restricted-use access road, turnaround area, and ramp into Beluga Lake. The purpose of the project is to connect the Beluga Lake landing area with the rest of the Airport, improving aircraft access to the Homer Airport for maintenance, fuel, and storage. The airport is located in Sections 20 and 21, T06S, R13W on United States Geological Survey (USGS) Quad Map Seldovia C-4 and C-5, Seward Meridian; 59°38'35.33" North Latitude, 151°29'47.18" West Longitude, in Homer, Alaska (Exhibit 1). This Environmental Assessment (EA) has been prepared to identify the potential environmental effects associated with the proposed improvements.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) (NEPA, 42 United States Code [U.S.C.] 4321), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500 et seq.), and other federal laws and regulations. Requirements and guidance specific to the FAA were also used in the development of this EA, including FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Projects* (April 28, 2006), and FAA Order 1050.1E, Change 1, *Environmental Impacts: Policies and Procedures* (June 8, 2004). Both of these FAA orders require an EA to address not only NEPA requirements but also other laws, regulations, and executive orders known as “special purpose laws.” These typically address specific resources, such as water quality, air quality, floodplains, wetlands, historic sites, parklands, and environmental justice, among others. These include the Clean Air Act (CAA); Section 4(f), now codified in 49 U.S.C. 303 and 23 U.S.C. 138; the Endangered Species Act (ESA); the Fish and Wildlife Coordination Act; the National Historic Preservation Act (NHPA); Executive Order 12898, Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations; the Federal Water Pollution Control Act; and the Clean Water Act (CWA).

### **1.2 Proposed Agency Actions**

The DOT&PF proposes the following federal actions, which are the subject of this EA:

- ➔ Unconditional approval for Federal funds under the Airport Improvement Program (AIP),
- ➔ Unconditional approval for changes to the Airport Layout Plan (ALP) existing facilities (See Draft ALP, Appendix A), and
- ➔ FAA authorization for the approved actions in a Finding of No Significant Impact (FONSI).



**Exhibit 1: Project Location and Vicinity Map**

The Proposed Action consists of the following improvements (See Figure 1 at the end of this report for a detailed description of the proposed action):

Improvements south of FAA Road at the main Airport include:

- ➔ Construction of 500 feet of 26-foot-wide paved (asphalt) access road, with 100-foot-wide wingspan clearance.
- ➔ Construction of 200 feet of FAA-approved fencing, including two 30-foot-wide single cantilever gates and a 10-foot swing gate.
- ➔ Extension of electric utilities to gate operators.
- ➔ Extension of existing 18-inch corrugated metal pipe (CMP) to maintain existing Airport drainage.
- ➔ Installation of a new 18-inch CMP to maintain flow in existing FAA Road drainage ditch.
- ➔ Construction of relocated driveway.
- ➔ Construction of restricted-access gate and fencing.

Improvements north of FAA Road to Beluga Lake include:

- ➔ Construction of 1,100 feet of 26-foot-wide paved (asphalt) access road, with 100-foot-wide wingspan clearance.
- ➔ Construction of a 147-foot x 76-foot paved (asphalt) turnaround area.
- ➔ Construction of 83 feet of 20-foot-wide concrete plank ramp on a sloping shore, with 3-foot riprap shoulders.
- ➔ Construction of an 8-foot-wide x 30-foot-long floating dock.

Construction of these improvements within cut and fill limits includes excavation, clearing, and grubbing. Aboveground vegetation beyond the cut and fill limits but within the clearing limits would be removed, but no grubbing is proposed. The DOT&PF anticipates that the contractor will obtain fill material from a locally permitted site. Necessary permits and clearances will be obtained. Construction of the project is proposed to begin in the summer of 2016 and end in the autumn of 2017.

### **1.3 Background**

In 1986, DOT&PF completed the Homer Airport Master Plan proposing an on-Airport interior access road and ramp connecting Beluga Lake with the main Homer Airport. In 1992, an EA/FONSI was completed for a project to construct a 25-foot-wide concrete floatplane ramp, a gravel 24-foot x 900-foot access road, and a 50-foot x 50-foot gravel turnaround to Beluga Lake near the vicinity of the FAA non-directional beacon (NDB). The project was never constructed.

The Homer Airport Master Plan was updated in 2006, and a new EA was released covering future near-term projects. In addition to the need for an interior access road and ramp to serve floatplanes, the 2006 Master Plan identified additional needed facilities, such as transient floatplane parking for loading and unloading, emergency rescue facilities adjacent to Beluga Lake, and floatplane slips to provide a safe and secure location for aircraft storage convenient to

the takeoff and landing surface. More than 100 comments were received in response to the draft EA. In March 2011, the FAA adopted only the portion of the EA pertaining to the floatplane facilities improvements, and a draft FONSI was sent to the agencies for review and comment. Due to unresolved conflicts concerning alternative uses of available resources, the project was put on hold.

The DOT&PF is proposing to construct new floatplane haul-out facilities at the Homer Airport. The improvements include a restricted-use access road, turnaround area, and ramp into Beluga Lake. The purpose of the project is to connect the Beluga Lake landing area with the rest of the Airport, improving aircraft access to the Homer Airport for maintenance, fuel, and storage. This is a new EA.

#### **1.4 Airport General Overview**

Homer is located on the north shore of Kachemak Bay on the southwestern edge of the Kenai Peninsula. It is 227 road miles south of Anchorage, at the southernmost point of the Sterling Highway. The Homer census area encompasses 10.6 square miles of land and 14.9 square miles of water. The Homer Airport is located 2 nautical miles east of the center of the city of Homer. The Airport consists of 1,042 acres, with 294 acres designated as a state critical habitat area.

The Homer Airport is operated by DOT&PF. Management of Airport lands was delegated to DOT&PF under an Interagency Land Management Agreement (ILMA) from the State of Alaska Department of Natural Resources (DNR). State legislation in 1996 created the Homer Airport Critical Habitat Area (HACHA), which is managed by the Alaska Department of Fish and Game (ADF&G). The HACHA is under a non-development covenant and an aviation and hazard easement. In the west portion of the airport, 45 acres are leased from the FAA. Portions of the 155-acre Beluga Lake and its shoreline are not owned or controlled by the DOT&PF. The joint-use passenger and cargo terminal at Homer Airport was constructed by and is operated by the City of Homer on land leased from the DOT&PF. The terminal is accessed via FAA Drive.

The 2006 Homer Airport Master Plan states that “the role of the Homer Airport in the national and state airport system is not projected to change over the 20-year planning period. Homer is classified as a Regional Airport by the Alaska Aviation System Plan Update and is projected to remain a Regional Airport in the future.” Homer Airport will also continue to be classified by the FAA as a non-hub primary commercial service airport, which is regulated under 49 CFR Part 139. Regional Airports are defined as public-use airports, heliports, or seaplane bases that serve as an economic or transportation hub for more than one community, as indicated by having at least three of the following characteristics:

- ➔ At least 10,000 annual passenger boardings
- ➔ An air carrier hub
- ➔ A postal hub or more than 2 million pounds of cargo handled annually
- ➔ Scheduled passenger service in aircraft with at least 30 seats
- ➔ Community has a health facility serving two or more communities
- ➔ Primary or secondary fire tanker base

- Community has a Coast Guard air station, air support facility, or forward operating station

The Homer Airport is a public-use airport serving commercial and general aviation (GA) aircraft. Approximately 9 percent of takeoffs and landings occur on Beluga Lake and 91 percent occur at the main Airport. During the summer, approximately fifteen (15) wheeled single-engine airplanes are changed to operate on floats. Homer Airport hosts many recreational flights by transient aircraft in the summer. Beluga Lake has an unmarked 3,000-foot-long x 600-foot-wide water lane and is open to floatplane operations from April 1 to October 1. Operations for the 12 months ending September 30, 2012 showed 10 aircraft based at the Beluga Lake Seaplane Base for the majority of that year. There were 3,300 aircraft takeoffs and landings from Beluga Lake during this time period.<sup>1</sup>

## 1.5 Purpose and Need

The identification of the purpose and need for a proposed action is the primary basis for setting the range of reasonable alternatives. The purpose of the project is to connect the Beluga Lake landing area with the rest of the Airport, improving aircraft access to the Homer Airport for maintenance, fuel, and storage. The project would have a secondary benefit of improving emergency access to Beluga Lake from the main Airport.

As previously mentioned, the need for an access road connecting the Beluga Lake landing area with the rest of the Airport was identified in the 1986 and 2006 Homer Airport Master Plans. The 2006 Master Plan states, “There is no internal road across airport property connecting the Beluga Lake landing area with the rest of the Airport. Without a haul-out ramp and on-airport road, there is no direct route for moving aircraft between Beluga Lake and the main airport area for fueling, maintenance, parking, or seasonal change-overs between floats and wheels or skis. Instead aircraft are hauled on trailers on busy streets, blocking traffic in both directions.”

At present, public roads are the only means of aircraft access between Beluga Lake and the rest of the Airport. Transporting the aircraft on a public road requires operators to obtain an oversize permit. During transport, the road must be closed in both directions, requiring the expenditure of law-enforcement resources. The public roads surrounding the airport provide access to the City of Homer’s main economic, employment, and tourist areas. Transporting aircraft along public roads, such as the Sterling Highway, to the main Airport diminishes the functional integrity of the roadways. Direct access connecting the Beluga Lake landing area and the rest of the Airport is needed to maintain the efficiency of the adjacent public roads.

In order to transport an aircraft on a public road, the aircraft may need to be dismantled. A restricted-use access road is needed to permit aircraft to access fuel, maintenance, and storage without dismantling the aircraft.

The only public access available on Beluga Lake is located west of the Beluga Lake Dam. Operators load and launch aircraft at this location. There is no haul-out/launch ramp. The public access area is adjacent to the Sterling Highway and does not provide adequate space to safely

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<sup>1</sup> Airport IQ 5010 (<http://www.gcr1.com/5010web/>, last accessed 7/18/2014)

load and launch aircraft. Modern floatplane facilities are needed to serve aviation using the Homer Airport.

The project would have a secondary benefit of providing direct access between Beluga Lake and the main Airport, for DOT&PF fire and rescue personnel, improving response time in case of an emergency.

## 2.0 ALTERNATIVES (INCLUDING THE PROPOSED ACTION)

This section describes the Proposed Action's development and operational characteristics and the consideration and evaluation of reasonable alternatives to the Proposed Action.

Many factors are taken into consideration during development of alternatives, including engineering and design requirements, maintenance, accessibility and serviceability to the community, land ownership, cost, potential conflicts with existing land uses, and environmental concerns. Factors taken into consideration in the development of alternatives for this project include:

- ➔ A restricted-use access road across airport property, connecting the Beluga Lake landing area with the rest of the Airport.
- ➔ Avoid encroachment on the Kachemak NDB.
- ➔ A two-way, all-weather access road to provide support and circulation for trailered aircraft. A 26-foot-wide road allows two-way circulation and accommodates the turning paths of the design vehicles. The road would also support rescue and firefighting equipment.
- ➔ A 20-foot-wide launching ramp laid on a sloping shore. The minimum practical width dimension is based on the largest floatplane accommodated plus additional space on either side of the ramp. The overall length of the ramp is determined by the ramp slope and depth of the submerged ramp toe. The slope of the ramp should not be greater than 6:1. The amount of submergence is determined by the maximum draft of the floatplane(s) using the feature.
- ➔ A floating dock approximately 8 feet wide and 30 feet long, sized only for temporary tie-up.
- ➔ A 100-foot-wide wingspan clearance centered on the roadway centerline. A 100-foot-wide clearance is required to accommodate a deHavilland Otter, which has a wingspan of 58 feet. An Otter being hauled on a trailer in the 12-foot drive lane of the access road would be approximately 6 feet from the road centerline. Half of the wingspan, 29 feet, would overhang from the 6-foot trailer position, plus 5 feet for traffic wander, and an additional 10 feet of wingtip clearance totals 50 feet for the minimum clearing limit from the roadway centerline.
- ➔ A turnaround area sized so that: an aircraft operator can haul out their aircraft and have space to secure the aircraft before driving away, while another aircraft operator waits in the roadway to launch their aircraft, and so that: one aircraft operator can turn in and position themselves to launch their aircraft while another finishes launching and prepares to move their vehicle and trailer. It would also allow multiple emergency vehicles to access the area in an emergency situation.
- ➔ A 60-foot-wide electric gate to provide access to and from the main Airport. The gate shall be low enough that aircraft wings can go over the top if necessary.
- ➔ Locating the improvements as close as practicable to the western airport boundary, to minimize habitat fragmentation and visual effects.
- ➔ Avoidance and minimization of impacts to wetlands and Waters of the U.S.

## 2.1 Proposed-Action Alternative

The Proposed-action Alternative consists of the following elements:

### 2.1.1 Development Characteristics

Improvements south of FAA Road at the main Airport include:

- ➔ Construction of 500 feet of 26-foot-wide paved (asphalt) access road, with 100-foot-wide wingspan clearance.
- ➔ Construction of 200 feet of FAA-approved fencing, including two 30-foot-wide single cantilever gates and a 10-foot swing gate.
- ➔ Extension of electric utilities to gate operators.
- ➔ Extension of existing 18-inch corrugated metal pipe (CMP) to maintain existing Airport drainage.
- ➔ Installation of a new 18-inch CMP to maintain flow in existing FAA Road drainage ditch.
- ➔ Construction of relocated driveway.
- ➔ Construction of restricted-access gate and fencing.

Improvements north of FAA Road to Beluga Lake include:

- ➔ Construction of 1,100 feet of 26-foot-wide paved (asphalt) access road, with 100-foot-wide wingspan clearance.
- ➔ Construction of a 147-foot x 76-foot paved (asphalt) turnaround area.
- ➔ Construction of 83 feet of 20-foot-wide concrete plank ramp on a sloping shore, with 3-foot riprap shoulders.
- ➔ Construction of an 8-foot-wide x 30-foot-long floating dock.

Construction of these improvements within cut and fill limits includes excavation, clearing, and grubbing. Aboveground vegetation beyond the cut and fill limits but within the clearing limits would be removed, but no grubbing is proposed. DOT&PF anticipates that the contractor will obtain fill material from a locally permitted site. Necessary permits and clearances will be obtained.

### 2.1.2 Operational Characteristics

The proposed improvements would be used only for trailered floatplane launch and haul out and for emergency access. Taxiing would not be permitted. “Restricted Area” and “No Parking” signs would be posted at the access-road entrance. An “Aircraft Crossing” sign would be posted on FAA Road. No fueling or de-icing would be permitted in this area of the Airport.

### 2.1.3 Permits and Approvals Required

The following permits and approvals would be required for the proposed action:

- ➔ U.S. Army Corps of Engineers (USACE) CWA Section 404 permit for discharge of dredged or fill material into Waters of the U.S., including wetlands
- ➔ State of Alaska Department of Environmental Conservation (DEC) CWA Section 401 Water Quality Certification
- ➔ DEC Alaska Pollutant Discharge Elimination System (APDES) General Permit for Discharges from Large and Small Construction Activities (Permit Number: AKR100000)
- ➔ Modification of Homer Airport Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (2015 MSGP, AKR060000)
- ➔ City of Homer Flood Hazard Area Development Permit
- ➔ Section 106 consultation with the State Historic Preservation Officer (SHPO) and tribes

## 2.2 **No-Action Alternative**

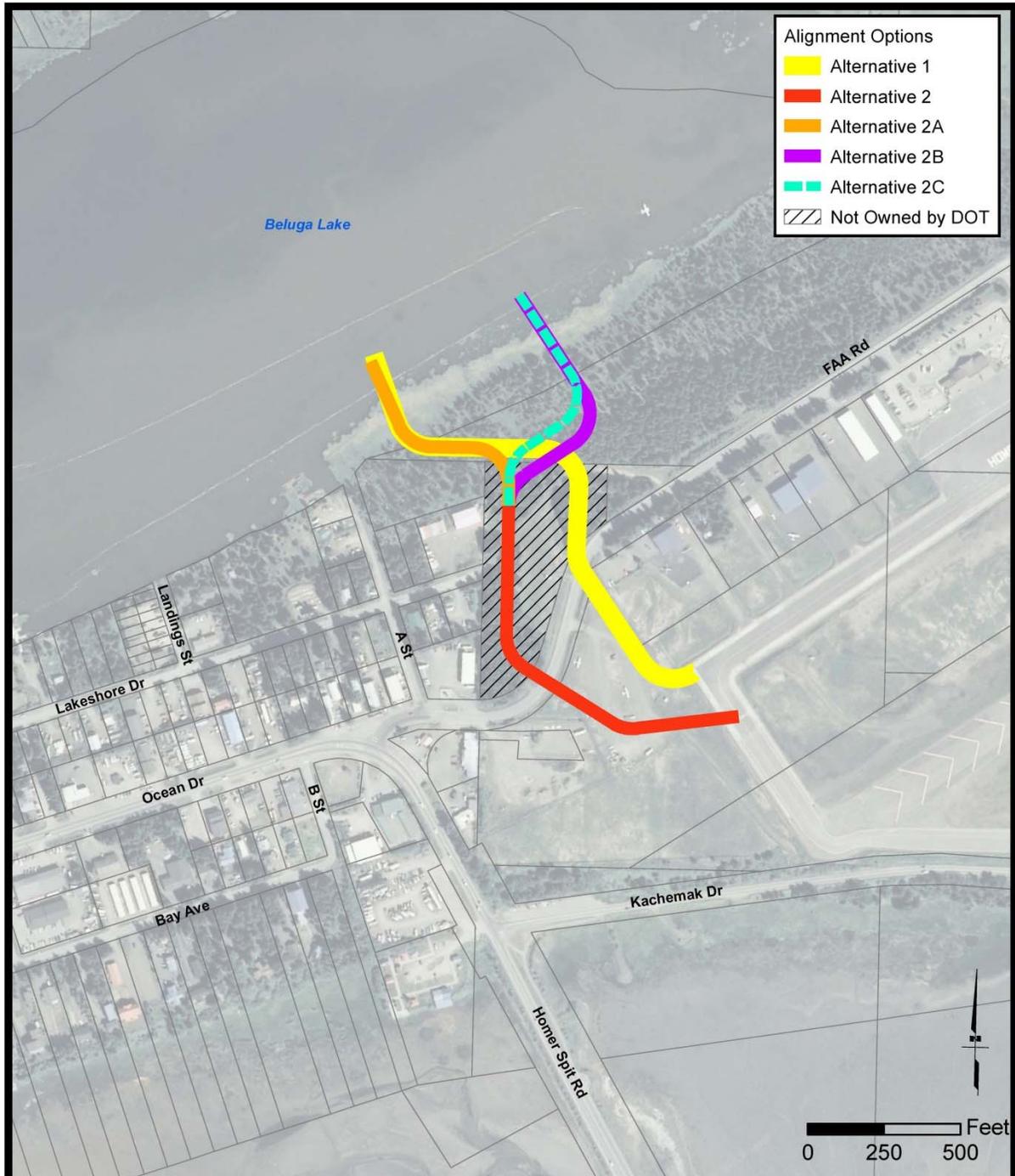
The NEPA requires agencies to consider a “no action” alternative in their NEPA analyses and to compare the effects of not taking action with the effects of the action alternative(s). Under the No-Action Alternative, no improvements would be constructed. The current ALP would not change. There would be no direct access between the Beluga Lake landing area and the rest of the Airport.

## 2.3 **Alternatives Considered and Not Carried Forward for Further Analysis**

This section describes other alternatives considered and eliminated from further environmental analysis. FAA Order 1050.1E, Change 1, paragraph 506.e states that alternatives “... must be reasonable, feasible, and achieve the project’s purpose.” Potential alternatives that would not meet these criteria are eliminated from further consideration.

### 2.3.1 Alternatives 1, 2, 2A, 2B, and 2C

The DOT&PF initially identified five alternate routes for the proposed facilities (Exhibit 2). Each of the five alternatives would have negatively impacted the Kachemak NDB. FAA review of airspace case 2013-AAL-553-NRA resulted in the FAA issuing an objection letter citing negative impacts to the NDB facilities. Because FAA objected to any alternative that would negatively impact the Kachemak NDB, all five alternatives were dismissed.



**Exhibit 2**  
**Alternatives Considered**  
**But Dismissed**

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T 6 S, R 13 W  
 Sections 20 and 21  
 Seward Meridian, Alaska



**STATE OF ALASKA**  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 DOT & PF Project No. Z577770000  
 Homer  
 Beluga Lake Seaplane Base  
 Homer, Alaska

January 28, 2016	EXHIBIT 2
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**Exhibit 2: Alternatives Considered But Dismissed**

### 2.3.2 Alternative 3: 2006 Master Plan “Ultimate Layout” Seaplane Base Improvements

In addition to the need for on-Airport floatplane hauling out facilities, additional needs for shoreline facilities at the Beluga Lake Seaplane Base were identified as a result of public comments during the 2006 Homer Airport Master Plan update. The ALP was updated to include the additional improvements under the Ultimate Layout. The Ultimate Layout Alternative consists of construction of the following improvements:

- ➔ In the southwest corner of Beluga Lake adjacent to Sterling Highway, construct a 15-foot x 150-foot transient floatplane dock, 24-foot x 400-foot access road, and 1,000-square-foot parking area to support temporary mooring and potential (vendor-provided) fueling facilities.
- ➔ Construct a haul-out ramp for floatplanes at Beluga Lake, including a 24-foot x 1,025-foot access road with a 3,000-square-foot parking area. At the same location, provide a boathouse for a rescue boat and a boat used for maintaining weed control. Provide a 30-foot x 440-foot-long dock with 12 slips for locally based floatplanes that is accessible by two (2) 105-foot-long pedestrian gangways. Provide public restroom facilities and vehicle parking near the dock.

Alternative 3 fulfills the purpose and need for the project by connecting the Beluga Lake landing area with the rest of the Airport, improving aircraft access for maintenance, fuel, and storage. In addition, the Ultimate Layout Alternative would provide needed parking and safe loading and unloading areas for transient aircraft. The addition of floatplane slips would expand lease options to local operators to lease dock space for parking. The alternative would provide the ultimate upgrade to the safety and efficiency of floatplane operations.

As previously mentioned in Section 1.3, an EA/FONSI for the Ultimate Layout Alternative was sent to agencies for review and comment in 2011, and, due to unresolved conflicts concerning alternative uses of available resources, the project was put on hold. As a result, Alternative 3 has been dismissed, because it is not a practicable alternative (capable of being implemented).

### 2.3.3 Off-Site Alternatives (Geographic Options, including Changes in Location)

The project is site-specific. There are no practicable off-site alternatives which would provide the facilities necessary to achieve the project’s purpose and need.

### 2.3.4 Use of Other Area Public Airports

There are no practicable other area Airport alternatives that would provide the facilities necessary to achieve the project’s purpose and need.

## **2.4 Alternatives Evaluation**

An EA must present a comparative analysis of the consequences of taking no action, the consequences of implementing the proposed-action alternative, and other reasonable alternatives that fulfill the purpose and need for the action. Only the Proposed-Action Alternative and the No-Action Alternative are carried forward in this analysis. Table 2.4-1 briefly evaluates the Proposed-Action and No-Action Alternatives ability to meet purpose and need and presents the

environmental consequences of the Proposed-Action and the No-Action alternatives in comparative form.

**Table 2.4-1: Alternatives Evaluation**

<b>Purpose and Need</b>	<b>Proposed-Action Alternative</b>	<b>No-Action Alternative</b>
Improve aircraft access for maintenance, fuel, and storage	Connects Beluga Lake landing area with the rest of the Airport	Public roads are used to transport aircraft
Provide restricted-use access for aircraft transport	Provides Access to main Airport without dismantling aircraft	No access to main Airport without dismantling aircraft
Upgrade haul-out facilities	Provides modern floatplane facilities to serve aviation using the Homer Airport	No modern facilities for floatplane launch and haul-out
<b>Environmental Category</b>	<b>Proposed-Action Alternative Environmental Consequences</b>	<b>No-Action Alternative Environmental Consequences</b>
Compatible Land Use and Noise	The project would require a modification to the lease agreement between DOT&PF and the Civil Air Patrol.	No Effect
Section 4(f) Properties	No physical or constructive use.	No Effect
Fish, Wildlife, and Plants	Minor loss of terrestrial and aquatic wildlife habitat and vegetation.	No Effect
Invasive and Noxious Plants	Minimal risk of spreading invasive and noxious plant species.	Existing species may continue to proliferate.
Floodplains	Small amount of fill into Beluga Lake floodplain; no notable adverse impact on the floodplain's natural and beneficial floodplain values.	No Effect
Hazardous Materials	Low risk of encountering hazardous materials during construction.	No Effect
Historic, Archeological, and Cultural Resources	No historic properties present.	No Effect
Natural Resources and Energy Supply	9,712 cubic yards (CY) of fill; small increase in fuel and electric use.	No Effect
Visual Impacts	Minor short- and long-term visual impacts.	No Effect
Water Quality	Increase in impervious surface/stormwater runoff; with Best Management Practices (BMPs)/existing regulations and permits, minimal impacts expected.	No Effect
<b>Environmental Category</b>	<b>Proposed-Action Alternative Environmental Consequences</b>	<b>No-Action Alternative Environmental Consequences</b>
Wetlands and Waters of the U.S.	Impacts to 1.09 acres of wetlands and Waters of the U.S. having minimal adverse indirect effect to maintenance of natural systems supporting fish and wildlife.	No Effect

Although the No-Action Alternative would be the least disruptive alternative in terms of development impacts, it would not provide the facilities necessary to achieve the project's purpose and need. However, for purposes of comparison and to comply with NEPA, the No-Action Alternative is analyzed in detail in this EA.

The DOT&PF has selected the Proposed-Action Alternative as the preferred alternative. It is reasonable, in that it is practicable (capable of being implemented) and provides the facilities necessary to achieve the project's purpose and need. The alternative will provide the best long-term solution to improve aircraft access at the Homer Airport, with minimal environmental impacts, and is fully consistent with local transportation and land-use objectives.

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### 3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes only the potential environmental consequences associated with the No-Action and the Proposed-Action Alternative in accordance with FAA Order 1050.1.E, Change 1. Existing environmental conditions are shown on Figure 2 at the end of this report.

#### 3.1 Non-Issue Impact Categories

Neither the No-Action nor the Proposed-Action Alternative would affect the following resources listed in FAA Order 1050.1E, Change 1:

Air Quality, Coastal Resources, Farmlands, Protected Marine Mammals, Essential Fish Habitat, Light Emissions, Socioeconomic Impacts, Environmental Justice, Children’s Environmental Health and Safety Risks, and Wild and Scenic Rivers.

Justification for the determination of “no impacts” is provided in Appendix B.

#### 3.2 Compatible Land Use and Noise

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
Aviation Safety and Noise Abatement Act of 1979, as amended (49 U.S.C. 47501-47507)	14 CFR Part 150	Federal Aviation Administration

The objective of aviation-related land use planning is to guide incompatible land uses away from the airport environs and to encourage compatible land uses to locate around airport facilities. Land use and zoning is the right and responsibility of local or state governments, not federal agencies. The Kenai Peninsula Borough has the authority to plan and regulate land use throughout the Borough. The Borough has delegated a portion of this authority to the First-Class and Home-Rule Cities of the Borough. City comprehensive plans are prepared by the Cities and are adopted by the City Councils and the Borough Assembly. The City of Homer has assumed the authority to administer city zoning regulations and can amend the land-use elements of their comprehensive plans.

##### 3.2.1 Affected Environment

The Homer Airport contains 1,042 acres, including 294 acres designated as a State Critical Habitat Area. Beluga Lake is included in these lands. Some areas adjacent to the western portion of Beluga Lake are privately owned. The Homer Airport Critical Habitat Area (HACHA) was created by legislation in 1996, from airport lands assigned to DOT&PF from the DNR, to protect and preserve habitat areas especially crucial to the perpetuation of fish and wildlife. A portion of these lands include a non-development covenant, and all of the critical habitat area is under avigation and a hazard easement. The ADF&G manages the HACHA but has not created a management plan. Access to the HACHA is restricted to a designated trail across Airport lands. The ADF&G maintains the trail and a wildlife viewing platform adjacent to the HACHA, under permit from DOT&PF. The Homer Airport is currently zoned General Commercial 2 (GC-2), which allows for commercial and industrial uses and expansion. The City of Homer’s Future

Land Use Plan includes portions of the Airport as CO - Conservation, defined as environmentally sensitive public and private lands with particularly high value for water quality, fish and wildlife, and other open-space uses. The project area does not include any areas designated as CO – Conservation.

Beluga Lake was created from Beluga Slough in 1941 when the Alaska Road Commission authorized a dam and causeway across the slough. Gravel was mined at the mouth of the slough, and a runway was constructed at what is now the airport. After Beluga Slough became a lake, floatplanes began using it. Most of the shoreline of Beluga Lake is undeveloped, except for the southwestern shoreline. Beluga Lake is zoned Open Space Recreational (OSR), which is intended to promote public recreational opportunities while protecting natural and scenic resources. The Homer Comprehensive Plan states that all development proposals in the OSR district will be evaluated in terms of their compatibility with natural hazard and erosion potential and their effect on scenic vistas and public access.

Land use west of the Airport consists of a residential/commercial mix. Several floatplane charter services, adventure tourism, and lodging businesses are located along the southwest shoreline of Beluga Lake. Adjacent to the Airport and Beluga Lake, the current zoning is General Commercial 1 (GC-1). The City of Homer’s future land use plan for this area is GC-1/ Residential, which would allow residential uses, encourage water-dependent uses along Beluga Lake, and encourage small commercial enterprises on Lakeshore Drive. Farther west, the current zoning is R3-Rural Residential (low-density). The future land use element is R2-Transitional Residential, which would allow increased residential density.

East of the Airport and Kachemak Drive are residences sited along the coastline of Kachemak Bay. The current zoning is R3-Rural Residential (low-density). The future land use element is R2-Transitional Residential, which would allow increased residential density. The City has recently installed public water and sewer along Kachemak Bay Drive.

There are no municipal solid-waste landfills in the vicinity of the Airport.

The City of Homer zoning map and future land use map are provided in Appendix C.

### 3.2.2 Existing Land Use and Transportation Plans

The following plans address land management and development in the project area.

#### *3.2.2.1 Homer Comprehensive Plan (2010)*

The Homer Comprehensive Plan is a broad, long-term vision for Homer’s future; policies to guide land use, growth, and development; priorities to improve public facilities and services; and policies to promote economic development.

The Homer Comprehensive Plan states: “It is in the interest of the City of Homer to support a well-maintained and improved airport facility. The airport and related support facilities amount to a vital economic engine that contributes to the local economy. Development decisions near the airport should take into account the externalities that exist with current and future operations.”

Implementation Strategies include:

1. Consider issues such as noise impacts and safety hazards in the permitting or new housing and development near the airport.
2. During the zoning map amendment process discussed in the Land Use Section, consider the relationship of the airport and surrounding development. Evaluate and amend the map accordingly.
3. The City of Homer will participate in planning activities and comment on plans involving maintenance and improvement of the airport.

### *3.2.2.2 Homer Area Transportation Plan (2005)*

The Homer Area Transportation Plan includes diverse considerations to identify goals and objectives to provide access, mobility, and connectivity compatible with other important goals and values within the community. The plan identifies expansion of the Airport as one of nine transportation issues. However, no policies or implementing actions address this issue.

### *3.2.2.3 Homer Non-Motorized Transportation and Trails Plan (2004)*

The purpose of this master plan is to establish a clear vision for the future of trails and trail development in the City of Homer. The plan recommends a 10-foot multiuse path around Beluga Lake (Beluga Lake Trail System) in order to connect the community's planned non-motorized transportation system. The proposed trail is conceptual and does not include detailed planning or public/landowner involvement. The proposed trail around Beluga Lake is not in the Homer Airport Master Plan, has not been permitted by DOT&PF, and would not likely be permitted in the future.

A separated pathway is identified along the east side of the Beluga Slough causeway (Sterling Highway), to provide a safe route for non-motorized transportation between the Central Business District and the Homer Spit. The trail would cross the existing public access used by operators for floatplane launch/haul-out.

FAA Road is identified as a shared bicycle route.

### *3.2.2.4 Homer Climate Action Plan*

The City of Homer formed a Global Warming Task Force (GWTF) in 2007 and developed the Homer Climate Action Plan (December 2007) to provide recommendations to the City Council regarding ways in which Homer can reduce greenhouse gas emissions and reduce the impacts of global climate change on its environment, economy, infrastructure, and future development. The measures and strategies contained in the plan are directed specifically at City operations and have been formulated to help the City meet greenhouse gas emissions' reduction targets of 12 percent by 2012 and 20 percent by 2020.

### *3.2.2.5 Homer Airport Master Plan (2006)*

The Homer Airport Master Plan is a comprehensive study of the airport and describes the short-, medium-, and long-term development plans to meet future aviation demand. The Master Plan is the strategy for the development of the Airport. The Airport Layout Plan (ALP) is an element of the Master Plan. The ALP creates a blueprint for airport development by depicting proposed facility improvements and serves as a record of aeronautical requirements, both present and future, and as a reference for community deliberations on land-use proposals. The Homer Airport Master Plan should be part of the land-use element of the City of Homer Comprehensive Plan.

### *3.2.2.6 Homer Airport Wildlife Hazards Management Plan (2005)*

The Homer Airport Wildlife Hazards Management Plan identifies wildlife that can be hazardous to airport operations and outlines management strategies to mitigate wildlife attractants on or near the airport to help reduce the risk of wildlife strikes. Land uses that attract hazardous wildlife consist of putrescible-waste disposal operations (landfills), wastewater treatment facilities, wetlands, and dredge spoil containment areas.

### *3.2.2.7 Kenai Area Plan (2000)*

The DNR Kenai Area Plan, for Unit 218A- Homer Airport Critical Habitat Area and Unit 218B- Homer Airport and adjacent airport-related lands, identifies public use of Beluga Lake, viewing platforms, and trails for watching wildlife. The DNR recommends that the site be retained in State ownership and managed in a manner consistent with the legislation establishing the HACHA, Homer Airport Plan, and Interagency Land Management Agreements issued to DOT&PF (Appendix C).

### *3.2.2.8 Homer Wetlands Complexes and Management Strategies (Not-Adopted)*

In Homer, after wetlands were mapped and functions and values were assessed, preliminary management strategies were developed to help guide city staff and others in making decisions affecting those wetlands. Although not formally adopted, the Homer Wetland Complexes and Management Strategies (Appendix C) are utilized in reviewing applications for projects affecting Homer wetlands, including USACE 404 wetland permit applications.

### *3.2.2.9 Noise*

The compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of an airport's noise impacts. The FAA conducted a noise study at the Homer Airport in 2009. No residences fall within the areas currently affected by aircraft noise levels in excess of 65 Day-Night Average Sound Level (DNL) and greater. Noise-exposure contours from the 2009 noise study are provided in Appendix C. The existing and future predicted aviation activity at the Homer Airport does not require an updated noise analysis. No noise analysis is needed for proposals involving Design Group I and II airplanes (wingspan of less than 79 feet) in Approach Categories A through D (landing speed less than 166 knots) operating at airports where forecasted operations in the period covered by the EA do not exceed 90,000 annual propeller operations (247 average daily operations) or 700 jet operations

(2 average daily operations). These numbers of GA propeller and jet operations result in DNL 60-decibels (dB) contours of less than 1.1 square miles and extend no more than 12,500 feet from start to takeoff roll. The DNL-65 contour areas would be 0.5 (one-half) square miles or less and extend no more than 10,000 feet from start to takeoff roll. Airport development actions to accommodate fleet-mix changes or the number of aircraft operations, air-traffic changes, or new approaches made possible by new navigational aids are activities that can alter aviation-related noise impacts and affect land uses subjected to those impacts.

### 3.2.3 Environmental Consequences

#### **Significance Threshold**

- ➔ Would the proposed project have land-use consequences, and is it compatible with existing and planned land uses of the area? AND
- ➔ Would the Proposed Action cause new noise-sensitive areas to be located at or above DNL 65 dB or cause existing sensitive and non-sensitive areas to experience a noise increase of at least DNL 1.5 dB, which is the threshold for significant noise impacts?

#### 3.2.3.1 *No-Action Alternative*

The No-Action Alternative would not change the existing land use and zoning in the area.

#### 3.2.3.2 *Proposed-Action Alternative*

The development actions being proposed are confined to existing Airport property. No acquisition of land would be required. The lands are state-owned and managed by DOT&PF under an ILMA. However, a modification to the lease agreement between DOT&PF and the Civil Air Patrol would be required. The project would not disturb existing community infrastructure or land-use patterns or cause any residential or business displacements. The project would not use or occupy lands of the HACHA or Kachemak Bay Critical Habitat Area (KBCHA). The Proposed-Action Alternative would not have land-use consequences and is compatible with existing and planned land uses and with community goals of the area.

Airport development actions to accommodate fleet-mix changes or the number of aircraft operations, air-traffic changes, or new approaches made possible by new navigational aids are activities that can alter aviation-related noise impacts and affect land uses subjected to those impacts. The project would add shoreline facilities to the Beluga Lake landing area where floatplane hauling-out operations would be conducted. Changes in noise exposure resulting from the action would not expand the area within the 65-DNL noise contour to include any noise-sensitive land uses, including residential uses in the future, nor would they result in a 1.5-DNL increase within this contour.

### 3.3 Department of Transportation Act: Section 4(f)

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
Department of Transportation Act of 1966, section 4(f), re-codified as 49 U.S.C. 303(c)		Department of Transportation

Section 4(f) of the U.S. Department of Transportation Act of 1966 (now codified at 49 U.S.C. §303) protects significant publicly owned parks, recreational areas, and wildlife and waterfowl refuges and public and private historic sites. Section 4(f) provides that the Secretary of Transportation may approve a transportation program or project that requires the use of any publicly owned land from a public park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance or land from any privately owned historic site of national, state, or local significance, only if there is no feasible and prudent alternative to the use of such land and the program or project uses all possible planning to minimize harm resulting from the use.

#### 3.3.1 Affected Environment

A Section 4(f) analysis including the identification of Section 4(f) properties in the vicinity of the project and an assessment of the use of these properties resulting from the proposed action is provided in Appendix D. Two areas located on Airport property, the Homer Airport Critical Habitat Area (HACHA) and the Beluga Wetlands Wildlife Viewing Platform, were identified as Section 4(f) resources. Section 4(f) would not apply to Beluga Lake.

#### 3.3.2 Environmental Consequences

##### **Significance Threshold**

- ➔ Would the Alternative impact section 4(f) properties in such a way that the value of the site, in terms of its prior significance and enjoyment, would be substantially reduced or lost?

##### 3.3.2.1 *No-Action Alternative*

The No-Action Alternative would not result in any physical or constructive use of Section 4(f) properties.

##### 3.3.2.2 *Proposed-Action Alternative*

The project would not result in the permanent incorporation of land, temporary occupancy of land, or a constructive use of any Section 4(f) properties. The Alternative would not affect access to any Section 4(f) properties, result in noise-level increases, affect the visual qualities of, or result in an ecological intrusion that would substantially diminish the value of, wildlife habitat, or reduce the wildlife use of a wildlife or waterfowl refuge. The value of the protected properties in the vicinity of the project would not be substantially diminished, reduced, or lost as a result of the project. The impacts of the Proposed-Action Alternative on Section 4(f) properties are below the applicable significance threshold.

### 3.4 Fish, Wildlife, and Plants

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
Endangered Species Act (ESA) of 1973 [16 U.S.C. §§1531-1544] [PL 93-205]	50 CFR Parts 17 and 22; 50 CFR Part 402	U.S. Fish and Wildlife Service
Migratory Bird Treaty Act (MBTA) of 1981 [16 U.S.C. §§703-712]	50 CFR Part 10	Department of the Interior
Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds [66 FR (Federal Register) 3853, January 17, 2001]		
Bald and Golden Eagle Protection Act [16 U.S.C. §§ 668-668c]	50 CFR Part 22	Department of the Interior
Fish and Wildlife Coordination Act of 1958 [16 U.S.C. §§661-666c] [PL-85-624]		U.S. Fish and Wildlife Service

The FAA evaluates potential effects on endangered species (Endangered Species Act), migratory bird activity [Migratory Bird Treaty Act (MBTA)], and fish and wildlife and their habitat.

#### 3.4.1 Affected Environment

##### 3.4.1.1 *Threatened, Endangered, and Candidate Species and Designated Critical Habitat*

Informal consultation with the United States Fish and Wildlife Service (USFWS), initiated on July 31, 2014, determined that the Alaska-breeding population of Steller’s Eider (*Polysticta stelleri*), listed as threatened on the USFWS Threatened and Endangered Species list, regularly occurs along the Homer Spit and in Kachemak Bay during October through April. The proposed project is located on Beluga Lake, which flows into the Beluga Slough and Kachemak Bay. There is no designated critical habitat in the project area.

##### 3.4.1.2 *Migratory Birds and Bald Eagles*

The project area contains habitat suitable for migratory bird stopover, nesting, and foraging and forested riparian areas that could be used for roosting and nesting by bald eagles.

The USFWS identifies species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the ESA, as amended. Migratory Birds of Conservation Concern (BCC) that represent the highest conservation priorities in the vicinity of the project are shown in Table 3.4-1.<sup>3</sup>

<sup>3</sup> USFWS Information, Planning, and Conservation System (IPaC) (retrieved from <http://ecos.fws.gov/ipac/> on 7/24/14)

**Table 3.4-1: Migratory Birds of Conservation Concern**

Species Name	Seasonal Occurrence in Project Area
Arctic Tern ( <i>Sterna paradisaea</i> )	Breeding
Lesser Yellowlegs ( <i>Tringa flavipes</i> )	Breeding
Olive-Sided flycatcher ( <i>Contopus cooperi</i> )	Breeding
Rock Sandpiper ( <i>Calidris ptilocnemis ssp. ptilocnemis</i> )	Migrating
Rufous hummingbird ( <i>selasphorus rufus</i> )	Breeding
Short-billed Dowitcher ( <i>Limnodromus griseus</i> )	Breeding

**3.4.1.3 Wildlife**

The Homer Wetland Complexes, including the HACHA, contain the necessary winter browse and thermal cover critical to the perpetuation of a relatively small local population of moose. From November through April, moose can be observed feeding on dwarf willows and other plants growing in the area or seeking shelter from winds and cold temperatures in the area’s spruce forest. Other mammals that may be seen include black bears, coyotes, and muskrats.<sup>4</sup>

Wetlands on the Kenai Peninsula below the 600-foot contour line (336,267 acres) have been assessed as important winter moose habitat. Within the City of Homer, lands known as the Homer Wetland Complexes (1,713 acres) are considered important winter moose habitat, and management strategies have been developed to conserve this habitat (Appendix C). Although not formally adopted, the strategies are considered by local, state, and federal agencies during project review.

While the project is adjacent to the HACHA and the KBCHA, no part of the project lies within either area.

**3.4.1.4 Fish**

Beluga Lake is not anadromous; however, it likely contains resident fish species. The nearest anadromous water body is Beluga Slough [Anadromous Waters Catalog (AWC) Code 241-12-10100], located approximately 0.50 miles from the project area, downstream of Beluga Lake.

**3.4.1.5 Plants**

There are no known Federal- or State-protected threatened, endangered, or candidate plant species in the project area.

<sup>4</sup> <http://www.adfg.alaska.gov/index.cfm?adfg=homerairport.species>

### 3.4.2 Environmental Consequences

#### **Significance Threshold**

- ➔ Would the Alternative jeopardize the continued existence of federally listed, threatened, or endangered species or result in the destruction or adverse modification of Federally-designated critical habitat?
- ➔ Would the project result in the injury, kill, or capture of migratory birds or eagles or their nests?
- ➔ Would the proposed habitat alteration result in adverse effects to wildlife population dynamics, reproduction rates, or the minimum population size needed to maintain the affected population?

#### *3.4.2.1 No-Action Alternative*

The Alternative does not involve any habitat modification or construction activities and, therefore, would not adversely affect species and habitat protected under the Endangered Species Act, migratory birds, or the population dynamics and sustainability of any wildlife species.

#### *3.4.2.2 Proposed-Action Alternative*

##### *3.4.2.2.1 Threatened and Endangered Species*

On November 1, 2014, the USFWS determined that the Proposed-Action Alternative is not likely to adversely affect species and habitat protected under the Endangered Species Act (Appendix E). A Storm Water Pollution Prevention Plan (SWPPP) would be implemented to minimize the risk of impacts to water quality during construction.

##### *3.4.2.2.2 Migratory Birds and Bald Eagles*

The Alternative would require the permanent alteration of habitat potentially used by migratory birds and bald eagles for foraging and/or breeding. Destruction of active bird nests, eggs, or nestlings that can result from spring and summer vegetation clearing, grubbing, and other site preparation and construction activities would violate the MBTA. To reduce the risk of inadvertent nest destruction, clearing and grubbing would not be permitted within the migratory bird window of May 1 to July 15, except as permitted by Federal, State, and local laws and as approved by the Project Engineer. While there may be an impact on some individual birds, no permanent effects upon the population dynamics or sustainability of migratory bird species are anticipated as a result of the project.

Bald and golden eagles have additional protections that include disturbance. To avoid disturbing nesting bald eagles, DOT&PF, in consultation with USFWS, would maintain distance buffers around nests, maintain landscape buffers around nests, and avoid certain activities during the breeding season. No permanent effects upon the population dynamics or sustainability of eagles are anticipated as a result of the project.

**3.4.2.2.3 Wildlife**

There are no federally listed threatened or endangered upland wildlife species known to occur in the project area. The direct, adverse impacts of the project on general, high-interest, and non-listed sensitive upland wildlife species would include the permanent removal or alteration of habitat. Direct impacts would include temporary displacement of some wildlife individuals from the project area as a result of human presence and noise during construction. The loss of foraging habitat and breeding grounds may have a minor impact on some wildlife individuals but would not affect the population sustainability of any wildlife species occurring in the project area. The Proposed-Action Alternative would result in the conversion of 2.5 acres of moose habitat in the Homer Wetland Complexes to aviation use. This represents 0.15 percent (2.5 divided by 1,713) of the moose habitat identified in the Homer Wetland Complexes (Appendix C).

**3.4.2.2.4 Fish**

The Alternative would require placing fill in Beluga Lake and rock armor along the fill edges, resulting in direct habitat loss, as well as indirect effects to physical processes that shape aquatic habitats and the species that live there. The changes are not expected to alter the function of the remaining habitat or affect what species may use the remaining habitat. Because the area of impact to aquatic habitats is relatively small (compared to their abundance in the project area), the impacts are expected to be minimal. The project would not affect fish passage for resident fish species. A SWPPP would be implemented to minimize the risk of impacts to water quality during construction.

**3.4.2.2.5 Plants**

The number of acres of each land-cover type to be impacted by the project is shown on Figure 3 at the end of this report. The direct adverse effects of the project would include permanent loss of vegetated areas. Indirect adverse effects would include an increased potential for weedy plant species invasion in areas disturbed by project-related construction. Because the area of impact to cover types is relatively small compared to their abundance in the project area, the impacts are expected to be minimal. See Section 3.5 for information regarding noxious and invasive plants.

The impacts of the Proposed-Action Alternative on fish, wildlife, and plants are below the applicable significance thresholds.

**3.5 Invasive and Noxious Plants**

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
Executive Order 13112, Invasive Species (64 FR 6183, February 8, 1999)	U.S. Department of Transportation (DOT) Policy on Invasive Species	Department of the Interior, Commerce, Agriculture, and Transportation

Invasive species are typically recognized as non-native species that, once introduced (accidentally or on purpose), spread beyond control to affect natural and agricultural resources or human health. Not all non-native species are invasive, and many are highly beneficial for agricultural or

ornamental purposes. Invasive weeds are introduced to an area in a variety of ways. Commodities that likely harbor invasive weeds are hay, horticultural plants, imported firewood, gravel, and fill material. Canopy disturbance and opening up empty sites in the soil tend to increase the potential for the spread of invasive species. Recent research indicates that an increase in the rate of non-native plants in Alaska corresponds to the increase in commerce, development, and tourism.

### 3.5.1 Affected Environment

Invasive weeds are managed by a variety of entities in Alaska, including State, federal, borough, private land managers, non-profits, and the general public. The State has prohibited 14 and restricted nine noxious weeds. The University of Alaska Anchorage, Alaska Natural Heritage Program maintains the Alaska Exotic Plants Information Clearinghouse (AKEPIC) that provides geospatial information for non-native plant species in Alaska. These data are primarily intended to support the identification of problem species and infestations, thus promoting early detection and rapid response.

A search of the AKEPIC database identified a total of eight non-native species that have been reported in the project area. Generally, the infestations were identified along FAA Road. They are fall dandelion (*Leontodon autumnalis* L.), orange hawkweed (*Hieracium aurantiacum* L.), reed canarygrass (*Phalaris arundinacea* L. (cultivar)), narrowleaf hawksbeard (*Crepis tectorum*), tall buttercup (*Ranunculus acris* L.), oxeye daisy (*Leucanthemum vulgare* Lam.), butter and eggs (*Linaria vulgaris* P. Mill.), and common comfrey (*Symphytum officinale* L.). The species of highest concern among those listed are reed canary grass and orange hawkweed.

No known aquatic invasive species (including elodea) are present in the project area.

### 3.5.2 Environmental Consequences

#### **Significance Threshold**

- ➔ Is the Alternative likely to cause or promote the introduction or spread of invasive species?

#### 3.5.2.1 *No-Action Alternative*

The existing invasive species would continue to exist and may proliferate under the No-Action Alternative.

#### 3.5.2.2 *Proposed-Action Alternative*

The Proposed-Action Alternative would provide risks and opportunities relative to invasive species. Without avoidance and minimization measures, construction activities could introduce new invasive species to the project site. Invasive species already within the project area could also colonize newly disturbed areas within the project site. These species could also be spread beyond the study area to earth/debris disposal sites, by transport within excavated earth and debris.

The proposed project would not result in a change in operations that would increase the potential for spreading aquatic invasive species.

Measures to control invasive species would be implemented during construction, and, consequently, the Alternative is not likely to introduce or spread invasive species. The impacts of the Proposed-Action Alternative from invasive species are below the applicable significance threshold.

### 3.6 Floodplains

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
Executive Order 11988, Floodplain Management, May 24, 1977 (42 FR 26951)	DOT Order 5650.2, Floodplain Management and Protection	FAA
Appropriate State and local construction statutes	Federal Emergency Management Agency (FEMA) “Protecting Floodplain Resources: A Guidebook for Communities,” 1996	FEMA Appropriate State and local agencies

Executive Order 11988, *Floodplain Management*, directs Federal agencies to take action to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by floodplains. DOT Order 5650.2, *Floodplain Management and Protection*, contains DOT policies and procedures for implementing Executive Order 11988. Agencies are required to make a finding that there is no practicable alternative, before taking action that would encroach on a base floodplain, based on a 100-year flood (7 CFR 650.25).

#### 3.6.1 Affected Environment

The City of Homer sits on high ground above Kachemak Bay, but its distinguishing feature is the Homer Spit, which extends for 4.5 miles into Kachemak Bay. The principal flooding in the City of Homer is caused by storms that generate extreme wave and storm surges in Cook Inlet and Kachemak Bay. Because most of the City of Homer is situated on a hill, the area most susceptible to flooding is the spit. The area around Homer is in a zone that has a relatively high probability of strong earthquakes, which can result in the generation of tsunamis.<sup>5</sup>

On November 6, 2013, FEMA published Flood Insurance Rate Map No. 0201076045C and Map No. 0201076065C (Appendix F). The maps describe the floodplain east of the Homer Airport as Zone VE, which is the flood insurance risk zone that corresponds to the 1-percent annual chance coastal floodplains that have additional hazards associated with storm waves, and the floodplain west of the airport as Zone A, subject to inundation by the 1-percent annual chance flood event. Because detailed hydraulic analyses are not performed for Zone A, no (1-percent annual chance) Base Flood Elevations (BFEs) of base flood depths are available. The proposed project is located within Zone A and encroaches on a 100-year floodplain. The City of Homer participates in the National Flood Insurance Program (NFIP).

<sup>5</sup> Flood Insurance Study, City of Homer, revised Preliminary April 20, 2012

### 3.6.2 Environmental Consequences

#### **Significance Threshold**

- Would the Alternative result in notable adverse impacts on natural and beneficial floodplain values?

#### 3.6.2.1 *No-Action Alternative*

The No-Action Alternative would not include activities or construction within the base floodplain.

#### 3.6.2.2 *Proposed-Action Alternative*

Construction activities within the 100-year floodplain are unavoidable. Occupancy and modification of the floodplain are necessary to meet the purpose and need of the project. The encroachment is minor and will not impact the 100-year flood elevations on Beluga Lake (Appendix F). No significant flood-related impacts, such as considerable probability of loss of human life, future damage of substantial cost or extent, or a notable adverse impact on natural and beneficial floodplain values, would occur as a result of the project.

The impacts of the Proposed-Action Alternative on the floodplain are below the applicable significance threshold.

### 3.7 **Hazardous Materials, Pollution Prevention, and Solid Waste**

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended [42 U.S.C. 9601-9675]	40 CFR Parts 300, 311, 355, and 370	United States Environmental Protection Agency (EPA)
Resource Conservation and Recovery Act of 1976 (RCRA), as amended [42 U.S.C. 6901-6992(k)]		EPA
Executive Order 12088, Federal Compliance with Pollution Control Standards	40 CFR Parts 240-280	EPA

#### 3.7.1 Affected Environment

A Phase I Environmental Site Assessment (ESA) was conducted by ASCG Incorporated in 2004 for all of the projects proposed in the 2006 Draft EA. The DEC Contaminated Sites database was consulted again on March 11, 2011 and on July 16, 2014. A recognized environmental condition (REC) is the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to any release to the environment, (2) under conditions indicative of a release to the environment, or (3) under conditions that pose a material threat of a future release to the environment. Two RECs were identified in the vicinity of the project.

### 3.7.1.1 *On-Site Recognized Environmental Conditions*

- ➔ The Maritime Helicopters site was identified as an area of known petroleum contamination. The 2004 Phase I ESA recommended that more information be obtained regarding groundwater flow and the severity and extent of contamination at the Maritime Helicopters facility site. The Maritime Helicopters site has since been remediated, and no groundwater contamination had occurred. The DEC status of the site is “Clean-up Complete.”
- ➔ The FAA Homer Facility was found to have a release occurring from former heating oil tanks located at Engine Generator Building 600. As of this date, the site has not been remediated; however, the site has a low potential for the presence of low-level contamination, it is limited in extent, and, in 2009, no contamination was detected at concentrations exceeding the default cleanup levels. The DEC status of the site is “Active.”

The 2004 Phase I Site Assessment and additional information regarding Hazardous Waste sites are located in Appendix G.

## 3.7.2 Environmental Consequences

### **Significance Threshold**

- ➔ Would the Alternative generate, disturb, transport or treat, store, or dispose of hazardous waste?

#### 3.7.2.1 *No-Action Alternative*

The No-Action Alternative would not involve construction or ground-disturbing activities, and, consequently, there is no potential for encountering hazardous materials.

#### 3.7.2.2 *Proposed-Action Alternative*

Solid waste in the form of construction debris and degradable materials would be disposed of at local solid-waste facilities. The quantities generated are not expected to be appreciable enough to exceed local disposal capacity.

The action would involve construction work near areas known to have been contaminated. Disturbance in these areas due to construction has the potential to expose buried pollutant sources, possibly introducing them to surface water or groundwater. Should soil or groundwater contamination be encountered during construction, applicable Federal, state, tribal, or local laws or regulations regarding hazardous materials would be followed.

Prevention of pollution stemming from oil products related to construction activities and equipment would be managed under a Hazardous Materials Control Plan (HMCP) developed for the project. Setbacks from water channels and standing water will be maintained for refueling and vehicle maintenance activities, to minimize impacts to the waterbodies from an accidental spill.

The Proposed-Action Alternative is not expected to generate, disturb, transport or treat, or store hazardous waste and meets the significance threshold.

Industrial activities associated with the proposed improvements, such as the fueling and de-icing of aircraft, would be restricted in this area of the Airport. The Homer Airport APDES General Permit for Stormwater Discharges for Multi-Sector General Permit Activity (Multi-Sector General Permit) and SWPPP would be updated to implement control measures to minimize exposure from pollutants associated with the proposed improvements.

### 3.8 Historical, Architectural, Archeological, and Cultural Resources

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
Section 106 of the National Historic Preservation Act (NHPA), as amended, including Executive Order 11593, Protection and Enhancement of the Cultural Environment	36 CFR Part 800	Advisory Council on Historic Preservation State Historic Preservation Officer (SHPO) Tribal Historic Preservation Officer

Section 106 of the NHPA requires Federal agencies to consider the effects of their undertaking on properties on, or eligible for inclusion in, the National Register of Historic Places (NRHP).

#### 3.8.1 Affected Environment

A previous survey was conducted in 2004 for the projects proposed in the 2006 EA (Project No. 54744). The work at Beluga Lake was captured in that consultation under items 11 and 12. On October 11, 2004, the SHPO concurred with DOT&PF findings of “No Historic Properties Affected.” The position of the proposed access road has since been modified. The Area of Potential Effect (APE) was modified to include the project footprint and potential indirect effects, such as the introduction of audible and visual elements. The survey was updated after reviewing the Alaska Heritage Resources Survey (AHRS) library and the Kenai Peninsula Borough parcel data. The buildings on the DOT&PF lease lots within the indirect APE are all less than 45 years in age. A majority of the buildings were constructed after 2000. Based on the previous survey and updated reconnaissance, there are no known historic properties located in the vicinity of the proposed project.

#### 3.8.2 Environmental Consequences

##### **Significance Threshold**

- ➔ Would the Alternative cause any adverse effect(s) upon a property eligible for or listed on the National Register of Historic Places?

##### 3.8.2.1 *No-Action Alternative*

The No-Action Alternative would not construct or alter the project area. There would be no impact(s) to historic properties.

### 3.8.2.2 Proposed-Action Alternative

The DOT&PF, on behalf of FAA, determined that the Alternative would have no effect upon properties on, or eligible for inclusion within, the NRHP. On March 10, 2014, the Ninilchik Traditional Council, Ninilchik Natives Association, Inc., and SHPO were notified of the finding. No comments were received from the tribe or tribal corporation. On March 26, 2014, SHPO concurred with the finding of “No Historic Properties Affected” (Appendix H).

The impacts of the Proposed-Action Alternative on historical, architectural, archeological, and cultural resources are below the applicable significance threshold.

## 3.9 Natural Resources and Energy Supply

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
Executive Order 13123, Greening the Government through Efficiency Energy Management (64 FR 30851)	Not applicable	FAA

Stationary facilities are a source of energy consumption at an airport. Stationary facilities use utility energy to provide cooling, lighting, heat, and hot water to buildings, the airfield, and parking areas. Airport development projects may impact demand for energy by proposing the development of new buildings, runways, taxiways, or other on-airport facilities that could affect energy consumption.

In terms of natural resources, a construction project may require the acquisition of land or require the removal of dirt, rock, or gravel that could deplete or destroy the supply of natural resources such as oil, coal, minerals, or trees.

### 3.9.1 Affected Environment

There are ample natural resources, such as dirt, rock, sand, and gravel, available in the project area for construction of the proposed improvements.

Homer Electric Association provides electric power in the project area. Power is generated from several sources, such as hydroelectric, natural gas, and diesel.

### 3.9.2 Environmental Consequences

#### **Significance Threshold**

- ➔ Would the action’s construction, operation, or maintenance cause demands that would exceed available or future natural resources or energy supplies?

#### 3.9.2.1 *No-Action Alternative*

The No-Action Alternative does not include any new construction, operations, or maintenance which would affect local supplies of energy or natural resources.

### 3.9.2.2 *Proposed-Action Alternative*

The Proposed-Action Alternative would require an increase in energy demand for electricity to operate the proposed access gate. The additional demand would be minimal and would not exceed available energy supplies. The primary natural resources required by the alternative are fill material, such as crushed rock, gravel, and sand, and the petroleum-based fuels needed for construction equipment. Based on an inventory of existing material sources in the area, fill is not in short supply, and the amount required would not exceed the capacity of these sources.

Construction of the Alternative would not require the need for unusual natural resources and materials or those in short supply or have a measureable effect on local supplies of energy. The impacts of the Proposed-Action Alternative on natural resources and energy supply are below the applicable significance threshold.

## 3.10 **Visual Impacts**

Visual or aesthetic effects deal broadly with the extent to which airport development contrasts with the existing environment, architecture, historic or cultural setting, or land use planning.

### 3.10.1 Affected Environment

Scenic quality within the visual project area is the result of a combination of development and natural landscape features. Project area development includes commercial and residential development, including several floatplane charter services and lodgings southwest of the project area, and undeveloped lands northeast of the project area. The shoreline is dominated by regular docks, piers, and slips. The remainder of the landscape surrounding Beluga Lake is a topographically flat narrow grassy estuary, rising to natural forested uplands dominated by white spruce.

### 3.10.2 Environmental Consequences

#### **Significance Threshold**

- ➔ Have consultations with Federal, State, or local agencies, tribes, or the public shown that the effects of the project contrast with the existing environment, and have the agencies stated that the effect(s) is/are objectionable?

#### 3.10.2.1 *No-Action Alternative*

The No-Action alternative does not include any development actions which would add a new sizeable element and/or block views of existing community features (including significant landmarks), open space, or special vistas.

#### 3.10.2.2 *Proposed-Action Alternative*

The visual impacts of the proposed improvements result from the construction of the road, ramp, and turnaround area. Although the improvements may catch the attention of the casual viewer, the low, flat profile of the improvements is consistent with the existing environment and setting. The improvements would not dominate the view.

The visual impacts of the Proposed-Action Alternative are below the applicable significance threshold.

### 3.11 Water Quality

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
Federal Water Pollution Control Act, as amended, known as the Clean Water Act  Safe Drinking Water Act, as amended  Fish and Wildlife Coordination Act of 1980	40 CFR Parts 110-112, 116, 117, 122, 125, 129, 130, 131, 136, and 403	EPA

The Federal Water Pollution Control Act, as amended (commonly referred to as the Clean Water Act (CWA)), provides the authority to establish water quality standards, control discharges, develop waste treatment management plans and practices, prevent or minimize the loss of wetlands, and regulate other issues concerning water quality.

The Fish and Wildlife Coordination Act applies, if a proposed Federal action would impound water within an area greater than 10 acres or divert, drain, control, or otherwise modify the waters of any stream or other body of water. Coordination with the United States Environmental Protection Agency (EPA) must occur, if there is the potential for contamination of an aquifer designated as a sole or principal drinking water resource for the area, as required by Section 1424(e) of the Safe Drinking Water Act, as amended.

#### 3.11.1 Affected Environment

Surface water is the primary source of public drinking water in Homer. The Bridge Creek Reservoir is the principal source of public drinking water. Water from the reservoir is chemically treated, filtered, and distributed to local residents and businesses. The project is located outside the Bridge Creek watershed protection district.

The project is located within the Bear Creek/Beluga Slough watershed, which ultimately drains to Beluga Lake, Beluga Slough, and Kachemak Bay. Per Alaska’s Final 2012 Integrated Water Quality Monitoring and Assessment Report (December 2013), Beluga Lake, Beluga Slough, and Kachemak Bay are listed as Category 3 waterbodies (the DEC has insufficient information to make an attainment or impairment determination). Beluga Lake is a freshwater lake created during construction of the Sterling Highway, which has effectively separated it from the tidal influence of Beluga Slough and the rest of Kachemak Bay.

Stormwater discharges from Homer Airport are regulated under a Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (AKR06AA54) issued by DEC.

### 3.11.2 Environmental Consequences

#### **Significance Threshold**

- Would the Alternative cause a receiving water to exceed water-quality standards or threaten a public-drinking-water supply or water of national significance?

#### 3.11.2.1 *No-Action Alternative*

The No-Action Alternative would not change conditions that could affect water quality standards.

#### 3.11.2.2 *Proposed-Action Alternative*

At the main Airport, two new culverts would be installed at each end of the new access road to maintain existing drainage patterns. The project would not result in the alteration of drainage patterns.

The Proposed-Action Alternative would create 1.35 acres additional impervious surface in the project area, increasing the quantity of stormwater runoff draining to Beluga Lake and reducing the area available for infiltration for groundwater recharge. The additional impervious surface area represents 0.03 percent of the Bear Creek/Beluga Slough watershed. The impact would be minor and is not expected to result in long-term effects to the water quality of surface waters, groundwater, or marine waters.

There are two contaminated sites located in the project area. These are described in more detail in Section 3.7, Hazardous Materials, Pollution Prevention, and Solid Waste. Disturbance of these locations due to construction activities has the potential to expose buried pollutant sources, possibly introducing them to surface water or groundwater.

Short-term direct impacts to water quality could occur during construction, because earthmoving activities could contribute sediments to and increase turbidity in receiving waters. See Section 3.13 for further discussion of construction-related water-quality impacts.

FAA Order 1050.1E Appendix A.17.3 includes the following paragraph with regard to significant-impact thresholds for water quality:

“Water quality regulations and issuance of permits will normally identify any deficiencies in the proposal with regard to water quality or any additional information necessary to make judgments on the significance of impacts. If the EA and early consultation show that there is a potential for exceeding water quality standards, identify water quality problems that cannot be avoided or satisfactorily mitigated, or indicate difficulties in obtaining required permits, an Environmental Impact Statement (EIS) may be required.”

The DOT&PF does not expect extraordinary difficulties obtaining water-quality-related permits (i.e., USACE Section 10 permit, the DEC 401 water quality permit), as the proposed activities are regularly permitted under applicable regulations. Continued use of the existing SWPPP through the APDES Multi-Sector General Permit is expected, as the proposed activities can be incorporated into the SWPPP and are allowed under the APDES permit.

The effects of the Proposed-Action Alternative would not cause a receiving water to exceed water-quality standards or threaten a public-drinking-water supply or water of national significance. The impacts of the Proposed-Action Alternative on water quality are below the applicable significance threshold.

Industrial activities associated with the proposed improvements, such as the fueling and de-icing of aircraft, would be restricted in this area of the Airport. The Homer Airport APDES General Permit for Stormwater Discharges for Multi-Sector General Permit Activity (Multi-Sector General Permit) and SWPPP would be updated to implement control measures to minimize exposure from pollutants associated with the proposed improvements.

### 3.12 Wetlands and Waters of the United States

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
CWA, Section 404	33 CFR Parts 320-330	USACE
Rivers and Harbors Act of 1899, Section 10	DOT Order 5660.1A, Preservation of the Nation's Wetlands	EPA
Executive Order 11990, Protection of Wetlands (May 24, 1977)		FAA

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into Waters of the United States, including wetlands. Section 404 requires a permit before dredged or fill material may be discharged into Waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities).

Section 10 of the Rivers and Harbors Act of 1899 gives the USACE jurisdiction over obstructions to navigation, such as marinas and bulkheads in navigable waters. This jurisdiction extends landward to the Mean High Water (MHW) and to the head of tide on navigable waters.

Executive Order 11990, *Protection of Wetlands*, DOT Order 5660.1A, *Preservation of the Nation's Wetlands*, the Rivers and Harbors Act of 1899, and the CWA address activities in wetlands. Executive Order 11990 requires Federal agencies to ensure that their actions minimize the destruction, loss, or degradation of wetlands and also assure the protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable during the planning, construction, funding, and operation of transportation facilities and projects. DOT Order 5660.1A sets forth DOT policy that transportation facilities should be planned, constructed, and operated to assure protection and enhancement of wetlands.

#### 3.12.1 Affected Environment

In April 2014, DOWL HKM completed a wetland delineation, preliminary jurisdictional determination, and functional value assessment, in accordance with Part IV of the *Wetlands Delineation Manual* (USACE, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0)* (USACE, 2007) (Appendix I). Three distinct freshwater wetland habitat types occur in the project area, 1) Permanently Flooded

Rooted Vascular Aquatic Bed (PAB3H), 2) Saturated Persistent Emergent (PEM1B), and 3) Saturated Broad-Leaved Deciduous Scrub-Shrub/Persistent Emergent (PSS1/EM1B).

The development of wetland conditions requires an intermittent to persistent source of water present at the surface. The predominant source of water for the emergent and scrub-shrub wetlands is from groundwater discharging to the land surface and precipitation. The permanently flooded rooted vascular aquatic bed (vegetative mat) is located below the ordinary high water mark (OHWM) of Beluga Lake. The wetlands are adjacent to Waters of the U.S., including Beluga Lake, and are presumed to fall under the jurisdiction of the USACE.

Wetlands and other Waters of the U.S. provide beneficial functions for people and for fish and wildlife. Functions fall into three basic categories: hydrologic control, water quality, and habitat. The results of the functions and values assessment are shown in Table 3.12-1 below.

**Table 3.12-1: Wetland Functions and Values**

Function(s) and Values	Wetland Type		
	PAB3H	PEM1B	PSS1/EM1B
Flood-Flow Alteration	Moderate	Moderate	Moderate
Sediment Removal	Moderate	Moderate	Moderate
Nutrient and Toxicant Removal	High	High	High
Erosion Control and Shoreline Stabilization	High	N/A	N/A
Production of Organic Matter and its Exports	High	Moderate	Moderate
General Habitat Suitability	Moderate	Moderate	Moderate
General Fish Habitat	Moderate	N/A	N/A
Native Plant Richness	Moderate	Moderate	High
Education or Scientific Value	High	High	High
Uniqueness of Heritage	Low	Low	Low
<b>Overall Functional Rating</b>	<b>Moderate</b>	<b>Moderate</b>	<b>Moderate</b>

Different types of wetlands and Waters of the U.S. may perform different functions, or they may provide the same basic functions but in different ways.

### 3.12.2 Environmental Consequences

#### *Significance Threshold*

FAA Order 1050.1E defines significant impact thresholds for wetlands. According to the Order, a significant impact would occur when the proposed action causes any of the following:

- ➔ The action would adversely affect the function of a wetland to protect the quality or quantity of municipal water supplies, including sole source, potable water aquifers. (Not applicable in this case)
- ➔ The action would substantially alter the hydrology needed to sustain the functions and values of the affected wetland or any wetlands to which it is connected.
- ➔ The action would substantially reduce the affected wetland’s ability to retain floodwaters or storm-associated runoff, thereby threatening public health, safety, or welfare (including cultural, recreational, and scientific resources important to the public or property).

- ➔ The action would adversely affect the maintenance of natural systems that support wildlife and fish habitat or economically-important timber, food, or fiber resources in the affected or surrounding wetlands.
- ➔ The action would promote development of secondary activities or services that would affect the resources.
- ➔ The action would be inconsistent with applicable State wetland strategies (as noted below).

**3.12.2.1 No-Action Alternative**

Under the No-Action Alternative, the wetland habitats within the project area would remain in their current condition, and all functions and values would be retained. No fill would be placed in Beluga Lake.

**3.12.2.2 Proposed-Action Alternative**

The State of Alaska uses Section 401 water-quality certification as the primary mechanism to regulate wetlands and other Waters of the U.S. at the state level. Activities permitted through Section 404 dredge and fill permits that result in discharge into Waters of the U.S. require Section 401 certification from the DEC.

The Proposed-Action Alternative would result in unavoidable direct impacts (areas to be filled) and indirect impacts (trees cut) to wetlands and Waters of the U.S., as shown in Table 3.12-2 and Figure 3 at the end of this report.

**Table 3.12-2: Wetland and Water Body Impacts**

Wetland Type	Function Value	Direct Impacts (Acres)	Indirect Impacts (Acres)
Open Water (Beluga Lake)	High	0.14	-
Rooted Vascular Aquatic Bed (PAB3H)	Moderate	0.35	-
Saturated Emergent (PEM1B)	Moderate	0.08	0.01
Saturated Scrub-Shrub/Emergent (PSS1/EM1B)	Moderate	0.36	0.15
<b>Total Wetlands and Waters of the U.S.</b>		<b>0.93</b>	<b>0.16</b>

The impacts would reduce the quantity of wetlands available in the watershed to perform water quality, flood attenuation, and habitat functions. The consequences would be minor, and this loss of function would not substantially alter the level of function provided by the remaining wetlands.

The Proposed-Action Alternative would result in minor impacts to surface and near-surface natural hydrologic processes. The addition of the access road will cause localized and minor alterations to wetlands immediately adjacent to the road but would not substantially alter the level of function provided by the remaining wetlands. The amount and distribution of fill from the project will not impede groundwater flow or alter its source. Since the wetlands within the project area are groundwater discharge zones, proposed improvements would not result in a measureable loss of groundwater recharge area. Upland development may result in increased

erosion, leading to increased sedimentation, which can alter the chemical and hydrologic regime of the wetlands.

The Alternative would not adversely affect wetland functions, values, the ability to retain floodwater, and/or the system's support of fish and wildlife resources. The impacts of the Proposed-Action Alternative on wetlands are below the applicable significance threshold.

Avoidance, Minimization, and Mitigation Measures:

*Actions to Avoid Adverse Effects*

- ➔ The proposed improvements are designed to connect the Beluga Lake landing area to the rest of the Airport and to avoid impacts to the existing FAA underground directional beacon and are situated as near as practicable to the western Airport property line. The proposed alignment represents the least environmentally damaging practicable alternative.

*Actions to Minimize Adverse Effects*

- ➔ Section 2.0 of this EA discusses the minimum engineering and design requirements for the proposed project. Because the project requires 100-foot-wide clearing limits centered on the roadway centerline to accommodate aircraft wingspan, this is considered the minimum practicable size or area to be developed.
- ➔ To prevent erosion or failure of fill embankments after discharge, mechanical (structural) and/or vegetative resistive measures have been incorporated into the project design. Loose fill will be applied in lifts not to exceed 12 inches and thoroughly compacted before more material is added. Smooth and even grading of the slope surface will enhance aesthetics and will also improve the ability to establish good vegetative cover and maintain it. This will reduce concentration of runoff on slopes and promote sheet flow, which is less erosive and enhances infiltration of water needed for plant growth. 4:1-slope grades are proposed for fill slopes to reduce the potential for erosion. Mechanical riprap revetment will be utilized on ramp fill slopes to protect them from erosive forces. Geotextiles (permeable synthetic materials) would be incorporated into the design to protect and filter soils and/or to increase the strength of the soil profile.
- ➔ Project boundaries shall be staked, flagged, or otherwise clearly delineated prior to the commencement of the authorized activity that involves the placement of fill. Embankment fill material will be stockpiled within the project-fill footprint or upland areas of the Airport to minimize impacts to wetlands.
- ➔ Heavy equipment working in wetlands will be placed on mats, or other measures will be taken to minimize soil disturbance.
- ➔ Disturbed areas shall be stabilized immediately after construction to prevent erosion. Revegetation of the site shall begin as soon as site conditions allow and in the same growing season as the disturbance, unless climatic conditions warrant additional time and it is approved by the USACE. Native vegetation and soils removed for project construction shall be stockpiled separately and used for site rehabilitation. If soil and/or organic materials are not available from the project site for rehabilitation, other locally obtained native materials may be used. Species to be used for seeding and planting shall

follow this order of preference: 1) species native to the site; 2) species native to the area; 3) species native to the State. Revegetated areas eventually shall have enough cover to sufficiently control erosion without silt fences, hay bales, or other mechanical means.

- All construction activities would be conducted according to the APDES Construction Storm Water General Permit. The DOT&PF would prepare (and provide the contractor with) an Erosion and Sediment Control Plan (ESCP). The contractor would be required to prepare a SWPPP and HMCP and submit them to DOT&PF for approval prior to construction. The SWPPP would identify all receiving waters and specify the structural and procedural BMPs to be utilized during construction to minimize erosion and to minimize untreated runoff from reaching nearby waterbodies.
- An HMCP for prevention of pollution that stems from the storage, use, containment, cleanup, and disposal of hazardous material, including oil products related to construction activities and equipment, will be developed for the project. Setbacks from water channels and standing water will be maintained for refueling and vehicle maintenance activities, to minimize impacts to the waterbodies from an accidental spill.

### *Mitigation*

The Department of Defense 33 CFR Part 332 and the EPA 40 CFR Part 230 - Compensatory Mitigation for Losses of Aquatic Resources Final Rule emphasize a watershed approach in selecting compensatory mitigation, apply equivalent standards to permittee-responsible compensatory mitigation, mitigation banks, and in-lieu fee mitigation to the maximum extent practicable, and establish a preference hierarchy for the type and location of compensatory mitigation. 33 CFR Part 332.3(b) and 40 CFR Part 230.93(b) direct the district engineer to consider the type and location options in the following order: 1) mitigation bank credits, 2) in-lieu fee program credits, and 3) permittee-responsible mitigation. The proposed action is not located within the service area of a wetland mitigation bank; therefore, purchasing mitigation bank credits is not an option. The Alaska In-Lieu Fee (AKILF) Program is an in-lieu fee program that operates across all of Alaska. As compensatory mitigation for unavoidable impacts to Waters of the U.S., including wetlands, DOT&PF's first preference is to purchase mitigation credits from the AKILF program sponsor, The Conservation Fund (TCF). The required amount of mitigation credits would be based on a ratio to be determined by DOT&PF, through coordination with the USACE. The proposed purchase of in-lieu fee program credits would be consistent with the preference hierarchy in the compensatory mitigation regulations. Acquisition and preservation of land through an AKILF payment would be the preferred form of mitigation, because it would provide long-term preservation of the functions and values of high-quality habitat that are related to those resources that would be impacted. If in-lieu fee credits are not available, DOT&PF would propose permittee-responsible mitigation.

#### *3.12.2.2.1 Wetlands Only Practicable Alternative Finding*

##### *Unavoidable Impacts*

Per 40 CFR 230.10(a), no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

1. For the purposes of this requirement, practicable alternatives include, but are not limited to:
  - a. Activities that do not involve a discharge of dredged or fill material into Waters of the United States or ocean waters
  - b. Discharges of dredged or fill material at other locations in Waters of the United States or ocean waters
2. An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant that could reasonably be obtained, utilized, expanded, or managed in order to fulfill the basic purpose of the proposed activity may be considered.
3. Where the activity associated with a discharge, which is proposed for a special aquatic site (as defined in subpart E) and includes sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffle and pool complexes, does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not “water-dependent”), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge that do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.

The purpose of the project is to connect the Beluga Lake landing area with the rest of the Airport, improving aircraft access for maintenance, fuel, and storage.

The proposed action is water-dependent, and impacts to Waters of the U.S., including wetlands, are unavoidable. There is no practicable alternative that would not involve a discharge of dredged or fill material into Waters of the U.S. and/or special aquatic sites.

Section 2.0 of this EA discusses the minimum engineering and design requirements for the proposed project. Because the project requires a 100-foot-wide wingspan clearance centered on the roadway centerline to accommodate aircraft wingspan, this is considered the minimum practicable size or area to be developed.

The proposed layout is designed to connect the Beluga Lake landing area with the rest of the Airport while avoiding the existing FAA underground directional beacon. The location of the improvements is situated as near as practicable to the Airport’s western property line. The layout represents the least environmentally damaging practicable layout.

The *Draft* Alternatives Analysis above concluded that there are no practicable alternatives to the Proposed-Action Alternative. The project is site-specific. Wetland loss is unavoidable, due to the fact that there are no contiguous upland areas between Beluga Lake and the rest of the Airport. It is DOT&PF’s opinion that the Proposed-Action Alternative is the least environmentally damaging practicable alternative (LEDPA) that would meet the overall project purpose.

### 3.13 Construction Impacts

Construction impacts, as defined under FAA Order 1050.1E, can involve a wide range of potential impact categories, including air quality, water quality, hazardous materials, construction noise, and local traffic patterns. The FAA is mandated to ensure compliance with 40 CFR Part 122, National Pollution Discharge Elimination System (NPDES). FAA Order 1050.1E requires, at a minimum, the incorporation of the construction guidance found within FAA AC 150/5370-10, *Standards for Specifying Construction of Airports*, and using BMPs.

#### 3.13.1 Affected Environment

Please refer to applicable sections of Section 3 for details on the affected environment and long-term impacts of the construction impact categories.

#### 3.13.2 Environmental Consequences

##### **Significance Threshold**

- ➔ Would the alternative meet or exceed the threshold for the other impact categories as a result of construction?

##### 3.13.2.1 *No-Action Alternative*

No construction impacts would be associated with the No-Action Alternative.

##### 3.13.2.2 *Proposed-Action Alternative*

Construction impacts generally correlate to the area of disturbance. The construction-site area to be disturbed is approximately 3.0 acres, and the total project area is 4.14 acres (includes 100-foot-wide clearing limits).

##### 3.13.2.2.1 *Air Quality*

Temporary construction emissions from equipment, dust, or burning debris would occur but would be minimized with the implementation of BMPs. Construction emissions are not expected to exceed the National Ambient Air Quality Standards (NAAQS), because they are temporary in nature and short in duration.

##### 3.13.2.2.2 *Noise*

Project construction would intermittently generate high noise levels on, and adjacent to, the site, but they would be minimized with the implementation of BMPs. Noise levels would be temporary in nature and short in duration.

##### 3.13.2.2.3 *Water Quality*

Temporary construction water-quality impacts would be addressed through the APDES program. Through BMPs implemented under the APDES program, temporary impacts to water quality will not be significant.

#### 3.13.2.2.4 *Wetlands*

To protect wetlands from alteration or degradation during project construction, the following measures would be utilized to minimize potential harm.

Project boundaries shall be staked, flagged, or otherwise clearly delineated prior to the commencement of the authorized activity that involves the placement of fill. Embankment fill material will be stockpiled within the project-fill footprint or upland areas of the Airport, to avoid impacts to wetlands.

Site preparation, excavation, and fill placement shall be conducted in a manner that prevents adverse hydrologic effects. Natural drainage patterns shall be maintained, using appropriate ditching, culverts, storm drain systems, and other measures, to prevent ponding or drying.

Heavy equipment working in wetlands will be placed on mats (or other measures will be taken), to prevent soil disturbance.

Disturbed areas shall be stabilized immediately after construction to prevent erosion. Revegetation of the site shall begin as soon as site conditions allow and in the same growing season as the disturbance, unless climatic conditions warrant additional time and it is approved by the USACE. Native vegetation and soils removed for project construction shall be stockpiled separately and used for site rehabilitation. If soil and/or organic materials are not available from the project site for rehabilitation, other locally obtained native materials may be used. Species to be used for seeding and planting shall follow this order of preference: 1) species native to the site, 2) species native to the area, 3) species native to the State. Revegetated areas eventually shall have enough cover to sufficiently control erosion without silt fences, hay bales, or other mechanical means.

All construction activities would be conducted according to the APDES Construction Storm Water General Permit. The DOT&PF would prepare (and provide the contractor with) an ESCP. The contractor would be required to prepare a SWPPP and HMCP and submit them to DOT&PF for approval prior to construction. The SWPPP would identify all receiving waters and specify the structural and procedural BMPs to be utilized during construction to prevent erosion and to prevent untreated runoff from reaching nearby waterbodies.

A HMCP for prevention of pollution that stems from the storage, use, containment, cleanup, and disposal of hazardous material, including oil products related to construction activities and equipment, will be developed for the project. Setbacks from water channels and standing water will be maintained for refueling and vehicle maintenance activities, to avoid impacts to the waterbodies from an accidental spill.

#### 3.13.2.2.5 *Hazardous Materials*

Construction activities associated with the Proposed Action are not anticipated to create hazardous waste/materials. There are two known hazardous-waste sites located in close proximity to the proposed construction limits; however, the potential to encounter hazardous waste is low. Detailed BMPs regarding hazardous materials would be outlined in a site-specific HMCP, which is a required part of the contractor's SWPPP. If contamination is encountered

unexpectedly during construction activities, the DEC would be notified, and the response efforts would be handled in accordance with a DEC-approved Corrective Action Plan.

### 3.13.2.2.6 *Traffic and Accessibility*

During construction, motorists and pedestrians would experience some traffic delays and detouring. Further delays would occur as construction trucks and equipment use local streets. Access to all businesses and residences will be maintained to the extent practical.

The impacts of the Proposed-Action Alternative from construction activities would not result in an exceedance of the applicable significance threshold for any resource category.

## 3.14 Cumulative and Secondary Effects

Applicable laws and regulations for this resource category include:

Statute	Regulation	Oversight Agency
40 CFR Section 1508.7		Council on Environmental Quality

A cumulative effects analysis identifies other projects past, present, and planned that have or are expected to have impacts in the same area as the Proposed-Action Alternative. Such projects include actions undertaken at the Airport, as well as notable development undertaken in the Airport environs. While they may be minor when viewed in the individual context of direct effects, they can add to the effects of other actions and eventually lead to measureable or even significant and adverse environmental change.

The Proposed-Action Alternative is expected to contribute to an incremental loss of wetlands and important winter moose habitat and to an incremental increase in impervious surface coverage.

### 3.14.1 Past Actions

Since the time an airplane runway was first built in Homer, before 1938, facilities have been expanded and improved as activity levels have increased. During World War II, the small airstrip that existed at Homer was lengthened to 4,900 feet, widened to 100 feet, and paved. Landside facilities were located northwest of the runway. In 1958, the State of Alaska assumed ownership and management of the Airport from the federal government. During the 1960s and 1970s, the runway was lengthened and widened, aircraft parking aprons and access taxiways were added, airport support buildings were constructed, and lease lots were expanded. Kachemak Drive was rerouted around the airport. An airport master plan was completed in 1985 and published in 1986. Nineteen (19) major improvements recommended in the master plan were addressed in an EA in 1992, and many of the improvements have been completed. In the mid-1990s, the north side of the runway was developed with an air-carrier apron, lease lots, and a new terminal building. The joint-use terminal was designed to accommodate multiple airlines and replaced several individual airlines' facilities. The replaced buildings located on the south side of the runway were demolished. Two major projects included in the 1992 EA have not been completed. One was the construction of an access road to Beluga Lake, to allow aircraft transfer and rescue-boat access. The second project was a partial parallel taxiway on the south side of the

runway. Table 3.14-1 below lists the capital improvements funded by AIP grants and the DOT&PF over the last 20 years:

**Table 3.14-1: Past Homer Airport Capital Improvements**

Year	Project Description
1985	Land; construct apron (4,500 square yards); runway bituminous friction seal (150 feet x 7,500 feet); fencing (3,300 linear feet); marking
1985	Construct and pave apron (350 feet x 900 feet); construct, pave, and mark taxiway (90 feet by 550 feet); install medium-intensity taxiway lighting and apron lights; construct access road (28 feet x 3,100 feet)
1986	Install 19,928 linear feet of eight-foot-high chain-link fence; install two 24-foot cantilever gates, two 12-foot cantilever gates, and one 40-foot double cantilever gate
1987	Acquire Crash/Fire/Rescue vehicle
1991	Acquire Crash/Fire/Rescue vehicle
1994	Terminal Building
1996	Rehabilitate Runway 3/21; improve runway safety area; relocate Approach Lighting System; Install High-Intensity Runway Lights
1998	Acquire Snow-Removal Equipment
1999	Acquire 1,500-gallon Aircraft Rescue and Fire Fighting (ARFF) vehicle
2000	Construct Sand-Storage Building
2000	Rehabilitate taxiway and apron

Source: Homer Airport Master Plan, May 2006

Impacts from past actions are as follows:

Wetland Impacts = Unknown\*  
 Increased Impervious Surface Coverage = Approximately 11.3 acres\*\*

\*Information regarding impacts to wetlands from past actions is not available.

\*\*Based on the information provided in Table 3.14-1

### 3.14.2 Present Actions

The following project is located adjacent to the Airport and Beluga Lake, and construction is expected to occur in generally the same timeframe as the Proposed-Action Alternative:

Kenai Peninsula Parcel Number 17919301 - a project to construct a storage yard for storage of boats, trucks, vans, commercial equipment, fishing equipment, and construction equipment is proposed adjacent to the airport, west of the proposed floatplane haul-out facilities. The proposed work is to place 3,000 cubic yards (CY) of clay, 5,500 CY of pit run gravel, and 1,500 CY of 1 1/2-inch minus gravel into 1.7 acres of Waters of the U.S., including wetlands. In addition, a 50-foot x 80-foot building would be constructed on the proposed fill, and a 20-foot x 50-foot sediment pond would be constructed at the northwest corner of the lot. All vegetative material would be cleared off the property and disposed of at a gravel pit on Kenai Peninsula Parcel Number 165-250-64. Impacts from present actions are shown below:

Wetland Impacts = 1.7 acres\*  
 Increased Impervious Surface Coverage = None\*

\*Based on the project description above

### 3.14.3 Reasonably Foreseeable Actions

The Homer Airport Master Plan was updated in 2006, resulting in the following near-term needs being identified:

#### *Main Airport Improvements*

- ➔ Construct a full-length parallel taxiway north of the runway with four connecting taxiways. The parallel taxiway would be 6,700 feet long and 50 feet wide, with 20-foot-wide shoulders and a 118-foot-wide taxiway safety area (approximately 16.5 acres). The taxiway will have medium-intensity edge lighting.
- ➔ Remove obstructing terrain (approximately 63,000 CY from approximately 5.4 acres) and 13 additional trees at the approach end of Runway 21 in preparation for the future installation of the Instrument Landing System (ILS) approach planned for Runway 21
- ➔ Connect the apron north of Runway 3-21 to the threshold with a new 50-foot-wide x 500-foot-long (2.2-acre) taxiway (Taxiway C North)
- ➔ Construct a 0.8-acre public-use heliport and access road where the gravel Beacon Tie-down Area is now
- ➔ Construct a partial parallel taxiway south of the runway. This taxiway will be 800 feet long x 35 feet wide with 10-foot-wide shoulders (approximately 2.4 acres). The taxiway will connect the new and existing GA aprons with the runway.
- ➔ Construct a 30-space (0.4-acre) paved vehicle parking lot for tie-down users, to be located south of the runway and north of Kachemak Drive
- ➔ Construct a new 7,500-square-foot, two-story Airport rescue and firefighting and snow removal equipment (ARFF/SRE) facility (1.2 acres) with 1,500 square feet available on the upper floor. The facility will include five bays for equipment and support areas on the ground floor. Public restrooms will be provided in the building for use by GA pilots and their passengers. Associated construction will include a new access road (0.4 acres) from Kachemak Drive to the facility and vehicle parking for building employees, visitors, and users of the adjacent aircraft tie-downs. The access road will be situated so that there is a development buffer from Lampert Lake. Projects will avoid development within 100 feet of the lake's OHWM, to the extent practicable to do so.
- ➔ Construct a 900-foot x 300-foot (approximately 7.3 acres) paved apron for wheeled GA aircraft parking. Construct a new apron area next to the proposed ARFF/SRE facility, so that it is accessible from both sides of the fence. The new fencing will match both the type and height of the existing security fence.
- ➔ Replace and relocate the current rotating beacon now located on the northwest end of the runway to the south side of the runway on top of the roof of the new ARFF/SRE facility.

#### *Beluga Lake Seaplane Base Improvements*

- ➔ Construct a 15-foot-wide x 150-foot-long transient floatplane dock and a 24-foot-wide x 400-foot-long access road with a 1,000-square-foot parking area to support temporary mooring and potential (vendor-provided) fueling facilities, involving approximately 0.6 acres of ground disturbance and approximately 0.5 acres of vegetative mat removal.

- ➔ Construct a haul-out ramp for floatplanes at Beluga Lake, including a 24-foot-wide x 1,025-foot-long access road with a 3,000-square-foot parking area. At the same location, provide a boathouse for a rescue boat and a boat used for maintaining weed control. Provide a 30-foot-wide x 440-foot-long floating dock with 12 slips for based floatplanes that is accessible by two 105-foot-long pedestrian gangways. Provide public restroom facilities and vehicle parking near the dock. These improvements would involve approximately 2.6 acres of ground disturbance and approximately 0.3 acres of vegetative mat removal.

It was estimated that the necessary near-term airport improvements would impact approximately 37 acres of wetlands. The improvements would cover needed airport improvements through 2023. Impacts from reasonably foreseeable actions, including the Proposed Action, are shown below:

Wetland Impacts	=	37 acres
Increased Impervious Surface Coverage	=	22.3 acres

#### 3.14.4 Cumulative Effects Analysis

The projects considered for cumulative effects consideration include those projects on (or within the immediate area of) the Airport property, because they are within the potential impact zone of the proposed floatplane facilities improvements. The resources subject to the cumulative impact analysis are resources regarding which the project could cause direct or indirect impacts.

The cumulative effect of past, present, and reasonably foreseeable actions in the project area from 1985 to 2023 is estimated below:

Wetland Impacts	=	38.7 acres
Increased Impervious Surface Coverage	=	33.6 acres

##### 3.14.4.1 *Wetlands*

Cumulative effects of the proposed improvements, together with past, present, and reasonably foreseeable actions in the project area, would directly impact approximately 38.7 acres of wetlands.

The cumulative wetland impacts represent 2.26 percent (38.7/1,713) of the wetlands mapped in the Homer Wetland Complexes. All but 1.7 acres of the impacts are located on Airport property. There are no practicable alternatives to development on airport property that would not result in impacts to wetlands.

All identified actions would be subject to Section 404 permit approval, including mitigation. For these reasons, no substantial cumulative impact to wetland functions is anticipated.

#### 3.14.4.2 *Water Quality*

Activities and events that could occur with the creation of new impervious areas are increased stormwater runoff and increased pollutant discharge into wetlands and Waters of the U.S. In addition to the proposed floatplane facilities' improvements, other reasonably foreseeable Airport development and other actions in the vicinity of the airport would create additional impervious surfaces that could affect water quality. All projects are subject to existing and future water quality protection measures outlined in the APDES permit for the Airport and to the oversight of various federal agencies and to their permitting. For these reasons, no substantial cumulative effects to water quality are anticipated.

#### 3.14.4.3 *Winter Moose Habitat*

Wetlands complexes in the project area are considered important winter moose habitat. The limited loss of habitat from past, current, and future projects, when combined with the minimal habitat loss proposed under this project, would not be anticipated to affect the resiliency of the surrounding wildlife and vegetative habitats.

#### *Secondary Effects*

The Proposed-Action Alternative will be constructed on existing airport property. The action is not expected to have growth-inducing effects or other effects related to induced changes in the pattern of land use, population density, or growth rate and related effects on air and water and other natural systems, including ecosystems.

The cumulative and secondary impacts of the Proposed-Action Alternative to wetlands, water quality, and moose habitat together would not yield significant impacts. All identified actions involving wetlands would be subject to Section 404 permit approval by the USACE. Development of impervious surfaces would create additional stormwater runoff. Mitigation measures for stormwater runoff control would be provided through implementation of appropriate BMPs. Future development would be required to meet water-quality permit requirements and to conduct necessary required studies; therefore, no significant cumulative impacts would be expected. The proposed project would impact a very small area, 2.5 acres, of designated moose habitat. The impacts would not be significant, due to the relative abundance of the vegetated cover types in the surrounding area and the small amount of habitat affected relative to the overall habitat types.

## **4.0 MITIGATION AND SUMMARY OF ENVIRONMENTAL COMMITMENTS**

The mitigation measures and commitments below would be met to minimize impacts during and after construction of the proposed project. The terms, conditions, and stipulations of the environmental permits and clearances will also be met. All commitments will be part of the construction contract specifications.

### **4.1 Mitigation**

Compensatory mitigation for impacts to wetlands and Waters of the U.S. would be made through payment of an in-lieu fee to the Conservation Fund or through the provision of permittee-responsible mitigation. The DOT&PF's preference is to purchase in-lieu fee credits; however, if they are unavailable, DOT&PF would propose permittee-responsible mitigation (see Section 3.12.2.2).

### **4.2 Environmental Commitments**

#### **4.2.1 Air Quality**

Measures to control fugitive dust, such as pre-watering sites prior to excavation, covering or stabilizing material stockpiles, covering truckloads, removing particulate matter from wheels prior to leaving the construction site, and removing particulate matter deposited on public roads, will be implemented during construction. No vehicles, trucks, or heavy equipment would be allowed to idle unnecessarily, and they would be routinely maintained and serviced.

#### **4.2.2 Noise**

Measures to control construction noise, such as equipping construction-equipment engines with adequate mufflers, intake silencers, and engine enclosures and limiting the timing of the noisiest construction activities, will be implemented during construction. The contractor would be required to comply with local noise ordinances. The public would be notified in advance of construction activities.

#### **4.2.3 Traffic and Accessibility**

Advance notice of construction and detours will be provided to Airport users. Haul routes will be planned to avoid and minimize impacts to Airport users and local residents. Construction activities will be staged to minimize delays to aircraft or passengers.

#### **4.2.4 Fish, Wildlife, and Plants**

A survey will be conducted to evaluate the presence of active bald-eagle nests within the project area. Should any eagles be found nesting in the area of the project, USFWS guidelines and recommendations to avoid and minimize negative impacts to eagles would be implemented.

Clearing and grubbing is not permitted within the migratory bird window of May 1 to July 15, except as permitted by federal, State, and local laws and as approved by the Project Engineer.

The DOT&PF will comply with all federal, State, and local laws and regulations regarding invasive species during construction of the proposed project, to minimize the potential to introduce or spread invasive species.

Soil stabilization materials, top soils, and seed mixes that are free from noxious weeds will be used. If these materials are not available, locally produced products will be used to minimize potential importation of new weed propagules from outside Alaska.

#### 4.2.5 Hazardous Materials, Pollution Prevention, and Solid Waste

The construction contractor will be required to prepare and implement a HMCP in accordance with DEC requirements and DOT&PF contract specifications to address storage and handling of hazardous materials, including fuel and lubricants and spill response.

All construction waste would be managed and disposed of in accordance with all State and federal solid-waste-management laws and regulations.

In the event that contaminated soil or groundwater is encountered during construction, the contractor shall notify the DOT&PF Project Engineer, who may then contact the Environmental Division, and all work shall stop until coordination with the DEC in accordance with 18 Alaska Administrative Code 75.300 has been completed. All contamination will be handled and disposed of in accordance with a DEC-approved corrective action plan.

#### 4.2.6 Historic, Architectural, Archeological, and Cultural Resources

If unanticipated historic, cultural, or archeological resources are discovered during construction, all work that may impact these resources shall stop immediately, and the contractor shall notify the DOT&PF Project Engineer, who will then contact the Environmental Division. Work will not resume at these sites until a Section 106 consultation is conducted with the FAA and the SHPO.

#### 4.2.7 Water Quality

All construction activities would be conducted according to the APDES Alaska Construction General Permit (ACGP). The DOT&PF would prepare and provide the contractor with an ESCP. The contractor would be required to prepare a SWPPP and HMCP and submit them to the DOT&PF for approval prior to construction. The SWPPP would identify all receiving waters and specify the structural and procedural BMPs to be utilized during construction to prevent erosion and to prevent untreated runoff from reaching nearby waterbodies.

All vehicles, trucks, and heavy equipment would be kept within construction limits and operated in a manner that limits unnecessary ground disturbance. Equipment would be routinely inspected and serviced to prevent leaks and accidental spills. The SWPPP would also include a HMCP that includes established procedures for responding to accidental spills. If leaks or spills should occur, all contaminated material and soils would be contained and disposed of off-site in an approved location.

#### 4.2.8 Wetlands

Project boundaries shall be staked, flagged, or otherwise clearly delineated prior to the commencement of the authorized activity that involves the placement of fill. Embankment fill material will be stockpiled within the project-fill footprint or upland areas of the Airport to avoid impacts to wetlands.

Site preparation, excavation, and fill placement shall be conducted in a manner that prevents adverse hydrologic effects. Natural drainage patterns shall be maintained using appropriate ditching, culverts, storm drain systems, and other measures to prevent ponding or drying.

Heavy equipment working in wetlands will be placed on mats, or other measures will be taken to prevent soil disturbance.

Disturbed areas shall be stabilized immediately after construction to prevent erosion. Revegetation of the site shall begin as soon as site conditions allow and in the same growing season as the disturbance, unless climatic conditions warrant additional time and it is approved by the USACE. Native vegetation and soils removed for project construction shall be stockpiled separately and used for site rehabilitation. If soil and/or organic materials are not available from the project site for rehabilitation, other locally obtained native materials may be used. Species to be used for seeding and planting shall follow this order of preference: 1) species native to the site, 2) species native to the area, 3) species native to the State. Revegetated areas eventually shall have enough cover to sufficiently control erosion without silt fences, hay bales, or other mechanical means.

All construction activities would be conducted according to the APDES Construction Storm Water General Permit. The DOT&PF would prepare (and provide the contractor with) an ESCP. The contractor would be required to prepare a SWPPP and HMCP and submit them to DOT&PF for approval prior to construction. The SWPPP would identify all receiving waters and specify the structural and procedural BMPs to be utilized during construction to prevent erosion and to prevent untreated runoff from reaching nearby waterbodies.

An HMCP for prevention of pollution that stems from the storage, use, containment, cleanup, and disposal of hazardous material, including oil products related to construction activities and equipment, will be developed for the project. Setbacks from water channels and standing water will be maintained for refueling and vehicle maintenance activities, to avoid impacts to the waterbodies from an accidental spill.

#### 4.2.9 Invasive Species

All construction equipment and vehicles would be washed before being brought on-site, to remove dirt, seeds, roots, and other plant fragments, to prevent any invasive species from being brought onto the project.

Any erosion-control materials made from straw or hay (e.g., wattles, bales of hay, etc.) would be made from certified weed-free straw or hay. If certified materials are not available, locally produced products would be used, to minimize potential importation of new weed propagules from outside Alaska.

All disturbed areas would be reseeded with certified weed-free seed and vegetated with native species per DNR's *A Re-vegetation Manual for Alaska*. If certified weed-free seed is not available, locally produced products would be used, to minimize potential importation of new weed propagules from outside Alaska.

## 5.0 COMMENTS AND COORDINATION

Scoping is the process used by the FAA to gather information from the public, agencies, tribes, and others on issues relating to the proposed action. See Appendix J for all agency and public scoping documents.

### 5.1 Agency Scoping

On December 2, 2013, a Request for Scoping Comments and Information was sent to local authorities and public agencies. The letter requested information on sensitive resources potentially impacted by the project, permits and clearances that may be required, and any general concerns with the proposed project. Agency scoping responses are summarized below in Table 5.1-1.

**Table 5.1-1: Agency Scoping Comment Summary**

Name	Agency	Comment
Patti Berkahn	ADF&G	An ADF&G Fish Habitat Permit is not required. Contact the USFWS regarding Threatened and Endangered Species and Migratory Birds; Comply with clearing windows when cutting trees or brush; Implement water-quality BMPs
Rick Abboud	City of Homer	If a State APDES plan and SWPPP are not required, a Development Plan would need to be submitted to the City of Homer.
Cindy Birkhimer	Kachemak Bay Conservation Society	Please clarify the comment period
Roberta Highland	Kachemak Bay Conservation Society	Please clarify USFWS Land Clearing Timing windows. Avian use of the east end of Beluga Lake and the wildlife viewing platform are important to the community. Construction should occur outside of breeding season. Construction in Beluga Lake should occur in wintertime. Place turnaround at least 200 feet from the OHWM, provide a 100-foot buffer to surrounding wetlands, and treat runoff to protect wetlands Wetland hydrology should not be disrupted. Concerned about invasive species; All terrestrial disturbances should be replanted with local native plants.

### 5.2 Public Scoping

An open-house meeting was held on August 5, 2013 in the Cowles Council Chambers in the City of Homer, to present information on several upcoming projects in the Homer Area, including the Homer/Beluga Lake Floatplane Facilities Improvements. A Notice of Intent (NOI) to begin Engineering and Environmental Studies was posted in the Anchorage Daily News on October 14, 2013 and the Homer Tribune on October 16, 2013, soliciting public comment. One public comment was received.

**Table 5.2-1: Public Scoping Comment Summary**

Name	Comment
Rita Mouw	Floatplane owners need better access to the airport; Construct improvements with minimal tree and vegetation loss in the winter months when the ground is frozen; do not cut trees all the way to the ground; Use high-quality fill material that is free of invasive plant seed; Ramp should be on piers to avoid fill at the shoreline

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## 6.0 REFERENCES

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## 7.0 PREPARERS

### 7.1 List of Preparers

This section identifies the individuals assisting in the preparation and independent review of this EA, along with each preparer’s responsibilities. Table 6.1-1 includes DOT&PF staff who are responsible for the preparation of the EA and/or who were involved in this review. Supporting the FAA and DOT&PF in this effort are individuals from DOWL.

**Table 7.1-1: List of Preparers**

<b>Name</b>	<b>Position</b>	<b>Expertise Applied to Document</b>
<b>Department of Transportation and Public Facilities</b>		
Brian Elliott	DOT&PF CDE-CR Design/Engineering, Environmental Impact Analyst Manager	Project Management Supervision
Aaron Hughes	DOT&PF CDE-CR Design/Engineering, Engineering Project Manager II	DOT&PF Design, Project Management and Supervision
Ryan Riddle	DOT&PF CDE-CR Design/Engineering, Environmental Team Leader	Document Review and Preparation Supervision
<b>DOWL</b>		
Brian Hanson	Engineering Project Manager	Consultant: Design, Project Management and Supervision
Colleen Wilt	Project Engineer	Consultant: Design
Kristen Hansen	Manager, Environmental Services	Document Review QA/QC
Nancy Ashton	Environmental Specialist	Primary EA Author
Adam Morrill	Wetland Specialist	Wetland Delineation and Preliminary Jurisdictional Determination, Wetland Indirect and Cumulative Effects
Emily Creely	Environmental Specialist	Contaminated Sites, Wetland Delineation and Preliminary Jurisdictional Determination
Erin Gora	Wetland Specialist	Wetland Delineation and Preliminary Jurisdictional Determination
Luke Gasek	Environmental Specialist	GIS Analysis, Impact Calculations, Figures

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**ATTACHMENTS – FIGURE 1, FIGURE 2, FIGURE 3**

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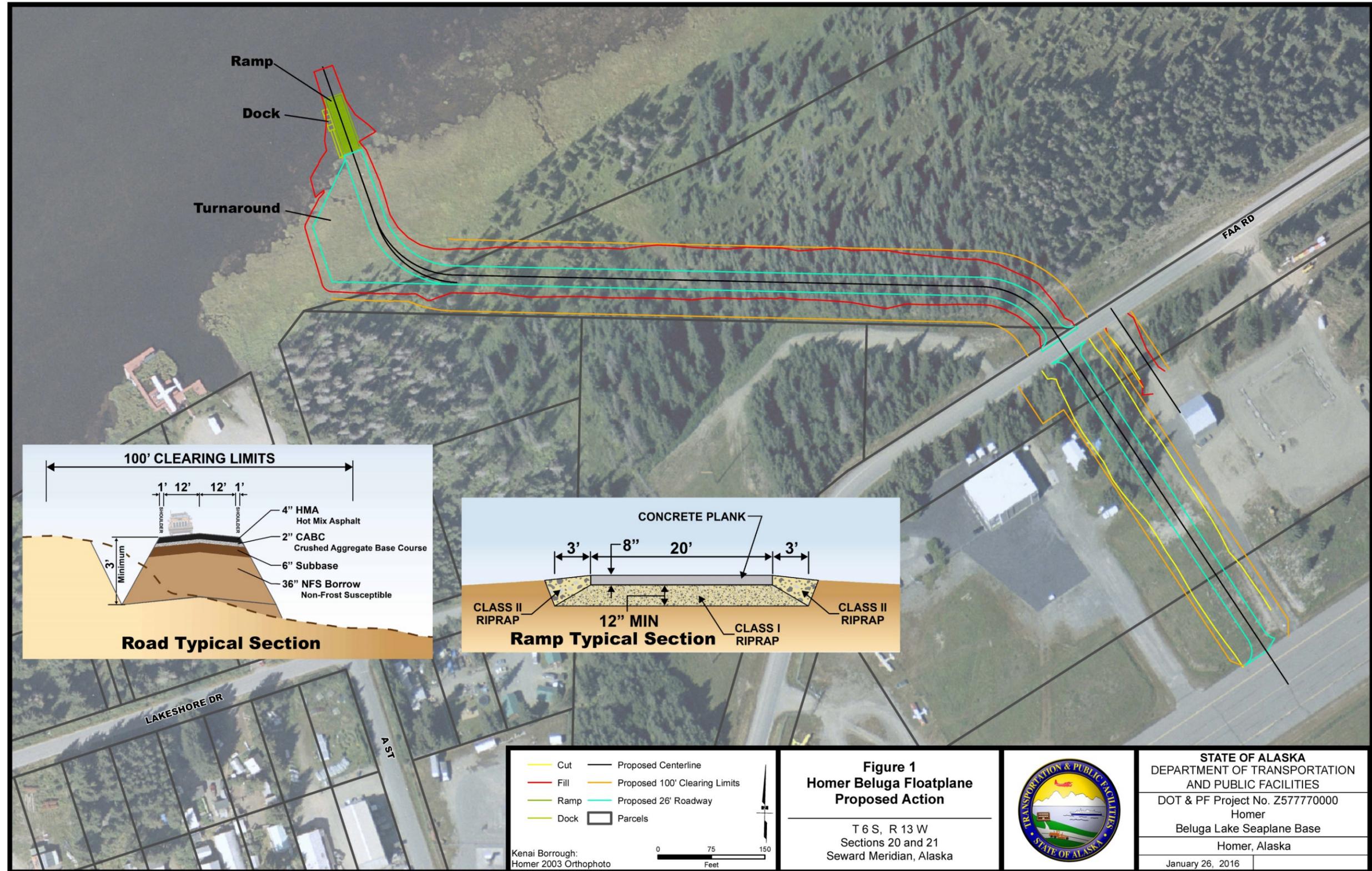


Figure 1: Proposed Action

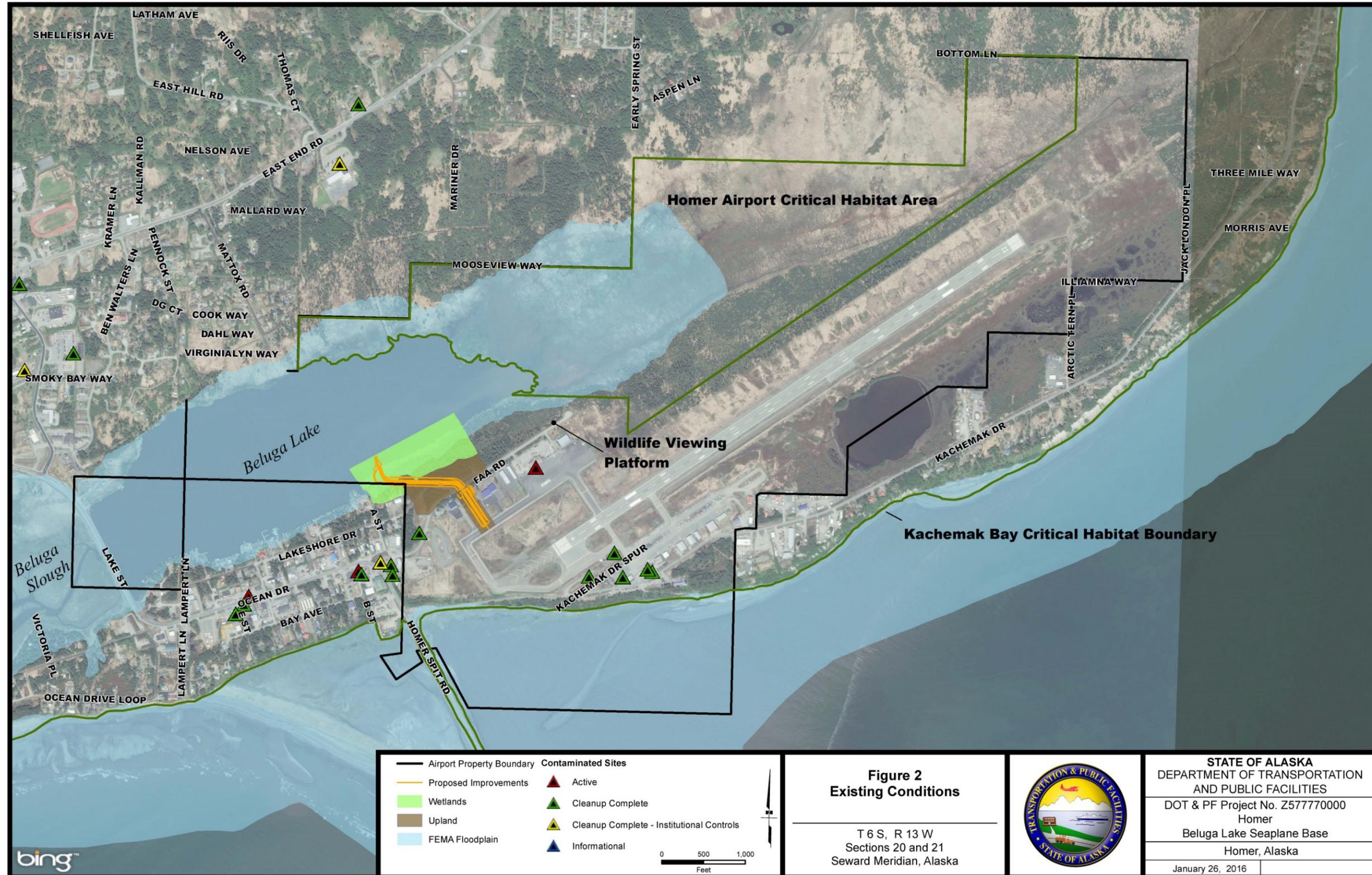


Figure 2: Existing Conditions

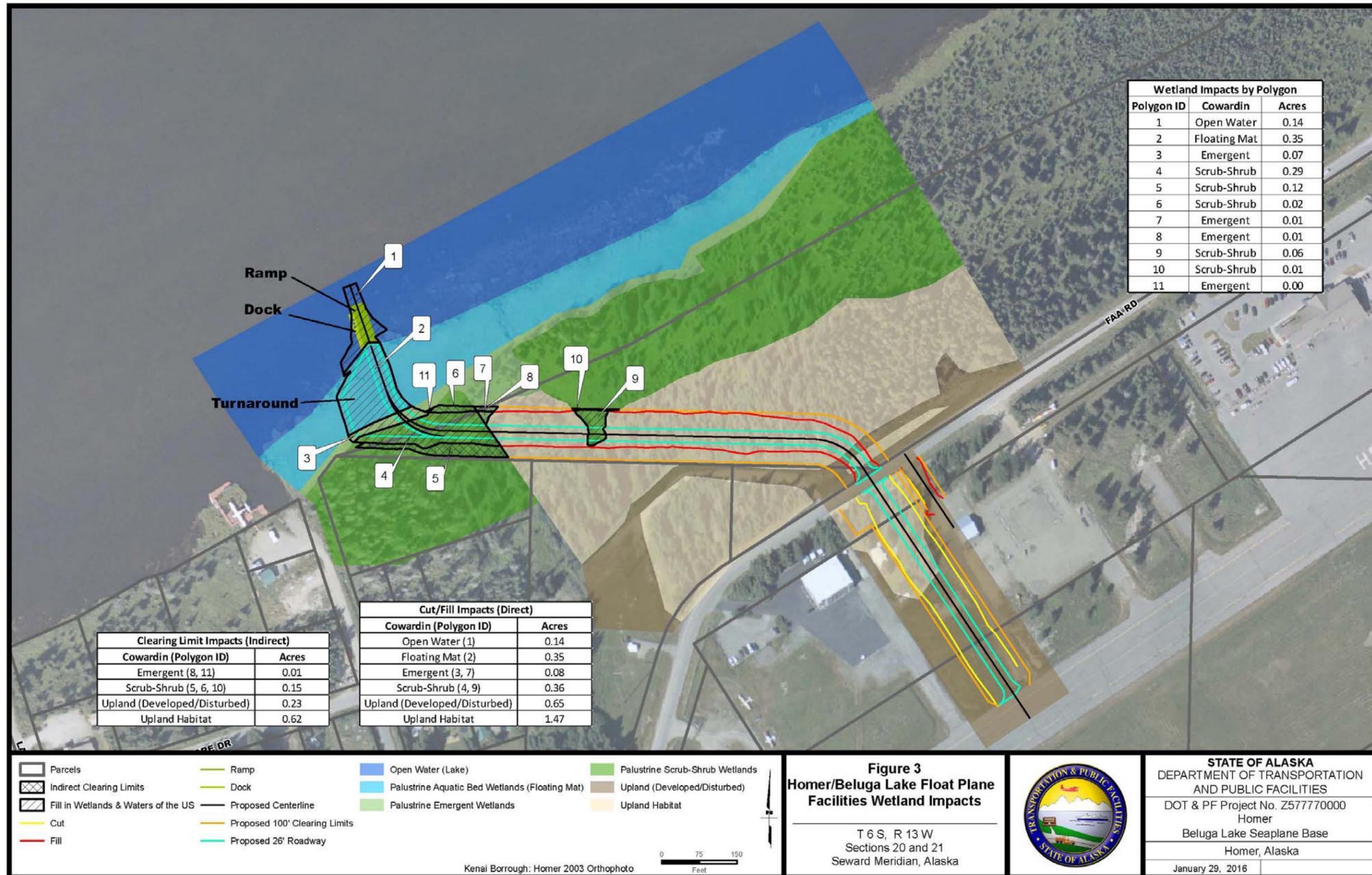


Figure 3: Wetland Impacts

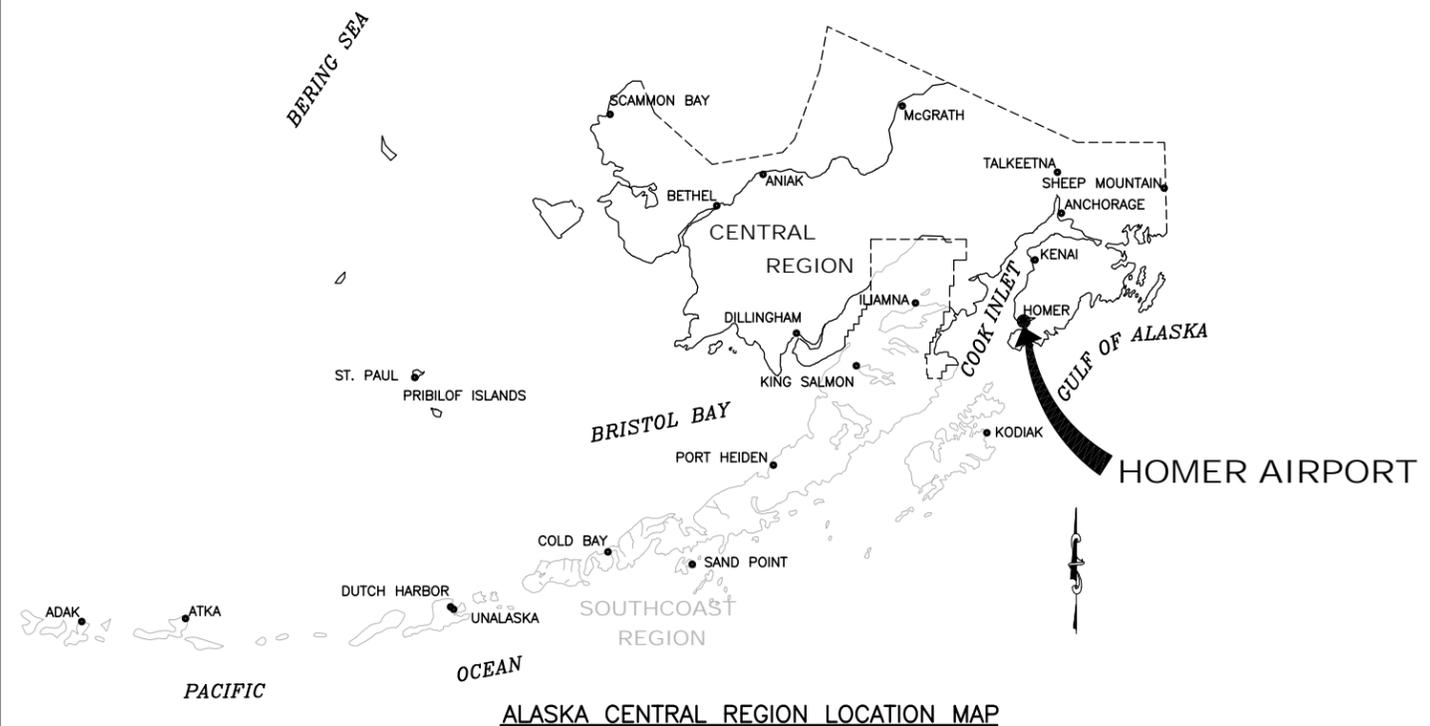
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## **APPENDIX A**

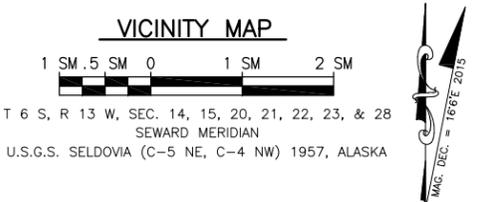
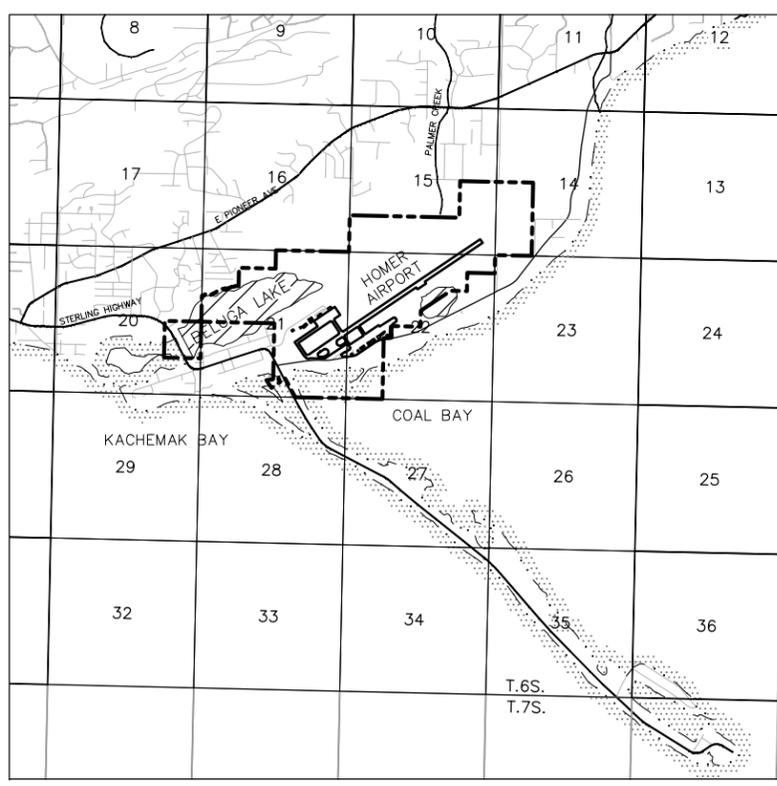
### **Airport Layout Plan**

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 Designed By: RRG  
 Drawn By: RRG  
 Checked By: JW/FC



# HOMER AIRPORT (HOM) BELUGA LAKE SEAPLANE BASE (5BL) AIRPORT LAYOUT PLAN HOMER, ALASKA



LEGEND		
ITEM	EXISTING	ULTIMATE
AIRPORT REFERENCE POINT (A.R.P.)		
ANTENNA		
APPROACH		
APPROACH SITING		
AWOS		
BLUFF		
BUILDINGS		
BUILDING RESTRICTION LINE		
DEPARTURE SITING		
ELECTRIC GATE		
FENCE		
GLIDESLOPE QUALIFICATION		
LIGHT POLE		
NAVAID CRITICAL AREA		
NON-DIRECTIONAL BEACON		
OMNI-DIRECTIONAL APPROACH LIGHTING SYSTEM (ODALS)		
PAPI		
PAPI SITING SURFACE		
PROPERTY LINE		
REIL		
ROADWAYS		
ROTATING BEACON		
RUNWAY OBSTACLE FREE AREA		
RUNWAY OBSTACLE FREE ZONE		
RUNWAY PROTECTION ZONE		
RUNWAY PROTECTION ZONE - APPROACH		
RUNWAY PROTECTION ZONE - DEPARTURE		
RUNWAY SAFETY AREA		
SEGMENTED CIRCLE		
SHORELINE		
SURVEY MONUMENT		
THRESHOLD MARKERS/LIGHTS		
TOPOGRAPHIC CONTOURS		
TREE (LARGE SINGLE)		
TREELINE		
UTILITY POLE		
VASI		
VISUAL ZONE		
WATER BODY		
WIND CONE		

DRAWING INDEX	
SHT#	TITLE
1	COVER PAGE
2	RUNWAY 4-22 VICINITY MAP, DATA TABLES, AND WIND ROSE
3	TAXIWAY DATA TABLES
4	EXISTING LAYOUT
5	ULTIMATE LAYOUT
6	RUNWAY 4 INNER APPROACH SURFACE PLAN AND PROFILE
7	RUNWAY 22 INNER APPROACH SURFACE PLAN AND PROFILE
8	RUNWAY 4-22 INNER APPROACH SURFACE PLAN AND PROFILE
9	AIRPORT AIRSPACE F.A.R. PART 77 IMAGINARY SURFACES
10	AIRPORT AIRSPACE F.A.R. PART 77 IMAGINARY SURFACES
11	AIRPORT AIRSPACE F.A.R. PART 77 PROFILES
12	AIRPORT PROPERTY PLAN
13	TERMINAL AREA PLAN
14	LAND USE PLAN
15	SEAPLANE BASE VICINITY MAP, DATA TABLES, AND WIND ROSE
16	SEAPLANE BASE LAYOUT
17	SEAPLANE BASE INNER APPROACH SURFACE PLAN AND PROFILE

BY	DATE	REVISION

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

KENNETH M. MORTON, P.E. PRECONSTRUCTION ENGINEER  
RECOMMENDED: \_\_\_\_\_ DATE: \_\_\_\_\_

WOLFGANG E. JUNGE, P.E. DESIGN SECTION CHIEF

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO  
ALP APPROVAL LETTER DATED \_\_\_/\_\_\_/\_\_\_  
FAA AIRSPACE REVIEW NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_  
FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
CENTRAL REGION

**HOMER AIRPORT  
HOMER, ALASKA  
AIRPORT LAYOUT PLAN**

COVER PAGE

DATE: 12/10/2015  
SHEET: 1 OF 17

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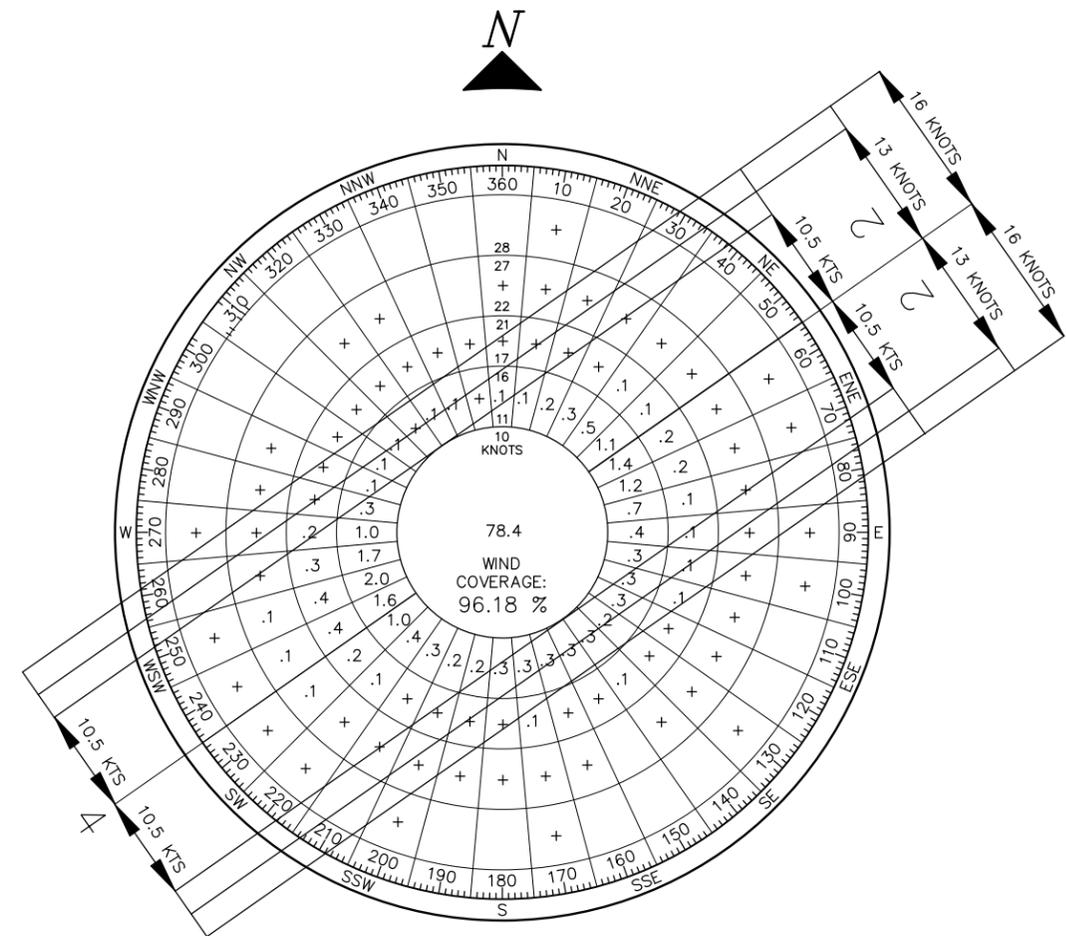
AIRPORT DATA			
ITEM	EXISTING	NEAR-TERM	ULTIMATE
ICAO IDENTIFIER	PAHO		PAHO
NATIONAL AIRPORT IDENTIFIER	HOM		HOM
FAA SITE NUMBER	50320.*A		50320.*A
AIRPORT ELEVATION NAVD88	84.2		84.2
AIRPORT REFERENCE CODE	B-III		C-III
MEAN MAX. TEMPERATURE, HOTTEST MONTH	60.5'		60.5'
MAGNETIC DECLINATION, YEAR, RATE OF CHANGE	16.42' E., JAN 1, 2015 0.31' W. / YEAR		16.42' E., JAN 1, 2015 0.31' W. / YEAR
CRITICAL AIRCRAFT OR AIRCRAFT GROUP	B-III		C-III
AIRPORT AND TERMINAL NAVIGATION AIDS	VOR, VHF/DF, NDB, DME, ROTATING BEACON		VOR, VHF/DF, NDB, DME, ROTATING BEACON
MISCELLANEOUS FACILITIES	ASOS		ASOS
NPIAS SERVICE LEVEL	CSNP		CSNP
STATE EQUIVALENT SERVICE ROLE	COMMUNITY		COMMUNITY

GEOGRAPHIC COORDINATES			
ITEM	EXISTING	NEAR-TERM	ULTIMATE
ARP			
LATITUDE	N59°38'44.00"		N59°38'44.79"
LONGITUDE	W151°28'35.70"		W151°29'01.58"
STATION/OFFSET	41+50 @ CL		48+50 @ CL
THRESHOLD RW 4			
LATITUDE	N59°38'25.05"		N59°38'29.57"
LONGITUDE	W151°29'29.15"		W151°29'16.40"
STATION	STA 8+00		STA 16+00
ELEVATION	70.5'		65.7'
THRESHOLD RW 22			
LATITUDE	N59°39'02.89"		N59°39'06.26"
LONGITUDE	W151°27'42.32"		W151°27'32.75"
STATION	STA 75+00		STA 81+00
ELEVATION	74.3'		77.2'

RUNWAY 4-22 DATA			
ITEM	EXISTING	NEAR-TERM	ULTIMATE
RUNWAY IDENTIFIER	04/22		04/22
RUNWAY TYPE	UTILITY OR OTHER THAN UTILITY	OTHER THAN UTILITY	OTHER THAN UTILITY
FAR PART 77 APPROACH CATEGORY (V, NPI, P)	NPI		NPI/PI
FAR PART 77 VISIBILITY MINIMUM	1 SM		1 SM / 3/4 SM
FAR PART 77 APPROACH SURFACES SLOPE	34:1 / 34:1		34:1 / 50:1
APPROACH TYPE (VIS, NPA, APV(NP), APV(P), PREC)	APV-RNP		APV-RNP, APV-ILS
THRESHOLD SITING SURFACE SLOPE	20:1 / 34:1		20:1 / 34:1
RUNWAY DESIGN CODE	B/III/5000		C/III/5000 / C/III/4000
APPROACH RUNWAY REFERENCE CODE (APRC)	B/III/5000		D/IV/5000 / D/IV/4000
DEPARTURE RUNWAY REFERENCE CODE (DPRC)	B/III		D/IV
RUNWAY SURFACE	ASPHALT		ASPHALT
SURFACE TREATMENT	AFSC		AFSC
AIRPLANE GEAR CONFIG/PAVE STRENGTH (x1000lbs)	S62,T70,ST189,TT130		S62,T70,ST189,TT130
PAVEMENT STRENGTH BY PCN	55/F/B/X/T		55/F/B/X/T
DESIGN AIRCRAFT (>60,000 lbs)	DASH 8		DASH 8
MAXIMUM ELEVATION	838.46'		838.46'
TOUCHDOWN ZONE ELEVATION NAVD88	83.6' / 84.1'		83.6' / 84.1'
EFFECTIVE GRADE	.06%		.09%
MEAN GEODETIC BEARING	N55°01'08.3"E		N55°02'07.5"E
RUNWAY DIMENSIONS	150' x 6700'		150' x 6500'
RUNWAY SAFETY AREA (RSA)	300' x 7900'		500' x 8500'
RSA LENGTH BEYOND DEPARTURE END	600'		1000'
RSA LENGTH PRIOR TO THRESHOLD	600'		600'
RUNWAY OBJECT FREE AREA (OFA)	800' x 7900'		800' x 8500'
ROFA LENGTH BEYOND RUNWAY END	600'		1000'
ROFA LENGTH PRIOR TO THRESHOLD	600'		600'
RUNWAY OBSTACLE FREE ZONE (OFZ)	400' x 7100'		400' x 6900'
PRECISION OBSTACLE FREE ZONE (POFZ)	NOT APPLICABLE		200' x 800'
RUNWAY PROTECTION ZONE (RPZ) RW 4 RPZ	1000'x500'x700'		1700'x500'x1010'
RUNWAY PROTECTION ZONE (RPZ) RW 22 RPZ	1000'x500'x700'		1700'x1000'x1510'
RUNWAY LIGHTING	H.I.R.L.		H.I.R.L.
RUNWAY MARKING TYPE	PRECISION		NON-PRECISION / PRECISION
RUNWAY NAVIGATIONAL AIDS	VASI, DME 4-MALSR, GPS LOCALIZER 22-REIL, MALSF		PAPI, GPS, DME 4-MALSR 22-REIL, MALSR, ILS LOCALIZER
AERONAUTICAL SURVEY TYPE REQUIRED	NVGS		NVGS
DEPARTURE SURFACE			

DECLARED DISTANCES								
RUNWAY END ID	TORA	TODA	ASDA	LDA	APPROACH END RSA LENGTH	STOP END RSA LENGTH	RSA LENGTH	DATE OF APPROVAL
RW 04	6700	6700	6700	6700	600	600	7900	
RW 22	6700	6700	6700	6700	600	600	7900	

- NOTES:
- ALL LATITUDE/LONGITUDE COORDINATES ARE NAD83.
  - ALL ELEVATIONS ARE NAVD88.
  - MAPPING BASED ON AERONAUTICAL SURVEY PERFORMED BY DOWL.



WIND DATA				
RUNWAY	10.5 kt	13 kt	16 kt	20 kt
RW 4/22	96.18%	98.05%	99.45%	

SOURCE: ALASKA STATE CLIMATE CENTER  
ENRI, UNIVERSITY OF ALASKA

PERIOD: 1992 - 1999

MODIFICATIONS TO STANDARDS					
ASN	DESCRIPTION	FAA STANDARDS	EXISTING CONDITION	PROPOSED ACTION	DATE APPROVED
	RUNWAY SHOULDERS	20' WIDE	NONE	20' WIDE	
	BLAST PADS	140' X 200'	NONE	140' X 200'	
	RUNWAY - GA APRON OFFSET	500'	451'	500'	
	RUNWAY LINE-OF-SITE	SIGHT BETWEEN RW ENDS ALONG C/L AT +5'	DOES NOT COMPLY	PARALLEL TW REDUCES REQUIRED LINE-OF-SIGHT TO 1/2 RW	
	DISTANCE BETWEEN VERTICAL CURVES	3,060'	2,230'	3,060'	
	VERTICAL CURVE LENGTH AT RW STA. 22+70	1,620'	1,200'	1,620'	
	VERTICAL CURVE LENGTH AT RW STA. 45+00	1,440'	1,000'	1,440'	

BY	DATE	REVISION

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
CENTRAL REGION

**HOMER AIRPORT**  
HOMER, ALASKA  
AIRPORT LAYOUT PLAN  
RUNWAY 4-22  
VICINITY MAP, DATA TABLES,  
AND WIND ROSE

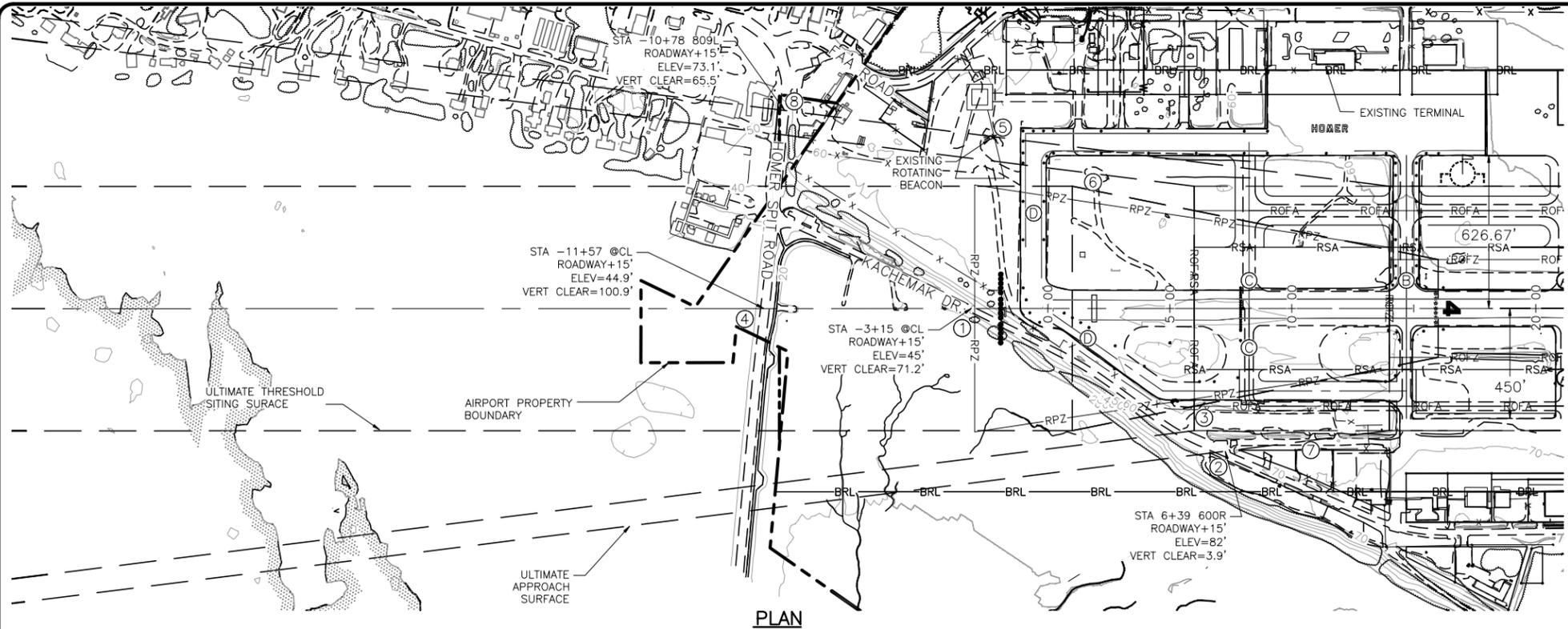
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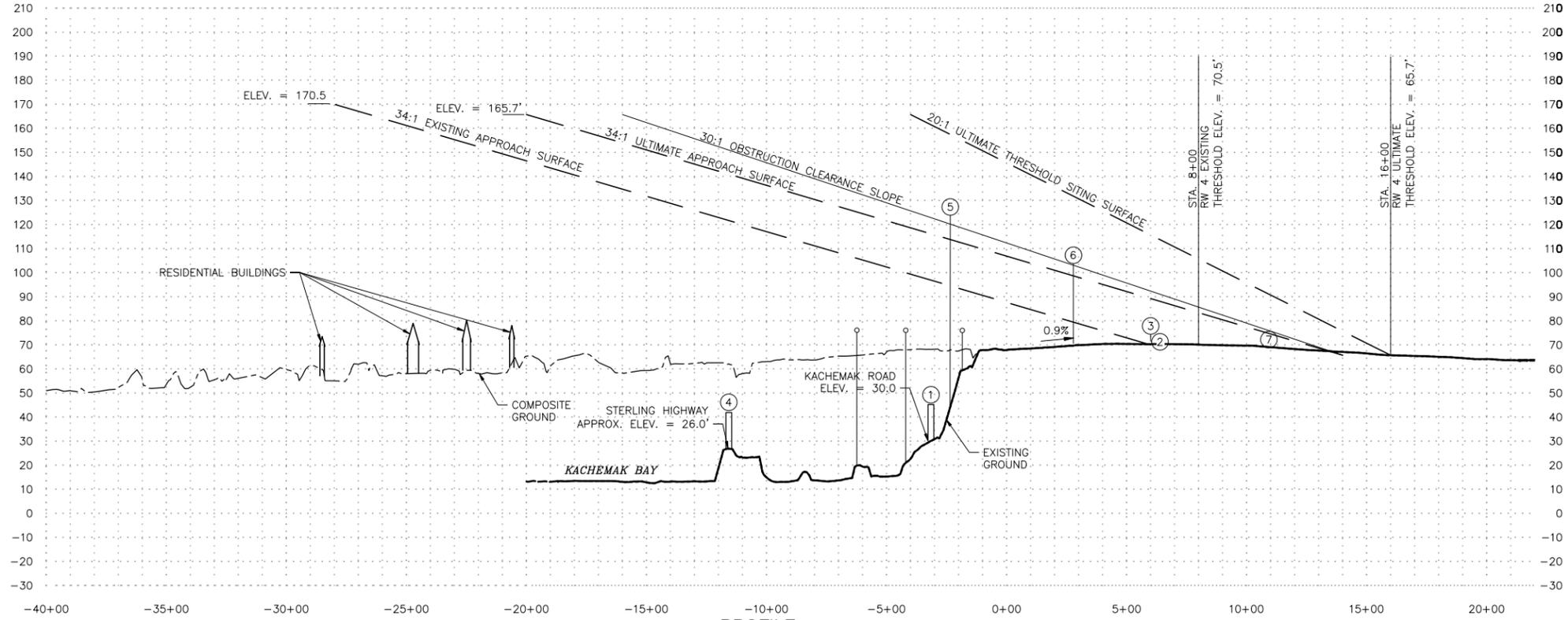


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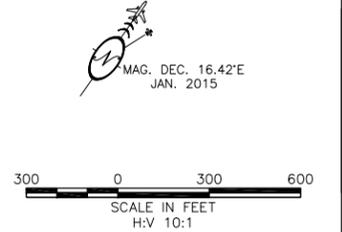


- NOTES:**
1. TOUCHDOWN ZONE ELEVATION = 83.6'.
  2. RUNWAY 4 THRESHOLD ELEVATION = 65.7'.
  3. 34:1 ULTIMATE APPROACH SURFACE IS PENETRATED 3.61' BY OBSTRUCTION #6 (ANTENNA), THEREFORE ULTIMATE OBSTRUCTION CLEARANCE SLOPE IS 30:1.
  4. THE CONTROLLING OBSTRUCTION FOR RUNWAY 4 IS AN ANTENNA AT STA 2+78 520'L, ELEVATION 103'. THE OBSTRUCTION CLEARANCE SLOPE IS ESTABLISHED AS 30:1 PER FAA AC 150/5200-35A, CHAPTER 4, DATA ELEMENT NUMBER 57.
  5. THERE ARE NO OBJECT PENETRATIONS IN THE RUNWAY APPROACH END SITING SURFACE OF RUNWAY 4, AS DEFINED IN FAA AC 150/5300-13A, CHANGE 1, CHAPTER 3, TABLE 3-2, LINE 3.

**PLAN**



**PROFILE**



APPROACH SITING SURFACE OBSTACLES (RUNWAY 23)											
ID #	DESCRIPTION	STATION/OFFSET	GRD ELEV	AGL	TOP ELEV	SURFACE PENETRATED	SURFACE ELEV	AMOUNT PENETRATION	TRIGGER EVENT	DISPOSITION	STAGE TO CORRECT
1	ROAD +15'	-3+15 , 0	30'		30'	NONE	N/A	0.0'	N/A	TO REMAIN	N/A
2	ROAD +15'	6+39 , 600R	67'		67'	NONE	N/A	0.0'	N/A	TO REMAIN	N/A
3	FENCE	6+00 , 413R	69.5'		73.6'	NONE	N/A	0.0'	N/A	TO REMAIN	N/A
4	ROAD +15'	-11+57 , 0	29.9'		29.9'	NONE	N/A	0.0'	N/A	TO REMAIN	N/A
5	BEACON	-2.35 , 700L	67.5'		123'	34:1 ULT APPROACH	N/A	8.5'	N/A	TO BE REMOVED	N/A
6	ANTENNA	2+78 , 520L	67.7'		103'	34:1 ULT APPROACH	N/A	3.61'	N/A	OBSTRUCTION LIGHT	N/A
7	FENCE	10+93 , 576R	68.6'		68'	NONE	N/A	0.0'	N/A	TO REMAIN	N/A
8	ROAD +15'	-10+78 , 809L	58.1'		58.1'	34:1 ULT APPROACH	N/A	0.0'	N/A	TO REMAIN	N/A

BY	DATE	REVISION

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 CENTRAL REGION

**HOMER AIRPORT**  
 HOMER, ALASKA  
 AIRPORT LAYOUT PLAN  
 RUNWAY 4  
 INNER APPROACH SURFACE  
 PLAN AND PROFILE

DATE:  
 12/10/2015  
 SHEET:  
 6  
 OF  
 17





**NOTES:**

1. VERTICAL DATUM FOR USGS QUAD = NAVD 29; VERTICAL DATUM FOR SURFACES = NAVD 88.
2. ESTABLISHED AIRPORT ELEVATION = 84.2'
3. RUNWAY 4 (ULTIMATE) THRESHOLD ELEVATION = 65.7'
4. RUNWAY 22 (ULTIMATE) THRESHOLD ELEVATION = 77.2'
5. CLOSE IN OBSTRUCTIONS ARE SHOWN ON INNER APPROACH SURFACE SHEETS.
6. THERE ARE NO KNOWN LOCAL ZONING HEIGHT RESTRICTIONS.

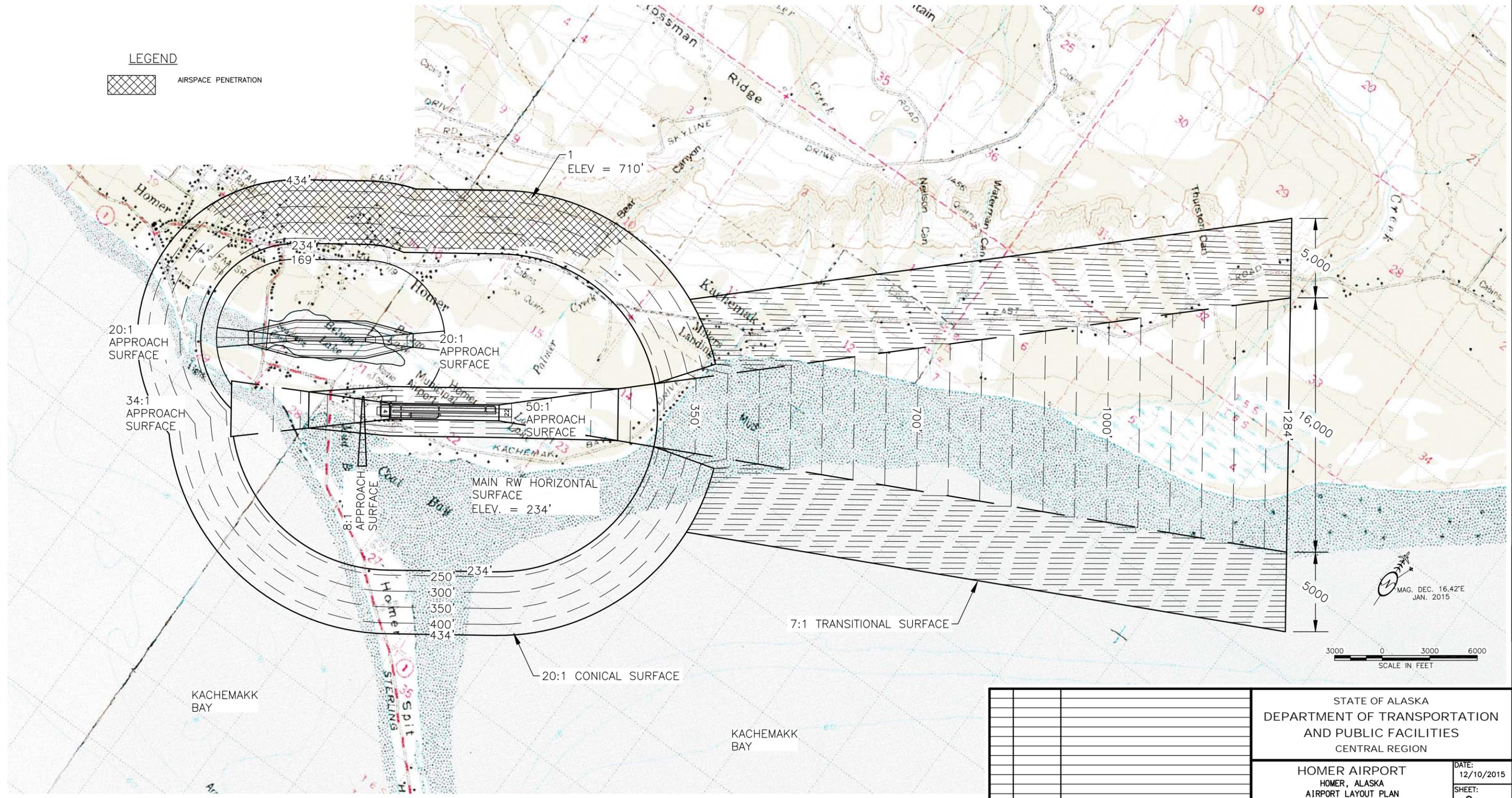
**PART 77 SURFACE OBSTRUCTIONS CONTINUED**

ID #	DESCRIPTION	STATION/OFFSET	GRD ELEV	AGL	TOP ELEV	SURFACE PENETRATED	SURFACE ELEV	AMOUNT PENETRATION	TRIGGER EVENT	DISPOSITION	STAGE TO CORRECT
1	TERRAIN	99+37/13,530L	710'			CONICAL	420'	290'		TO REMAIN	

**LEGEND**



Date Plotted: 12/10/2015, 2:16 PM  
 Layout Name: 9 046777  
 File Name: C:\Users\61485\655AD\avi\avi\Homer Airport ALP.dwg  
 Designed By: RRG  
 Drawn By: RRG  
 Checked By: JW/PC



BY	DATE	REVISION

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
CENTRAL REGION

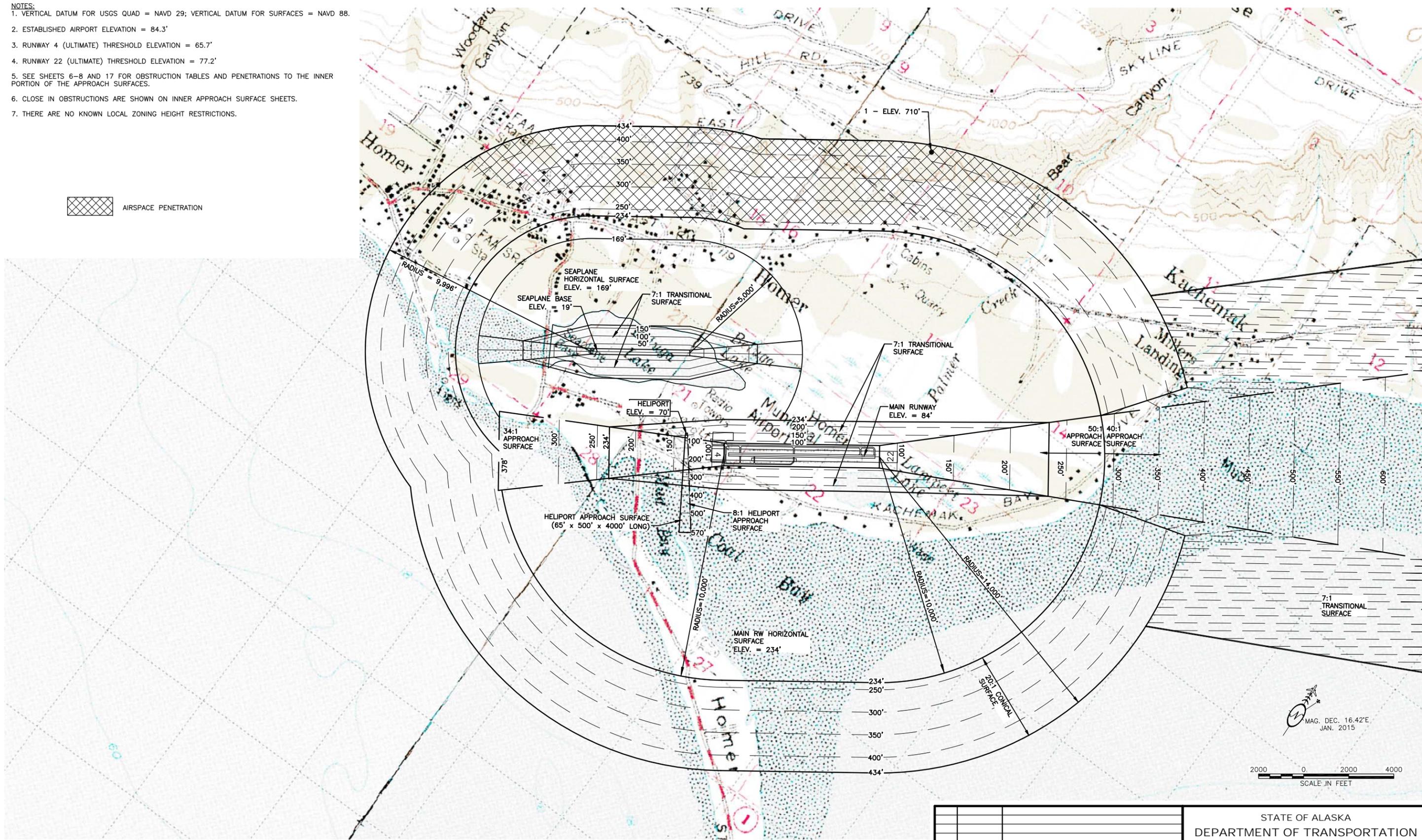
HOMER AIRPORT  
HOMER, ALASKA  
AIRPORT LAYOUT PLAN  
AIRPORT AIRSPACE  
F.A.R. PART 77 IMAGINARY SURFACE

DATE:  
12/10/2015  
SHEET:  
9  
OF  
17

- NOTES:
1. VERTICAL DATUM FOR USGS QUAD = NAVD 29; VERTICAL DATUM FOR SURFACES = NAVD 88.
  2. ESTABLISHED AIRPORT ELEVATION = 84.3'
  3. RUNWAY 4 (ULTIMATE) THRESHOLD ELEVATION = 65.7'
  4. RUNWAY 22 (ULTIMATE) THRESHOLD ELEVATION = 77.2'
  5. SEE SHEETS 6-8 AND 17 FOR OBSTRUCTION TABLES AND PENETRATIONS TO THE INNER PORTION OF THE APPROACH SURFACES.
  6. CLOSE IN OBSTRUCTIONS ARE SHOWN ON INNER APPROACH SURFACE SHEETS.
  7. THERE ARE NO KNOWN LOCAL ZONING HEIGHT RESTRICTIONS.

Date Plotted: 12/10/2015 2:16 PM  
 Layout Name: D:\2A\61485\65520\Aerial\Homer Airport ALP.dwg  
 File Name:  
 Designed By: RRG  
 Drawn By: RRG  
 Checked By: JW/PC

 AIRSPACE PENETRATION



BY	DATE	REVISION

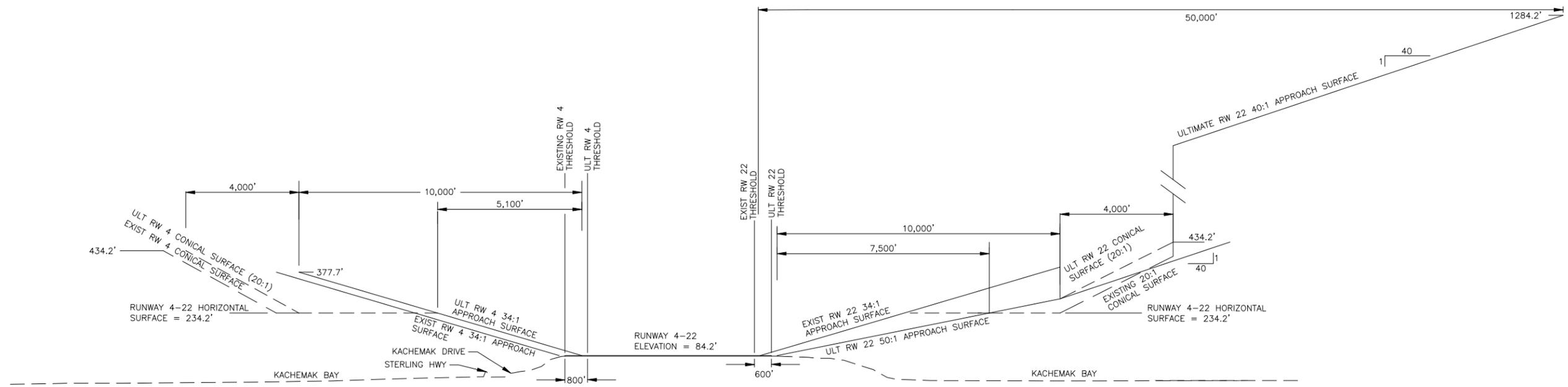
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
CENTRAL REGION

**HOMER AIRPORT**  
HOMER, ALASKA  
AIRPORT LAYOUT PLAN

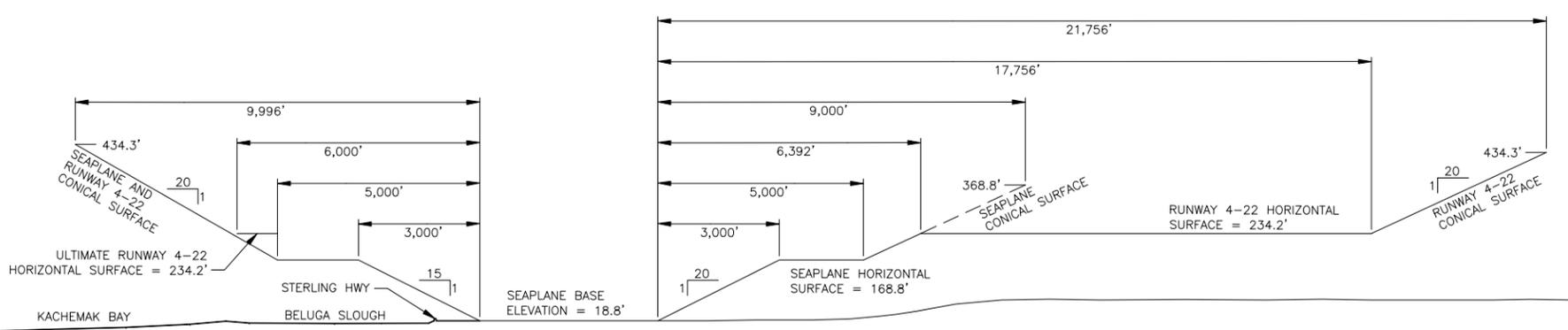
AIRPORT AIRSPACE  
F.A.R. PART 77 IMAGINARY SURFACE

DATE: 12/10/2015  
SHEET: 10 OF 17

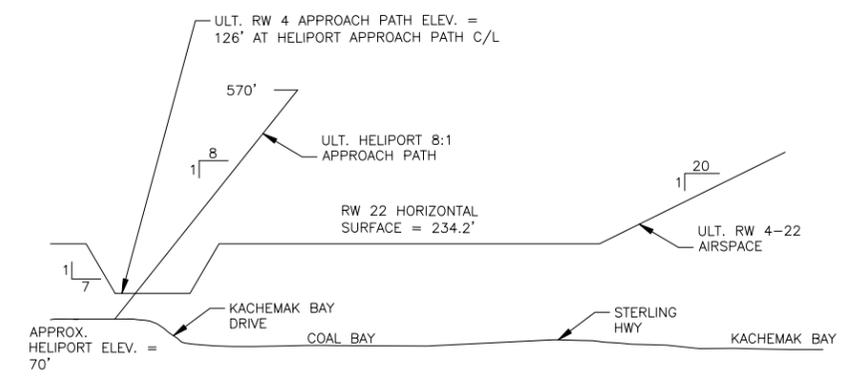
Date Plotted: 12/10/2015 2:16 PM  
 Layout Name: 11 - Airport Profile  
 File Name: D:\2A\1485\655AD\Avalon\Airport ALP.dwg  
 Designed By: RRG  
 Drawn By: RRG  
 Checked By: JW/FC



**RUNWAY 4-22 PROFILE – EXISTING & ULTIMATE**

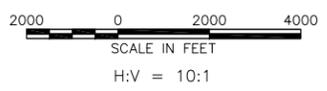


**SEAPLANE PROFILE – EXISTING & ULTIMATE**



**HELICOPTER PROFILE – ULTIMATE**

NOTES:  
 1. SEE SHEETS 7-10 FOR OBSTRUCTION TABLES.

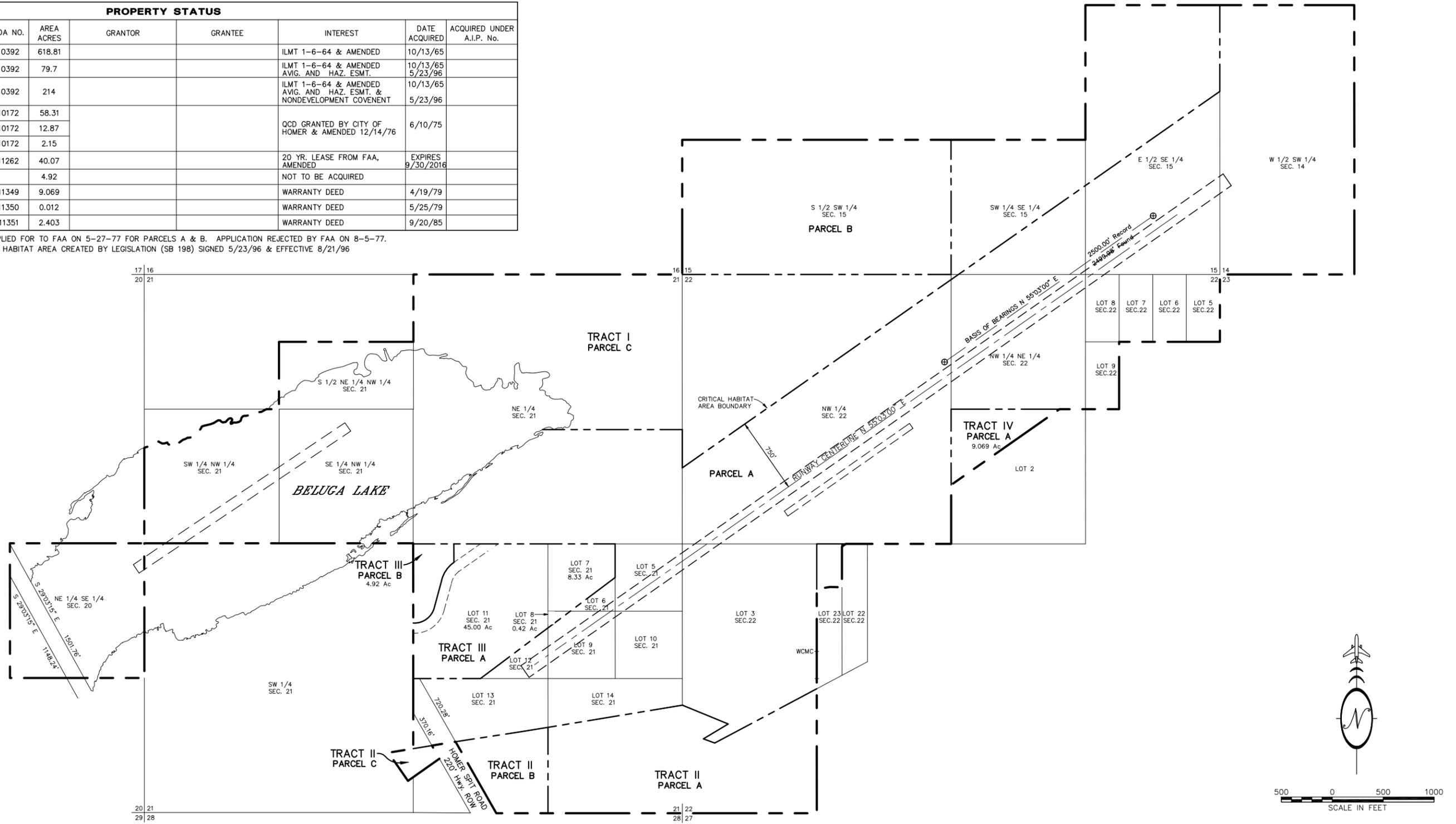


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION		HOMER AIRPORT HOMER, ALASKA AIRPORT LAYOUT PLAN		DATE: 12/10/2015	
		AIRPORT AIRSPACE F.A.R. PART 77 PROFILES		SHEET: 11 OF 17	
BY	DATE	REVISION			

Date Plotted: 12/10/2015, 2:16 PM  
 Layout Name: 12 Prop 1  
 File Name: G:\2A (61485)\652AD\Avalon\ALP\Homer Airport ALP.dwg  
 Drawn By: RW  
 Checked By: JW/FC

PROPERTY STATUS								
TRACT	PARCEL	ADA NO.	AREA ACRES	GRANTOR	GRANTEE	INTEREST	DATE ACQUIRED	ACQUIRED UNDER A.I.P. No.
TRACT I	A	10392	618.81			ILMT 1-6-64 & AMENDED	10/13/65	
TRACT I	B**	10392	79.7			ILMT 1-6-64 & AMENDED AVIG. AND HAZ. ESMT.	10/13/65 5/23/96	
TRACT I	C**	10392	214			ILMT 1-6-64 & AMENDED AVIG. AND HAZ. ESMT. & NONDEVELOPMENT COVENANT	10/13/65 5/23/96	
TRACT II	A	10172	58.31			QCD GRANTED BY CITY OF HOMER & AMENDED 12/14/76	6/10/75	
TRACT II	B	10172	12.87					
TRACT II	C	10172	2.15					
TRACT III*	A	11262	40.07			20 YR. LEASE FROM FAA, AMENDED	EXPIRES 9/30/2016	
TRACT III*	B		4.92			NOT TO BE ACQUIRED		
TRACT IV	A	11349	9.069			WARRANTY DEED	4/19/79	
TRACT IV	B	11350	0.012			WARRANTY DEED	5/25/79	
TRACT IV	C	11351	2.403			WARRANTY DEED	9/20/85	

\* SECTION 23 APPLIED FOR TO FAA ON 5-27-77 FOR PARCELS A & B. APPLICATION REJECTED BY FAA ON 8-5-77.  
 \*\* HOMER CRITICAL HABITAT AREA CREATED BY LEGISLATION (SB 198) SIGNED 5/23/96 & EFFECTIVE 8/21/96



**LEGEND**

⊕	Found Primary Monument
1320'	Record Dimension, See Note 1
(ADA)	Record Dimension, See Note 2
—	Airport Property Boundary
- - -	Parcel Boundary

- NOTES**
- The information used to prepare this Property Plan drawing is from "State of Alaska, Department of Public Works, Division of Aviation, Homer Airport, Property Plan, Tracts I, III & IV, Dated 11/5/76. No current boundary survey was performed for the preparation of this Property Plan.
  - Grid bearings and distances from "State of Alaska, Department of Public Works, Division of Aviation, Homer Airport, Property Plan, Tracts I, III & IV, Dated 11/5/76.
  - The Beluga Lake shore line shown is based on aerial photography acquired May 17, 2002.
  - Section 23 applied for to FAA on 5-27-77 for Parcels A & B. Application rejected by FAA on 8-5-77.
- NOTES:**
- ALL LATITUDE/LONGITUDE COORDINATES ARE NAD83.
  - ALL ELEVATIONS ARE NAVD88.
  - MAPPING BASED ON AERONAUTICAL SURVEY PERFORMED BY DOWL.
  - RW 4/22 MEETS LINE OF SIGHT REQUIREMENTS.

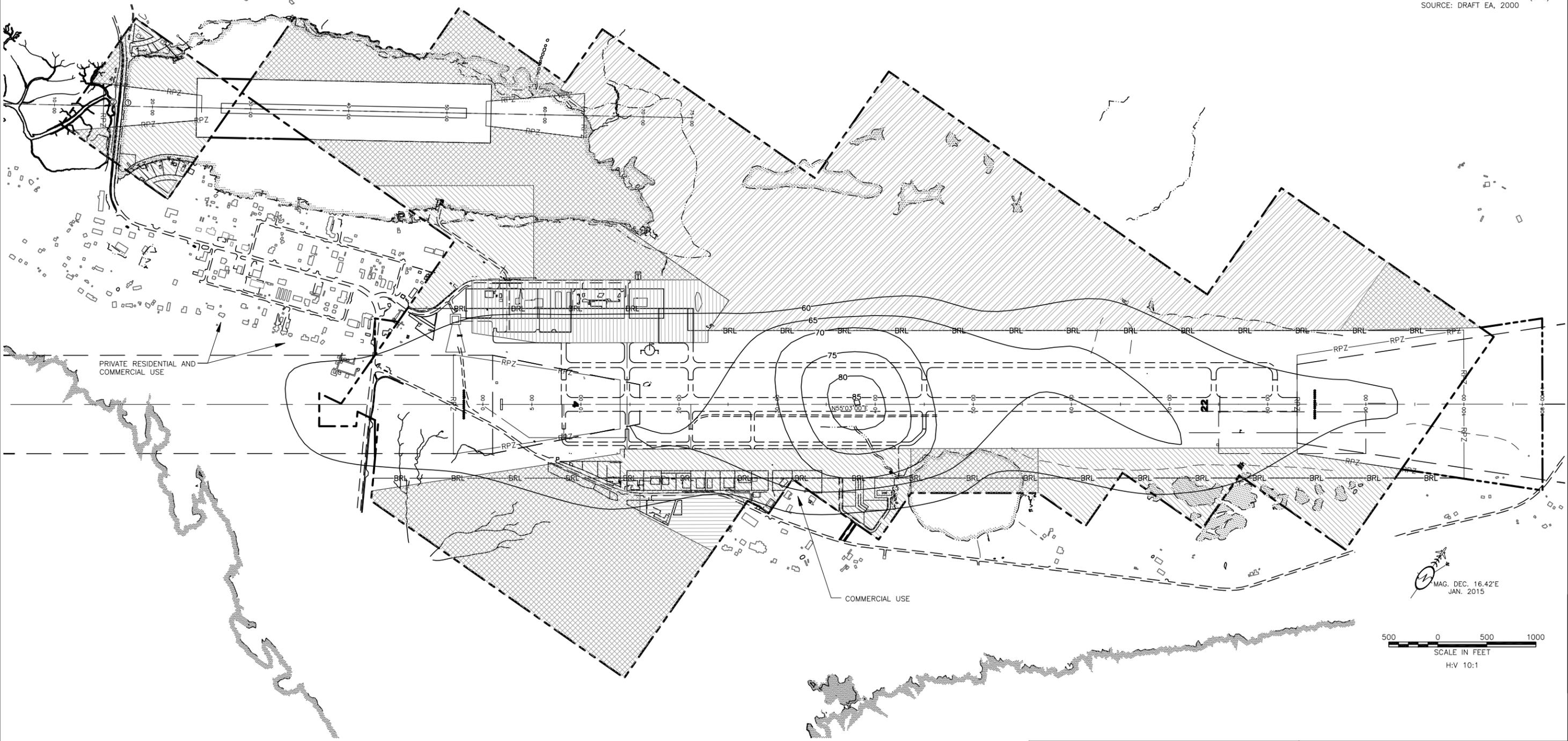
This property plan supersedes Homer Airport Property Plan dated 2/9/66, Rev. 7/24/67.

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION		DATE: 12/10/2015
HOMER AIRPORT HOMER, ALASKA AIRPORT LAYOUT PLAN AIRPORT PROPERTY PLAN		SHEET: 12 OF 17
BY	DATE	REVISION



Date Plotted: 12/10/2015, 2:16 PM  
 Layout Name: 14\_LAND USE  
 File Name: D:\A\61485\652AD\Aviation\Homer Airport ALP.dwg  
 Designed By: RRG  
 Drawn By: RRG  
 Checked By: JW/FC

- LEGEND**
-  AIR OPERATIONS AREA
  -  COMMERCIAL
  -  COMMERCIAL AVIATION
  -  CRITICAL HABITAT AREA
  -  GENERAL AVIATION
  -  UNDEVELOPED
  -  NOISE EXPOSURE CONTOUR (DNL)  
SOURCE: DRAFT EA, 2000



**NOTES:**  
 1. THERE ARE NO KNOWN LOCAL ZONING HEIGHT RESTRICTIONS.

		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION	
		HOMER AIRPORT HOMER, ALASKA AIRPORT LAYOUT PLAN LAND USE PLAN	
		DATE: 12/10/2015	DATE: 12/10/2015
		SHEET: 14	SHEET: 14
		OF 17	
BY	DATE	REVISION	

Date Plotted: 12/10/2015 2:16 PM  
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 Drawn By: RRG  
 Checked By: JW/PC

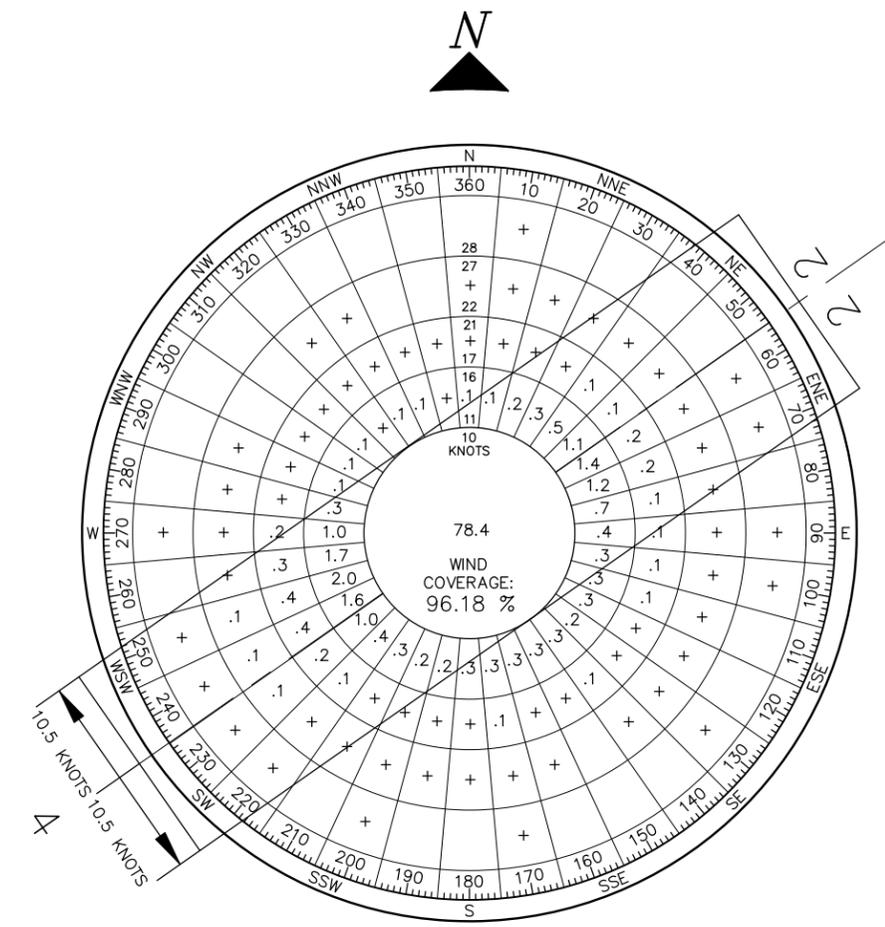
AIRPORT DATA			
ITEM	EXISTING	NEAR-TERM	ULTIMATE
ICAO IDENTIFIER	5BL		5BL
NATIONAL AIRPORT IDENTIFIER	5BL		5BL
FAA SITE NUMBER	50320.1*C		50320.1*C
AIRPORT ELEVATION NAVD88	18.8'		18.8'
AIRPORT REFERENCE CODE	A-1		A-1
MEAN MAX. TEMPERATURE, HOTTEST MONTH	60.5'		60.5'
MAGNETIC DECLINATION, YEAR, RATE OF CHANGE	16.42' E., JAN 1, 2015 0.31' W. / YEAR		16.42' E., JAN 1, 2015 0.31' W. / YEAR
CRITICAL AIRCRAFT OR AIRCRAFT GROUP	DHC-3 OTTER		DHC-3 OTTER
AIRPORT AND TERMINAL NAVIGATION AIDS	NONE		NONE
NPIAS SERVICE LEVEL	GA		GA
STATE EQUIVALENT SERVICE ROLE			

WATERLANE NE-SW DATA			
ITEM	EXISTING	NEAR-TERM	ULTIMATE
APPROACH SURFACES	20:1		20:1
VISIBILITY MINIMUMS	VISUAL		VISUAL
INSTRUMENT RUNWAY	N/A		N/A
RUNWAY SURFACE	WATER/ICE		WATER/ICE
PAVEMENT STRENGTH (LBS.)	N/A		N/A
TYPE	SEAPLANE BASE		SEAPLANE BASE
WATER LANE DIMENSION	100' x 2500'		100' x 2500'
WATERLANE OPERATIONS AREA WITH TAXI CHANNELS	600' x 3000'		600' x 3000'
AIRCRAFT APPROACH CATEGORY	A		A
AIRPLANE DESIGN GROUP	I		I
MEAN GEODETIC BEARING	N56°13'00.3"E		N56°13'00.3"E
EFFECTIVE GRADE	0%		0%
TOUCHDOWN ZONE ELEVATION (NAVD88)	18.8'		18.8'
RUNWAY PROTECTION ZONE (RPZ) DIMENSIONS *	1000'x250'x450'		1000'x250'x450'
RUNWAY LIGHTING	NONE		NONE
RUNWAY MARKING	NONE		NONE
RUNWAY VISUAL AND INSTRUMENT NAVIDS	NONE		NONE

GEOGRAPHIC COORDINATES			
ITEM	EXISTING	NEAR-TERM	ULTIMATE
ARP			
LATITUDE	N59°38'40.80"		N59°38'40.80"
LONGITUDE	W151°30'07.65"		W151°30'07.65"
STATION/OFFSET	STA/OFF		STA/OFF
NE WATERLANE END			
LATITUDE	N59°38'43.50"		N59°38'43.50"
LONGITUDE	W151°30'17.58"		W151°30'17.58"
STATION	STA 52+00		STA 52+00
ELEVATION	18.8'		18.8'
SW WATERLANE END			
LATITUDE	N59°38'29.80"		N59°38'29.80"
LONGITUDE	W151°30'58.03"		W151°30'58.03"
STATION	STA 27+00		STA 27+00
ELEVATION	18.8'		18.8'

MODIFICATIONS TO STANDARDS					
ASN	DESCRIPTION	FAA STANDARDS	EXISTING CONDITION	PROPOSED ACTION	DATE APPROVED

NOTES:  
 1. ALL LATITUDE/LONGITUDE COORDINATES ARE NAD83.  
 2. ALL ELEVATIONS ARE NAVD88.  
 3. MAPPING BASED ON AERONAUTICAL SURVEY PERFORMED BY DOWL.



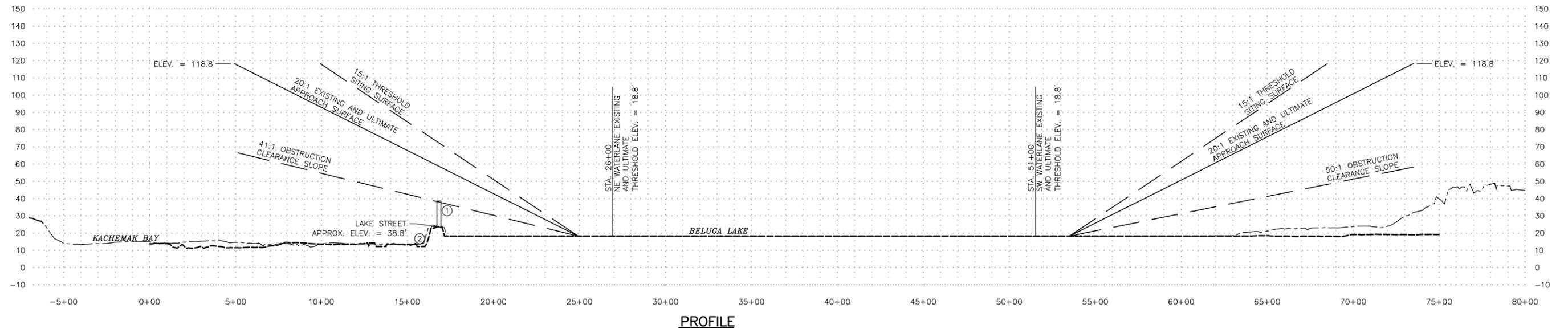
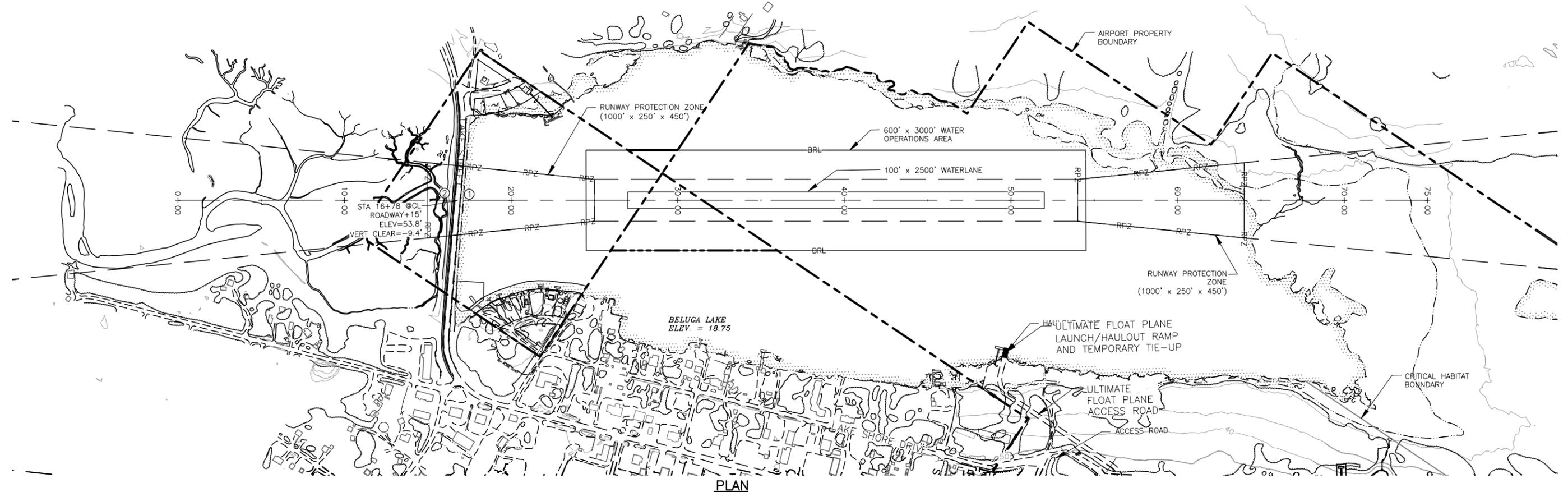
WIND DATA				
RUNWAY	10.5 kt	13 kt	16 kt	20 kt
WATERLANE NE-SW	96.18%	98.05%	99.45%	

SOURCE: ALASKA STATE CLIMATE CENTER  
 ENRI, UNIVERSITY OF ALASKA  
 PERIOD: 1992 - 1999

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION		DATE: 12/10/2015
HOMER AIRPORT HOMER, ALASKA AIRPORT LAYOUT PLAN SEAPLANE BASE VICINITY MAP, DATA TABLES, AND WIND ROSE		SHEET: 15 OF 17
BY	DATE	REVISION

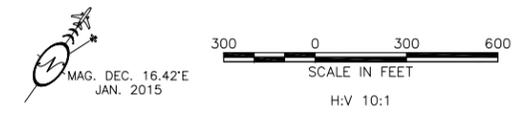


Date Plotted: 12/10/2015 2:17 PM  
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 File Name: D:\A\1455\655AD\Aviation\Homer Airport ALP.dwg  
 Designed By: RRG  
 Drawn By: RRG  
 Checked By: JW/RC



ID #	DESCRIPTION	STATION/OFFSET	GRD ELEV	AGL	TOP ELEV	SURFACE PENETRATED	SURFACE ELEV	AMOUNT PENETRATION	TRIGGER EVENT	DISPOSITION	STAGE TO CORRECT
1	LAKE STREET + 15	17+78.4 , 0'	38.8'		38.8'	NONE	N/A	0.0'	N/A	TO REMAIN	N/A
2	BELUGA SLOUGH	14+78.7 , 0'	12'		12'	NONE	N/A	0.0'	N/A	TO REMAIN	N/A

NOTES:  
 1. TOUCHDOWN ZONE ELEVATION = 18.8'



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION		DATE: 12/10/2015
HOMER AIRPORT HOMER, ALASKA AIRPORT LAYOUT PLAN SEAPLANE BASE INNER APPROACH SURFACE PLAN AND PROFILE		SHEET: 17 OF 17
BY	DATE	REVISION

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## **APPENDIX B**

### **Non-Issue Impact Categories**



## APPENDIX B - NON-ISSUE IMPACT CATEGORIES

Categories not anticipated to be impacted by the Proposed Action are not required to be discussed in the Environmental Assessment. Neither the No-Action nor the Proposed-Action Alternatives would affect the following impact categories listed in FAA Order 1050.1E:

### I. Air Quality

Air quality emissions in Homer do not exceed general conformity thresholds established by the Environmental Protection Agency (EPA) under the Clean Air Act (CAA). Based on the nature of the project and consultation with the Air Quality Division of the Alaska Department of Environmental Conservation (DEC) no further analysis is needed (Attachment 1).

### II. Coastal Resources

- CBRA – There are no lands in Alaska subject to the Coastal Barrier Resources Act. (USFWS, CBRS Mapper, January 2015)
- CZMA – Alaska withdrew from the voluntary National Coastal Zone Management Program on July 1, 2011.
- E.O. 13089 – There are no U.S. coral reef ecosystems in Alaska. (CoRIS, January 2015)

### III. Farmlands

No prime, unique, or farmland of statewide importance has been designated in Alaska. The NRCS Soil Survey did not identify any soils classified as prime farmland (Attachment 2). The Natural Resources Conservation Service (NRCS) has designated Soils of Local Importance in the western region of the Kenai Peninsula.

### IV. Fish, Wildlife and Plants

#### Protected Marine Mammals

- *Beluga Whale* - Kachemak Bay contains critical habitat for the endangered Beluga Whale. The Proposed Action Alternative would not involve any habitat modification in Kachemak Bay. Beluga Lake flows into Kachemak Bay. A Storm Water Pollution Prevention Plan (SWPPP) will be implemented to minimize the risk of water quality impacts during construction. The proposed action will have no effect on the Beluga Whale or Beluga Whale critical habitat.
- *Humpback Whale* - The range of the endangered Humpback Whale includes the marine waters of Kachemak Bay. The Proposed Action Alternative would not involve any habitat modification in Kachemak Bay. Beluga Lake flows into Kachemak Bay. A Storm Water Pollution Prevention Plan (SWPPP) will be implemented to minimize the risk of water quality impacts during construction. The proposed action will have no effect on the Humpback Whale.

- *Steller Sea Lion* - The range of the endangered Steller Sea Lion includes the marine waters of Kachemak Bay. The Proposed Action Alternative would not involve any habitat modification in Kachemak Bay. Beluga Lake flows into Kachemak Bay. A Storm Water Pollution Prevention Plan (SWPPP) will be implemented to minimize the risk of water quality impacts during construction. The proposed action will have no effect on the Steller Sea Lion.

### Essential Fish Habitat

There are no anadromous streams or essential fish habitat subject to the Essential Fish Habitat requirements of the Magnuson-Stevens Act, as amended by the Sustainable Fisheries Act of 1996, and the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, located in the project area. The closest anadromous stream is Beluga Slough (Cat No. 241-12-10100). During initial project scoping, the Alaska Department of Fish and Game (ADF&G) responded Beluga Lake is not anadromous, nor would the project impact fish passage (Attachment 3).

## **V. Light Emissions and Visual Impacts**

There is no lighting associated with the Proposed Action. Therefore, the project would not create an annoyance or interfere with normal activities.

The proposed improvements would add a ramp, turnaround area and access road on the southern shoreline of Beluga Lake. Some vegetation would be removed. The proposed alignment of the roadway would result in minor changes to the panorama of the southern shoreline of Beluga Lake. The improvements would not obstruct views of Beluga Lake or Kachemak Bay, or beyond, or contrast with the existing environment.

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

In the Proposed-Action Alternative, all physical facilities would be constructed on airport property. As in the No-Action Alternative, there would be no socioeconomic impacts. Because the proposed action would not result in any substantial impacts (including noise, air quality, or cultural resource categories), there are no substantial adverse human health or environmental effects. As such, no persons within low-income or minority populations would be affected at a disproportionately higher level than those in other population segments, and there would be no environmental justice impacts.

The proposed action would not affect products or substances a child is likely to ingest or use or with which a child is likely to come into contact or to which a child might be exposed and would not result in environmental health and safety risks that could disproportionately affect children.

## **Wild and Scenic Rivers**

The Department of the Interior National Park Service (NPS), USFWS, or Bureau of Land Management (BLM), and the Department of Agriculture (US Forest Service) have oversight of

the Wild and Scenic Rivers Act of 1968 and 36 CFR, Part 297, Subpart A-Water Resources Actions. The DOI and the Department of Agriculture (DOA) also oversee the Wild and Scenic River Guidelines for Eligibility, Classification and Management of River Areas. The FAA is required to determine if the Proposed Action or the No Action alternative would affect a designated area under the National Wild and Scenic River System (WSRS) or a free-flowing water body designated under the National Rivers Inventory (NRI). There are no Wild and Scenic Rivers located on the Kenai Peninsula. There are no impacts to WSRS or NRI designated water bodies expected.



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

**Department of Environmental  
Conservation**

DIVISION OF AIR QUALITY  
Air Non-Point Mobile Sources Program

619 E. Shipcreek Avenue, Suite 249  
Anchorage, AK 99802-0122  
Main: 907-269-7577  
Toll free: 866-241-2805  
fax: 907-269-7508

July 21, 2014

Bruce Greenwood, Environmental Protection Specialist  
Federal Aviation Administration, Alaska Region  
222 W 7<sup>th</sup> Ave., M/S #14  
Anchorage, AK 99513-7587

Dear Mr. Greenwood:

This letter is in regards a request from the Alaska Department of Transportation and Public Facilities (ADOT&FP) to provide comment regarding air quality review of the new proposed project by ADOT&PF to construct a new on-airport access road between the Beluga Lake Seaplane Base and the Homer Airport to provide direct access from the lake to the airport for floatplanes. The attachment project is located along Kachemak Drive in Homer Alaska. This project is not currently in a nonattainment area or maintenance area for air quality control under the Clean Air Act. Therefore, projects receiving federal funds or approvals do not require a conformity analysis under General Conformity regulations.

However, particular attention should be given during any construction activities to take reasonable precaution per 18 AAC 50.045(d) to prevent fugitive dust. Also, if the preferred method for disposal of debris is by open burning, ADOT&PF, or their contractor must use "reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated" as well as get any applicable permits. A complete description of the open burn guidance policy can be found at <http://dec.alaska.gov/air/ap/docs/obrguide.pdf>. Please also contact the City of Homer for any local ordinance regarding Air Quality and should be consulted prior to any open burning activities within their jurisdiction.

A general requirement of the Air Quality Control Regulations is that wastes should be burned in a manner that does not cause a public health, safety or welfare threat, an environmental problem or a nuisance.

Thank you for contacting us about your project. If you have further questions or concerns about air quality issues, you may contact me at (907) 269-7579 or by e-mail at [cindy.heil@alaska.gov](mailto:cindy.heil@alaska.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Cindy Heil".

Cindy Heil

Program Manager, ANPMS

Attachment: Copy of Original request  
cc: Taralyn Stone, ADOT&PF  
Nancy Ashton, DOWL HKM

**DEC Air Quality Conformity Request Form  
Project Located Outside of Nonattainment/Maintenance Area**

**• Location of the Project:**

Name Homer/Beluga Lake Floatplane Facilities Improvements  
Address 2336 Kachemak Drive, Homer, AK 99603  
Lat/Long Coordinates<sup>1</sup> 59°38'40.8021" North Latitude and 151°30'7.653" West Longitude  
Township 06 South, Range 13 West, Section 21, Seward Meridian  
Size (acres)

**• Type of Project / Project description:**

The proposed project would construct a new on-airport access road between the Beluga Lake Seaplane Base and the Homer Airport to provide direct access from the lake to the airport for floatplanes. The project would construct a ramp into the lake and an all-weather access road connecting the floatplane base to the main airport. The new drive would be used between the months of April 1 to October 1 and would intersect with FAA Drive.

**• Is the project located inside of a nonattainment or maintenance area?**

Yes  
 No

If no, explain how you reached that conclusion.<sup>2</sup> The project is not located near a nonattainment or maintenance area.

**• Define the period of performance that can be foreseen.**

Start Date Winter 2014  
Construction Period 1 year  
Operation Start Date Spring 2016

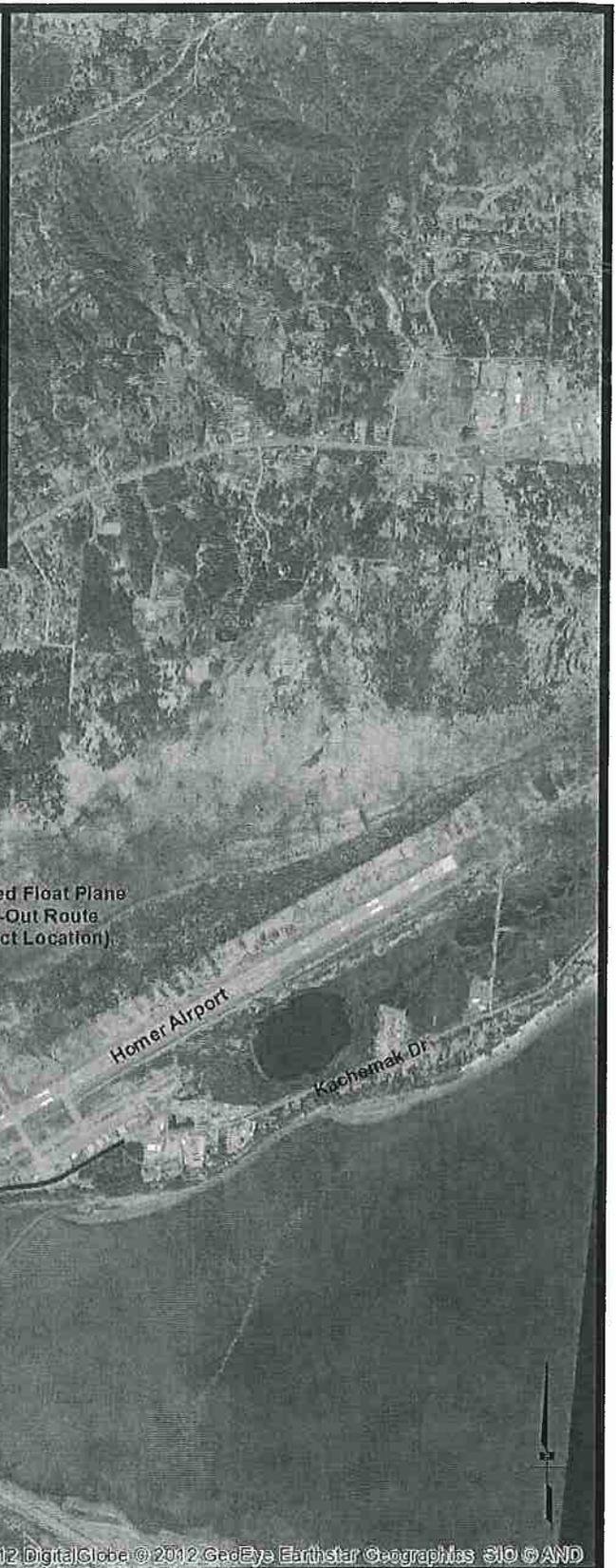
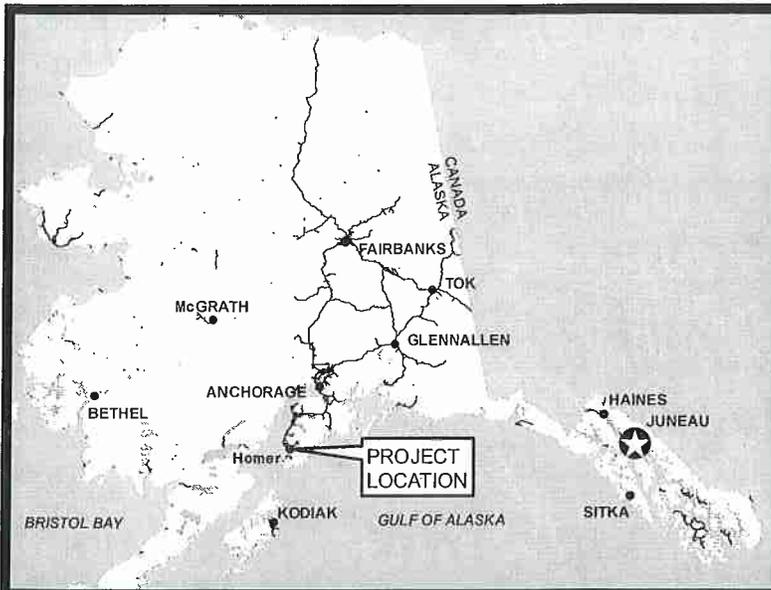
**• Contact information for responsible federal manager requesting.**

Name Taralyn Stone, Environmental Analyst III, Alaska DOT&PF for  
Agency Federal Aviation Administration, Alaska Region  
Address PO Box 196900, MS-2525, Anchorage, AK 99519-6900  
Phone No. (907)269-0534  
Email Address taralyn.stone@alaska.gov

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<sup>1</sup> For projects located near nonattainment / maintenance areas provide a map/diagram displaying the location of the property relative to the nonattainment / maintenance boundary.

<sup>2</sup> This response is relevant for projects located near nonattainment / maintenance areas.



bing™

© 2012 DigitalGlobe © 2012 GeoEye Earthstar Geographics SIO © AND

**Figure 1  
Project Location  
&  
Vicinity Map**

Sec 21 T6S R13W  
Seward Meridian, Alaska



**STATE OF ALASKA**  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

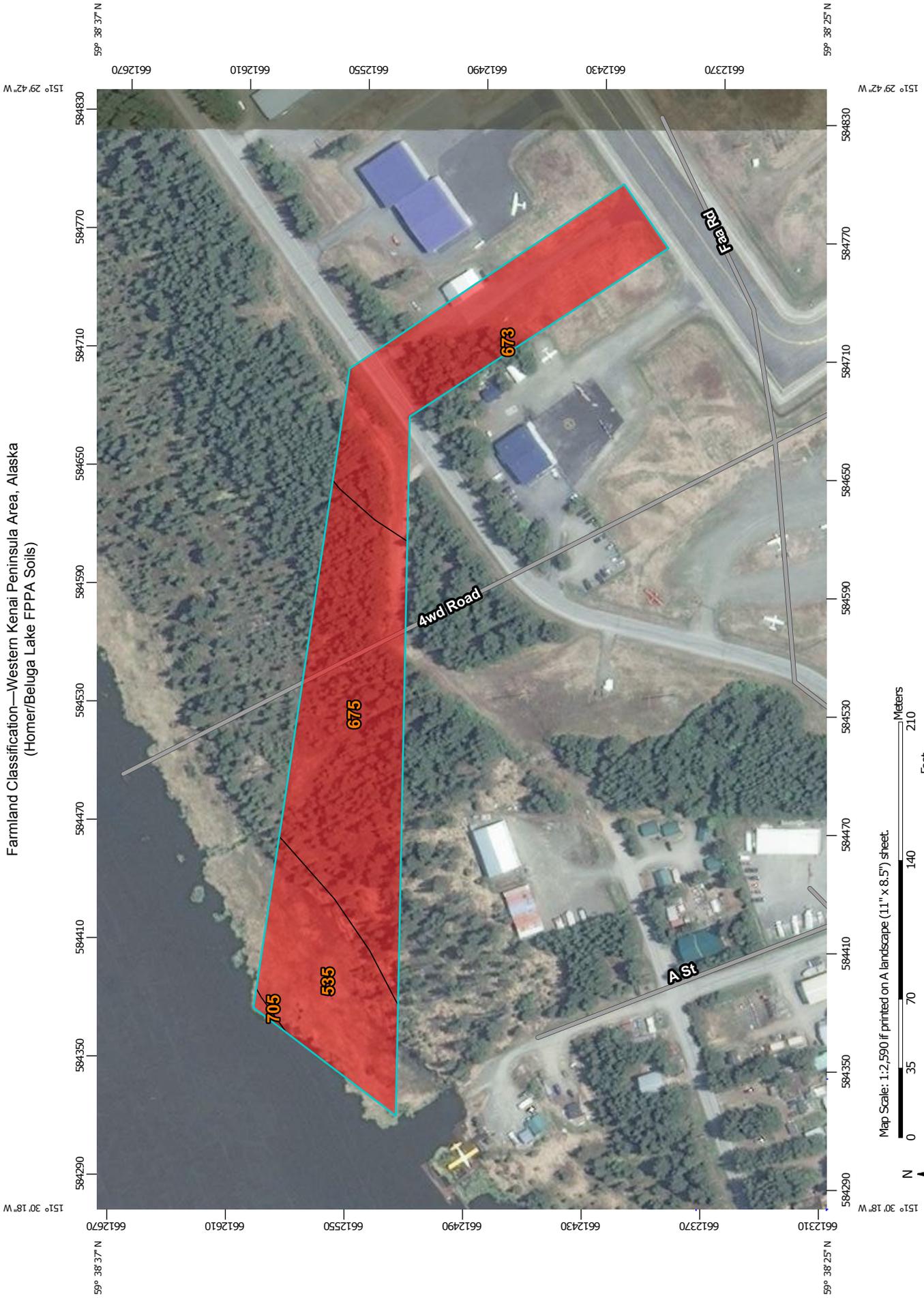
DOT & PF Project No. 57777

Homer, Alaska

DATE: Mar 03, 2014

61485

Farmland Classification—Western Kenai Peninsula Area, Alaska  
(Homer/Beluga Lake FPPA Soils)



Map Scale: 1:2,590 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 5N WGS84



## MAP INFORMATION

-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:25,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Kenai Peninsula Area, Alaska  
Survey Area Data: Version 13, Sep 16, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Farmland Classification

Farmland Classification— Summary by Map Unit — Western Kenai Peninsula Area, Alaska (AK652)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
535	Clunie peat, 0 to 2 percent slopes	Not prime farmland	1.3	22.0%
673	Spenard peat, 0 to 4 percent slopes	Not prime farmland	2.1	34.2%
675	Spenard peat, 8 to 15 percent slopes	Not prime farmland	2.7	43.5%
705	Water, fresh	Not prime farmland	0.0	0.3%
<b>Totals for Area of Interest</b>			<b>6.1</b>	<b>100.0%</b>

### Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

### Rating Options

*Aggregation Method:* No Aggregation Necessary

*Tie-break Rule:* Lower

**From:** Berkhahn, Patti [<mailto:PBerkhahn@borough.kenai.ak.us>]  
**Sent:** Wednesday, December 11, 2013 4:21 PM  
**To:** Stone, Taralyn R (DOT)  
**Cc:** Litchfield, Virginia P (DFG); [pberkhahn@borough.kenai.ak.us](mailto:pberkhahn@borough.kenai.ak.us)  
**Subject:** ADF&G scoping comments: Homer Beluga Float Plane Facilities

Homer Beluga Floatplane Facilities ADF&G, Habitat Division Scoping Comments

While the project is adjacent to the Homer Airport Critical Habitat Area (CHA), no part of the project lies within the CHA. Beluga Lake is not anadromous; however it likely contains resident fish species. Under 16.05.841 the Fishway Act, ADF&G, Habitat Division has the authority to regulate activities that could impact fish passage. This project does not appear to impact fish passage. Therefore a Special Area or Fish Habitat Permit from ADF&G, Habitat Division is not required.

ADF&G, Habitat Division recommends contacting USFWS regarding Threatened and Endangered Species and Migratory Birds to understand what steps need to be taken to protect these species. Comply with clearing windows while cutting trees and brush.

The route with the least impacts to the wetlands is recommended.

Patti Berkhahn  
Habitat Biologist III  
ADFG, Habitat Division  
River Center  
514 Funny River Road  
Soldotna, AK 99669  
907 714-2476  
[patricia.berkhahn@alaska.gov](mailto:patricia.berkhahn@alaska.gov)  
(State agency housed in Kenai Peninsula Borough Building)



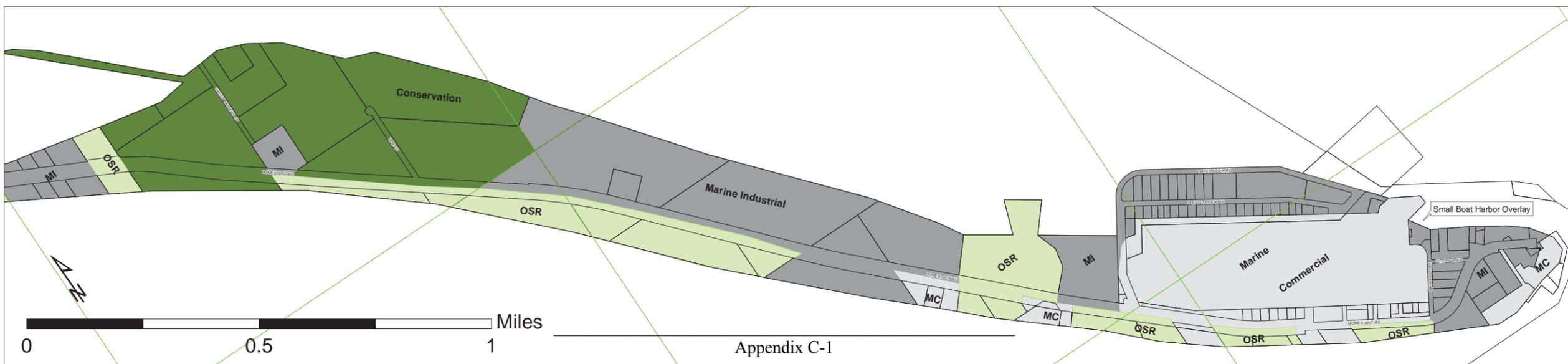
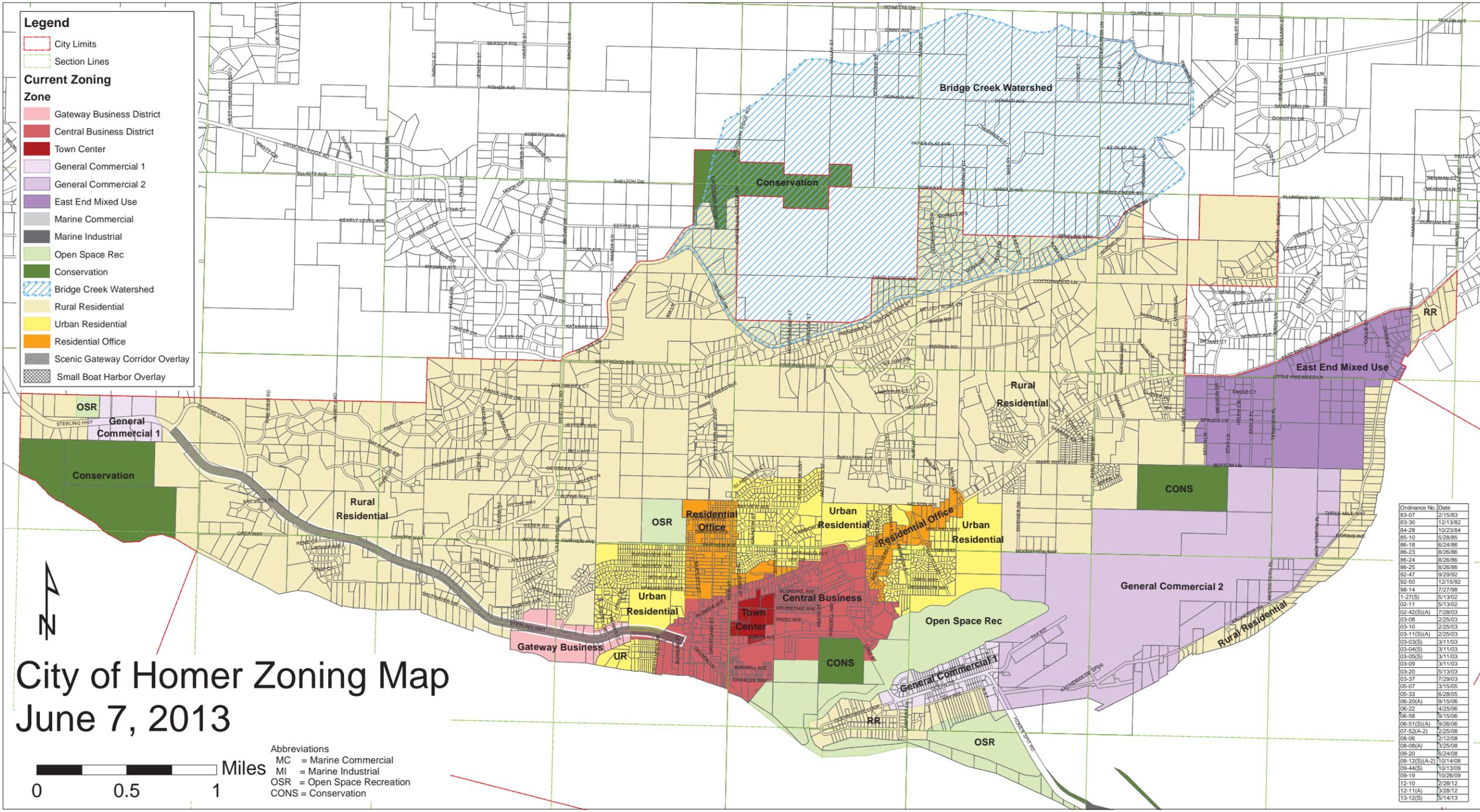
## **APPENDIX C**

### **Land Use and Noise**

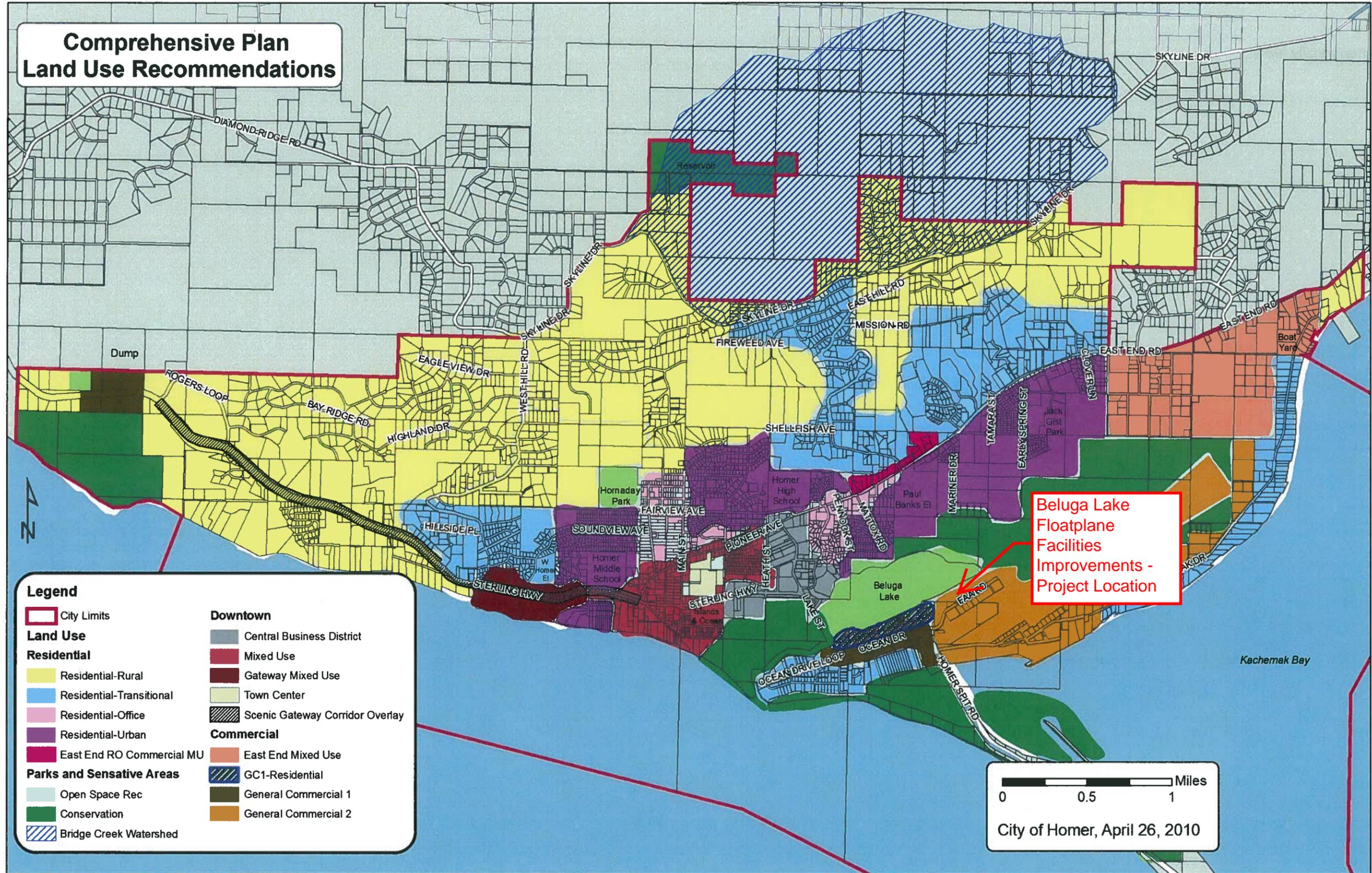


## **CITY OF HOMER LAND USE**





# Comprehensive Plan Land Use Recommendations



**Legend**

- City Limits
- Land Use**
- Residential**
  - Residential-Rural
  - Residential-Transitional
  - Residential-Office
  - Residential-Urban
  - East End RO Commercial MU
- Parks and Sensative Areas**
  - Open Space Rec
  - Conservation
  - Bridge Creek Watershed
- Downtown**
  - Central Business District
  - Mixed Use
  - Gateway Mixed Use
  - Town Center
  - Scenic Gateway Corridor Overlay
- Commercial**
  - East End Mixed Use
  - GC1-Residential
  - General Commercial 1
  - General Commercial 2

0 0.5 1 Miles  
City of Homer, April 26, 2010

**STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES  
LAND USE**



**Region 7: Homer (including Ninilchik River, Deep Creek, and Anchor River drainages)**

Unit Number	Unit Name	Designations	Acres	Map Number	Resource or use for which unit is designated / Management intent	Other resources and uses
216	Two ADFG access sites on lower Anchor River	hv rp	0.56	7C	High use for sport fishing. The Anchor River is one of the best road-accessible, wild-stock, steelhead trout streams left in the United States. / A management right has already been issued to DPOR for this parcel. Manage for public access and management of the Anchor River fishery.	Cultural sites present.
217	Northwest slopes of Lookout Mountain	rd	400	7C	A spur trail of the Watermelon Trail crosses this unit. Ohlson Mountain Trail passes along the east boundary of this unit. The power line trail and seismic lines are frequently used by snowmachiners and skiers; moose hunting and berry picking / Unit may be conveyed to a municipality. Reserve access for trails prior to conveyance.	Borough selected. Unit is north-facing, higher elevation, and snow covered late into the spring. Moose, calving and winter concentration areas in the northeast portion of this unit; anadromous stream is located downstream (but not in) this unit.
218A	Homer Airport Critical Habitat Area	ha pr	294	7C	Public uses Beluga Lake and viewing platforms and trails for watching wildlife. Moose, gulls, terns, and waterfowl habitat. Prior to legislation establishing the Homer Airport Critical Habitat Area (CHA), all of unit had been ILMA'd to DOTPF for the Homer Airport. / Retain in State ownership and manage consistent with the legislation establishing the CHA, Homer Airport Plan, and ILMA's issued to DOTPF. See the "DNR Management Authority in Critical Habitat Areas, Game Refuges, and Sanctuaries" guideline in the "Fish and Game Habitat and Harvest" section in Chapter 2 for management intent.	Cultural sites present.
218B	Homer Airport and adjacent airport-related lands	pr	743	7C	Contains Homer Airport and adjacent airport-related lands. Most of this unit has been ILMA'd to DOTPF (ADL 21908). The southern portion of this unit that overlaps with tidelands is within the Kachemak Bay Critical Habitat Area. Public uses Coal Bay, Beluga Lake, Lampert Lake, and viewing platforms and trails for watching wildlife, walking and beach combing. The public also uses Mud Bay for viewing waterfowl, seabirds, and shorebirds. Unit contains moose, shorebirds, seabirds (gulls and terns) and water fowl habitat. / Retain in state ownership and manage consistent with Homer Airport Plan, ILMA issued to DOTPF and OSL restrictions. See the "DNR Management Authority in Critical Habitat Areas, Game Refuges, and Sanctuaries" guideline in the "Fish and Game Habitat and Harvest" section in Chapter 2	EVOS parcels are adjacent to the tidelands portions of this unit. City is considering zoning the tidelands portion of this unit "Conservation." The tidelands portion of this unit that are located in Mud Bay (which during the planning process was being considered for a conservation easement) was conveyed from the City to DOTPF for aviation purposes (and DNR holds no title interest in these lands). Resources and uses in the tideland portion of the unit are also documented in the Management Plan for Kachemak Bay State Critical Habitat Area (ADFG, 1993).

**Region 7: Homer (including Ninilchik River, Deep Creek, and Anchor River drainages)**

Unit Number	Unit Name	Designations	Acres	Map Number	Resource or use for which unit is designated / Management intent	Other resources and uses
					for additional management intent for this portion of the unit in the CHA.	
220	Anchor River riparian parcels	rp	230	7C	Parking, camping, and day use facilities. Heavily used sections of river for angling, camping, walking. Anchor River is a heavily used for sport fishing and also contributes to the commercial fishery. / Manage as a unit of the State Park System.	Cultural sites present. DPOR ILMA/management right authorizations (ADL 201752, 204197, 212216, 221445, 221504, 223199, 225975, 66155 and 65068). DPOR just entered into an memorandum of understanding with the USCG for management of USS 1602 Tracts A and B. DPOR has agreed to manage this land as part of the Anchor River State Recreation Area through the year 2015. Currently this USS contains the Anchor Point light and trails.
224	Shoreline of Beluga Lake	ha	6.9	7C	Wetland habitat values associated with Beluga Lake. Potential community park and wildlife view area. Winter browse and resting and security cover for moose; suspected shorebird, and waterfowl, and swan nesting; wildlife travel corridor along shoreline; open space adjacent to subdivisions. / Also see the "Specific Management Intent for Units" section for additional management intent for this unit.	Structures, sewage line, floatplane dock, trail, and driveway are on (or adjacent to) the western portion of the unit.
225	Steep bluff below DPOR's Homer office, west of Homer	rd	34	7C	This unit is adjacent to Unit 432 that was recently purchased by Exxon Valdez Oil Spill Trustees for inclusion in the State Park System. Adjacent to tidelands in the Kachemak Bay Critical Habitat Area. Prominent part of Baycrest Hill Wayside viewshed. / Protect scenic values of site. Recommended addition to the State Park System.	
226	Old Sterling Highway, near south end	se	5	7C	Existing improvements (residence and outbuildings) appear to be built in wetlands on both sides of the Highway. A DNR Director Decision was made to sell this as an odd lot at fair market value. As of 1986, the lot still had not been sold.	
227	Homer DOTPF Maintenance Facility	pr	5.1	7C	DOTPF maintenance facility.	

**Unit 224 Shoreline of Beluga Lake**

This unit is available for a management agreement or lease with ADFG or a non-profit organization as long as the agreement is consistent with the intent of the Fish and Wildlife Habitat Designation. The unit may also be conveyed or the management transferred to the City of Homer or charitable organizations for a community park or conservation use. Because the northwestern third of the unit is well-drained, has had a structure on it in the past, is crossed by a sewage line, and has a floatplane dock, trail, and driveway on or immediately west of the unit, DNR may consider allowing other authorizations on this portion of the unit prior to issuing a management agreement/lease (or incorporating terms allowing other uses as part of the agreement/lease). Other uses that may be authorized in the northwestern part of the unit and along its western boundary include access for a floatplane dock, driveway access to adjacent land, maintenance and improvement of the existing sewage line, or public access to the shoreline and wetlands in the unit.

**Unit 260B Caribou Lake access points & wetlands surrounding subdivision**

This unit overlaps with both Regions 7 and 8. For management intent for this unit, see Region 8.

**Unit 501 Clam Gulch Critical Habitat Area**

This unit overlaps with both Regions 6 and 7. For management intent for this unit, see Region 6.



## **HOMER WETLAND COMPLEXES**



# HOMER WETLAND COMPLEXES AND MANAGEMENT STRATEGIES

## Moose Population and Movements Around Homer

Moose have been abundant on the Kenai Peninsula for over 100 years (Lutz 1960). Moose are an important resource for hunters and are a desired spectacle for local wildlife viewers and tourists. Densities around the state vary according to the quality of the habitat, predation levels, and other factors. The moose population around the greater Homer area (south of the Anchor River to Kachemak Bay) is currently over 500 animals and is considered a high-density population (Schwartz and Franzman 1989) with about 3 moose per square mile. This Homer moose population is currently the most abundant and productive population on the Kenai Peninsula. Moose from this population likely act as a "source" population in providing dispersing individuals to areas of lower moose densities around the lower Kenai Peninsula (Labonte et al. 1998).

Moose have evolved and adapted to habitat changes influenced by fire (Spencer and Hakala 1964, Loranger et al. 1990) and other natural disturbances. While disturbances such as fire increase the quality and quantity of browse for moose over time with the regeneration of new plant growth, the habitat changes caused by human development can remove important moose forage, eliminate access to existing forage, and/or fragment available browse into small and disconnected areas.

Moose and humans have shared the landscape in various Alaskan communities for many years. Moose inhabit areas within Anchorage because there still is available habitat. However, human-moose conflicts continue to increase as the human population grows and the amount of moose habitat decreases. Moose have been radiocollared in Anchorage using GPS technology that records locations multiple times each day. The data have not been analyzed; however, moose in urban areas appear to spend most of their time in natural areas including parks, greenbelts, and undeveloped properties near developments (R. Sinnott, Anchorage-ADF&G biologist, pers. comm.). These "green areas" provide moose browse, cover to escape from human disturbance and to stay cool, bedding areas for rest and food processing, and undisturbed areas for calving.

Moose around Homer eat a wide variety of vegetation based on the nutritional quality and availability of the plant species. In the summer when vegetation is plentiful, moose eat leaves from birch and willow along with forbs, grasses, sedges, and aquatic plants (LeResche and Davis 1973). During the winter, food is often limiting and moose focus on twigs of limited nutritional quality such as birch, willow, and ornamentals planted around human residences. Willows are an integral part of the diet for moose especially in the winter. During the winter, when moose browse greater than 30% of the previous summer's growth of willow stems, there can be an increase in the production of new stems the following year (Collins 2002). However, browsing over 80% of the previous year's growth will increase the production of secondary plant compounds, which limits the amount of nutrition the moose receives from the plant (Collins 2002). Continued browsing of the new annual growth of a plant, such as paper birch, year after year can eventually kill the plant (Oldemeyer 1983). Every winter in Homer, most preferred willow species suffer nearly 100% browsing of the previous summer's plant growth.

Moose spend much of their time along forest edges because of the availability of good browse and for avoiding human disturbance (Bangs et al. 1985). Utilization of moose browse species will increase with the severity of the winter snowfall (Collins 2002). Winter snow conditions are often severe in Homer. Deep snow conditions cover food sources and make traveling more energetically difficult for moose, especially calves. The deep snow winters of 1991/92, 1994/95, 1997/98, and 1998/99 resulted in severe over-browsing of the available moose habitat and caused the death of over 200 moose in and around the city of Homer due to malnutrition. Even in relatively mild winters such as 2005-06, over 10 moose died in residential areas in Homer during late winter due to malnutrition. These mortality totals do not include many moose that die due to malnutrition and are unreported or undetected.

It is likely that a low-density moose population could survive within expansive human development with or without mitigating development and proactive planning for protecting moose habitat. However, mitigation measures to protect certain critical moose habitat patches in Homer will improve the long-term sustainability of our local moose population. The Homer moose population is currently a high-density population and the growth in the local moose population during the past 5-10 years has bolstered moose numbers in areas surrounding Homer. Moreover, failing to protect important habitats for moose in Homer will ensure a large proportion of the population will die due to malnutrition every winter. Negative moose-human interactions will also rise as moose increase their movements between available food patches and act defensively while feeding on small browse patches around human residences.

The purpose of identifying important areas of moose habitat and mitigating development of these habitats is not to improve or enhance the moose habitat that currently exists. The purpose is to lessen the impact of habitat loss that is inevitable with development. The assumption is that the public wants the local moose population to be healthy and negative encounters between humans and moose to be low. A desired decrease in the moose population to reduce potential human-moose conflicts would warrant a detailed plan of moose reductions via hunting rather than a slow removal of their prime habitat in the city and subsequent mortality due to malnutrition when winter snow conditions are severe. If the direction of wildlife management is to maintain a healthy moose population, then an active habitat management program is required. Providing mitigation measures for the human development of high-quality moose habitat within the City of Homer is a wise first step.

Thomas McDonough  
Wildlife Biologist  
Alaska Department of Fish & Game  
5 June 2006



**"Natural Vegetation"**  
Natural vegetation consists of the vegetation that would be on the site without human manipulations. Lawns are not natural vegetation. Natural vegetation retains water and filters runoff. It is important for flood control and to remove pollutants from water running off roofs, paved areas, lawns, and cleared ground.

**Synopsis**  
In 2005-2006 representatives of the City of Homer, US Army Corps of Engineers, Environmental Protection Agency, US Fish & Wildlife Service, Kachemak Bay Research Reserve, Cook Inletkeeper, Kenai Watershed Forum, Natural Resources Conservation Service, and Alaska Department of Fish & Game met to assess Homer wetlands. After a thorough review of methods, a scoring protocol was developed and all wetlands were scored. The group then discussed these management strategies. The strategies have not been formally adopted, but they represent a starting point to manage Homer wetlands as a unified resource.

**Beluga Lake**  
Prohibit fill in Beluga Lake or the two associated wetland polygons (docks are permitted).

**Beluga Slough**  
Development in tidally influenced wetlands should be prohibited.

**Beluga Slough Discharge Slope**  
Development should be encouraged in this core area of Homer. Mitigate for the loss of moose habitat. Further development north of Bunnel Avenue and east of Main Street should be discouraged. A goal of this plan is to bring private parcels in this area into conservation status. Development in tidally influenced wetlands should be prohibited.

**Bridge Creek Wetlands**  
The wetland management strategy for this watershed is the same as the Bridge Creek Watershed Protection Ordinance, which includes a prohibition on filling wetlands.

**Diamond Creek Wetlands**  
Maintain large lot sizes. Maintain a 100 ft setback of natural vegetation along either side of Diamond Creek and its tributaries. Crossings should be perpendicular to the channel, via bridge or oversized culvert and involve the minimum amount of fill necessary for safety. Where uplands exist on a lot they must be used prior to filling wetlands. If more than 3% of wetlands on any lot are converted to hardened surface they must be compensated for with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

**Downtown wetlands**  
On City-owned parcels, maintain greenbelts incorporating storm water retention designs. Where uplands exist on a lot they must be used prior to filling wetlands. If more than 3% of wetlands on any lot are converted to hardened surface they must be compensated for with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

**East Beluga Discharge**  
Accelerated runoff from hardened surfaces will be offset with swales and/or runoff retention ponds. Site design should include hydrologic connectivity to upstream and downstream parcels. Moose habitat values are high throughout. Moose habitat should be preserved or mitigated. Development along the border with the East Homer Drainageway Complex should maintain an 85 ft buffer of natural vegetation.

**East Homer Drainageway**  
This area should be targeted for preservation and restoration. Encourage purchasing of private lots by Kachemak Heritage Land Trust, Moose Habitat Incorporated and others. If possible, restore hydrology and repair or implement suitable storm water management measures along Kachemak Drive. Some fill may be allowed along Kachemak Drive.

**Kachemak Kettle**  
Maintain a 100 ft buffer along the East Homer Drainageway. Accelerated runoff from hardened surfaces will be offset with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

**Lampert Peatland**  
Maintain a 100 ft buffer around Lampert Lake. Mitigate for lost hydrologic, general habitat, and moose habitat functions in wetlands west of Lampert Lake. Discourage further development of wetlands east of Lampert Lake. Prohibit wetland filling more than 400 ft from Kachemak Drive.

**Landfill Kettle**  
Restrict development to the south side of the wetlands and along the highway. Accelerated runoff from hardened surfaces will be offset with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated. The peatlands should be preserved and buffered with a 50 ft setback of undisturbed natural vegetation as they are highly functional for water retention and filtering.

**Loop Kettle**  
Loss of moose habitat should be mitigated.

**NE Slough**  
Retain natural vegetation as is practicable. Preserve existing wetlands for water quality functions and moose habitat.

**N. Paul Banks Discharge**  
Encourage development here. Retain natural vegetation as is practicable. Accelerated runoff from hardened surfaces will be offset with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

**Ocean Kettle**  
Accelerated runoff from hardened surfaces will be offset with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

**Ocean Drive Kettle**  
Retain natural vegetation as is practicable. Accelerated runoff from hardened surfaces will be offset with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

**Outer Loop Kettle**  
Retain natural vegetation as is practicable. Accelerated runoff from hardened surfaces will be offset with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

**Overlook Park**  
Public lands: Maintain in conservation status and manage according to site management plan. Private Lands: Maintain moose habitat by limiting fill to the minimum necessary for a residence and minimum driveway and parking. No ditching or changes to drainageways should be allowed. Locate roads out of wetlands and out of drainageways to the extent possible. Maintain a 100 ft setback of natural vegetation on either side of Overlook Creek.

**Palmer Drainageway and Fan**  
Maintain a 100 ft setback of natural vegetation on either side of Palmer Creek. Crossings should be perpendicular to the channel via bridge or oversized culvert and involve the minimum amount of fill necessary for safety. All of these wetlands should be preserved. A wetlands bank with Moose Habitat Incorporated will target private parcels in this area, along with the East Homer Drainageway, for purchase and preservation. Wetlands within the City of Homer that have been targeted for moose mitigation are eligible to receive credits from this bank.

**Raven Kettle & Roger's Loop Depression**  
Avoid wetland fill. Maintain the hydrologic integrity of drainageways and water retention and filtration capacity of the complex. Where uplands exist on a lot they must be used prior to filling wetlands. If more than 3% of wetlands on any lot are converted to hardened surface they must be compensated for with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

**Runway Discharge**  
Within the airport boundary wetland hydrology should be maintained. Public lands: Those tracts outside the airport boundary should be maintained and managed for the values of the Homer Airport Critical Habitat Area. Private lands: Accelerated runoff from hardened surfaces will be offset with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

**Upper Woodard**  
On City-owned parcels, maintain greenbelts incorporating storm water retention designs. Retain as much natural vegetation on individual lots as is practicable. Where uplands exist on a lot they must be used prior to filling wetlands. If more than 3% of wetlands on any lot are converted to hardened surface they must be compensated for with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.

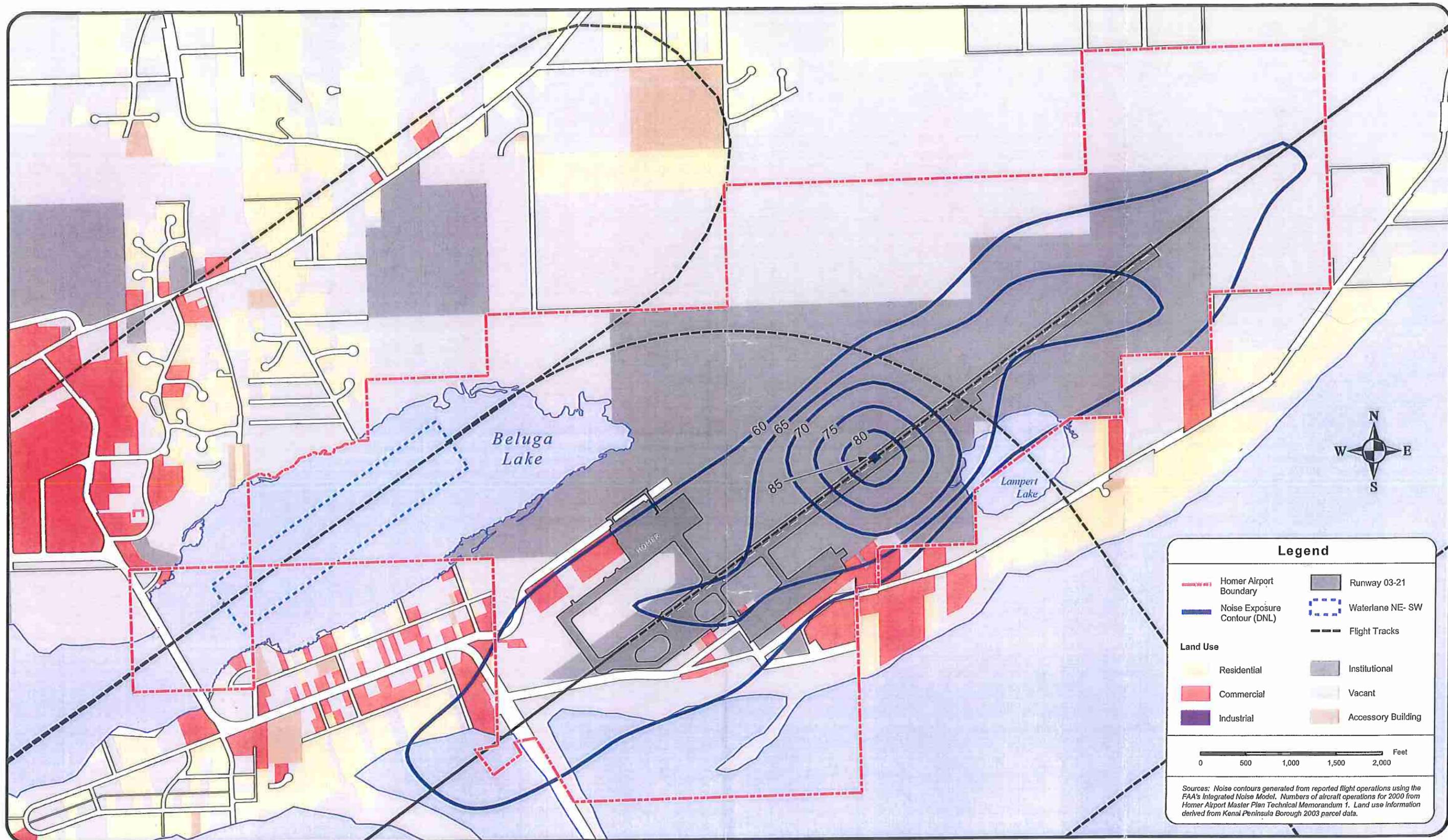
**West Beluga Slope**  
Public lands: Publicly owned lands should be preserved as undisturbed wetlands. Private lands: These should be prioritized and purchased over time for inclusion in a mitigation bank whose purpose is to preserve moose habitat. Development should be discouraged. A master plan should be developed for this area as it is a very important wetland complex, and it is probably the most threatened in the City of Homer.

**West Homer Discharge**  
Retain natural vegetation as is practicable. Accelerated runoff from hardened surfaces will be offset with swales and/or runoff retention ponds. Loss of moose habitat should be mitigated.



## **2009 NOISE EXPOSURE CONTOURS**







## **APPENDIX D**

### **Section 4(f) Applicability**



## SECTION 4(F) APPLICABILITY DETERMINATION

### HOMER/BELUGA LAKE FLOATPLANE FACILITIES IMPROVEMENTS

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is proposing a project to construct an interior access road connecting the Homer Airport with the Beluga Lake Seaplane Base. The proposed improvements would also include a turnaround area and a ramp into the lake. The airport is located in Sections 20 and 21, Township 6 South, Range 13 West on United States Geological Survey Quad Map Seldovia C-4 and C-5, Seward Meridian at 59°38'35.33" north latitude, 151°29'47.18" west longitude, in Homer, Alaska (see Figure 1).

The purpose of the project is to connect the Beluga Lake landing area with the rest of the airport, improving aircraft access to the Homer Airport for maintenance, fuel and storage.

This consultation will aid FAA in determining if the Proposed-Action Alternative (the proposed project) would result in the use of neighboring Section 4(f) resources.

#### **Project Description**

The Proposed-Action Alternative consists of the following improvements (see Figure 2):

##### Improvements south of FAA Road at the main airport include:

- Construction of a 500 foot-long, 26-foot-wide paved access road, with a 100-foot-wide object-free-area.
- Construction of 200 feet of FAA-approved fencing, including two 30-foot-wide single cantilever gates and a 10-foot swing gate.
- Extension of electric utilities to gate operators.
- Extension of an existing 18-inch corrugated metal pipe (CMP) to maintain airport drainage.
- Installation of a new 18-inch CMP to maintain flow in an existing FAA Road drainage ditch.
- Construction of relocated driveway.
- Construction of restricted-access gate and fencing.

##### Improvements north of FAA Road to Beluga Lake include:

- Construction of a 1,100 foot-long, 26-foot-wide paved access road, with a 100-foot wide object-free-area
- Construction of a 147-foot x 76-foot paved turnaround area
- Construction of an 83-foot, 20-foot-wide concrete plank ramp on a sloping shore, with 3-foot riprap shoulders

All work would occur within DOT&PF right-of-way (ROW).

## **1.0 IDENTIFICATION OF SECTION 4(F) RESOURCES**

### **1.1 Homer Airport**

The Homer Airport property (1,042 acres) is a public multi-use land holding, and Section 4(f) applies only to those portions that are designated by statute or identified in an official management plan of the administering agency as being primarily for public-park, recreation, or wildlife and waterfowl refuge purposes, and are determined to be significant for such purposes.

#### 1.1.1 Homer Airport Critical Habitat Area

The Homer Airport Critical Habitat Area (HACHA) is located approximately 0.25-mile from the proposed project (see Figure 3). In 2006, HACHA was designated by state statute to protect and preserve wildlife habitat, and consequently, is identified as a wildlife refuge. The area consists of approximately 290 acres and is situated on airport property. There are no formally designated access points to HACHA, however, it can be accessed from a number of residential roads off of East End Road.

Management of HACHA was assigned to the Alaska Department of Fish & Game (ADF&G), however, DOT&PF retains certain rights and authority over the lands. These rights and authority pertain to aircraft overhead, obstructions, and prohibiting or removing objects on the land. DOT&PF has also restricted the creation and enhancement of bird habitat within the area in order to minimize wildlife/aircraft strikes. The ADF&G website states that the wetlands, lakes, and ponds of HACHA contain resting and feeding area for migratory birds, and that wetlands within HACHA contain the necessary winter browse and thermal cover critical to the perpetuation of the local moose population. The Kenai Area Plan (2001), states that the public uses trails within HACHA for watching wildlife, and cites the management intent as “retain in state ownership and manage consistent with the legislation establishing the Critical Habitat Area, Homer Airport Plan, and interagency land management agreement with DOT&PF”. Section 4(f) is presumed to be applicable to HACHA.

#### 1.1.2 Beluga Wetlands Wildlife Viewing Platform

The Beluga Wetlands Wildlife Viewing Platform is located on airport land near the terminus of FAA Drive (approximately 0.23-mile from the proposed project). The public viewing platform is situated outside the boundaries of HACHA, and is accessed via FAA Road (see Figure 3). The City of Homer Park and Trails Map labels the viewing platform as a “park”. Section 4(f) is presumed to be applicable to this resource.

#### 1.1.3 Beluga Lake

Beluga Lake is a manmade lake created by DOT&PF for use as a seaplane base. Most of the lake is situated on airport property and is operated as a seaplane base. Use of the lake by seaplanes is seasonal (from approximately April through October), and all other activities are restricted. In the winter, there is some public recreational use of the lake; however, these activities are considered incidental, dispersed, and unauthorized. Accordingly, DOT&PF believes that Section 4(f) does not apply to Beluga Lake.

## **2.0 ASSESSING USE OF SECTION 4(F) RESOURCES**

### **2.1 Physical Use**

The Proposed-Action Alternative would not result in a physical use of a Section 4(f) resource as follows:

- It would not physically occupy a portion of or all of a Section 4(f) resource,
- It would not permanently incorporate a Section 4(f) resource for project purposes through acquisition or easement,
- It would not require the alteration of structures or facilities located on Section 4(f) resources
- It would not require the temporary occupancy of a Section 4(f) resource

### **2.2 Constructive Use**

Unlike physical use, a constructive use does not physically occupy or require purchase of the Section 4(f) resource. A constructive use would occur when an action would substantially impair that resource. Substantial impairment occurs only when the activities, features, or attributes of the resource that contribute to the resource's significance or enjoyment are substantially diminished. According to the 2007 FAA Environmental Desk Reference, potential causes of constructive use include shifts in user population because of direct use of bordering properties, and /or non-physical intrusions such as noise, air pollution, or other effects that would substantially impair the resource's use.

The Proposed-Action Alternative will not result in any non-physical intrusions (constructive use) that would cause substantial impairment to the activities, features, or attributes that qualify the resources for protection under Section 4(f), as described below:

#### Access Restriction

The Proposed-Action Alternative would not restrict access to Section 4(f) resources. FAA Road would remain open during construction and the public would still be able to access the viewing platform. Access to HACHA would be unimpeded as well, as no work would occur on residential roads off of East End Road (unofficial access points).

#### Noise Interference

The presumed 4(f) resources are located a quarter-mile away from the project area. Due to this separation, the Proposed-Action Alternative is not anticipated to result in a temporary or permanent noise level increase that would substantially interfere with wildlife use or public enjoyment of the resources.

#### Aesthetic Impairment

The Proposed-Action Alternative would not substantially impair the setting (aesthetics) or obstruct views from any Section 4(f) property. The shoreline of Beluga Lake is approximately 40-percent developed, chiefly with floatplane ramps and docks. The Proposed-Action Alternative would add a ramp and access road perpendicular to the shoreline and would result in minimal changes to the panorama of the southern shoreline of Beluga Lake.

### Vibration Impact

Both presumed 4(f) resources are located outside of the immediate project vicinity (approximately a quarter-mile away). Accordingly, ground-borne vibrations (during construction and project build-out), are not anticipated to diminish the use of the resources by wildlife or recreational users.

### Ecological Intrusion

The Proposed-Action Alternative requires that a 100-foot wide swath of vegetation be cleared along the proposed alignment to accommodate floatplane wingspans. This clearing would occur outside of HACHA, along the westernmost boundary of airport property adjacent to developed land. The Proposed-Action Alternative would result in a minor decrease in the amount of available surrounding habitat; however, it would not substantially impair wildlife migration or life processes, or substantially reduce wildlife use of HACHA.

### Air Quality

The Proposed-Action Alternative is not anticipated to result in temporary (construction) or permanent air quality impacts that would substantially impair wildlife or recreational use of the presumed Section 4(f) resources.

## **2.3 Conclusion**

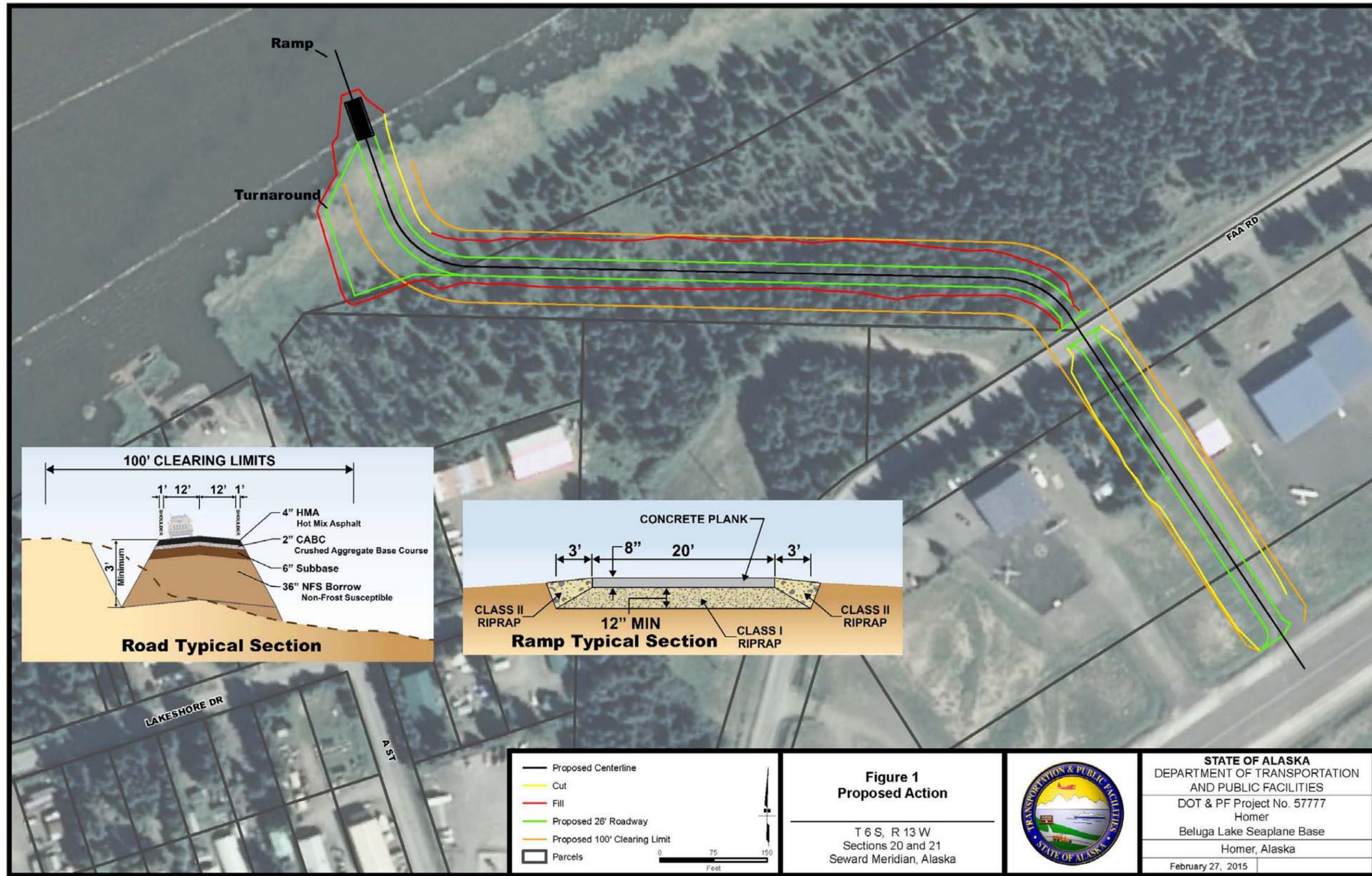
DOT&PF believes that the Proposed-Action Alternative would not result in a physical or constructive use of neighboring Section 4(f) resources.

Attachments: Figure 1 – Project Location and Vicinity Map  
Figure 2 – Proposed-Action Alternative  
Figure 3 – Presumed Section 4(f) Resources

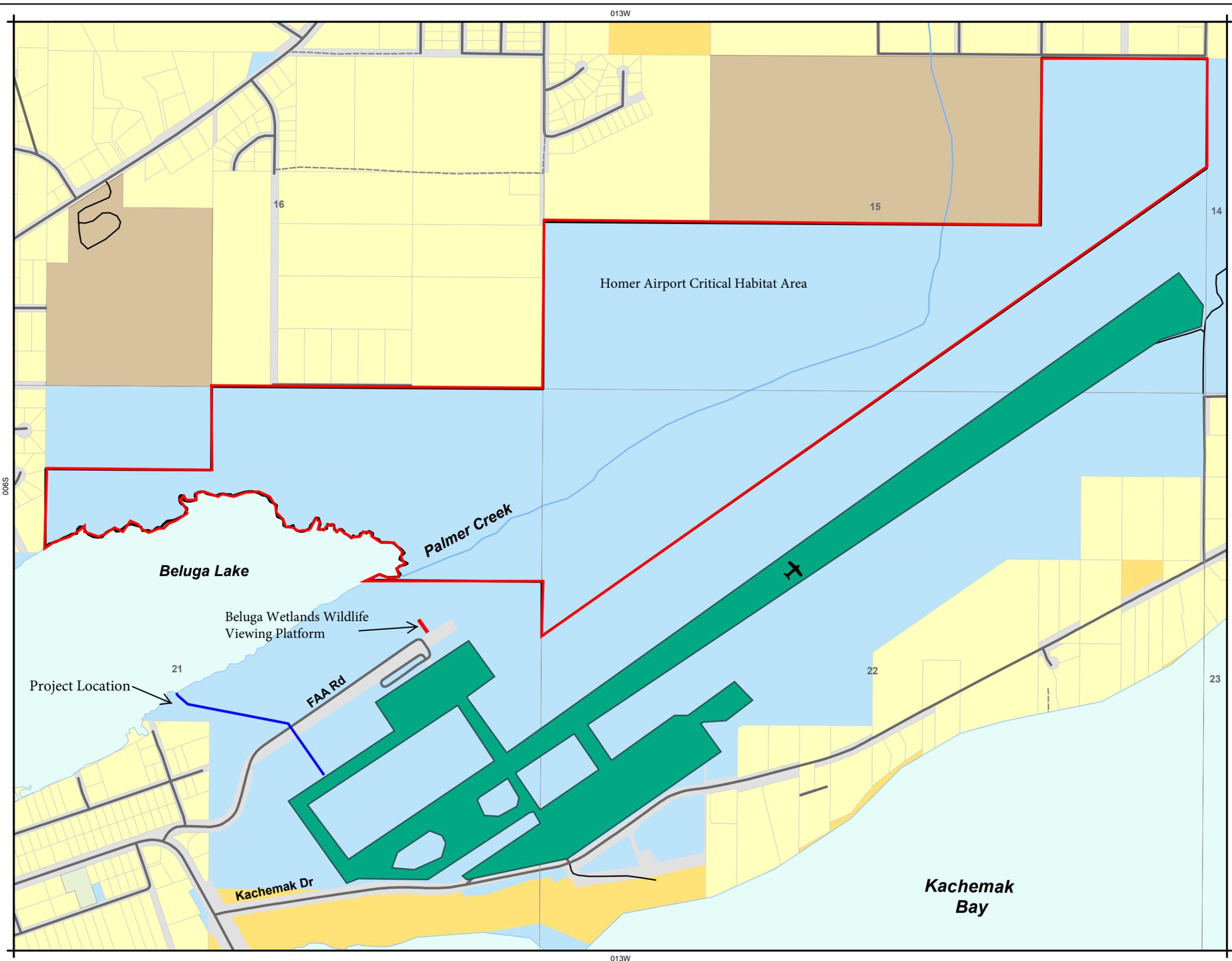


**Figure 1: Project Location and Vicinity Map**

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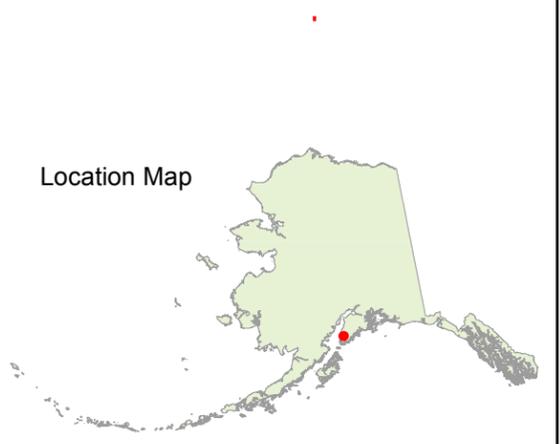
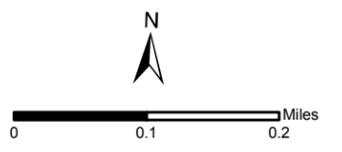
**Figure 2: Proposed-Action Alternative**



**Figure 3: Presumed Section 4(f) Resources**

- State Lands**
- BLM
- State Lands**
- State
- Other Lands**
- Private
- Municipal
- Borough

Presumed 4(f) Resources (Homer Airport Critical Habitat Area & Beluga Wetlands Wildlife Viewing Platform)



## **APPENDIX E**

### **Threatened and Endangered Species**





# United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE  
Anchorage Fish and Wildlife Field Office  
605 West 4<sup>th</sup> Avenue, Room G-61  
Anchorage, Alaska 99501-2249



In Reply Refer To:  
FWS/AFES/AFWFO

November 1, 2014

**Emailed to:**

Elysia Retzlaff  
Department of Transportation and Public Facilities  
P.O. 196900  
Anchorage, Alaska 99519-6900

Re: Homer/Beluga Lake Floatplane Facilities Improvements (*Consultation Number 2014-0120*)

Dear Ms. Retzlaff,

Thank you for your request for section 7 consultation for improvements to the floatplane facilities on Beluga Lake in Homer, Alaska, pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq., as amended; ESA). The Alaska Department of Transportation and Public Facilities, in collaboration with Federal Aviation Administration, has requested concurrence with the determination that the proposed activity is not likely to adversely affect species and habitat protected by the ESA and under the management authority of the U.S. Fish and Wildlife Service (Service).

The proposed project consists of construction of a new floatplane haul-out ramp and turnaround area on Beluga Lake and a new access road to connect the turnaround area to the Homer Airport. Construction of the access road, located on existing airport property, involves clearing approximately 3.5 acres of previously undisturbed land near the Beluga Lake shoreline. Construction of the ramp requires dredge and fill activities in approximately 6,000 square feet (0.14 acres) near the shoreline of Beluga Lake.

**Endangered Species Act**

Steller's eiders (*Polysticta stelleri*) regularly occur along Homer Spit and in Kachemak during October through April. On the wintering grounds, members of the threatened Alaska-breeding population of Steller's are thought to mix with, and are indistinguishable from, the non-listed Pacific Steller's eider population.

The proposed project is located on Beluga Lake, which flows into Kachemak Bay. Construction activities could impact Steller's eiders or their habitat by degrading water quality. Fuel spills and leaks may occur during construction or use of the floatplane facilities. Dredge and fill activities may release contaminants or sediments into Beluga Lake. Contaminated water could then flow downstream approximately 0.4 miles from Beluga Lake into Kachemak Bay. Steller's eiders may be

directly exposed to contaminants and may be indirectly affected if forage quality or quantity is reduced. Eiders feed on bivalves, which are known to bioaccumulate pollutants. Chronic exposure to pollutants such as petroleum hydrocarbons can have sub-lethal effects, negatively impacting reproductive success, immune system function, and overall body condition (Springman et al. 2005).

Impacts to water quality from construction of the float plane facilities are unlikely to cause direct or indirect impacts to listed Steller's eiders. A Storm Water Pollution Prevention Plan that includes use of silt fences and sediment curtains will be in place to minimize risk of water quality impacts during construction. The short duration of construction and small project footprint will ensure that any impacts are temporary and localized. After construction, oil and fuel spills may occur during use of the new float plane facilities. However, this is part of the existing condition; facility improvements are not expected to cause new or additional impacts.

Given the small amount of habitat potentially impacted and the minimization measures in place, the Beluga Lake float plane facility improvement project is not likely to cause direct impacts on Steller's eiders or to cause significant impacts to habitat quality. Additionally, birds from the Alaska-breeding population only comprise about 1% of the total number of eiders wintering in Alaska's marine waters. In summary, the probability that the proposed work may affect the listed population is so low as to be discountable. The Service therefore concurs with your determination that this proposed activity is not likely to adversely affect species and habitat protected under the ESA.

Requirements of section 7 of the ESA have been satisfied. However, if new information reveals project impacts that may affect listed species or critical habitat in a manner or to an extent not previously considered, if this action is subsequently modified in a manner which was not considered in this assessment, or if a new species is listed or critical habitat is determined that may be affected by the proposed action, section 7 consultation must be reinitiated.

The above analysis relates only to federally listed or proposed species and/or designated or proposed critical habitat under jurisdiction of the Service. It does not address species under the jurisdiction of National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act (FWCA), Migratory Bird Treaty Act (MBTA), Marine Mammal Protection Act, Clean Water Act, National Environmental Policy Act, or Bald and Golden Eagle Protection Act.

### **Additional Considerations**

The following recommendations are voluntary measures that if adopted, will further reduce the project's impacts to fish and wildlife. These recommendations are offered pursuant to the FWCA and MBTA. The Service's mitigation policy includes first avoiding, then minimizing, and finally compensating for unavoidable impacts to fish and wildlife habitat. Impacts include direct, indirect, and temporal effects. We recommend working with the U.S. Army Corps of Engineers during the planning phase of the project to develop effective mitigation, including compensation for unavoidable impacts to wetland habitat.

In order to reduce impacts on migratory birds, the Service recommends vegetation removal be completed prior to the nesting season in potentially suitable nesting habitats. Migratory birds could suffer significant mortality from clearing of vegetation during the breeding and nesting season. The MBTA prohibits the killing or harassment of migratory birds. Please refer to the following website for detailed information on when to avoid clearing in specific regions and habitats in Alaska ([http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/pdf/vegetation\\_clearing.pdf](http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/pdf/vegetation_clearing.pdf)).

Thank you for your cooperation in meeting our joint responsibilities under the ESA and considering our recommendations for compliance with FWCA and MBTA. If you have any questions, please contact me at (907) 271-1467 or Jennie Spegon at (907) 271-2768.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kimberly J. Lance".

*For* Ellen W. Lance  
Ecological Services Branch Chief

### **Literature Cited**

Springman KR, G Kurath, JJ Anderson, JM Emlen. 2005. Contaminants as viral cofactors: Assessing Indirect Population Effects. *Aquatic Toxicology* 71: 13-23.



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

Department of Transportation  
and Public Facilities

DESIGN & ENGINEERING SERVICES  
PRELIMINARY DESIGN & ENVIRONMENTAL

PO Box 196900  
Anchorage, Alaska 99519-6900  
Main: 907.269.0542  
Toll Free: 800.770.5263  
TDD: 907.269.0473  
TTY: 800.770.8973  
Fax: 907.243.6927

Project: Homer/Beluga Lake Floatplane Facilities Improvements  
Project No.: 57777  
Consultation No.: 07CAAN00-2014-SLI-0120

October 2, 2014

Ellen Lance  
Anchorage Fish and Wildlife Field Office  
605 West 4<sup>th</sup> Avenue, Room G-61  
Anchorage, Alaska 99501

**Re: Evaluation of potential biological impacts on ESA-listed species**

Dear Ellen,

In response to your letter dated July 31, 2014, the Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), has conducted an evaluation of potential biological impacts from the proposed Homer/Beluga Lake Floatplane Facilities Improvement project on Endangered Species Act (ESA) listed species. For this project, you identified one threatened species, the Steller's eider, as ESA-listed species that may be found within the project area.

Based on the attached analysis, DOT&PF finds that the proposed action is **not likely to adversely affect ESA-listed species or their critical habitat**. Your concurrence in this matter is hereby respectfully requested. If you have any questions or comments regarding this request or need additional information, please contact me at 907-269-0527 or [elysia.retzlaff@alaska.gov](mailto:elysia.retzlaff@alaska.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Elysia Retzlaff".

Elysia Retzlaff  
Environmental Team Leader

Enclosures:

- Evaluation of Potential Biological Impacts
- Figure 1: Location and Vicinity Map
- Figure 2: Study Area

cc: Brian Elliott, DOT&PF Central Region, Regional Environmental Manager  
Aaron Hughes, P.E., DOT&PF Central Region, Project Manager  
Molly Lamrouex, FAA Environmental Specialist

## Evaluation of Potential Biological Impacts on ESA-Listed Species

### Proposed Action

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is proposing to construct a new access road connecting the Homer Airport with the Beluga Lake Seaplane Base (Figure 1). The proposed improvements would include a turnaround area and a ramp into the lake. The access road would be constructed on existing airport property and involve the clearing of approximately 3.5 acres of previously undisturbed uplands, wetlands and Beluga Lake shoreline. Dredge and fill in Beluga Lake would be required to construct the floatplane haul-out ramp and turnaround area.

### Study Area

The study area encompasses approximately 27 acres of uplands, wetlands and open water (Figure 2). The study area occurs in Section 21, T06S, R13W on USGS Quad Map Seldovia C-4 and C-5, Seward Meridian; Latitude 59°-38-40.802N, Longitude 151°-30-7.653W, in Homer, Alaska and is located between the Homer Airport Critical Habitat Area and the Kachemak Bay Critical Habitat Area.

### ESA Listed Species

Through prior consultation, DOT&PF and U.S. Fish and Wildlife Service (USFWS) identified the following as a species listed under ESA that may be found within the study area (Table 1):

**Table 1 – Federally Listed Species, Status, Habitat in the Study Area**

<b>Species</b>	Steller's Eider ( <i>Polysticta stelleri</i> )
<b>Listing Status</b>	Threatened
<b>Habitat in the Study Area</b>	
Critical	No
Breeding	No
Molting and Wintering	No

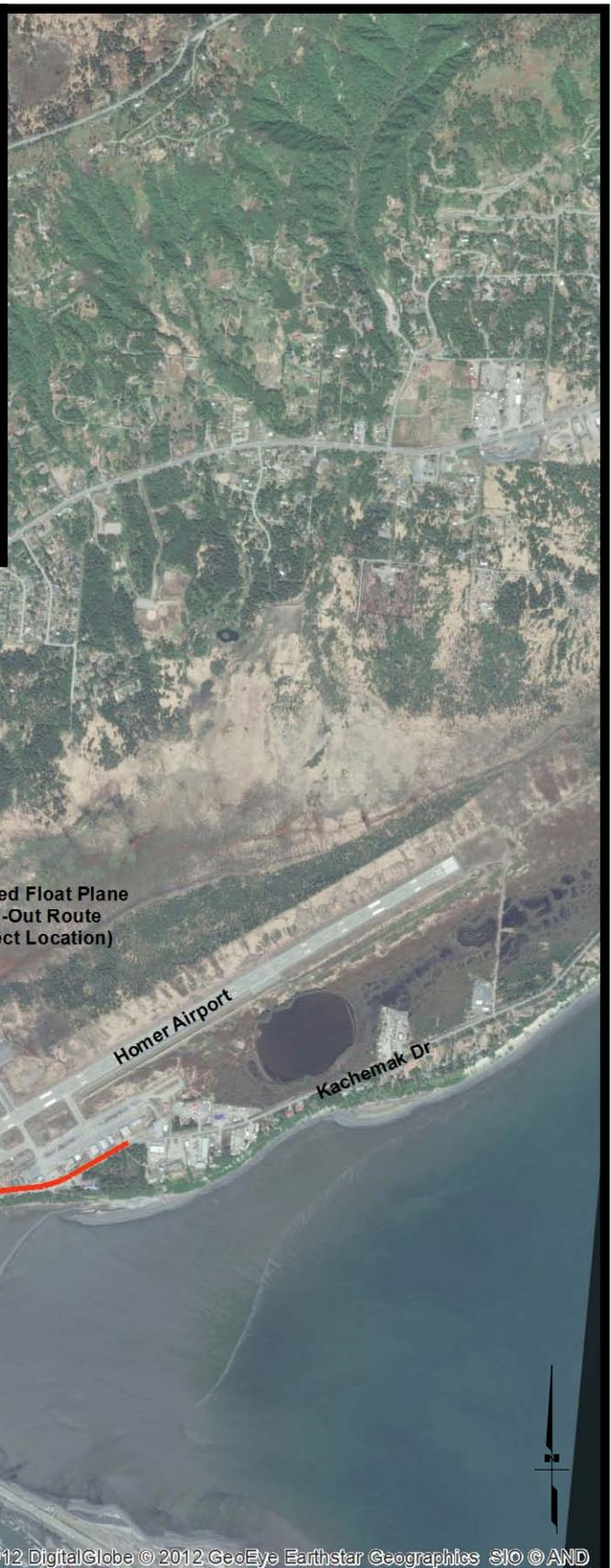
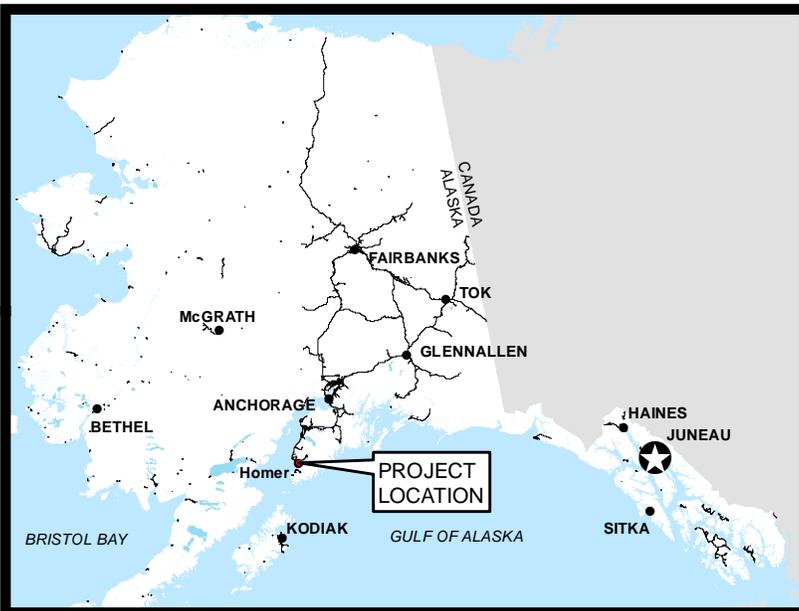
The breeding range of Steller's Eiders is the Arctic Coastal Plain of northwestern Alaska. In the winter, Steller's Eiders are found in shallow-near shore marine waters of the Alaska Peninsula, Aleutian Islands, Kodiak Island, Cook Inlet, and Kachemak Bay. Aerial surveys performed by the USFWS have observed flocks of various sizes in Kachemak Bay from the west shore of Homer Spit to Clam Gulch during the wintering season. Kachemak Bay is located approximately 0.4 miles from the study area. The study area includes a portion of Beluga Lake which flows into Kachemak Bay.

### Potential Biological Impacts and Effect Determination

Construction activities could impact Steller's eiders and their habitat by degrading water quality through the release of contaminants or sediments. The proposed project would require work (dredging, placement of fill) in Beluga Lake which flows into Kachemak Bay, an area where flocks of Steller's eiders have

been observed. Potential impacts to water quality and downstream habitat during construction would be mitigated by implementing an approved Storm Water Prevention Plan (SWPPP). The SWPPP would include Best Management Practices for the prevention of spills and the containment of sediment.

The proposed project would not result in permanent changes to land use, traffic, noise, water quality, or air quality that would impact the Steller's eider or habitat. Any biological impacts would be minimal and temporary in nature. Steller's eiders may migrate through/around the study area, but no suitable habitat exists in the study area. As such, the DOT&PF finds that the proposed action is not likely to adversely affect Steller's eiders or their habitat.



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**Figure 1  
Project Location  
&  
Vicinity Map**

Sec 21 T6S R13W  
Seward Meridian, Alaska



**STATE OF ALASKA**  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

DOT & PF Project No. 57777

Homer, Alaska

DATE: Mar 03, 2014

61485





Study Area  
 Proposed Centerline  
 Proposed 26' Roadway  
 Proposed 100' Clearing Limit

0      75      150  
 Feet

**Figure 2**  
**Float Plane Homer/Beluga Lake**  
**Facilities Improvements**

---

T 6 S, R 13 W  
 Sections 20 and 21  
 Seward Meridian, Alaska



**STATE OF ALASKA**  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 DOT & PF Project No. 57777  
 Homer  
 Beluga Lake Seaplane Base  
 Homer, Alaska

---

August 04, 2014





## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Anchorage Fish and Wildlife Field Office  
605 WEST 4TH AVENUE, ROOM G-61  
ANCHORAGE, AK 99501  
PHONE: (907)271-2888 FAX: (907)271-2786

Consultation Tracking Number: 07CAAN00-2014-SLI-0120

July 31, 2014

Project Name: Homer/Beluga Lake Floatplane Facilities

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project.

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and some candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Please note that candidate species are not included on this list. We encourage you to visit the following website to learn more about candidate species in your area:

[http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/endangered/candidate\\_conservation.htm](http://www.fws.gov/alaska/fisheries/fieldoffice/anchorage/endangered/candidate_conservation.htm)

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior  
Fish and Wildlife Service

Project name: Homer/Beluga Lake Floatplane Facilities

## Official Species List

### Provided by:

Anchorage Fish and Wildlife Field Office  
605 WEST 4TH AVENUE, ROOM G-61  
ANCHORAGE, AK 99501  
(907) 271-2888

### Non-participating U.S. Fish and Wildlife Service office(s):

The following office(s) have jurisdictions that overlap your project area, but do not provide automatically generated Species list documents. Please contact them directly to request a Species list document. Do this by visiting their website, if it is provided below. If a website is not provided, contact the office(s) by mail or phone.

Kenai Fish and Wildlife Field Office  
43655 KALIFORNSKY BEACH ROAD  
SOLDOTNA, AK 99669  
(907) 262-9863

**Consultation Tracking Number:** 07CAAN00-2014-SLI-0120

**Project Type:** Transportation

**Project Description:** Construct access road between Beluga Lake and Airport and ramp into the lake for floatplane haul-out.



United States Department of Interior  
Fish and Wildlife Service

Project name: Homer/Beluga Lake Floatplane Facilities

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-151.5051393 59.6428544, -151.4957838 59.6456218, -151.4957795 59.6455871, -151.4954233 59.6454786, -151.4935565 59.6437089, -151.5027404 59.6407722, -151.5051393 59.6428544)))

**Project Counties:** Kenai Peninsula, AK



United States Department of Interior  
Fish and Wildlife Service

Project name: Homer/Beluga Lake Floatplane Facilities

## Endangered Species Act Species List

There are a total of 1 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Steller's Eider ( <i>Polysticta stelleri</i> ) Population: AK breeding pop.	Threatened	Final designated	



United States Department of Interior  
Fish and Wildlife Service

Project name: Homer/Beluga Lake Floatplane Facilities

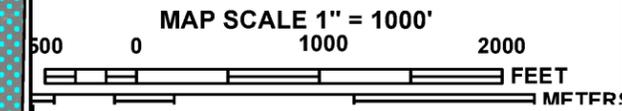
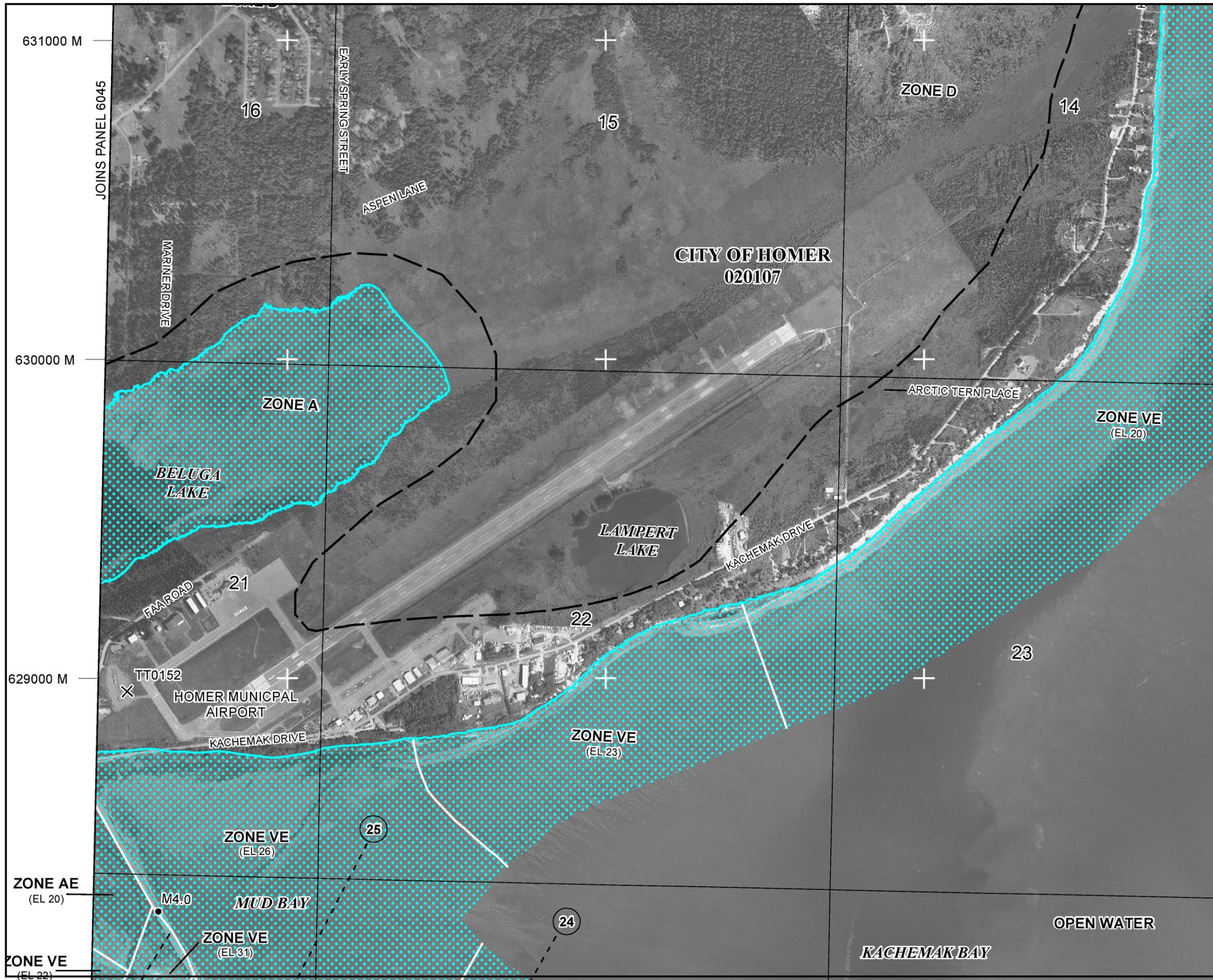
## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.

## **APPENDIX F**

### **Floodplain**





PANEL 6065C

**FIRM**  
 FLOOD INSURANCE RATE MAP  
 CITY OF HOMER,  
 ALASKA  
 KENAI PENINSULA BOROUGH

PANEL 6065 OF 6335  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

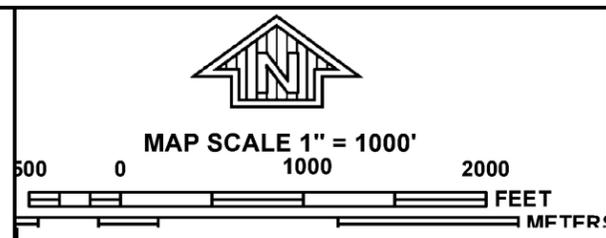
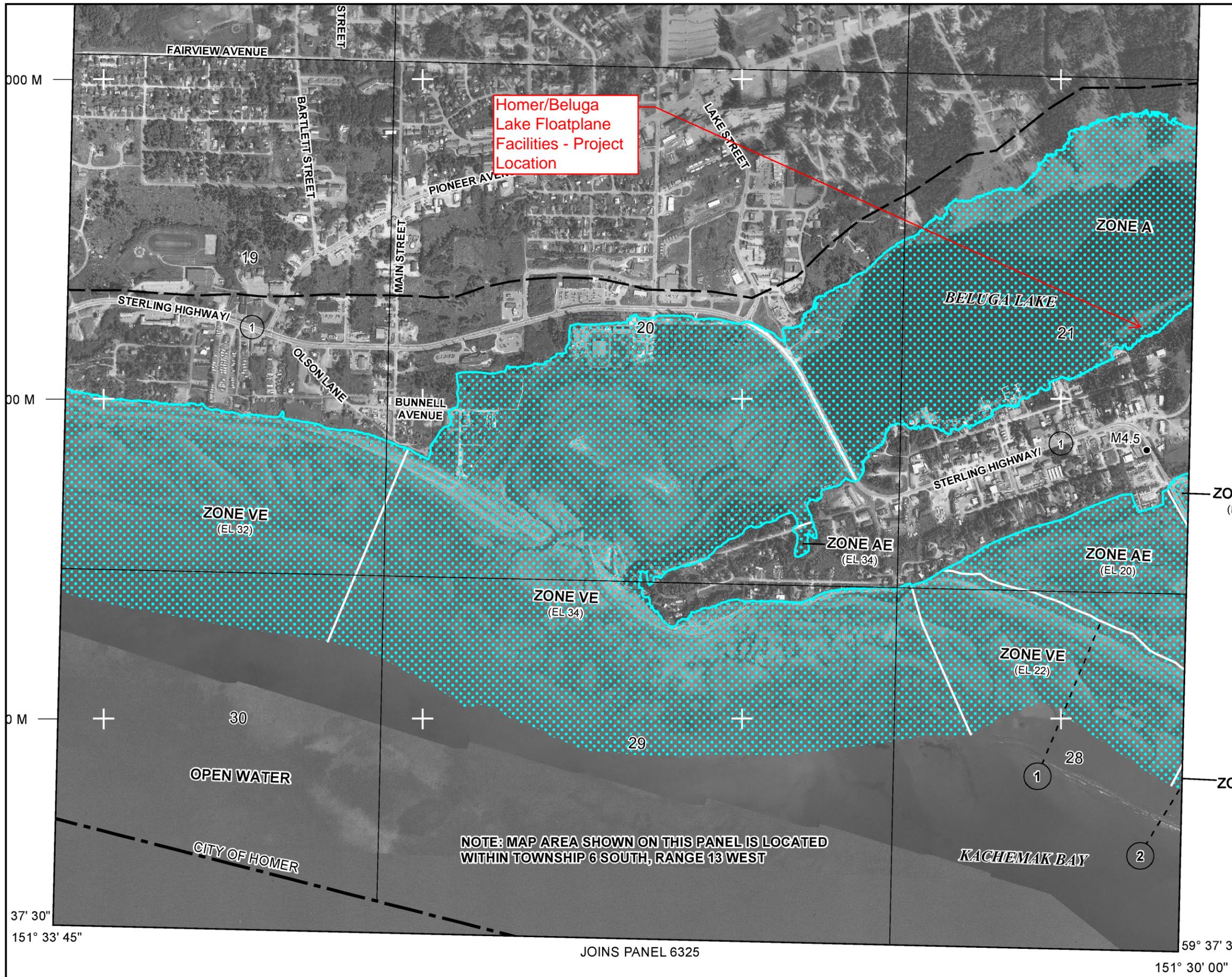
COMMUNITY	NUMBER	PANEL	SUFFIX
HOMER, CITY OF	020107	6065	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
0201076065C  
**MAP REVISED**  
NOVEMBER 6, 2013

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



PANEL 6045C

**NFP**

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**CITY OF HOMER, ALASKA**  
**KENAI PENINSULA BOROUGH**

PANEL 6045 OF 6335  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HOMER, CITY OF	020107	6045	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
0201076045C  
**MAP REVISED**  
NOVEMBER 6, 2013

Federal Emergency Management Agency

NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 6 SOUTH, RANGE 13 WEST

JOINS PANEL 6325

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

Attachment 2

CITY OF HOMER

FLOOD HAZARD AREA DEVELOPMENT PERMIT APPLICATION

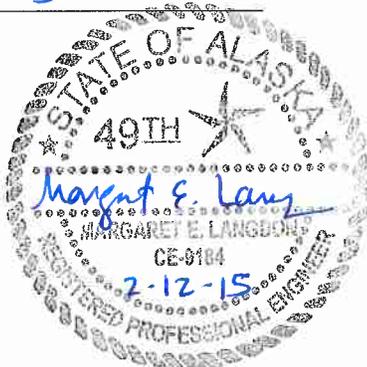
ENGINEERING CERTIFICATION

This is to certify that I am a duly qualified engineer licensed to practice in the State of Alaska. It is to further certify that the attached technical data supports the fact that the proposed Homer Airport Beluga Float Plane Facilities Improvements will not impact the 100-year flood elevations on Beluga Lake at unpublished cross-sections in the Flood Insurance Study for the City of Homer, Alaska, dated November 6, 2013, in the vicinity of the proposed improvements.

2-12-15  
\_\_\_\_\_  
(Date)

Margaret E. Langston  
\_\_\_\_\_  
(Signature)

SEAL:



Water Resources Engineer  
DOWL  
4041 B St  
Anchorage, AK 99503

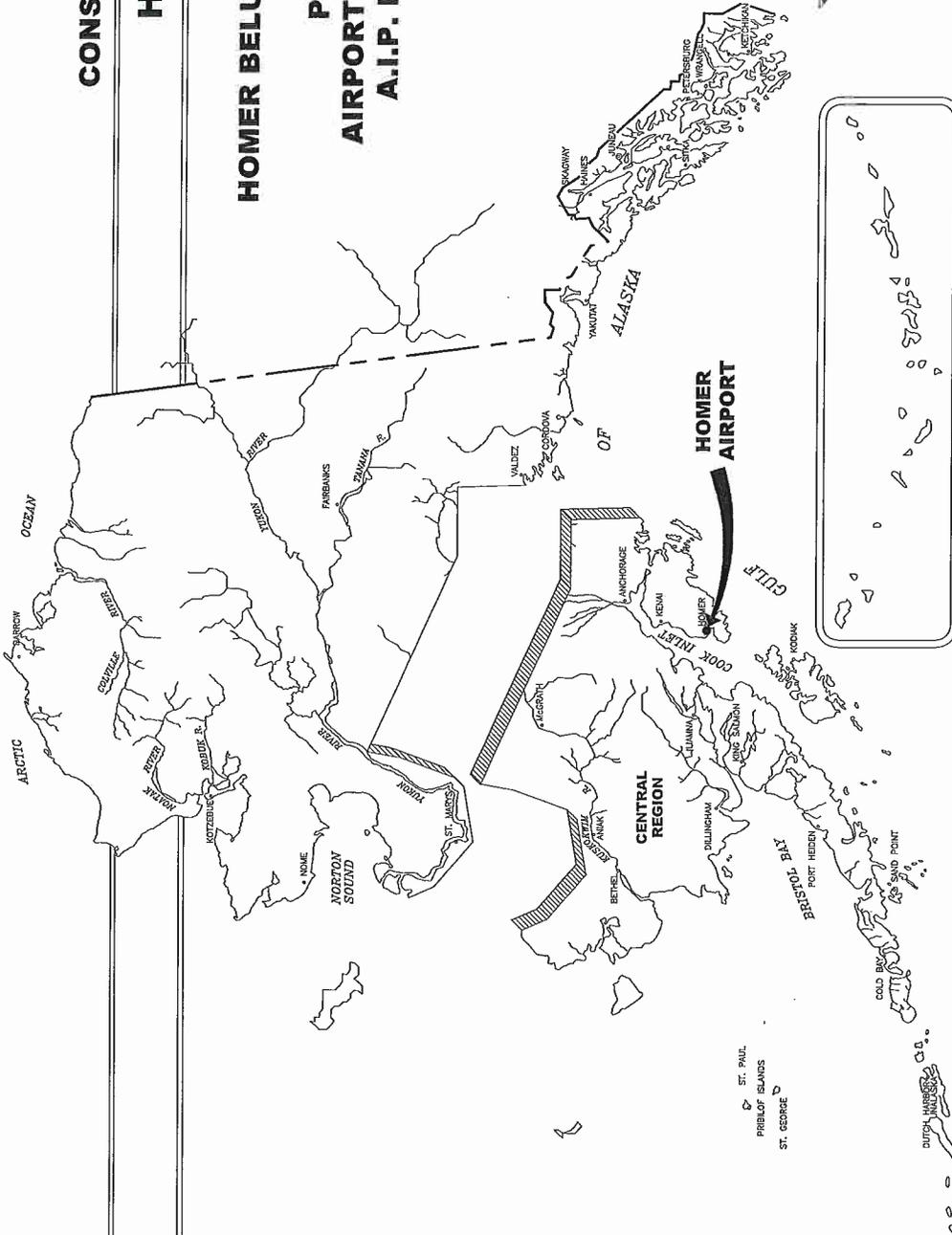
Attached:

- 1-7 Plan sheets from Construction Plans for improvements (sheets 1, 2, 4, 6, 9, 10, and 15), annotated with SFHA boundaries
- 8 Worksheet of calculations of volume of fill placed above existing grade and estimated effect on SFHA
- 9 Firmette of current FIS mapping, annotated with area of proposed improvements
- 10 Print of Preliminary SFHA mapping, annotated area of with proposed improvements

**CONSTRUCTION PLANS FOR  
HOMER AIRPORT**

**HOMER, ALASKA  
HOMER BELUGA FLOAT PLANE FACILITIES  
IMPROVEMENTS  
PROJECT No. 57777  
AIRPORT IMPROVEMENT PROGRAM  
A.I.P. No. 3-02-0122-XXX-20XX  
2015**

**PIH SUBMITTAL**



**SPONSORED BY  
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
CENTRAL REGION**

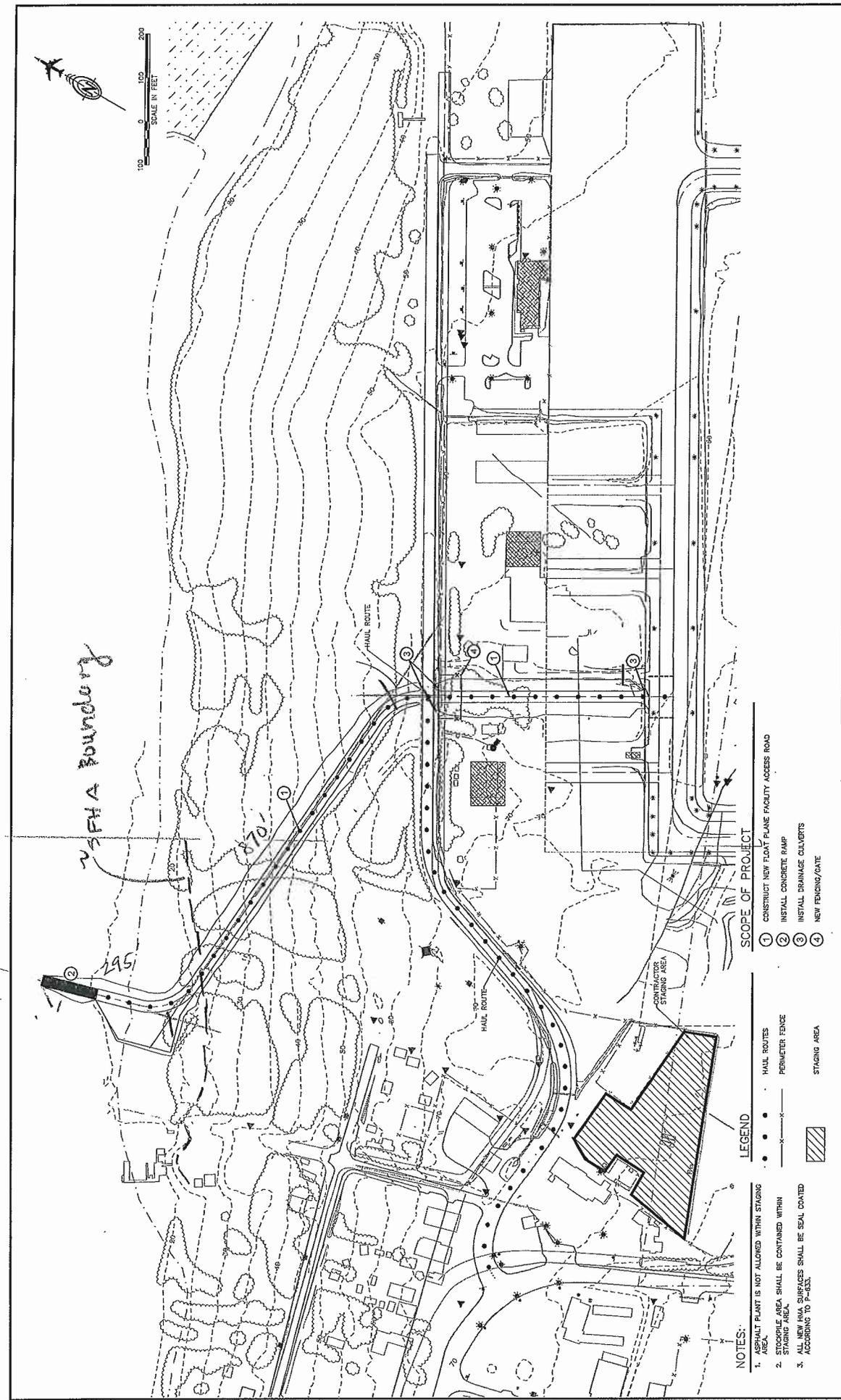
CONCUR	DATE
JOEL G. ST. JOHN, P.E.	DIRECTOR OF DESIGN AND CONSTRUCTION
APPROVED	DATE
KENNETH M. HORTON, P.E.	REGIONAL RECONSTRUCTION ENGINEER
APPROVED	DATE
WOLFGANG E. JURGE, P.E.	DESIGN SECTION CHIEF
APPROVED	DATE
AARON C. HUGGER, P.E.	PROJECT MANAGER

**HOMER AIRPORT  
FLOAT PLANE FACILITIES IMPROVEMENTS  
PROJECT No. 57777  
A.I.P. No. 3-02-0122-XXX-20XX**

**SHEET 1 OF 22**



0.95" = 295'



USFHA Boundary

295'

870'

HAUL ROUTE

HAUL ROUTE

COUNTY STAGING AREA

SCOPE OF PROJECT

- 1. CONSTRUCT NEW FLOAT PLANE FACILITY ACCESS ROAD
- 2. INSTALL CONCRETE RAMP
- 3. INSTALL DRAINAGE CULVERTS
- 4. NEW FENCING/GATE

LEGEND

- HAIL ROUTES
- PERIMETER FENCE
- ▨ STAGING AREA

NOTES:

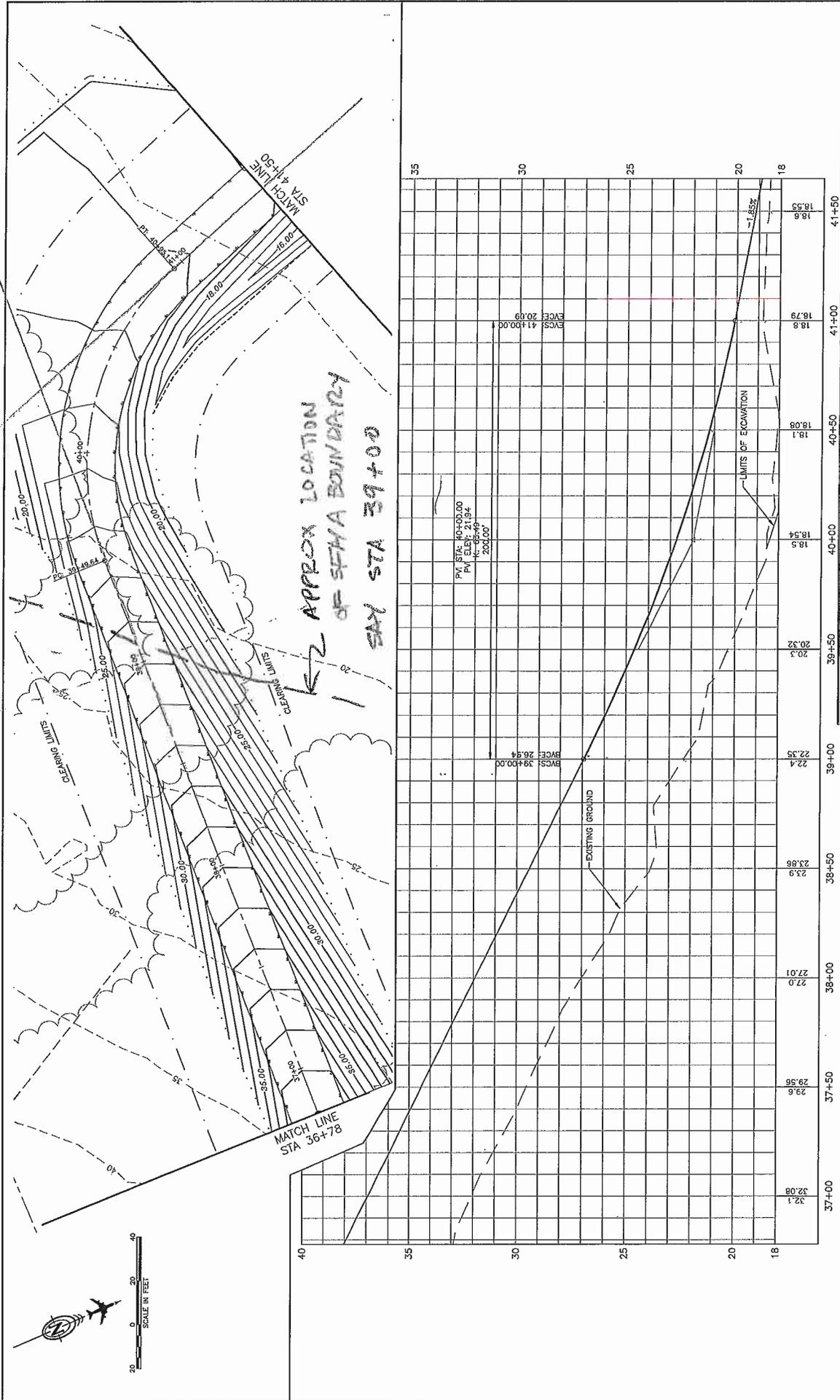
- 1. ASPHALT PLANT IS NOT ALLOWED WITHIN STAGING AREA.
- 2. STOCKPILE AREA SHALL BE CONTAINED WITHIN STAGING AREA.
- 3. ALL NEW ANKA SURFACES SHALL BE SEAL COATED ACCORDING TO P-433.

DATE: 8/1/2014	
SHEET: 4 OF 22	
PROJECT NO. 57777	
ALP No. 3-02-0122-000-200X	
PROJECT LAYOUT PLAN	
STATE OF ALASKA	REVISION
DEPARTMENT OF TRANSPORTATION	
AND PUBLIC FACILITIES	
CENTRAL REGION	
BY: DATE	

PLAN PREPARED BY DOWL HKM



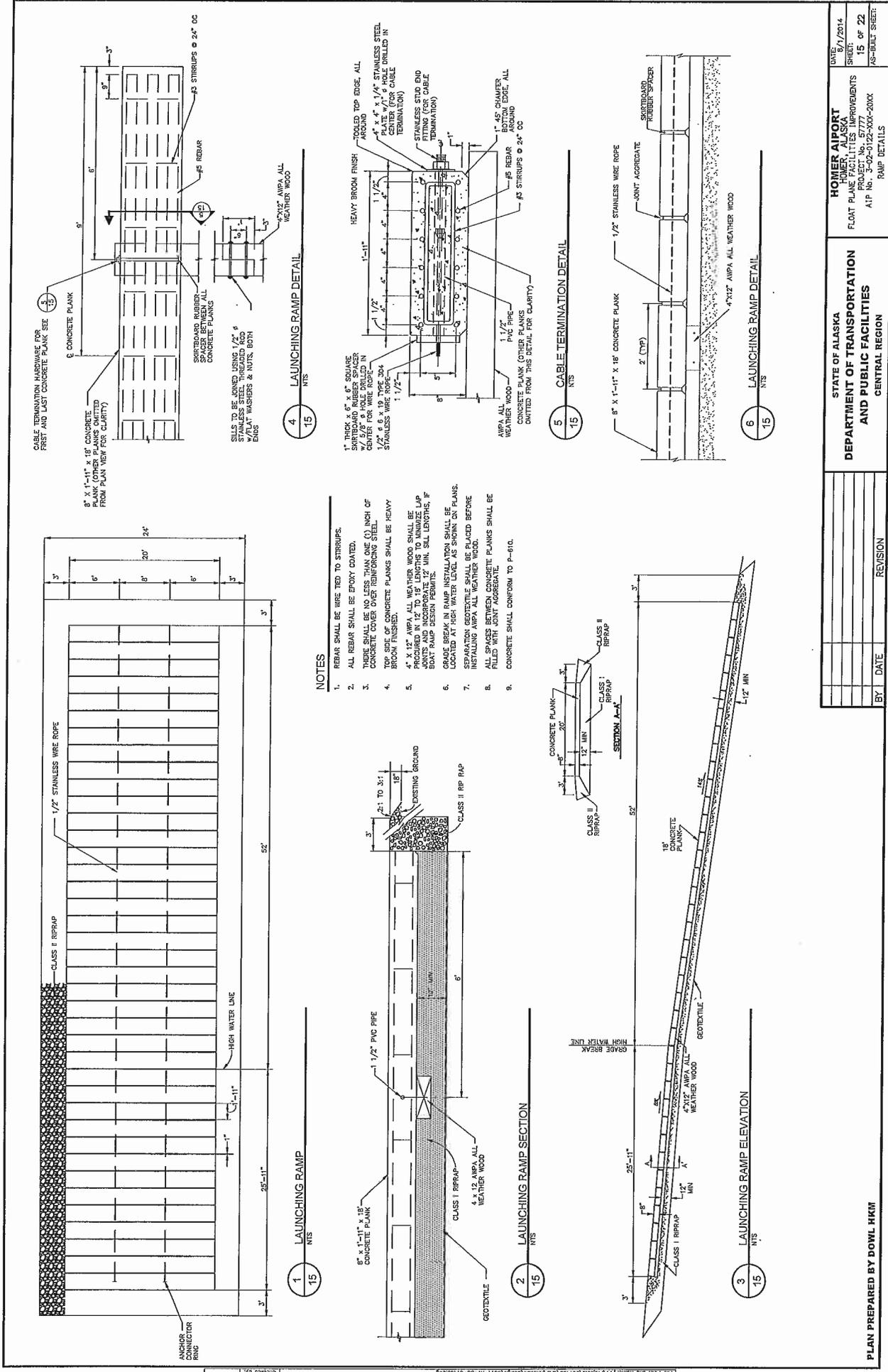
1,55" = 100'



<b>HOMER AIRPORT</b> HOMER, ALASKA FLOAT PLANE FACILITIES IMPROVEMENTS PROJECT No. 57777 AIP PLAN AND PROFILE DATE: 8/4/2014 SHEET: 9 OF 22 AS-BUILT SHEET		
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES CENTRAL REGION		
BY	DATE	REVISION

5





Calculation of fill placed above existing ground level within Beluga Lake SFHA

Fill for surface (asphalt&subbase or planks&riprap)

STA		thickness	surface materials	Volume
from	to	inches		cf
39+00	42+00	13	HMA +CABC + subbase	325
42+00	43+30	18	riprap + concrete plank	195
<i>subtotal fill of surface material</i>				520

Embankment fill within SFHA

STA	Distance of finish above existing grade	thickness of embankment material	end area at STA *	volume of fill between STA
	ft	Z, ft	sf	cf
<i>Road</i>				
39+00	4.7	3.62	170	
39+50	4.4	3.32	150	8,018
40+00	4.2	3.12	138	7,202
40+50	3.1	2.02	76	5,346
41+00	2.1	1.02	32	2,715
41+50	0.8	0.00	0	812
42+00	0	0.00	0	0
<i>Ramp</i>				
42+50	3.8	2.30	91	2,266
43+00	1.6	0.10	3	2,333
43+30	0	0	0	40
<i>subtotal embankment fill</i>				28,734

\* Area calculation shown on sheet 6 of 22

**total fill above existing grade within SFHA**      29,254  
say      **30,000**      cf

Area of Beluga Lake SFHA east of the weir and Sterling Highway

334 ac      14,549,040 sf      current dFIRM mapping as published 11/6/2013  
298 ac      12,980,880 sf      preliminary FIRM 6/13/14

Fill as fraction of SFHA (cf/sf)

0.0021 ft      0.025 inches      current dFIRM mapping as published 11/6/2013  
0.0023 ft      0.028 inches      preliminary FIRM 6/13/14

Conclusions

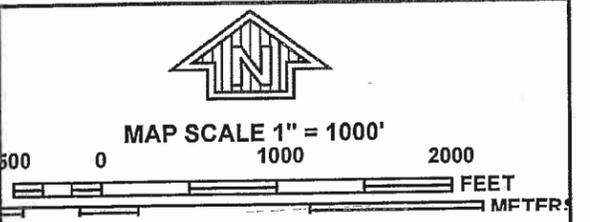
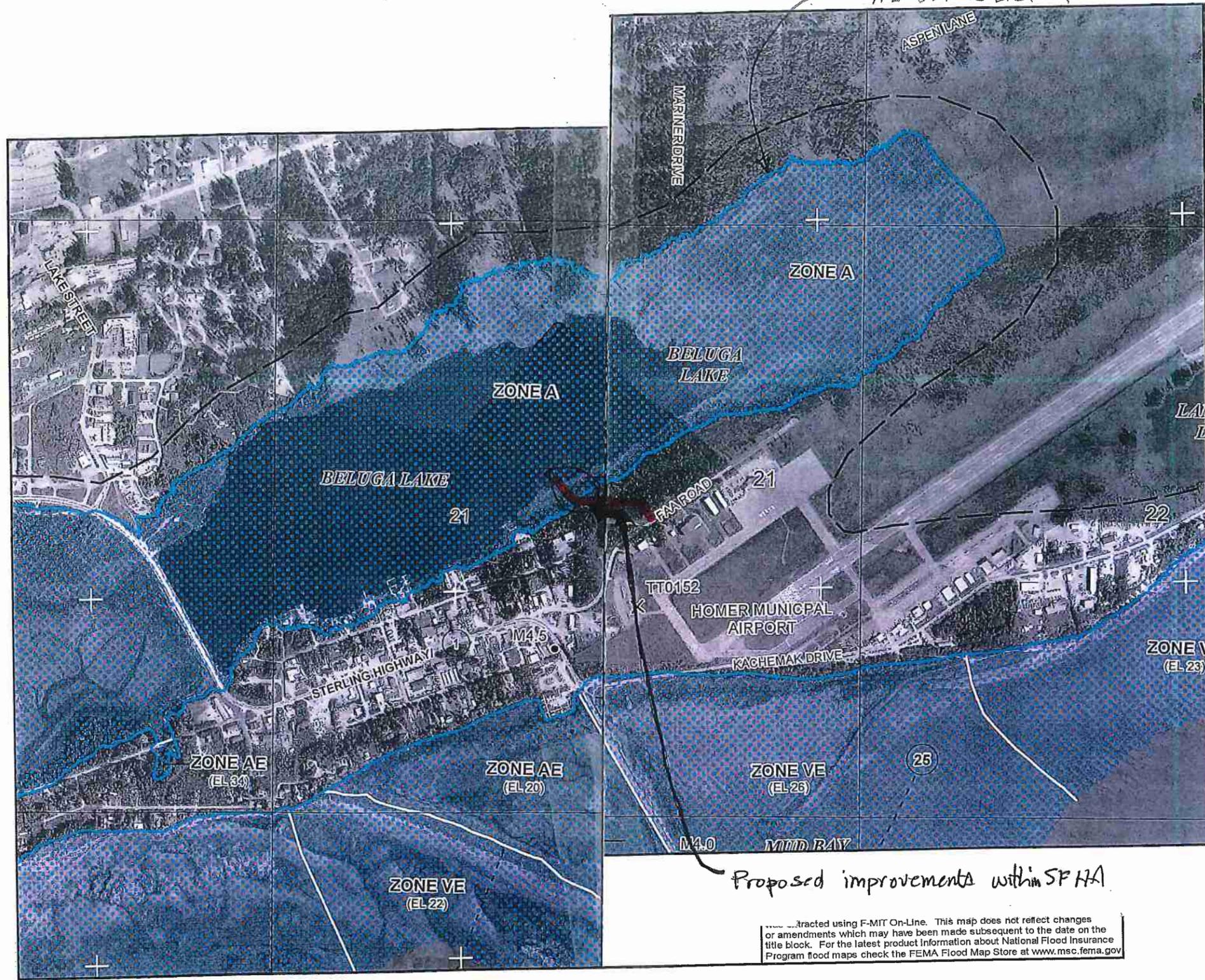
Using the available data and based on these computations, the fill volume as a fraction of the SFHA area is about 0.025 inches, well below the margin in error of the topographic data used to compute the area of the SFHA as well as the data used in the Flood Insurance Study to determine the extent of the SFHA.

Based on these, the float plane improvements will not impact the 100-year flood elevation for Beluga Lake.

8



~ 7,900 along long side  
 A ≈ 334 ac EAST of weir / Sterling Hwy



### LEGEND

**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**  
 The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**  
 The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
OTHER AREAS	
ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.
COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS	
OTHERWISE PROTECTED AREAS (OPAs)	

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

Proposed improvements within SFHA

...racted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

**NATIONAL FLOOD INSURANCE PROGRAM**

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

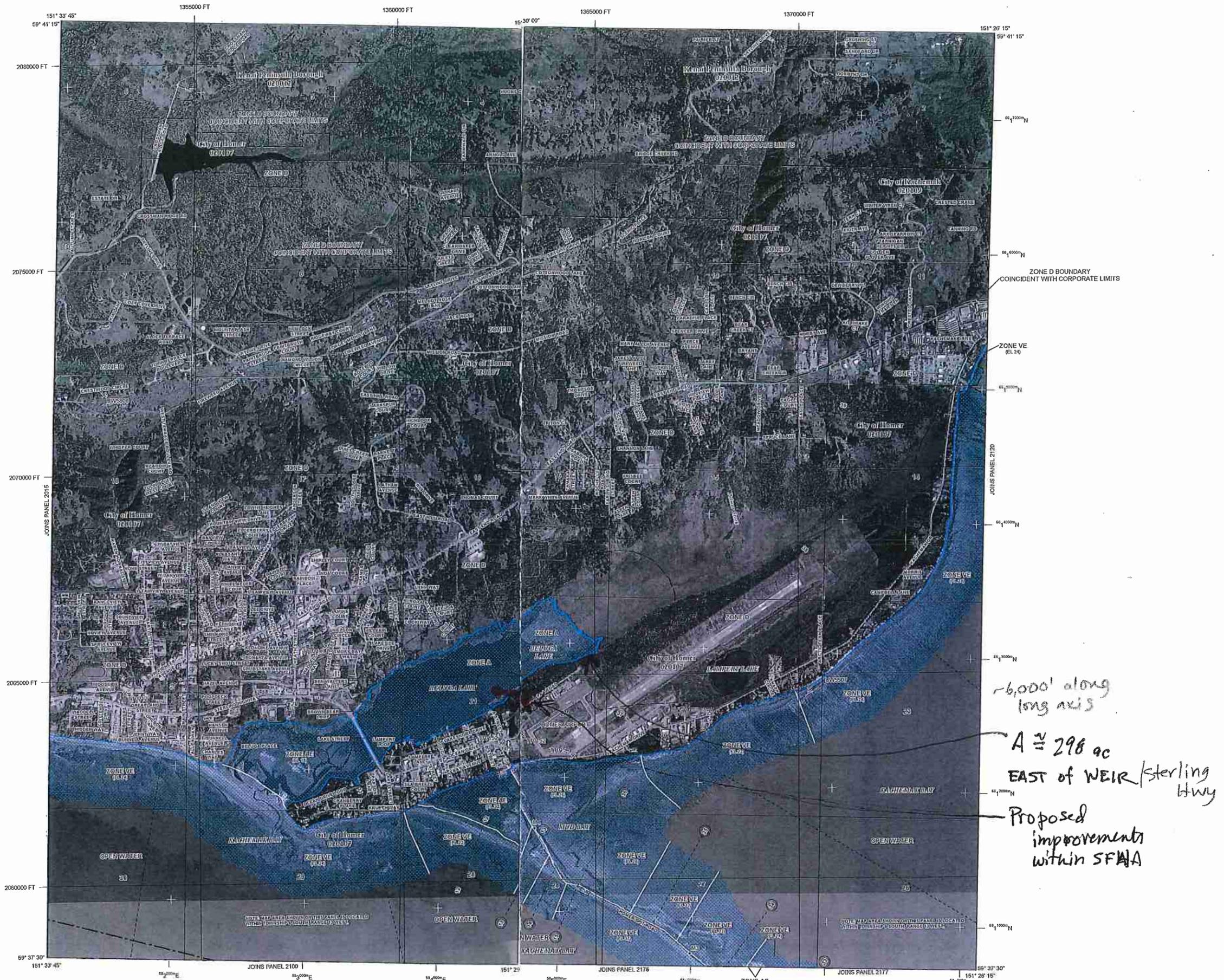
**MAP NUMBER**  
0201076045C

**MAP REVISED**  
NOVEMBER 6, 2013

Federal Emergency Management Agency

6065C

9



### LEGEND

**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**  
 The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, AR9, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

**ZONE A** No Base Flood Elevations determined.  
**ZONE AE** Base Flood Elevations determined.  
**ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.  
**ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of lateral flooding, velocities also determined.  
**ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control project that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.  
**ZONE AR9** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.  
**ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.  
**ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**  
 The floodway is the channel of a stream plus any adjacent floodplains areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**  
**ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.  
**OTHER AREAS**  
**ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.  
**ZONE D** Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**  
**OTHERWISE PROTECTED AREAS (OPAs)**  
 CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% Annual Chance Floodplain Boundary  
 0.2% Annual Chance Floodplain Boundary  
 Floodway boundary  
 Zone D boundary  
 CBRS and OPA boundary  
 Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.  
 Base Flood Elevation line and value; elevation in feet\*  
 Base Flood Elevation value where uniform within zone; elevation in feet\*

\*Referenced to the North American Vertical Datum of 1988

A-A Cross section line  
 (2)-(2) Transect line  
 45° 02' 08", 83° 02' 12" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere  
 3100000 FT 5000-foot ticks; Alaska State Plane 4 Zone (FIPS Zone 5004), Transverse Mercator projection  
 1000-meter Universal Transverse Mercator grid values, zone 5  
 \*10<sup>00m</sup> N  
 DX5510 X Bench mark (see explanation in Notes to Users section of this FIRM panel)  
 \*M1.5 River Mile  
 MAP REPOSITORIES Refer to Map Repositories list on Map Index  
 EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP  
 EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.  
 To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6920.

MAP SCALE 1" = 1000'  
 0 1000 2000 FEET  
 0 300 600 METERS

-6,000' along long axis  
 A ≈ 298 ac  
 EAST of WEIR /sterling b/wy  
 Proposed improvements within SFHA

**NATIONAL FLOOD INSURANCE PROGRAM**

PANEL 2115A

**FIRM**  
 FLOOD INSURANCE RATE MAP  
 KENAI PENINSULA BOROUGH, ALASKA AND INCORPORATED AREAS

PANEL 2115 OF 5045  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

COMMUNITY	NUMBER	PANEL	SUFFIX
HOMER, CITY OF	02017	2115	A
KACHEMAK, CITY OF	02019	2115	A
KENAI PENINSULA BOROUGH	02012	2115	A

**PRELIMINARY**  
 (JUNE 13 2014)

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER  
 02122C2115A  
 EFFECTIVE DATE

Federal Emergency Management Agency

## **APPENDIX G**

### **Hazardous Materials**





**MEMORANDUM**

To:	Memo to the file
From:	Emily Creely
Date:	June 27, 2014
Project No.:	1124.61485.01
Subject:	Update to 2004 Phase 1 ESA

- 4041 B Street ■ Anchorage, Alaska 99503  
907-562-2000 ■ 907-563-3953 (fax)
- 1901 Airport Way, Suite 102 ■ Fairbanks, Alaska 99701  
907-374-0275 ■ 877-375-8335 (fax)
- 5368 Commercial Boulevard ■ Juneau, Alaska 99801  
907-780-3533 ■ 907-780-3535 (fax)
- 1225 Tongass Avenue, Suite 4A ■ Ketchikan, AK 99901  
907-220-0682
- 104 Center Avenue, Suite 206 ■ Kodiak, Alaska 99615  
907-512-0519
- 809 S. Chugach Street, Unit 4 ■ Palmer, Alaska 99645  
907-746-7600 ■ 907-746-6705 (fax)
- 406 North Church Avenue ■ Tucson, Arizona 85701  
520-882-8696 ■ 520-624-0384 (fax)
- 430 W Warner Road, Suite B101 ■ Tempe, Arizona 85284  
480-753-0800 ■ 480-753-0803 (fax)
- 222 N. 32nd Street, Suite 700 ■ Billings, Montana 59101  
406-656-6399 ■ 406-656-6398 (fax)
- 2090 Stadium Drive ■ Bozeman, Montana 59715  
406-586-8834 ■ 406-586-1730 (fax)
- 130 North Main Street, Suite 100 ■ Butte, Montana 59701-2839  
406-723-8213 ■ 406-723-8328 (fax)
- 106 1st Avenue South, Suite A ■ Great Falls, Montana 59401  
406-453-4085 ■ 406-453-4288 (fax)
- 104 East Broadway, Suite G-1 ■ Helena, Montana 59601  
406-442-0370 ■ 406-442-0377 (fax)
- 713 Pleasant ■ Miles City, Montana 59301  
406-234-6666 ■ 406-234-7065 (fax)
- 41 East Broadway ■ Dickinson, North Dakota 58601  
701-300-7014 ■ 701-300-7015 (fax)
- 8420 154th Avenue NE ■ Redmond, Washington 98052  
425-869-2670 ■ 425-869-2679 (fax)
- 1901 Energy Court, Suite 170 ■ Gillette, Wyoming 82718  
307-686-4181 ■ 307-686-4858 (fax)
- 945 Lincoln Street ■ Lander, Wyoming 82520  
307-332-3285 ■ 307-332-5795 (fax)
- 1575 N. 4th Street, Suite 105 ■ Laramie, Wyoming 82072  
307-742-3816 ■ 307-742-9741 (fax)
- 16 W. 8th Street ■ Sheridan, Wyoming 82801  
307-672-9006 ■ 307-672-5214 (fax)

A Phase I Environmental Site Assessment (ESA) was previously conducted in 2004 by ASCG Incorporated to evaluate the risk of encountering hazardous materials and waste in and around the proposed project locations. Although the project area in 2004 differs from the proposed project vicinity, the ESA evaluated known hazardous waste within a ½ mile radius, including the proposed project. The ESA documented storage of hazardous materials stored and used on lease properties within airport and surrounding property, with fuel as the most common potential contaminant and several sites on airport property where leaks have occurred. The ESA recommended more information be obtained regarding groundwater flow and the severity and extent of contamination at the Maritime Helicopters facility site. The site is now remediated and no groundwater contamination had occurred.

ADEC's database was again consulted in December 2013, which resulted in (6) known contaminated sites that are located within 1,000 feet of the study area. Only one of the sites are new since the 2004 ESA :

SITE NAME (Date Added to Database)	STATUS	RISK
1. D&S Trucking (1995) Analytical data was below level a standards required for off-site disposal	Cleanup Complete	(Low)
2. Homer Tesoro Airport (1998) About 2 tons of petroleum impacted soil was removed from site	Cleanup Complete	(Low)
3. Homer Tesoro Airport – Columbus Distributing (1997) No excavation or any other earthwork may occur within the estimated areas of residual soil contamination due to residual soil contamination.	Cleanup Complete– Institutional Controls	(Low)
4. Alaska Oil Sales Homer Bulk Facility (1994) Small spill; 1 cubic yard of soil removed	Cleanup Complete	(Low)
5. Homer Spit Tesoro (1998) 1,375 tons of petroleum-contaminated soil was removed; a clear trend of decreasing concentrations was determined between 1998 and 2005; no evidence that contamination migrated off-site.	Cleanup Complete– Institutional Controls	(Low)
6. Maritime Helicopters (1996)	Cleanup Complete	(Low)

60-70 cubic yards of contaminated soil removed

7. FAA Homer Facility (2009)

Active

(Low)

The presence of low-level contamination is limited in extent and in 2009 No contamination was detected at concentrations exceeding the default cleanup levels

Conclusion:

The potential of encountering hazardous material during construction is low due to the low risk posed by existing sites.

# Draft Homer Airport Master Plan

## Phase I Environmental Site Assessment

ADOT&PF Project No. 54744

*Prepared by:*

ASCG Incorporated  
3900 C Street, Suite 501  
Anchorage, AK 99503-5967

*Prepared for:*

Alaska Department of Transportation and Public Facilities

**July 2004**

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- 1 Vicinity Map
- 2 Project Area Map

## APPENDICES

- A Property Description
- B Supporting Data and Information
  - B.1 Aerial Photograph Review
  - B.2 Public Documents
  - B.3 Site Reconnaissance Notes
    - Figure 3 Location Map
  - B.4 Site Photographs
    - Figure 4 Location Map with Photo Points
  - B.5 Personal Interviews

## ACRONYMS AND ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
ADOT&PF	Alaska Department of Transportation and Public Facilities
ARFF	Aircraft Rescue and Fire Fighting
ASCG	ASCG Incorporated
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
FSS	Flight Service Station
GA	General Aviation
LUST	Leaking Underground Storage Tank
NE	Not Evaluated
NFA	No Further Action
NPDES	National Pollution Discharge Elimination System
RPZ	Runway Protection Zone
SRE	Snow Removal Equipment
USGS	United States Geological Survey
UST	Underground Storage Tank

## 1.0 INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment (ESA) of the project area at the Homer Airport in Homer as shown on the Vicinity Map (1) and Location Map (2). The legal description of the project area is presented in Appendix A, Property Description.

To streamline the ESA reporting process, the various improvements will be grouped into two basic areas as indicated in the lists below and Figure 3, Project Area Map. Area 1 is shaded in green and encompasses improvements in and around the existing airfield. Area 2 is the Beluga Lake area and is shaded in yellow.

### Area 1

- Construct a full-length parallel taxiway north of the runway with multiple connective taxiways.
- Connect the apron north of Runway 3 directly to the threshold with a taxiway.
- Replace and relocate the current rotating beacon.
- Construct a partial parallel taxiway south of the runway to connect the new and existing general aviation (GA) aprons with the runway.
- Construct wheeled GA aircraft parking.
- Construct a new building to house the air rescue and fire fighting (ARFF) equipment, flight service station (FSS), and snow removal equipment (SRE). The ARFF/FSS/SRE building would house public restrooms for GA pilots and visitors. The project would include a new parking lot and an access road from Kachemak Drive.
- Construct a new apron next to the proposed ARFF/FSS/SRE facility.
- Construct a public use helicopter landing pad and parking position with an access road in an area now used for GA tie downs.
- Construct new GA vehicle parking lot.

## Area 2

- Construct a Beluga Lake transient floatplane dock and access road to support temporary mooring and fueling.
- Construct an access road to a Beluga Lake floatplane haul-out ramp. At the same location provide a boat house for a rescue boat and the boat used for weed control, slips for based floatplanes with pedestrian gangway, public restrooms, and vehicle parking.
- Install a rotating beacon for floatplanes landing at Beluga Lake.

ASCG Incorporated (ASCG) performed this ESA for the Alaska Department of Transportation and Public Facilities (ADOT&PF or the Client). The services include limited research and data reviews specified herein and a site reconnaissance. The purpose of the ESA was to estimate the potential, as of the date of the assessment, for hazardous substances to be present in the project areas at levels likely to warrant mitigation under the current State of Alaska environmental laws and regulations.

This ESA report, which includes all of the supporting information gathered for purposes of the ESA, was prepared for the benefit of the Client. The Client may also distribute the report to third parties, who may then use it at their discretion. However, any reliance upon the report by a party other than the Client shall be solely at the risk of such third party and without legal recourse against ASCG. The report shall not be used by any third party that does not agree to the conditions in this paragraph.

### **2.0 SCOPE OF SERVICES**

An ESA comprises a number of individual elements whose basic nature and extent are determined in accordance with the standard of care for ESAs. The standard of care is commonly defined as the care applied by the ordinary practitioner in the area where the ESA was performed. ASCG believes the applicable standard of care was applied in performing this ESA.

The scope of services for the Phase I ESA included the following tasks:

- A review of aerial photographs by ASCG from the years 1961, 1966, 1972, 1978, 1981, 1986, 1992, 1996, and 2002.
- A search and review of historical documents in the public library, including Polk City Directories.
- A limited review of the Alaska Department of Environmental Conservation (ADEC) Contaminated Sites, Leaking Underground Storage Tank (LUST) database, registered Underground Storage Tank (UST) database, and the Spills database to identify any recognized environmental conditions at the Homer Airport or adjacent properties. Federal database searches included Environmental Protection Agency for Resource Conservation and Recovery Act and Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) databases.
- Interviews with individuals having personal knowledge of past activities in the project area.
- A site reconnaissance of the project area(s) by ASCG personnel on October 22, 2003.

ASCG's services intentionally did not include specific surveys for asbestos-containing materials, radon, methane gas, wetlands delineation, lead in paint, or lead in domestic water supply. Although the scope of this work included searching governmental databases for references to nearby properties, it did not include reviews of the individual files for these entries. No environmental sampling or research work was included in the ESA activities unless specifically referenced in this report.

The Findings and Conclusions presented in Sections 8.0 and 9.0 of this report are based solely upon the information obtained during the ESA. Furthermore, the conclusions include an assessment of the potential for the project area to have been environmentally affected from past activities on or near the project area. Although the conclusions represent the best judgment of ASCG, they do not represent a *certification* of the environmental status of the project area.

Current conditions and information observed by ASCG during the performance of the ESA are subject to change. Indicators of the presence of hazardous materials that were latent at the time of this ESA may subsequently become observable. In a similar manner, records or other informational sources that ASCG did not review, because the research effort commonly associated with an ESA did not indicate their existence, may contain important information that could not have been considered in the formulation of ASCG's conclusions. Information and representations obtained from individuals interviewed for this report were relied on unless incidents of conflicting data were noted. ASCG accepts no responsibility for inaccuracies or deficiencies in this report resulting from omissions or misrepresentations by the persons interviewed.

### **3.0 INVESTIGATION OF HISTORICAL BACKGROUND**

#### **3.1 Recorded Documents**

It has been determined that the project area has been part of the airport property since the 1940s and conducting a title search would not add value to the project. Therefore, a review of the Recorded Document of Guarantee does not appear in this section.

#### **3.2 Aerial Photograph Summary**

Aerial photographs of the project area and the surrounding vicinity were reviewed on December 4, 2003, at AeroMap Inc., located in Anchorage, Alaska. The reviewed photographs were dated 1961, 1966, 1972, 1978, 1981, 1986, 1992, 1996, and 2002. Aerial photographs dated 1961, 1981, and 2002 were purchased for this project and will be retained in ASCG's archives.

Photographs were examined for indications of the types of land and surface activities present in the project area and on adjacent parcels during those periods. Summary review comments follow. A more detailed review of the aerial photographs is included in Appendix B.1 Aerial Photograph Review.

At the time of the 1961 photograph, development surrounding the runway was sparse. Three hangar-like buildings had been constructed between Kachemak Drive and the west end of the

active runway. Aircraft appeared to be parking on the north side of the runway on the west end. The runway extended only as far east as mid-Lampert Lake.

In the 1972 photograph, the runway appeared to have been lengthened, extending to the east beyond Lampert Lake. A building foundation was visible to the east of the GA apron in the 1976 photograph. By the 1986 photograph, nearly all of the buildings presently located near the runway had been constructed and the GA apron had been expanded to the east, to nearly twice its original size.

Beluga Lake appears to be similar in size and shape in the 1961 photograph as in the most recent aerial photographs. The only significant changes visible near the lake were an increased number of residences on the south side in the 1981 and 1986 photographs.

The site for the new ARFF/FSS/SRE facility remained undeveloped throughout the series of reviewed aerial photographs.

The site for the additional GA vehicle parking and surrounding areas appeared to have been filled and/or developed beginning with the 1981 photograph.

### **3.3 Public Documents**

The following sources were requested for review at the Z. J. Loussac Public Library located in Anchorage, Alaska:

R. L. Polk Directory: The Polk Directory does not cover the area of Homer, Alaska.

Fire Insurance Maps: Fire insurance maps are traditionally included in the research process for an ESA; however, there are no fire insurance maps available for the Homer area.

### **3.4 Historical Use of Property**

Homer Airport provides commercial passenger and cargo transportation for the population of Homer and the southern end of the Kenai Peninsula. The airport is also an activity center for based and transient general aviation, as well as a hub for smaller nearby communities that lack road access. The airport is classified by the Federal Aviation Administration (FAA) within the National Airspace System as a non-hub, primary commercial service airport, which is regulated

under 49 Code of Federal Regulations Part 139. The airport encompasses 1,042 acres, with 294 acres designated as critical habitat area. Another 45 acres in the west part of the airport are leased from the FAA.

The small airstrip that originally existed at Homer Airport was lengthened to 4,900 feet, widened to 100 feet, and paved during World War II. ADOT&PF assumed ownership and management of the airport from the federal government in 1958. Renovation and improvements continued during the 1960s and 1970s and again in the mid-1990s. Today the runway is 6,701 feet long by 150 feet wide with unpaved shoulders. The runway was rehabilitated in 1997 and found to be in excellent condition when inspected in October 1998.

Beluga Lake is approximately 155 acres and was formed by the construction of the Sterling Highway extension across the Beluga Slough tidal flat to the Homer Spit. The lake is oriented in a southwest to northeast direction, parallel to the runway. The lake has an unmarked 3,000-foot-long by 600-foot-wide waterlane and is open to floatplane operations from April 1 to October 1. Portions of the lake and shoreline are not owned or controlled by the ADOT&PF.

#### 4.0 AGENCY FILE REVIEWS

The following sources and records were reviewed for information about releases on or near the project area.

##### 4.1 ADEC Records

ADEC Contaminated Sites Database – The contaminated sites database is the state’s equivalent to federal CERCLIS. These sites may or may not be listed on the federal CERCLIS list. There are six sites within the one-mile search radius of the project area.

- ADOT&PF Homer Airport Maintenance Facility, Kachemak Drive, Homer Airport

This site has been designated as a high priority, with the facility status listed as active. The problem statement is reported as, “During the removal of an underground storage tank system, diesel contaminated soils and groundwater were encountered associated with a 3,000-gallon heating fuel tank.”

- ADOT&PF Homer Airport Maintenance Facility, Kachemak Drive, Homer Airport

This site has been designated as a high priority, with a facility status listed as active. The problem statement is reported as, “Subsurface diesel contamination from leaking underground fuel oil tank.”

- ADOT&PF Homer Airport Maintenance Facility, Kachemak Drive, Homer Airport

This site has been designated as a medium priority, with a facility status listed as inactive. The problem statement is reported as, “Gasoline-contaminated soil on the south side of the Homer Airport.”

- D&S Trucking, Parcel A, Homer Airport

This site has been designated as a high priority, with the facility status listed as closed. The problem statement is reported as, “Former trucking company went bankrupt, leaving used batteries, solid waste, drums of used oil, mixed petroleum products, contaminated soils stockpile, gas, diesel, etc., on land leased from ADOT&PF who is assuming responsibility for the cleanup.”

- Greatland Supply, 1231 Ocean Drive

This site has been designated as a high priority, with a facility status listed as inactive. The problem statement is reported as, “Fifty cubic yards of hydrocarbon (used motor oil) contaminated soil stockpiled on site. A bioremediation plan has been submitted by J.J.M. Montgomery and approved by ADEC.”

- Former Dry Cleaner, 3858 Lake Street

This site has been designated as a high priority with a facility status listed as closed. The problem statement is reported as “Dry cleaners had spilled dry cleaning fluid outside the back door, also waste oil spilled.”

LUST Database – The ADEC LUST database contains an inventory of reported LUST incidents. There are six sites within the 0.5-mile search radius of the project area.

- ADOT&PF Homer Airport Maintenance Facility, Homer Airport

This site has a confirmed release date of October 30, 1989, with a priority listing of high. Research reveals the offending tank has been removed; however, documentation on the removal is unavailable.

- ADOT&PF Homer Airport Maintenance Facility, Homer Airport

This site has confirmed release date on February 2, 1999, with a designated priority of not evaluated (NE) and a facility status listed as closed. The problem statement is reported as "Petroleum contamination identified during 1 UST [underground storage tank] removal conducted in November 1998." The ADEC Action Comments are reported as "The ... site has been closed. One regulated tank. NFA [no further action] letter has been issued. ... [the site] can be closed as contamination was present, but below the applicable cleanup standard."

- Homer Airport TEXACO, 1495 Ocean Drive

There are two relevant entries for this site (numeric entry assignments were arbitrary and have no bearing on importance):

Entry 1: has been designated a priority status of NE and a problem statement of, "Petroleum contamination identified during 1 UST closure conducted in 1998." No further information was available.

Entry 2: designates the priority status as low, with a problem statement listed as, "On 12/08/89 [ADEC] received [a] public complaint concerning improper storage of contaminated soils. Soils were left over from UST closure on 07/14/88. Per DEC representative at closure, soils were contaminated when excavated. Extent of contamination and health impacts unknown." In 1993 a contaminated soils disposal plan was submitted to the department [ADEC] for review. In 1994, "after receipt of analytical results for post treated soils, ADEC staff have determined that no further action is required at this site at this time."

- TESORO – Homer Airport Columbus Distributing, Homer Airport

This site has been designated as a high priority, with a problem statement listed as, “TESORO Alaska accepted liability for assessment and clean-up of this site. Gasoline releases were detected around the dispenser islands. A significant fuel spill also occurred during fuel transfer operations from a fuel delivery truck. Gilfillian Engineering oversaw the clean-up of the fuel spill. Tesoro removed the UST systems in about 2001 and excavated about 500 cubic yards of contaminated soil in the vicinity of the fuel dispensers. The excavated soil was transported to Anchorage for thermal treatment at Anchorage Soil Recycling in 2002. Tesoro’s consultant intends to evaluate remediation options, monitor groundwater, and operate and maintain a remediation system in 2003.”

- The Roost, Homer Airport

This site has been designated as a medium priority. The problem statement is reported as, “Two 1,500-gallon aviation fuel tanks were removed from the site. Contamination was found in the bottom of the excavation. Approximately 60 cubic yards of contaminated soil were excavated and stockpiled. Contaminated water was removed in the bottom of the excavation but is unknown if this water was trapped in the excavation or if it represented contaminated groundwater.” The comments are reported as follows: “Contamination from aviation fuel tanks. Possible contamination of the groundwater.” No further action letter for the site was issued on August 4, 1993.

- Maritime Helicopters, 3520 FAA Road

This site has been designated a priority status of NE and a problem statement of “Petroleum contaminated soil was identified during a UST closure site assessment. Corrective actions are underway.” No further information was available.

Underground Storage Tanks (UST) – Registered USTs are regulated under Subtitle 1 of the Resource Conservation and Recovery Act of 1976 and must be registered with the ADEC which is responsible for administering the UST program. There are six sites within the 0.25-mile search radius of the project area.

- The Roost, Homer Airport

Two 1,500-gallon gasoline USTs were installed in 1980 and are currently listed as permanently out of use with the tanks removed from the ground. Currently there is one 1,500-gallon gasoline tank in operation at the site; the tank was installed in 1991.

- Ivan A. Benson, Lot 7, Block 200, Homer Airport

One 2,000-gallon gasoline UST was installed in 1978 and is currently listed as permanently out of use with the tank closed in place. Currently there are no active USTs associated with this site.

- Maritime Helicopters, Inc. 3520 F.A.A. Road, Homer Airport

Two 6,000-gallon diesel USTs were installed in 1978 and are currently listed as permanently out of use with the tanks removed from the ground. Currently, there are two 6,000-gallon kerosene tanks in operation at the site; the tanks were installed in 1996.

- Quicky Mart Inc., 1242 Ocean Drive

Currently, there are four 12,000-gallon tanks in operation at the site; two for gasoline and two for diesel. All the tanks were installed in 1998.

- TESORO Alaska Company, 1495 Ocean Drive, Homer Airport

All five tanks are reported as permanently out of use with the tanks removed from the ground. Currently there are no USTs reported in use at this site. The former tanks on site are listed as, two 12,000-gallon and one 5,000-gallon gasoline tanks, one 5,000-gallon diesel tank, and one 500-gallon used oil tank, all USTs were reportedly installed in 1988.

- D & S Trucking Inc., 1601 Ocean Drive

Two tanks are reported to have been at this site, one 8,000-gallon diesel fuel tank and one 1,000-gallon gasoline tank. Both tanks are listed as permanently out of use and removed from the ground.

## 4.2 Environmental Permits

National Pollution Discharge Elimination System (NPDES) At the time this report was prepared no NPDES permits are known to exist for the Homer Airport.

## 5.0 PHYSICAL SETTING AND CHARACTERISTICS

### 5.1 Current United States Geological Survey (USGS) Quad Map

The USGS Seldovia (C-4) NW, Alaska Quadrangle map dated 1963, with minor revisions in 1979, was reviewed. Based on the map, topography generally slopes toward the Beluga Lake basin.

### 5.2 Subsurface Conditions

Geology – Homer is on the southern tip of the Kenai Peninsula. The Homer vicinity is characterized by a long sand spit in Kachemak Bay. Where the spit joins the mainland, the elevation increases to a bench and then to 500 foot to 800-foot-high bluffs. The Homer airport is just east of the main town site, on the bench between the beach and bluffs. Beluga Lake is northwest of the airport.

Glacial advance and retreat have occurred several times over the area. The bench is comprised of glacial till with glaciofluvial, alluvial fan, colluvial, and landslide deposits. North of the airport adjacent to Beluga Lake, the deposits are mainly glacial moraine. Deposits near the southwest edge of the runway are mainly glacial moraine. The deposits overlay bedrock comprised of poorly consolidated sandstone, siltstone, claystone, and minor amounts of conglomerate. Older deposits contain many beds of subbituminous coal and lignite that range from a few inches to seven feet in thickness.

The major effects of the 1964 earthquake were subsidence of the sand spit and a landslide destroying most of the harbor facilities. However, the vicinity of the Homer airport is generally a stable area. In addition, the airport location is not subject to high tides or accelerated erosion from wave action.

Soils – Several subsurface investigations have been conducted on or near the airport property. Based on boring logs from these investigations, soils at the Homer Airport are generally characterized by three categories (listed as descending from the surface): 1) organics (peat), 2) organic silt, and 3) inorganic silt. The following discussion describes these soils.

- Organics (Peat) – Most of the boring logs from previous investigations at the Homer Airport indicate the presence of surficial peat. Thickness of the peat varies from less than

one foot to about five feet, with an average thickness of approximately one foot. The thickness can vary substantially over relatively short distances, and be thicker in localized areas. The peat is fibrous, generally saturated, and highly compressible with a low bearing capacity.

- Organic Silt – Organic silt underlies the peat. The thickness of the organic silt ranges from one to five feet. The organic silt has higher moisture content, higher compressibility, and lower bearing capacity when compared to the inorganic silt.
- Inorganic Silt – In all borings, inorganic silt was noted beneath the organic silt. The inorganic silt is glacial till, and is completely different in engineering properties than the organic silt. Till is a geologic term for material transported by ice and deposited as a glacier melts. Till is neither sorted nor stratified and can consist of a heterogeneous mixture of clay, silt, sand, gravel, cobbles, and boulders. Consistent with this description, the silt at the Homer airport contains both sand and gravel, and is often classified as gravelly or sandy silt. The silt is non-plastic, varies from medium dense to dense, and becomes very dense at depths greater than about 10 feet.

## 6.0 SITE RECONNAISSANCE SUMMARY

Ms. Susan Luetters and Ms. Elizabeth Miller with ASCG conducted a reconnaissance of the subject properties on October 22, 2003. The Homer Airport property location is described in Appendix A and the individual project sites locations are shown on 2, Location Map.

Site observations were recorded and photographs were taken at key points during the reconnaissance. Site reconnaissance notes and a selection of photographs are included in Appendices B.3 and B.4, respectively. The locations of photo points are provided in Figure 4. There were no weather conditions that limited observation of the site's surfaces or vegetation during the reconnaissance. Summary observations are provided in the following subsections.

### 6.1 Current Use of the Project Area

The current use of the property is as the airport serving the City of Homer. The subsets of sites affected by this project are all located on airport property and all function in some sort of aviation transportation support or are currently not developed.

The project sites are grouped into two project areas (as described in Section 1.0):

Area 1 sites are currently undeveloped and include the expanded GA tiedown area; the extended taxiway on the southside of the runway; and the taxiway on the north side of the runway. The area on the northwest end of the runway (where the current rotating beacon is located) is also being used as a supplemental tiedown area for GA planes.

Area 2 the Beluga Lake sites are currently undeveloped.

## **6.2 Observed Use of Adjoining Properties**

### Area 1

North – Partially developed: The north side of the active runway area is sparsely developed with mostly commercial properties adjacent to the west end. The east end of the north side of the runway is undeveloped.

East – Undeveloped: The area off of the east end of the runway is undeveloped and supports low growing native vegetation. The area within the runway protection zone (RPZ) is maintained at an herbaceous stage of vegetation, while the area outside the RPZ is allowed to support native spruce and other woody vegetation.

South – Developed: Most of the area south of the runway is commercially developed with the exception of the area on the east end beyond the ADOT&PF facility, which is undeveloped supporting low growing herbaceous vegetation interspersed with black spruce.

West - Partially developed: Off the northwest corner of the active runway at the very edge of the RPZ, is a commercial/residential property. The area across from Homer Spit Road off the west end of the runway is commercially developed.

### Area 2

North – Partially developed: There are a few residential properties that adjoin Beluga Lake.

East – Undeveloped: The area east of Beluga Lake is undeveloped and is designated as a “Critical Habitat Area.”

South – Partially developed: The south shore of Beluga Lake is a mix of commercial and residential properties, most not directly adjoining the lake. The east end of the south side of the lake is undeveloped.

West - Developed: The property adjacent to Beluga Lake is the Sterling Highway.

### **6.3 Current Use of the Project Area**

#### Topography and Drainage

Area 1 – The topography to the north of the runway slopes steeply to the north, towards Beluga Lake. The areas on the south side of the runway are predominantly flat. The surrounding area is either flat or gently sloped on the south side, directing surface water away from the runway.

Area 2 – The areas where construction will take place are either at the lake edge or on property that is steeply sloped toward the lake.

#### Indication of Subsurface Improvements

Area 1 – There are no utilities or subsurface improvements in the areas surrounding the runway to the east and north. Utilities and the associated subsurface improvements, to the extent they are available, are found in the areas south, west, and east of Area 1.

Area 2 – The areas where the proposed actions will take place are free of subsurface improvements.

#### Sewer, Water, Storm Drainage, and Electrical Facilities

Area 1 – There are 12-inch sewer and water mains along the west end that follow Taxiway D. A branch of the water main that follows Taxiway D continues on to supply water to the buildings located along Kachemak Drive. Where the water main branches, both the sanitary sewer and water main turn east and appear to terminate at Taxiway B. Storm water is directed towards ditches on either side of the runway. Electricity extends the length of the runway to power the required runway lighting. The proposed location for the ARFF/FSS/SRE is assumed to be without utilities since the site has never been developed.

Area 2 – Sanitary sewer and water are assumed to not be present on the property. During the site visit, there was no indication electricity was available at the site. Overland flow of storm water is directly into Beluga Lake.

The quality and performance of the utility systems serving the subject property were not evaluated under this assessment.

#### Special Indicator Features

At the time of the site visit no special indicator features were noted at any of the proposed sites.

#### Interior Spaces

The interior of the ADOT&PF Maintenance Facility was inspected. In the garage area, floor drains were noted. Mike Morowitz, the Airport Manager at the time, reported the floor drains were plumbed to an oil/water separator and then to the sanitary sewer.

### **7.0 PERSONAL INTERVIEWS**

The following individual was interviewed for his personal knowledge of the recent history of the project area. Notes from this interview are included in Appendix B.5.

Mr. Kevin Jones, the Airport Manager for the Homer Airport was interviewed on February 9, 2004. Mr. Jones has been in his present position for only a few months, but is very knowledgeable about the current status of the airport and of historical activities on the site. During the course of the interview Mr. Jones indicated that only diesel fuel and electricity are available for heating. He also indicated that there are only aboveground storage tanks (ASTs) at State-operated facilities, all the USTs have been removed from the property. There are still USTs on three private lease lots: Smokey Bay Air, Maritime Helicopters, and The Roost.

### **8.0 FINDINGS**

#### **8.1 On-Site Issues**

The historical information reviewed for this report, which dates back to the early 1960s indicates some sites within airport property have been environmentally compromised by on-site releases. The extent, locations, and type of contamination are discussed in Section 4.0.

The ADOT&PF Maintenance Facility - The ADEC database indicated two separate events, one taking place in October 1989 and the other in February 1999. The October 1989 entry indicates the tank has been removed; however, no documentation on the removal is available. The February 1999 description indicates the tank was removed and a letter of “no further action” was issued and the contamination remaining on site is below applicable cleanup standard.

The Roost, located on the southwest end of the runway between the runway and Kachemak Drive is a LUST site, the ADEC LUST database reported that a “no further action letter for the site was issued on August 4, 1993.”

The database search provided limited information for the Maritime Helicopter site; it does indicate “corrective actions are underway.”

## **8.2 Off-Site Issues**

As reported in Section 4.0, suspected or confirmed soil and groundwater contamination has been documented for UST facilities located on off-site properties within the 0.5-mile radius of the proposed project areas.

The TESORO site is the only location close enough to the project sites that may have the potential to affect conditions within the proposed project sites. This site is currently undergoing remediation and has not been closed.

## **9.0 CONCLUSIONS**

We have performed a Phase I ESA in conformance with the scope and limitations of American Society of Testing and Materials (ASTM) Practice E 1527-00 and as defined in Section 1.0 of this report of Block 200, Lots 1 – 7, 8A, 9B, 10, and 11; Block 200A, Lots 1, 2, 3A, and 3A-1; Block 300, Lots 1 – 4; Block 400A, Lots 1B, 2A, and 3; Block 600, Lots 1, 2, 3A, 4C, 6, 7C, and 8; Block 700, Lots 1A, 2B, 4, and 5A; Block 800, Lots 1A, 1B, 2, 3A, 4A, 5A; and Block 900, Lot 1, City of Homer, Kenai Peninsula Borough, 3<sup>rd</sup> Judicial District, State of Alaska, the property. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

The Findings section (8.0) was broken down into two categories: On-site Issues and Off-site Issues. For consistency the conclusions section will be presented in the same fashion. The issue will first be presented, followed by the conclusion.

- On-site Issues:

- ADOT&PF Maintenance Facility:

Due to the location of this facility and lack of proximity to any of the proposed project sites, the chance for contaminant migration from this site to affect any of the projects sites is low.

- Maritime Helicopter:

A release is reportedly undergoing corrective action; however, given the location, there is a moderate to high potential for affecting the proposed haul-out road project. Additional information on the status of this site and groundwater flow direction should be collected for a more detailed analysis of potential impacts.

- The Roost:

Due to the location of this facility and lack of proximity to any of the proposed project sites, the chance for contamination migration from this site to affect any of the projects sites is low.

- Off-site issues:

- Greatland Supply - Due to location, the potential for contaminant migration from this location to any of the proposed project sites is low.

- Homer Airport TEXACO – Due to location, the potential for contaminant migration from this location to any of the proposed project sites is low.

- TESORO – Due to location, the potential for contaminant migration from this location to any of the proposed project sites is low.

Research for this ESA has identified some minor data gaps that should be filled before beginning construction.

The current status of the Maritime Helicopter site and groundwater flow direction need to be determined and whether contamination (above cleanup levels) from this site could have migrated off-site to the extent that it could affect the Beluga Lake haul-out road construction site.

## 10.0 REFERENCES

Alaska Department of Community and Economic Development. 2003. *Alaska Community Database – Homer*. Retrieved on December 17 from [http://www.dced.state.ak.us/cbd/commdb/CF\\_BLOCK.cfm](http://www.dced.state.ak.us/cbd/commdb/CF_BLOCK.cfm)

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American Society for Testing and Materials. 2000. Standard E 1527-00. *Standard Practice for Site Assessments: Phase I Environmental Site Assessment Process*.

ASCG. 2002. *AKSAS Project No. 54744: Homer Airport Master Plan Technical Memorandum 1 and 2*. May 23.

ASTM. 2000. Standard E 1528-00. *Standard Practice for Environmental Site Assessments: Transaction Screen Process*.

## 11.0 SIGNATURE

Phase I Environmental Site Assessment  
Homer Airport  
Homer, Alaska

**Prepared for:**

Alaska Department of Transportation and Public Facilities

**Prepared by:**

ASCG Incorporated

Susan T. Luetters  
Environmental Scientist

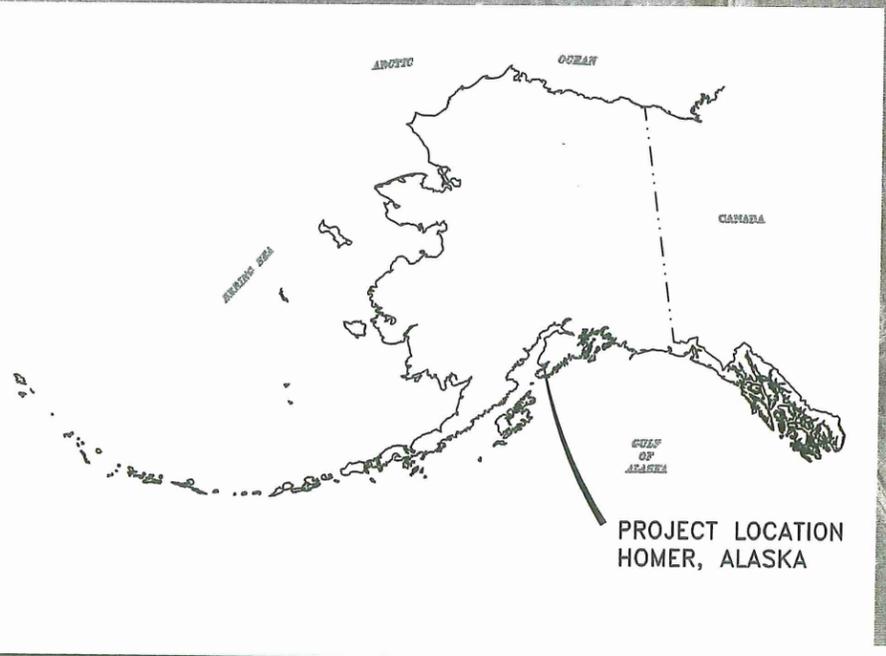
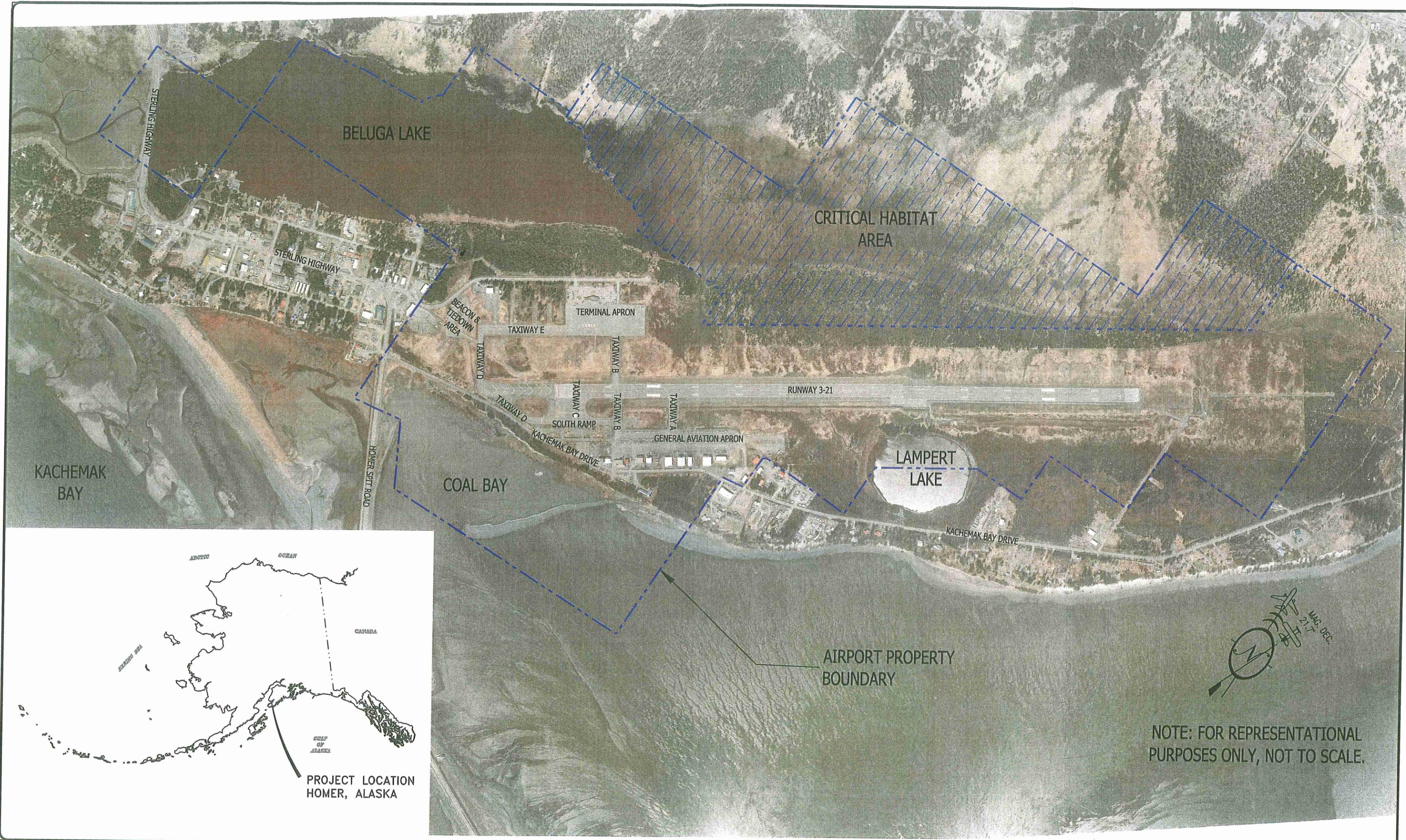
## 12.0 QUALIFICATIONS

### **Susan Luetters, Environmental Scientist**

Susan is an Alaskan resident with over five years of experience as an environmental scientist conducting Phase I and Phase II ESAs for construction and remediation projects in Alaska. Susan has conducted records research, done field sampling, compiled data, and written numerous Phase I and II ESA reports. She has conducted soil, water, and fuel sampling; and assisted with monitoring well installation at locations throughout Alaska. She is familiar with ASTM standards E1527-00 and E1528-00. Susan has a B.S. in Environmental Science and an M.S. in Environmental Quality Science.

# FIGURES





JOB NO.:	4330
DATE:	July 2004
DRAWN BY:	SG
CHECKED BY:	SL

# HOMER AIRPORT HOMER, ALASKA

## VICINITY MAP

FIGURE  
**1**

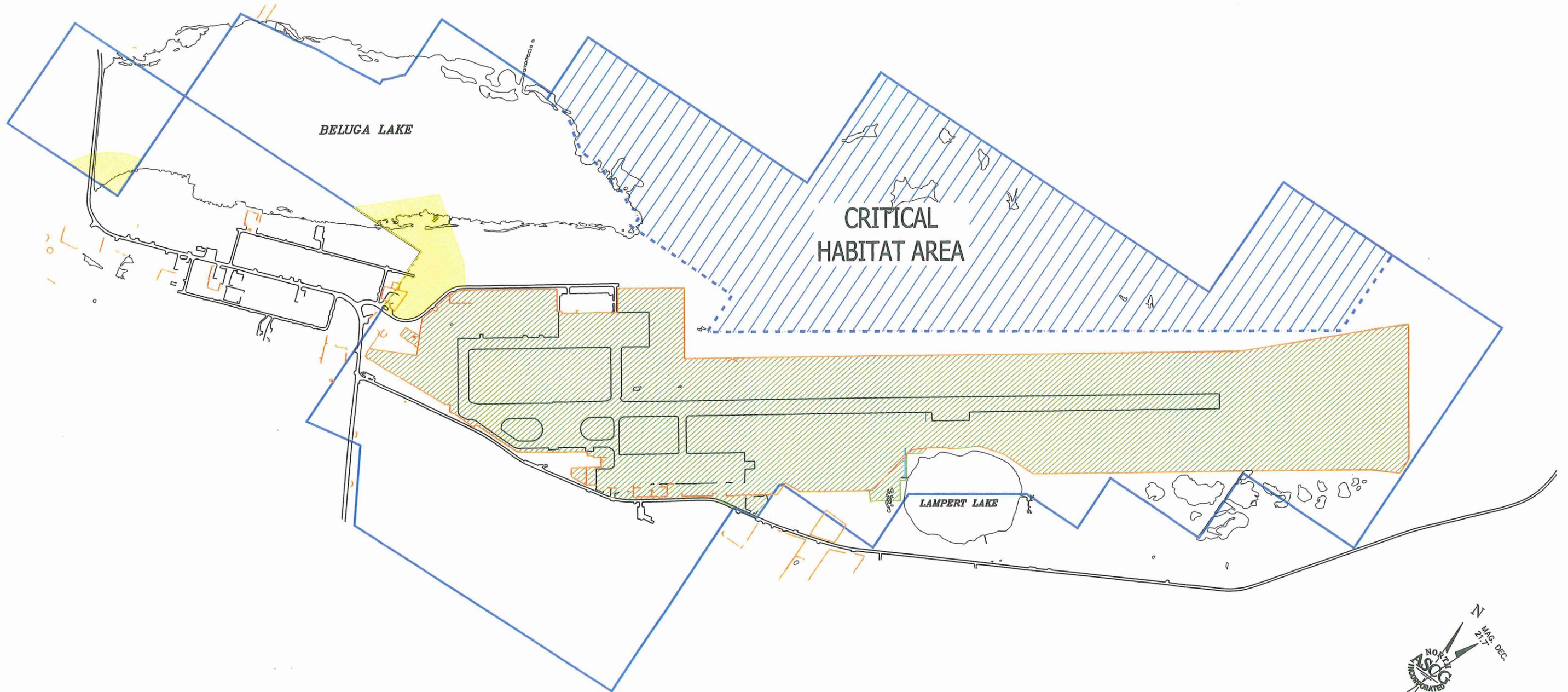
# LEGEND

AREA 1

AREA 2

EXISTING FENCELINE

NOTE: DRAWING FOR REPRESENTATIONAL PURPOSES, NOT TO SCALE.



1110433 Airport - ental/AC Figure 2 Area Map - 6/2004 0



JOB NO:	4530
DATE:	July 2004
DRAWN BY:	SG
CHECKED BY:	SL

## HOMER AIRPORT HOMER, ALASKA

## PROJECT AREA MAP

FIGURE  
**2**

**APPENDIX A**

**PROPERTY DESCRIPTION**

## PROPERTY DESCRIPTION

The project areas evaluated in this report are located within the Homer Airport Property which consists of: Block 200, Lots 1 – 7, 8A, 9B, 10, and 11; Block 200A, Lots 1, 2, 3A, and 3A-1; Block 300, Lots 1 – 4; Block 400A, Lots 1B, 2A, and 3; Block 600, Lots 1, 2, 3A, 4C, 6, 7C, and 8; Block 700, Lots 1A, 2B, 4, and 5A; Block 800, Lots 1A, 1B, 2, 3A, 4A, 5A; and Block 900, Lot 1, City of Homer, Kenai Peninsula Borough, 3<sup>rd</sup> Judicial District, State of Alaska.

## **APPENDIX B**

### **SUPPORTING DATA AND INFORMATION**

Appendix B.1 Aerial Photograph Review

Appendix B.2 Public Library Documents

Appendix B.3 Site Reconnaissance Notes

Appendix B.4 Site Photographs

Appendix B.5 Personal Interviews

## AERIAL PHOTOGRAPH REVIEW

**PROJECT:** Phase I Environmental Site Assessment  
Homer Airport Master Plan  
Homer, Alaska

**PHOTOGRAPH SOURCE:** AeroMap, Inc.  
Reviewed on December 4, 2003

**PERIOD:** 1961, 1966, 1972, 1976, 1981, 1986, 1992, 1996, and 2002

<u>DATE</u>	<u>SCALE (APPROX.)</u>	<u>REMARKS</u>
9/8/1961	1"=1320'	<b>Photograph # CKP9-4</b> (Photograph purchased, reviewed at ASCG) At the time of this aerial photograph, the airport runway did not extend beyond the east end of Lampert Lake. There were three buildings near the southwest end of the runway. All of the buildings were situated just south and to the east of the airplane apron. There appeared to be GA airplane parking northwest of the runway. All other areas surrounding runway were undeveloped. Areas surrounding Beluga Lake were predominantly undeveloped with the exception of the west end, which was bounded by the Sterling Highway. There were what appeared to be a few residentially developed properties on the north and south sides of Beluga Lake. On the southwest lake edge there appeared to be either float planes docked or floating docks for float planes. The airport property to the north of Kachemak Drive and south of the runway was largely undeveloped.
6/20/1966	1"=1000'	<b>Photograph # 2-3</b> (Photograph reviewed at AeroMap) At the time of this aerial photograph, no significant changes or development had occurred since the 1961 photograph.
9/22/1972	1"=1000'	<b>Photograph # 1-7 &amp; 1-8</b> (Photograph reviewed at AeroMap) At the time of this aerial photograph, the runway had been extended by roughly 1000 feet.

- 6/1/1976      1"=500'      **Photograph # 2-13**  
 (Photograph reviewed at AeroMap)  
 At the time of this aerial photograph, it appears a foundation was being constructed to the east of the existing airplane apron. On the south side of Kachemak Drive from the proposed new ARFF/FSS/SRE site, the property was cleared and contained two buildings.
  
- 4/28/1981      1"=1000'      **Photograph # 1-10**  
 (Photograph purchased, reviewed at ASCG)  
 At the time of this aerial photograph, development on the south side of the runway between Kachemak Drive had continued. The apron for GA airplane tiedowns had been greatly extended. There were additional buildings between Kachemak Drive and the runway on the west end. The area north of the runway remained mostly undeveloped with the exception of an area perpendicular to the runway at about the middle on the north side a large area perpendicular to the runway had been cleared of woody vegetation. Beluga Lake shoreline, especially on the southern shore, remained largely undeveloped.
  
- 5/29/1986      1"=1000'      **Photograph # 4**  
 (Photograph reviewed at AeroMap)  
 At the time of this aerial photograph, the aviation airplane apron had been expanded to approximately double the size in 1981 and numerous buildings had been constructed along the south side of the runway.
  
- 9/29/1992      1"=500'      **Photograph # 1-22**  
 (Photograph reviewed at AeroMap)  
 At the time of this aerial photograph, no significant changes or development had occurred since the 1986 photograph.
  
- 6/6/1996      1"=1000'      **Photograph # 0013**  
 (Photograph reviewed at AeroMap)  
 At the time of this aerial photograph, two more buildings had been added adjacent to the new ARFF/FSS/SRE site property.
  
- 5/17/2002      1"=800'      **Photograph series 1-2 through 1-8 and 2-2 through 2-7**  
 (Photograph purchased, reviewed at ASCG)  
 At the time of this aerial photograph, the facility appears in its current configuration.

## **APPENDIX B.2**

### **PUBLIC DOCUMENTS**

**R. L. POLK DIRECTORY REVIEW**

**REVIEWED AT:** Z. J. Loussac Library  
Anchorage, Alaska

**BY:** Ms. Susan Luetters  
ASCG Incorporated

**SUBJECT:** Phase I Environmental Site Assessment  
Homer Airport Master Plan  
Homer, Alaska 99603

**DATE:** February 5, 2004

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The Polk Directory does not include the remote location of Homer, Alaska.

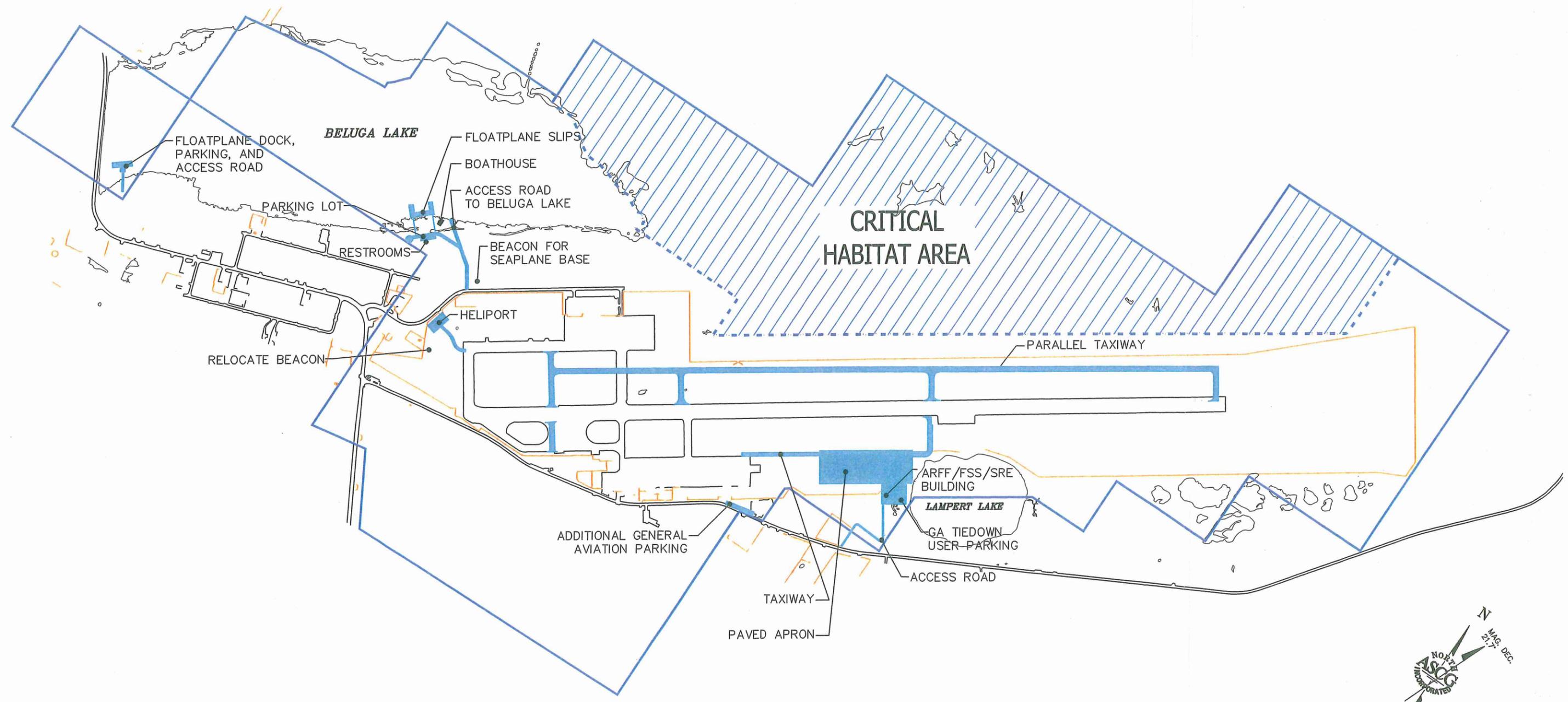
## **APPENDIX B.3**

### **SITE RECONNAISSANCE NOTES**

# LEGEND

-  EXISTING FENCELINE
-  SHORT TERM PROJECTS

NOTE: DRAWING FOR REPRESENTATIONAL PURPOSES, NOT TO SCALE.



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JOB NO:	4330
DATE:	July 2004
DRAWN BY:	SG
CHECKED BY:	SL

## HOMER AIRPORT HOMER, ALASKA

## LOCATION MAP

FIGURE  
**3**

111043 r Airport aerial/A1 Figure 3 Map.dwg 004 042



## SITE RECONNAISSANCE NOTES

**PROJECT:** Phase I Environmental Site Assessment  
Homer Airport Master Plan  
Homer, Alaska

**BY:** Susan T. Luetters and Elizabeth Miller

**DATE:** October 22, 2003

**WEATHER:** Clear skies, Approximately 29°F

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0900: The site reconnaissance began at the west end of Beluga Lake. Each of the project areas were visited and assessed at various times during the day.

There were no weather related or other obstructions inhibiting the assessment of the project areas.

### General Observations and Comments

The Homer Airport encompasses 1,042 acres and is two nautical miles east of the center of the city of Homer, at latitude north 59 degrees 38 minutes 44 seconds (N59°38'44") and longitude west 151 degrees 28 minutes 35 seconds (W151°28'35"). Homer-Beluga Seaplane Base is located one nautical mile east of Homer at latitude (N59°38'40") and longitude W151°30'07".

The northern part of the airport, 394 acres, is designated as a critical habitat area; 45 acres in the west part of the airport are leased from the Federal Aviation Administration (FAA). Portions of the 155-acre Beluga Lake and its shoreline are not owned or controlled by the Alaska Department of Transportation and Public Facilities (ADOT&PF). The remaining portion is owned by the ADOT&PF.

The joint-use passenger and cargo terminal at Homer Airport was constructed by and is operated by the City of Homer on land leased from ADOT&PF. ADOT&PF also leases land to several air taxis and aviation-related businesses, which have made tenant improvements such as buildings, utilities, and parking areas. The leased areas and building interiors (other than the ADOT&PF facilities) are not to be impacted by the proposed project and were therefore not included in this site reconnaissance.

Public access onto the property is limited to the terminal facility or via the buildings that face Kachemak Drive and back-up directly onto the GA tie downs located south of the runway. The majority of the airport property, especially the area surrounding the active runway, has limited access and is surrounded by chain link fence.

Adjacent properties were viewed from public spaces and vantage points on the subject property. Generally speaking, directly adjacent properties to the north and east are undeveloped, the adjacent properties to the south across Kachemak Drive are mixed commercial/residential/undeveloped. Properties directly adjacent to the west are predominantly commercially developed.

### **Exterior Surfaces of the Project Area**

#### **List of Improvements and Related Observations:**

Structural development of the airport property has been limited to the area between the active runway and Kachemak Drive on the south side and the area between FAA Drive and the runway on the north side. Currently there are 10 buildings located on Kachemak Drive. The only other structures on airport property are on the north side of the runway and consist of the terminal facility and Evergreen aviation located between the runway and FAA Drive.

#### **Suspected Fill Area, if any:**

Most of the construction on airport property has been on fill, including areas related to the runways, taxiways, hangars, and other buildings on the property. In most areas where fill has been placed, construction has followed; there were no areas observed that were filled and not in use at the time of the site visit.

#### **Materials Stored on Site – Types and Apparent Management:**

The ADOT&PF had a supply of chemicals that were related to the running and maintenance of the airport. Some of the chemicals noted are: ZEP Floor Cleaner, hydraulic fluid, and a flammable materials cabinet. Materials kept in the flammable materials cabinet consisted mostly of aerosol cans. According to Mike Morowitz, the airport manager, all stored materials are used to completion and the containers are properly disposed. Material data safety sheets (MSDS) were available for materials stored on site.

Waste and Disposal Practices:

Refuse is collected by Peninsula Sanitation and hauled to the Borough-operated Homer landfill and balefill located approximately one mile north of Beluga Lake on East Pioneer Avenue between Kramer Lane and Kallman Road.

UST Systems, Fueling, and Maintenance Operations:

There are fueling operations at the ADOT&PF facility; however, the diesel fuel and gasoline are stored in double-walled above ground storage tanks. The only UST's noted at the time of the site visit were septic and oil/water separators. There is no heavy duty maintenance done at the ADOT&PF facility. The shop is used for plow attachment and light maintenance; no oil changes take place at this facility.

Topography, Drainage, and Storm Drainage Facilities:

Generally speaking, the storm drainage in Homer is directed toward roadside ditches which may or may not empty into surface water bodies. Overall, there were no conditions where concentrated off-site drainage appeared to be directed onto the subject property.

**Area 1:** The topography surrounding the active runway, to the south of the runway is rather flat; with a slight roll in the topography from the east to the west end of the runway. The airport is located on a bluff overlooking Kachemak Bay on the south with the topography sloping towards Beluga Lake. Generally speaking runoff from the runway is directed north. Storm water is directed towards ditches on either side of the runway.

**Area 2:** The topography of the sites proposed for improvement are both steeply sloped towards the lake.

Sewer, Water, & Electric Facilities:

Domestic water is obtained from Homer Municipal water system. A portion of the area south of the runway is served by the municipal sewer system. A sewer line runs parallel to the water line to a point near the intersection of Kachemak Drive. There is no sewer service or line south or east of J.J. & R. Enterprises.

Aboveground electric service is provided to the subject property by Homer Electric Association. Above ground electrical transformers or service wires were observed.

**Area 1:** In 1992/1993, the City of Homer extended water, sewer, and electric utilities to the new terminal and auto parking site. There are 12-inch sewer and water mains located along the west end that follows Taxiway D. A branch of the water main that follows Taxiway D continues on to supply water to the buildings located along Kachemak Drive. Where the sanitary sewer and water mains branch, both turn east and appear to terminate at Taxiway B. Electricity extends the length of the runway to power the required runway lighting.

The location proposed for the ARFF/FSS/SRE facility is directly adjacent to the ADOT&PF maintenance facility on Kachemak Drive. Though there may not be sanitary sewer, water, storm drainage, or electrical facilities on-site, utilities are readily available from either the right-of-way or the directly adjacent properties

**Area 2:** It is assumed that there is electricity along the roadway; however, at the time of the site visit there was no indication electricity was available at the site. Since there are no structures on either of the sites, utilities are not assumed on the property but may be accessed from the nearby right-of-way.

The quality and performance of the utility systems serving the subject property were not evaluated under this assessment.

### **Interior Surfaces and Spaces of the Project Area**

#### **Heating Systems and Fuels:**

Facilities at the Homer airport are heated with heating fuel stored in aboveground storage tanks. Aircraft fuel, some privately owned and some owned by ADOT&PF, is stored in aboveground storage tanks.

#### **Storage Rooms and Contents:**

At the time of the site visit, the storage rooms at the ADOT&PF facility were mainly used to store dry goods. No chemicals storage was noted.

Transformer Rooms and Equipment:

At the time of the site visit, none were noted or inspected.

Wastewater and Process Water, if any:

At the time of the site visit none was noted.

Drains or Sumps:

The interior of the ADOT&PF facility was inspected. In the garage floor drains were noted, Mike Morowitz the airport manager reported that the floor drains were plumbed to an oil water separator and then to the sanitary sewer.

Areas Not Accessed or Viewed:

Only the interior spaces of the ADOT&PF maintenance facility were inspected as it is affected by the five year plan.

**Special Indicator Features**

Exterior:

The overall appearance of the exterior surfaces of the subject property during the reconnaissance was clean and orderly. No discolored or distressed vegetation was observed. No standing water, unnatural appearing surfaces, unusual odors or indication of pits, ponds, or lagoons were observed.

Interior:

No conditions or activities were observed that appeared to present a potential for environmentally contamination the subject property.

**Adjoining Properties**

Area 1:

North – Partially developed: The northwest end of the active runway area is commercially developed with the airport terminal building. The east end of the north side of the runway is undeveloped and is adjacent to the “critical habitat area.” The directly adjacent property to the

north of the proposed new location for the ARFF/FSS/SRE facility is currently undeveloped, just beyond is the active runway. The area directly adjacent to the proposed new location for the GA vehicle parking is commercially developed.

East – Undeveloped: The area off of the east end of the runway is undeveloped supporting low growing native vegetation. The area within the runway protection zone (RPZ) is maintained at an herbaceous stage of vegetation, while the area outside the RPZ is allowed to support native spruce and other woody vegetation. Adjacent properties to the proposed GA parking and ARFF/FSS/SRE building parcels were undeveloped at the time of the site visit.

South – Developed: Most of the area south of the runway is commercially developed with the exception of the area on the east end beyond the ADOT&PF facility, which is undeveloped supporting low growing herbaceous vegetation interspersed with black spruce. The parcel directly adjacent to the proposed ARFF/FSS/SRE facility is undeveloped to Kachemak Drive. The parcel directly adjacent to the proposed location for the GA vehicle parking is Kachemak Drive, which is undeveloped on its south side.

West - Partially developed: Off the northeast corner of the active runway at the very edge of the RPZ is a commercial/residential property. Across the Spit Road off the east end of the runway is commercially developed. The parcel to the west of the proposed location for the ARFF/FSS/SRE facility is developed, as is that west of the proposed GA vehicle parking area.

#### Area 2:

North – Partially developed: There are a few residential properties that adjoin Beluga Lake.

East – Undeveloped: The area east of Beluga Lake is undeveloped and is designated as a “Critical Habitat Area.”

South – Developed: The south shore of Beluga Lake is a mix of commercial and residential properties, most are not directly adjoining the lake and are limited to the western end of the lake.

West - Developed: The property adjacent to Beluga Lake is the Sterling Highway.

1445: The site reconnaissance was completed.

**APPENDIX B.4**

**SITE PHOTOGRAPHS**



# LEGEND

① AREA 1

▭ EXISTING FENCELINE

NOTE: DRAWING FOR REPRESENTATIONAL PURPOSES, NOT TO SCALE.



K:\00011\04330 - Homer Airport\Environmental\CAD\ESA\Figure 4 - Loc Map with Photo Points.dwg, 12/06/2004 04:24:40 PM



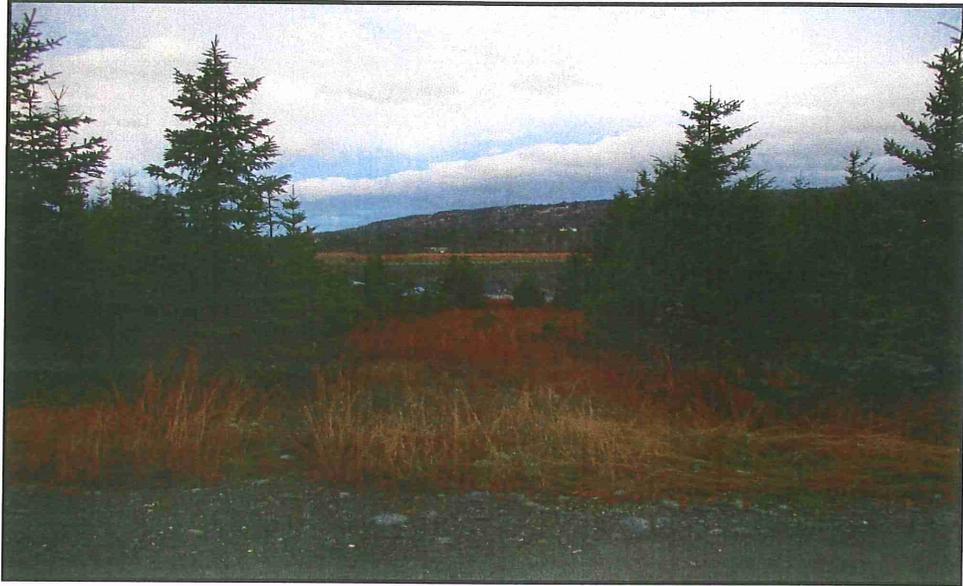
JOB NO:	4330
DATE:	July, 2004
DRAWN BY:	SG
CHECKED BY:	SL

## HOMER AIRPORT HOMER, ALASKA

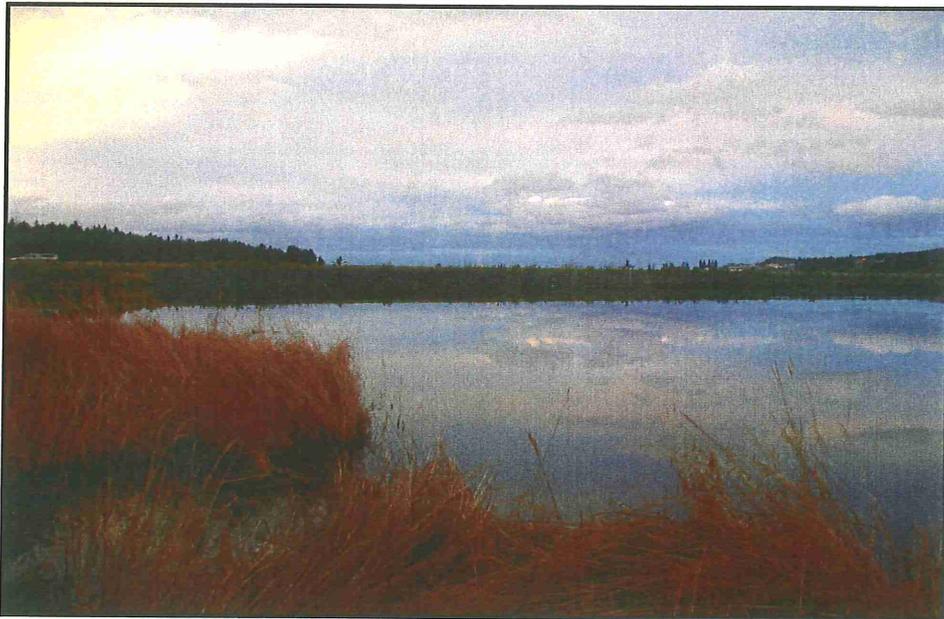
## LOCATION MAP WITH PHOTO POINTS

FIGURE  
**4**

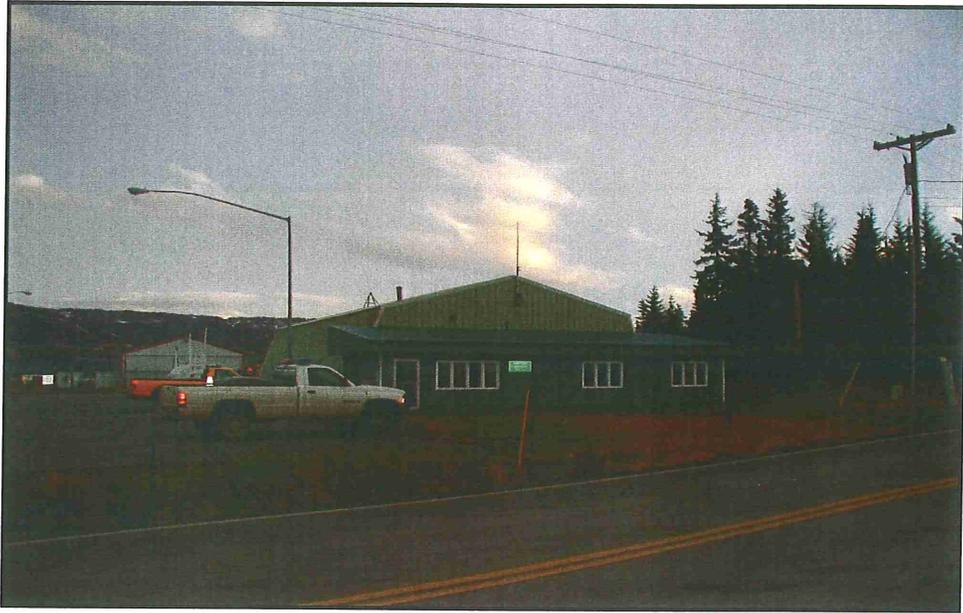




Photograph 1. Viewing northwest ~ a street view looking towards Beluga Lake, the proposed access point for the fueling/temporary mooring area.



Photograph 2. Viewing west ~ standing on the southern shore of Beluga Lake at the approximate location of the proposed transient floating dock and fueling area. Note the shoreline in the background is the shoreline of the Sterling Highway.



Photograph 3. Viewing north-northeast ~ a street view of the ADOT&PF facility that consists of offices in the front of the building and a garage in the rear of the building.



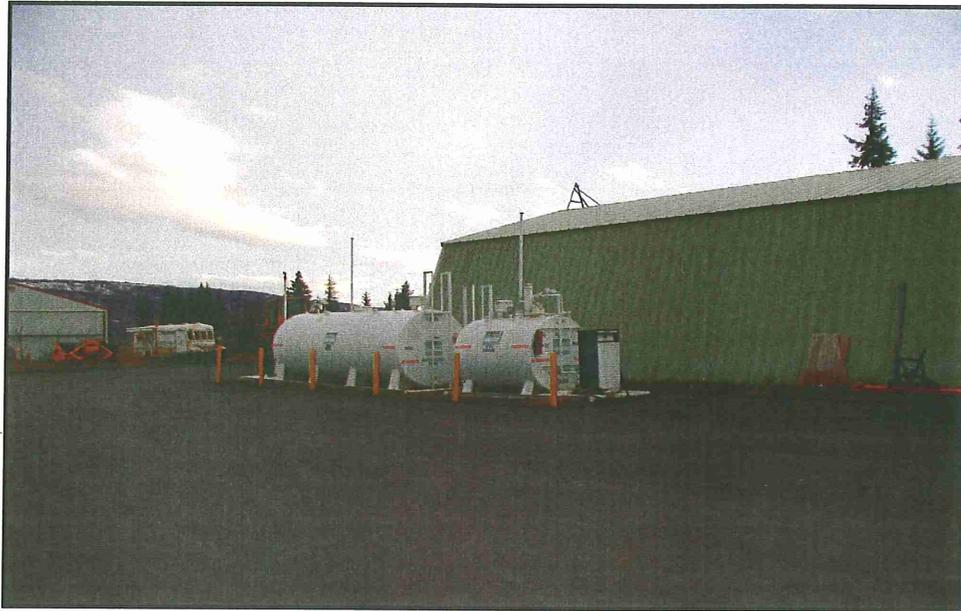
Photograph 4. An interior view of the floor drain located in the shop/garage of the ADOT&PF facility.



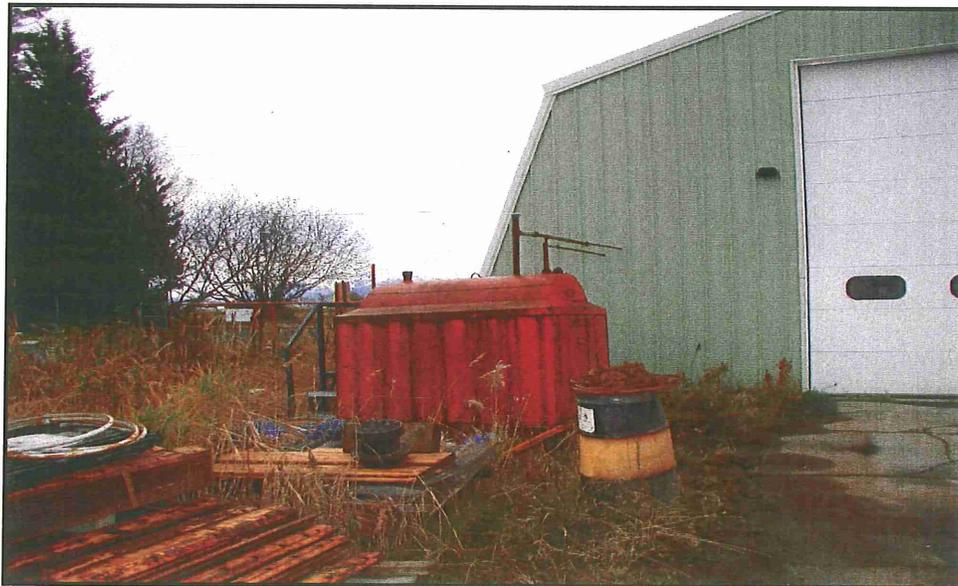
Photograph 5. An interior view of stored materials in the ADOT&PF facility.



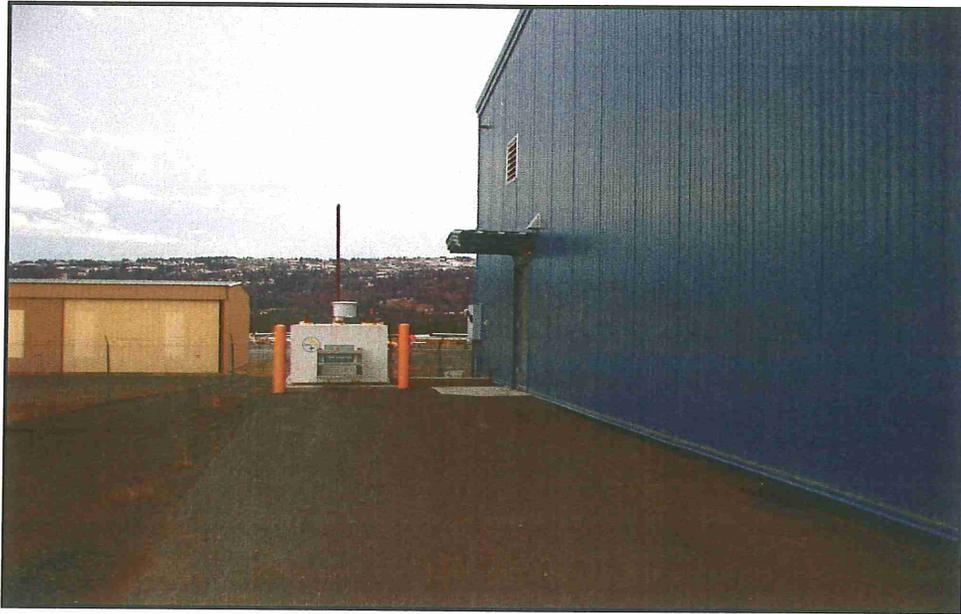
Photograph 6. Interior view of the ADOT&PF garage and a stored dispensing unit for petroleum products.



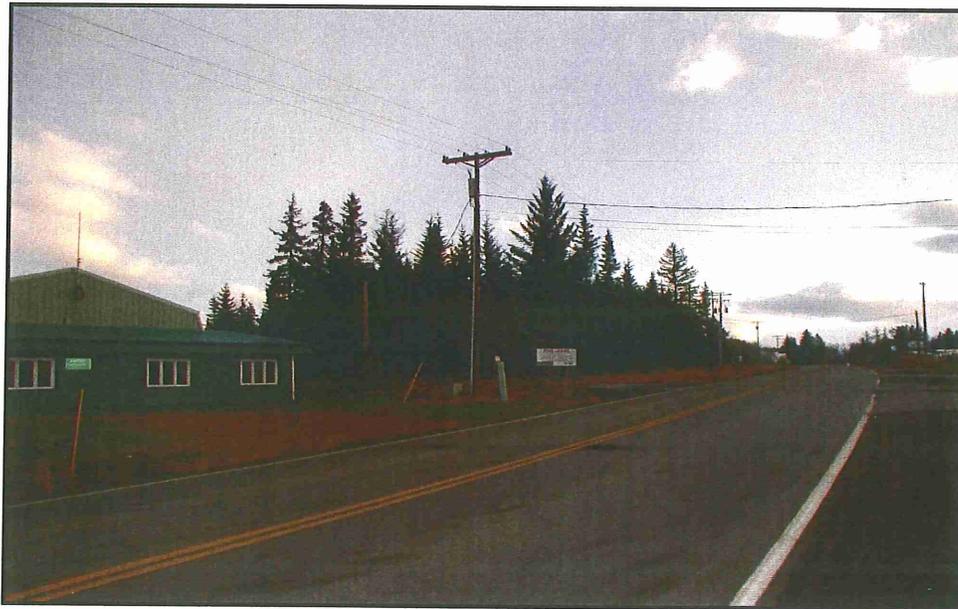
Photograph 7. Viewing north-northeast ~ two fuel ASTs on the west side of the ADOT&PF facility, one 1,000-gallon gasoline tank with dispenser and one 4,000-gallon diesel fuel tank.



Photograph 8. Viewing south ~ the rear of the ADOT&PF facility, center is the estimated 1000-gallon diesel heating fuel tank.

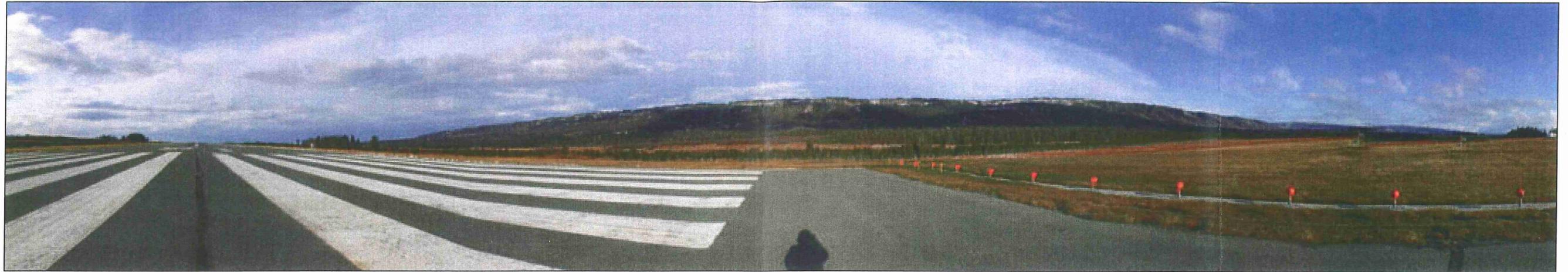


Photograph 9. Viewing north-northeast ~ the approximately 500-gallon heating fuel tank in the rear of the sand building at the ADOT&PF facility.

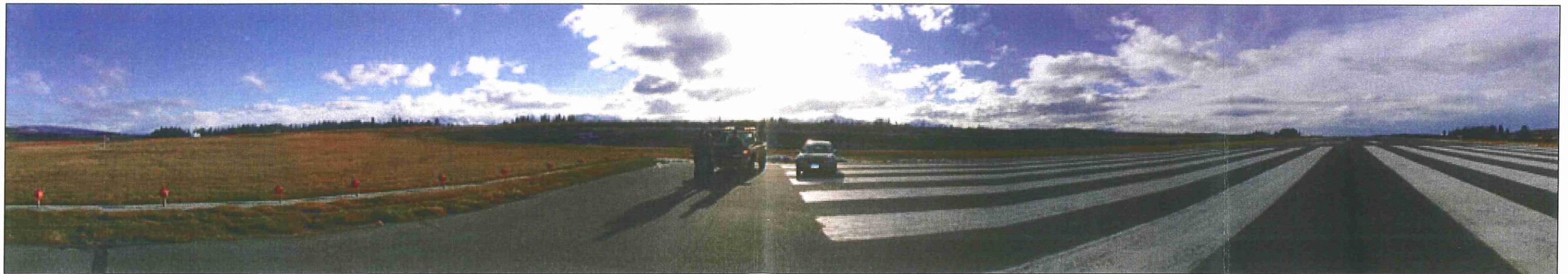


Photograph 10. Viewing east-northeast ~ the undisturbed area is the proposed site for the new ARFF/FSS facility.





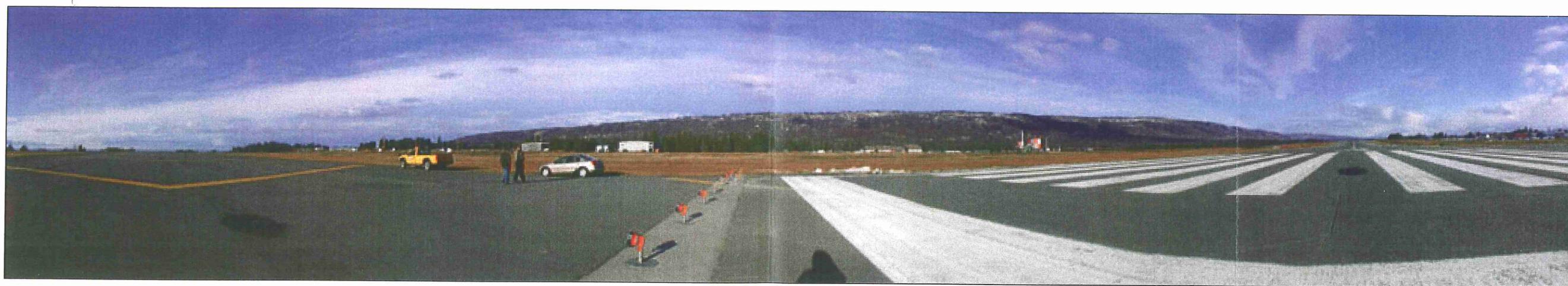
Photograph 11. A panorama view of the north side of the Runway 21



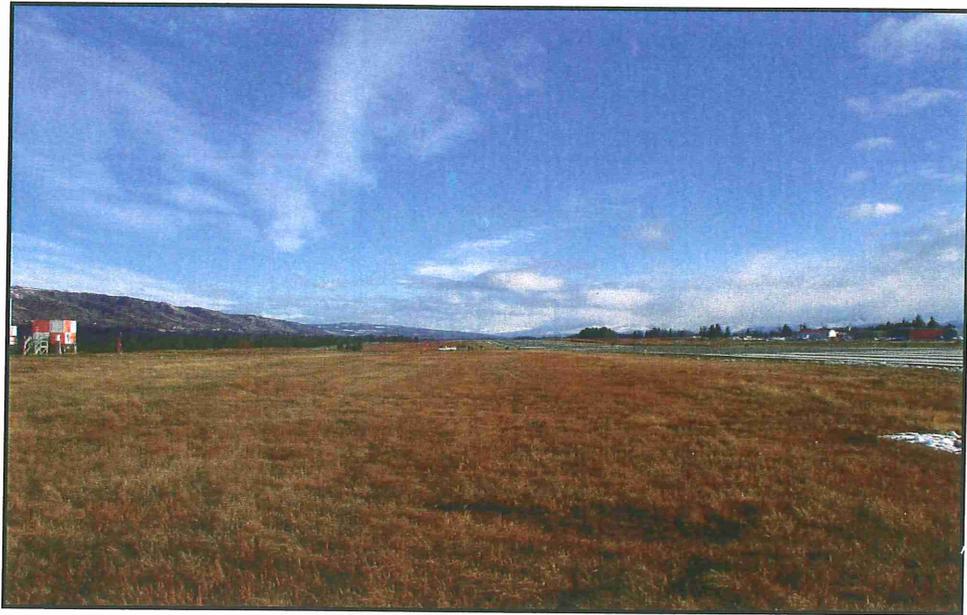
Photograph 12. A panorama view of the south side of the Runway 21.



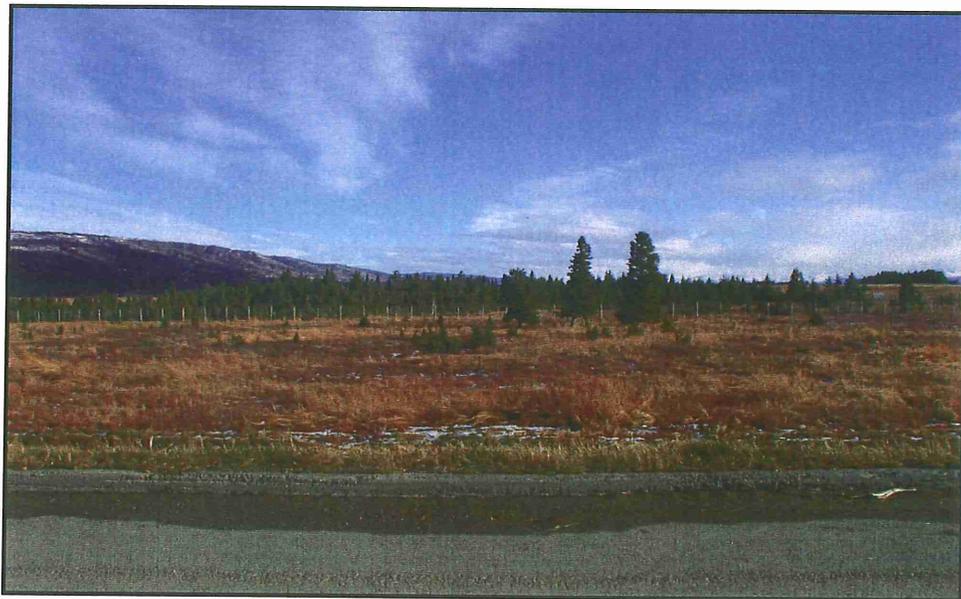
Photograph 13. A panorama view of the south side of Runway 3.



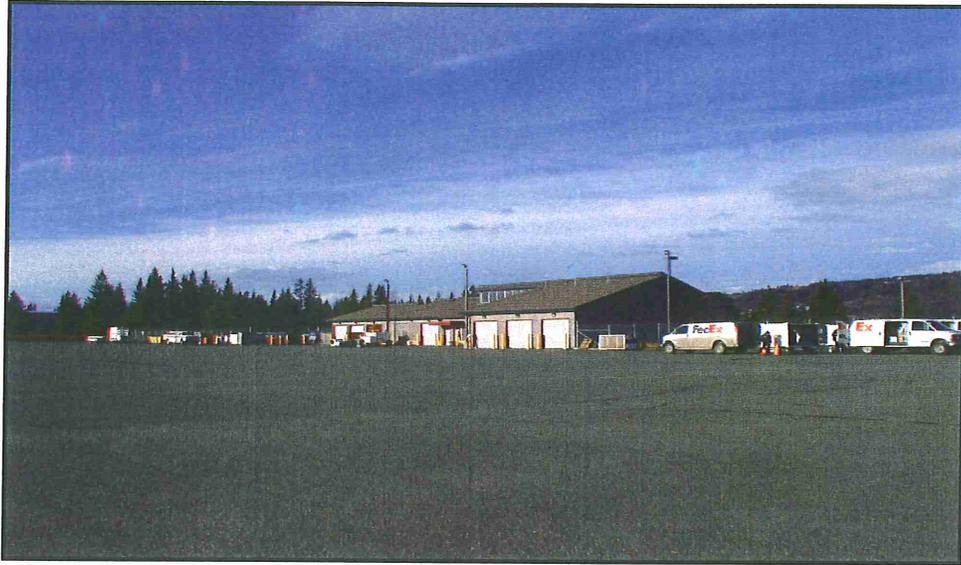
Photograph 14. A panorama shot of the north side of Runway 3.



Photograph 15. Viewing northeast ~ the proposed parallel taxiway will extend to the northeast.



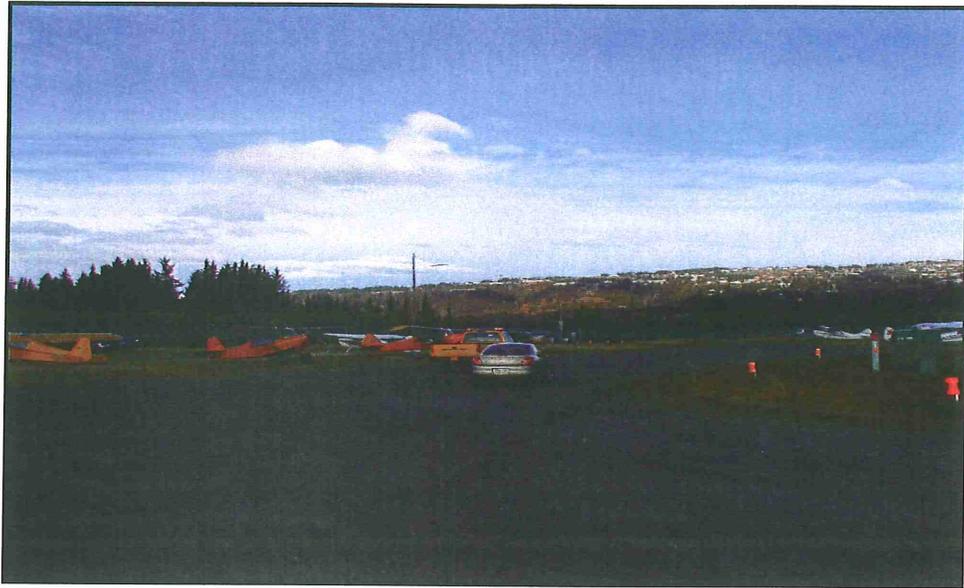
Photograph 16. Viewing north-northwest from the apron ~ the dense trees in the background is the approximate location where the Critical Habitat area begins.



Photograph 17. Viewing northwest ~ the south side of the terminal building.



Photograph 18. Viewing west ~ the aged rotating beacon and small plane tie downs.



Photograph 19. Viewing west ~ the general aviation tie down area near the rotating beacon.



**APPENDIX B.5**

**PERSONAL INTERVIEWS**

## PERSONAL INTERVIEW

**WITH:** Mr. Kevin Jones  
Airport Manager, Homer Airport  
Phone: 907-235-5217

**BY:** Ms. Susan Luetters  
ASCG Incorporated

**SUBJECT:** Phase I Environmental Site Assessment  
Homer Airport Master Plan  
Homer, Alaska

**DATE:** February 9, 2004

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Mr. Kevin Jones is the newly hired Airport Manager. Mr. Jones replaced long time airport manager Mike Morowitz, in November. Mr. Jones is involved with the day-to-day operations of the airport. I asked him if I may interview him with respect to his personal knowledge of the subject property's history. He agreed and requested the questions be emailed to him. The text that follows is his unedited responses.

- Q. Have any previous environmental assessments been done for the subject property?
- A. I am sure there has been, but it would have taken place before I went to work here.
- Q. When was the property purchased?
- A. This property has been owned by the State of Alaska since the state was purchased.
- Q. When was the last time the airport runway was upgraded?
- A. 1997.
- Q. What type of heating systems and heating fuel are being used in the buildings present on airport property?
- A. Electric and forced air diesel fired furnaces.
- Q. Is natural gas available as a heating option on airport property?
- A. No
- Q. To the best of your knowledge has there ever been any different kind of heating system or fuel in the past?
- A. No

- Q. Are you aware of any previous developments that were razed before the current facilities were built?
- A. I am not aware of any.
- Q. Has the use of the subject property remained the same over your period of ownership?
- A. Yes it has.
- Q. During the tenure of the property are you aware of any environmental permits such as solid or hazardous waste disposal permits, or wastewater permits or NPDES permits?
- A. I am not aware of needing any hazardous waste permits. We have had environmental permits allowing us to do maintenance work in the surrounding wetlands for drainage issues. Through the Corps of Engineers we received a permit, to revitalize the Lampert Lake ditch system that extends under the runway to the Beluga Lake drainage. The permit was granted because we could prove that this was a revitalization and not new construction through historical aerial photographs.
- Q. Are there or have there been any underground or aboveground storage tanks on the subject property?
- A. Yes, the USTs are located at the on private lease lots Smokey Bay Air, Maritime Air, and The Roost. State owned and operated properties all have aboveground tanks.
- Q. Were the tanks closed by removal? Or closed in place?
- A. To my knowledge, by removal on ADOT&PF property.
- Q. Was an assessment performed at closure?
- A. Unknown.
- Q. Do you use or store any materials on the subject property that require MSDS sheets?
- A. Yes, MSDS folder is maintained on site.
- Q. Are these materials used on the subject property?
- A. Yes
- Q. How are they used or excess materials disposed?
- A. We use Urea in pellet form as a de-icing chemical on the runway and taxiways.

- Q. Are there any motor vehicle maintenance or fueling operations on the subject property?
- A. Yes, fueling only.
- Q. Are you aware of any geotechnical studies or hydrogeological studies that have been conducted during the life of the airport?
- A. I am sure there has been, but it would have taken place before I went to work here.
- Q. Have you received any government notices relative to environmental violations?
- A. Not in the time have been working here, and I don't recall hearing of any problems like that before my time.
- Q. Is there any pending, threatened or past litigation regarding hazardous substances or petroleum products that you are aware of?
- A. Not to my knowledge
- Q. In the 1961 aerial photograph there is a series of what appear to be structures off of the west end of the runway, in the 1981 photograph the buildings are no longer there. Can you tell me what this series of buildings were?
- A. I will have to ask some of the older members of the staff. I will call you back.  
I asked around and they were facilities maintenance barracks for FAA personnel along with a maintenance shop.

End of Interview

## **APPENDIX H**

### **Section 106 Consultation**





THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

## Department of Transportation and Public Facilities

DESIGN & ENGINEERING SERVICES  
PRELIMINARY DESIGN & ENVIRONMENTAL

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TTY: 800.770.8973  
Fax: 907.243.6927

March 10, 2014

In Reply Refer To:  
Homer Beluga Float Plane Facilities Improvements  
Project No. 57777  
No Historic Properties Affected

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

**No Historic Properties Affected** SHD  
**Alaska State Historic Preservation Officer**  
**Date: 3.26.2014 File No.: 3130-1R FAA**  
**Please review: 36 CFR 800.13 / A.S. 41.35.070(d)**

Dear Ms. Bittner:

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is proposing to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area. The Beluga Lake Seaplane Base is located in Section 21, T06S, R13W on USGS Quad Map Seldovia C-4 and C-5, Seward Meridian; Latitude 59°-38-40.802N, Longitude 151°-30-7.653W, in Homer, Alaska (Figure 1).

Pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act, DOT&PF on behalf of FAA finds that no historic properties would be affected by the proposed project.

### Project Description

The proposed project would consist of:

- Constructing a new access road from the airport to Beluga Lake
- Constructing a turnaround area at the end of the new access road
- Constructing a ramp from the access road into the lake
- Clearing and grubbing along the new access road alignment to construct the road and for aircraft clearance
- Acquiring property and developing a material site if needed

### Area of Potential Effect

The Area of Potential Effect (APE) consists of direct and indirect impact areas for the proposed project (Figure 2). The direct APE is the anticipated project construction footprint. The indirect APE accounts for any potential

*"Keep Alaska Moving through service and infrastructure."*

visual or noise impacts from the proposed project. The indirect APE includes several lease-lots on the airport property and a forested area along the shore of Beluga Lake.

**Identification Efforts**

In 2004, the State Historic Preservation Officer (SHPO) was consulted for the larger airport improvements project at the Homer Airport (Project No. 54744). At that time, the APE consisted of the entire airport and it was determined that no known historic properties were located within the APE upon a review of the Alaska Heritage Resource Survey (AHRs). The work at Beluga Lake was captured in that consultation under items 11 and 12 (see enclosed SHPO concurrence). It was determined that the Beluga Lake shoreline was not suitable for permanent or temporary habitation because prior to the construction of the Sterling Highway in 1951 the area was a regularly flooded wetland. SHPO concurred with a determination of no historic properties affected for the overall project on October 11, 2004.

A review of the AHRs on September 23, 2013, and January 14, 2014, indicated that there are no known historic properties within the APE for the proposed project. The buildings on the DOT&PF lease-lots within the indirect APE are all less than 45 years in age. The majority of buildings were constructed after 2000.

**Finding of Effect**

Based on the previous determination of no historic properties affected and no known historic properties within the APE, DOT&PF, on behalf of FAA, finds that no historic properties would be affected by the proposed project.

**Consultation Efforts**

Consulting parties being notified of this finding include: the State Historic Preservation Officer; Ninilchik Traditional Council; Ninilchik Natives Association Inc.; and Cook Inlet Region, Inc.

Please direct your concurrence or comments to me at the address above, by telephone at 907-269-0535 or by e-mail at [valerie.gomez@alaska.gov](mailto:valerie.gomez@alaska.gov).

Sincerely,



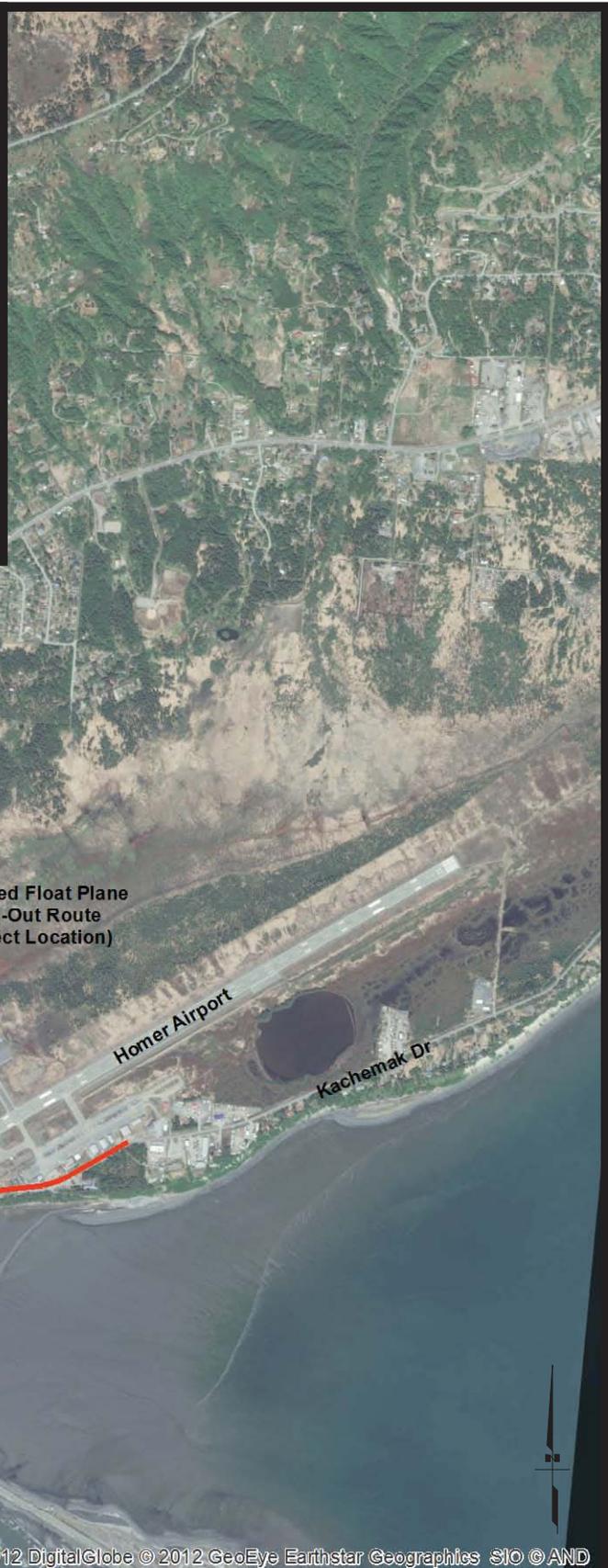
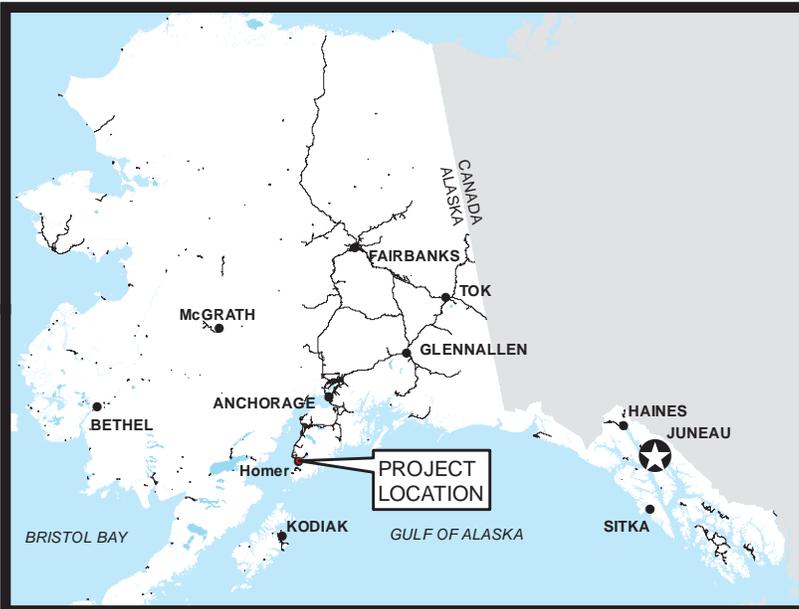
Valerie Gomez  
Cultural Resources Specialist

Enclosures:

- Figure 1 Location and Vicinity Map
- Figure 2 Area of Potential Effect
- SHPO Concurrence for Project No. 54744 – Homer Airport Improvements Project (October 11, 2004)

Electronic cc w/ enclosures:

- Bruce Greenwood, FAA, Environmental Protection Specialist
- Leslie Grey, FAA, Environmental Protection Specialist
- Laurie Mulcahy, Statewide DOT&PF, Cultural Resources Manager
- Aaron Hughes, P.E., CR DOT&PF Aviation Design, Project Manager
- Brian Elliott, CR DOT&PF, Regional Environmental Manager
- TaraLyn Stone, CR DOT&PF, Environmental Team Leader



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**Figure 1  
Project Location  
&  
Vicinity Map**

Sec 21 T6S R13W  
Seward Meridian, Alaska



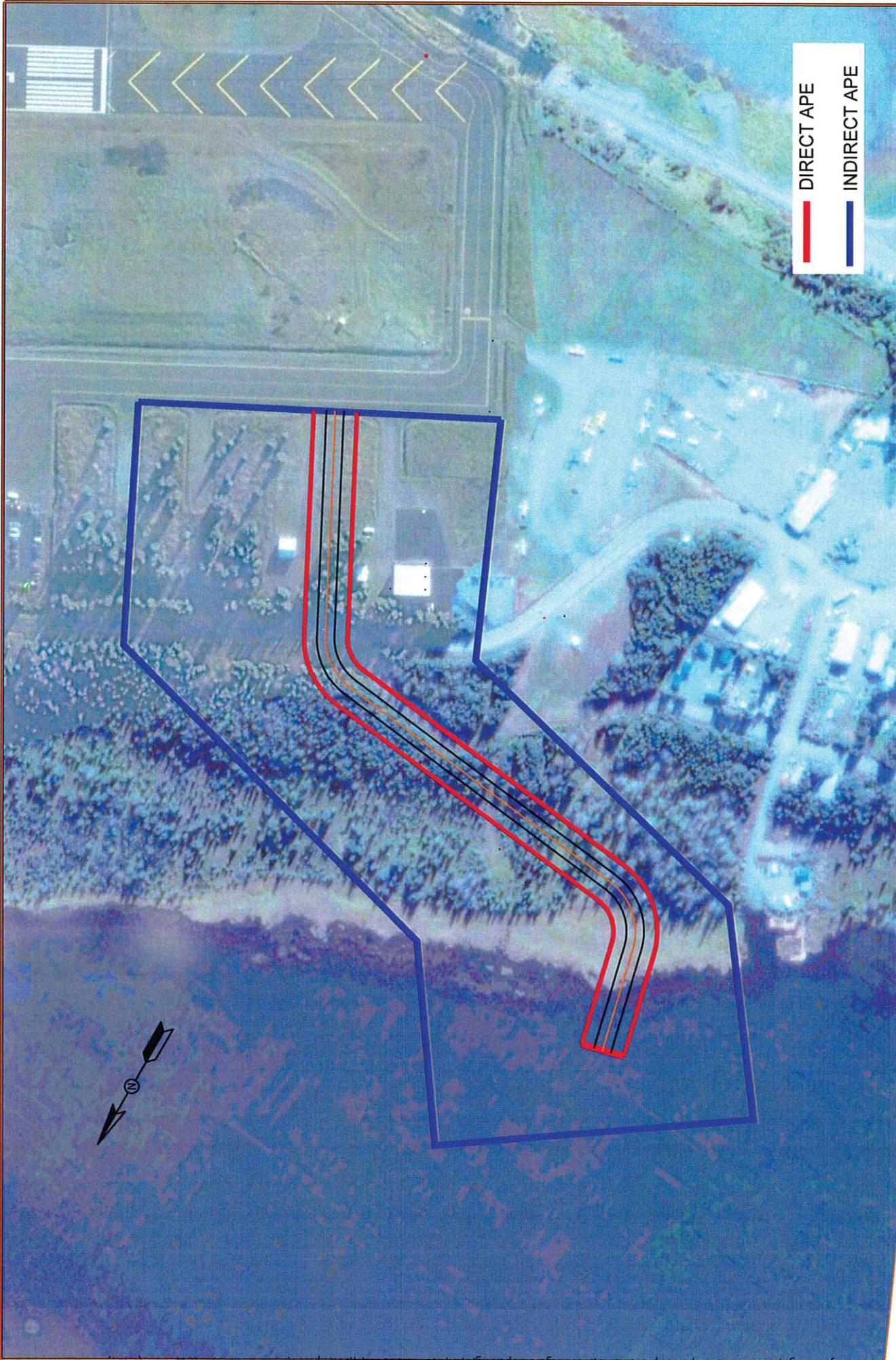
**STATE OF ALASKA**  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

DOT & PF Project No. 57777

Homer, Alaska

DATE: Mar 03, 2014

61485



STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 PRELIMINARY DESIGN AND  
 ENVIRONMENTAL GROUP

SCALE: SEE GRAPHIC  
 DATE: 2/24/2014  
 BY: T. STONE

HOMER AIRPORT IMPROVEMENTS  
 PROJECT NO. 57777  
 AREA OF POTENTIAL EFFECT  
 ANCHORAGE, AK

FIGURE 1



Homer Airport Improvements  
No Historic Properties Affected Finding

1. Construct a full-length parallel taxiway (50 feet wide by 6,700 feet long) north of the runway with multiple connective taxiways to allow quicker entrance and egress to the active runway, improve safety and efficiency of the airport, and meet the FAA standards for line-of-sight along the runway and for instrument approach with visibility minimum lower than one mile.
2. Remove 12 obstructing trees at the end of Runway 21 in preparation for the future installation of the Instrument Landing System approach planned for Runway 21.
3. Replace and relocate the current rusting and worn rotating beacon now located on the northwest end of the runway to improve airport safety and come into compliance with Part 77, 7:1 Transitional Surface Requirements.
4. Install a rotating beacon at Beluga Lake to increase safety for small floatplane visual flight rules approaches and bring the facility into compliance with FAA guidance for night operations.
5. Connect the apron north of Runway 3 directly to the threshold with a 50-foot wide by 500-foot long taxiway.
6. Construct a public use heliport. The helicopter landing pad and parking position will include a total of approximately 800 square feet (sf) of pavement. The access road to the heliport will be approximately 25 feet wide and 25 feet long.
7. Construct wheeled general aviation (GA) aircraft parking (900-foot by 300-foot paved apron) to meet current and future demand.
8. Construct the new apron area next to the proposed snow removal equipment (SRE), flight service station (FSS), and airport rescue and firefighting facility (ARFF). Construct fencing around the apron, connecting to the ARFF/FSS/SRE facility so it is accessible from both sides of the fence.
9. Construct a partial parallel taxiway south of the runway. The taxiway will be a taxilane along the north edges of the aprons. The taxiway will connect the new and existing GA aprons with the runway.
10. Construct a 30-space (16,000 sf max.) vehicle parking lot for tiedown users to meet current and future demand.
11. Construct a Beluga Lake transient floatplane dock and access road to support temporary mooring and fueling.
12. Construct an access road to a haul-out ramp for floatplanes at Beluga Lake. At the same location provide a boat house for a rescue boat and a boat used for maintaining weed control. Provide a dock with 12 slips for based floatplanes that is accessible by pedestrian gangway. Provide public restroom facilities and vehicle parking near the dock.

Homer Airport Improvements  
No Historic Properties Affected Finding

13. Construct a new ARFF/FSS/SRE building. The ARFF/SRE facility will include five bays for equipment and support areas on the ground floor. The FSS will be located on the second floor. Public restrooms will be provided in the building for use by GA pilots and passengers. Associated construction will include a new access road from Kachemak Drive to the facility and vehicle parking for building employees, visitors, and users of the adjacent aircraft tie-downs. The access road will be situated so that an area of approximately ¼-acre next to Lampert Lake will be left undeveloped or for a possible future campground, which would be vendor-operated, not State-operated.

Materials for proposed projects at the Homer Airport will come from off-site, commercial sources. Specific sources have not yet been identified. There are no material sources on airport property.

The Area of Potential Effect (APE) has been defined as the outermost limits of the Homer Airport improvements as shown in Figure 2 with detail Figures 3A and 3B showing the Beluga Lake projects. The proposed airport improvements will affect a limited area around the current airport, mostly on land disturbed during previous airport construction. The proposed improvements in the main airport facility are in locations that are similar to those that were proposed in the 1992 Environmental Assessment (EA). At the time of the 1992 EA, SHPO gave concurrence in their correspondence dated November 15, 1991 with the stipulation "Should cultural or paleontological resources be discovered as a result of this activity, all work that may damage these resources will halt and the State Historic Preservation Office be contacted immediately . . ." A copy of the letter is included as an attachment. No cultural resources were identified at the Homer Airport in the 1992 EA.

The Alaska Heritage Resources Survey (AHRIS) was reviewed for sites within the APE. Several sites were found in the vicinity, the sites include; Homer (AHRIS Site SEL-019), Homer Spit 1 (AHRIS Site SEL-077), Homer Spit 2 (AHRIS Site SEL-078), Harrington Cabin (AHRIS Site SEL-148), Christensen/Kirkpatrick House (AHRIS Site SEL-149), Homer Post Office (AHRIS Site SEL-150), and Prehistoric Lamp Site (AHRIS Site SEL-272). The listed sites are primarily associated with the town of Homer, and none are within the APE.

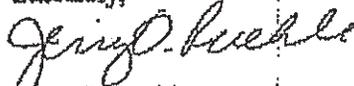
Airport improvements proposed for Beluga Lake are located in wetlands that do not appear to have been previously disturbed. The two locations proposed to be impacted by airport improvements on the shore of Beluga Lake, shown in Figures 3A and 3B, are located in areas that have been classified by the United States Army Corps of Engineers in their 1982 survey as predominantly palustrine. The refueling dock location (Figure 3A) has been classified as (beginning at the waters edge) palustrine, emergent persistent seasonally flooded wetland that transitions to palustrine, scrub-shrub needle-leaved evergreen saturated wetland to the intersection with the existing road. The floating dock and haul-out area (Figure 3B) is described as palustrine, scrub/shrub, broad-leaved deciduous/needle-leaved evergreen persistent (saturated) wetland for the area closest to the lake that transitions to a palustrine, scrub-shrub broad-leaved evergreen/broad-leaved persistent (saturated) wetland to the intersection with the existing road. These classifications, assigned in 1982 are describing the area as a lake and the surrounding shoreline.

- Homer Airport Improvements
- No Historic Properties Affected Finding

Prior to the construction of the Sterling Highway (pre-1951, as seen the earliest aerial photograph found) the Beluga Lake area was an estuary that was tidally influenced and would have had similar characteristics to the area currently west of the Sterling Highway which is classified as estuarine, intertidal emergent cobble regularly flooded wetland. This type of habitat tends to be utilized for subsistence purposes, but is rarely a suitable location for permanent or even temporary habitation.

Therefore, in consultation with FAA, it has been determined that no historic properties would be affected by the proposed project and we request your concurrence. Please direct your response or comments to me at 269-0534 or via email at Jerry\_Ruehle@dot.state.ak.us.

Sincerely,



Jerry O. Ruehle

Regional Environmental Coordinator

Enclosures: Figure 1 - Property Lines  
Figure 2 - Short Term Projects  
Figure 3A - Beluga Lake Refueling Dock  
Figure 3B - Beluga Lake Floatplane Haul-out  
1991 SHPO Concurrence Letter

cc: Mark Mayo, ADOT&PF Central Region, Project Manager  
Jonathon Widdis, ASCG Project Manager  
FAA Project Manager



March 10, 2014

In Reply Refer To:  
Homer Beluga Float Plane Facilities Improvements  
Project No. 57777  
No Historic Properties Affected

Mr. Bruce Oskolkoff  
Director of Land & Resources  
Ninilchik Natives Association, Inc.  
PO Box 39130  
Ninilchik, Alaska 99639

Dear Mr. Oskolkoff:

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is proposing to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area. The Beluga Lake Seaplane Base is located in Section 21, T06S, R13W on USGS Quad Map Seldovia C-4 and C-5, Seward Meridian; Latitude 59°-38-40.802N, Longitude 151°-30-7.653W, in Homer, Alaska (Figure 1).

Pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act, DOT&PF on behalf of FAA finds that no historic properties would be affected by the proposed project.

### **Project Description**

The proposed project would consist of:

- Constructing a new access road from the airport to Beluga Lake
- Constructing a turnaround area at the end of the new access road
- Constructing a ramp from the access road into the lake
- Clearing and grubbing along the new access road alignment to construct the road and for aircraft clearance
- Acquiring property and developing a material site if needed

### **Area of Potential Effect**

The Area of Potential Effect (APE) consists of direct and indirect impact areas for the proposed project (Figure 2). The direct APE is the anticipated project construction footprint. The indirect APE accounts for any potential

visual or noise impacts from the proposed project. The indirect APE includes several lease-lots on the airport property and a forested area along the shore of Beluga Lake.

### **Identification Efforts**

In 2004, the State Historic Preservation Officer (SHPO) was consulted for the larger airport improvements project at the Homer Airport (Project No. 54744). At that time, the APE consisted of the entire airport and it was determined that no known historic properties were located within the APE upon a review of the Alaska Heritage Resource Survey (AHRIS). The work at Beluga Lake was captured in that consultation under items 11 and 12 (see enclosed SHPO concurrence). It was determined that the Beluga Lake shoreline was not suitable for permanent or temporary habitation because prior to the construction of the Sterling Highway in 1951 the area was a regularly flooded wetland. SHPO concurred with a determination of no historic properties affected for the overall project on October 11, 2004.

A review of the AHRIS on September 23, 2013, and January 14, 2014, indicated that there are no known historic properties within the APE for the proposed project. The buildings on the DOT&PF lease-lots within the indirect APE are all less than 45 years in age. The majority of buildings were constructed after 2000.

### **Finding of Effect**

Based on the previous determination of no historic properties affected and no known historic properties within the APE, DOT&PF, on behalf of FAA, finds that no historic properties would be affected by the proposed project.

### **Consultation Efforts**

Consulting parties being notified of this finding include: the State Historic Preservation Officer; Ninilchik Traditional Council; Ninilchik Natives Association Inc.; and Cook Inlet Region, Inc.

If you wish to comment on this finding, I can be reached at the address above, by telephone at 907-269-0535 or by e-mail at [valerie.gomez@alaska.gov](mailto:valerie.gomez@alaska.gov). However, we respectfully request that your comments or consultation requests be received within thirty days of your receipt of this correspondence.

Sincerely,



Valerie Gomez  
Cultural Resources Specialist

### **Enclosures:**

- Figure 1      Location and Vicinity Map
- Figure 2      Area of Potential Effect
- SHPO Concurrence for Project No. 54744 – Homer Airport Improvements Project (October 11, 2004)

### **Electronic cc w/ enclosures:**

- Bruce Greenwood, FAA, Environmental Protection Specialist
- Leslie Grey, FAA, Environmental Protection Specialist
- Laurie Mulcahy, Statewide DOT&PF, Cultural Resources Manager
- Aaron Hughes, P.E., CR DOT&PF Aviation Design, Project Manager
- Brian Elliott, CR DOT&PF, Regional Environmental Manager
- TaraLyn Stone, CR DOT&PF, Environmental Team Leader



March 10, 2014

In Reply Refer To:  
Homer Beluga Float Plane Facilities Improvements  
Project No. 57777  
No Historic Properties Affected

Mr. Richard Encelewski  
President  
Ninilchik Traditional Council  
P.O. Box 39070  
Ninilchik, Alaska 99639

Dear Mr. Encelewski:

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is proposing to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area. The Beluga Lake Seaplane Base is located in Section 21, T06S, R13W on USGS Quad Map Seldovia C-4 and C-5, Seward Meridian; Latitude 59°-38-40.802N, Longitude 151°-30-7.653W, in Homer, Alaska (Figure 1).

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visual or noise impacts from the proposed project. The indirect APE includes several lease-lots on the airport property and a forested area along the shore of Beluga Lake.

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A review of the AHRs on September 23, 2013, and January 14, 2014, indicated that there are no known historic properties within the APE for the proposed project. The buildings on the DOT&PF lease-lots within the indirect APE are all less than 45 years in age. The majority of buildings were constructed after 2000.

### **Finding of Effect**

Based on the previous determination of no historic properties affected and no known historic properties within the APE, DOT&PF, on behalf of FAA, finds that no historic properties would be affected by the proposed project.

### **Consultation Efforts**

Consulting parties being notified of this finding include: the State Historic Preservation Officer; Ninilchik Traditional Council; Ninilchik Natives Association Inc.; and Cook Inlet Region, Inc.

If you wish to comment on this finding, I can be reached at the address above, by telephone at 907-269-0535 or by e-mail at [valerie.gomez@alaska.gov](mailto:valerie.gomez@alaska.gov). However, we respectfully request that your comments or consultation requests be received within thirty days of your receipt of this correspondence.

Sincerely,



Valerie Gomez  
Cultural Resources Specialist

### **Enclosures:**

- Figure 1 Location and Vicinity Map
- Figure 2 Area of Potential Effect
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- Aaron Hughes, P.E., CR DOT&PF Aviation Design, Project Manager
- Brian Elliott, CR DOT&PF, Regional Environmental Manager
- TaraLyn Stone, CR DOT&PF, Environmental Team Leader



March 10, 2014

In Reply Refer To:  
Homer Beluga Float Plane Facilities Improvements  
Project No. 57777  
No Historic Properties Affected

Ms. Dara Glass  
Land Administrator  
Cook Inlet Region, Inc.  
2525 C Street Suite 300  
Anchorage, Alaska 99507

Dear Ms. Glass:

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is proposing to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area. The Beluga Lake Seaplane Base is located in Section 21, T06S, R13W on USGS Quad Map Seldovia C-4 and C-5, Seward Meridian; Latitude 59°-38-40.802N, Longitude 151°-30-7.653W, in Homer, Alaska (Figure 1).

Pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act, DOT&PF on behalf of FAA finds that no historic properties would be affected by the proposed project.

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Based on the previous determination of no historic properties affected and no known historic properties within the APE, DOT&PF, on behalf of FAA, finds that no historic properties would be affected by the proposed project.

### **Consultation Efforts**

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If you wish to comment on this finding, I can be reached at the address above, by telephone at 907-269-0535 or by e-mail at [valerie.gomez@alaska.gov](mailto:valerie.gomez@alaska.gov). However, we respectfully request that your comments or consultation requests be received within thirty days of your receipt of this correspondence.

Sincerely,



Valerie Gomez  
Cultural Resources Specialist

### **Enclosures:**

- Figure 1 Location and Vicinity Map
- Figure 2 Area of Potential Effect
- SHPO Concurrence for Project No. 54744 – Homer Airport Improvements Project (October 11, 2004)

### **Electronic cc w/ enclosures:**

- Bruce Greenwood, FAA, Environmental Protection Specialist
- Leslie Grey, FAA, Environmental Protection Specialist
- Laurie Mulcahy, Statewide DOT&PF, Cultural Resources Manager
- Aaron Hughes, P.E., CR DOT&PF Aviation Design, Project Manager
- Brian Elliott, CR DOT&PF, Regional Environmental Manager
- TaraLyn Stone, CR DOT&PF, Environmental Team Leader

## **APPENDIX I**

### **Wetlands**





## MEMORANDUM

**TO:** Taralyn R. Stone W.O. 61485  
Environmental Impact Analyst III  
State of Alaska Department of Transportation and Public Facilities  
Post Office Box 196900  
MS-2525  
Anchorage, Alaska 99519-6900

**FROM:** Nancy J. Ashton *NJA*  
Environmental Specialist  
DOWL HKM

**DATE:** April 22, 2014

**SUBJECT:** Homer Beluga Lake Seaplane Facilities Improvements  
Addendum Memorandum for Preliminary Wetlands Delineation

---

In August 2013, DOWL HKM environmental specialists conducted a field investigation of a Study Area comprised of 8.6 acres and abutting the south side of Beluga Lake, east of the intersection between A Street and Lakeshore Drive. FAA Street marked the terminus of the southern boundary of the Study Area. Pedestrian surveys were completed with wetland sampling occurring at least once per community type, with preliminary aerial interpretations of distinct vegetative communities verified by ground truthing. The subsequent report identified 3.4 acres of potentially jurisdictional wetlands and 5.2 acres of uplands within the Study Area (see Table 1 in Report).

In the spring of 2014, the footprint of the proposed project was expanded to outside of the original 8.6-acre Study Area. This memorandum serves as an addendum to document the updated mapping and acreages (Attachment 1). All functions and values and habitat descriptions will remain unchanged in the report.

The new Study Area totals 27 acres and will accommodate any potential design by expansion on all sides. The following rationale was used to assist best professional judgment in determining wetland habitat boundaries.

1. The property to the west is private property described as Lot 1, Bay View Subdivision and is referenced by the United States Army Corps of Engineers (USACE) as POA-2013-558 in the

Section 404 Permit Application. The USACE drawing (Attachment 2) shows the entire lot to be comprised of wetlands.

2. In 2007, an on-site wetland delineation was completed for an area that includes both Study Areas, and a 2008 Jurisdictional Determination was issued as a result (Attachment 3). The mapping from this effort showed wetlands roughly following the border between the densely forested area (represented by Point 5) and the wetlands immediately to the north (represented by Point 10). The jurisdictional boundary on these maps clearly shows that the wetland boundary follows a distinct change in vegetation that is apparent on aerial images.

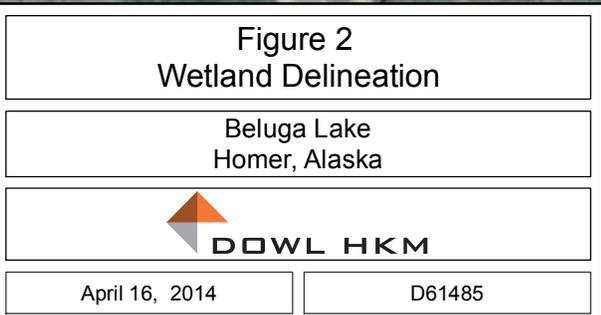
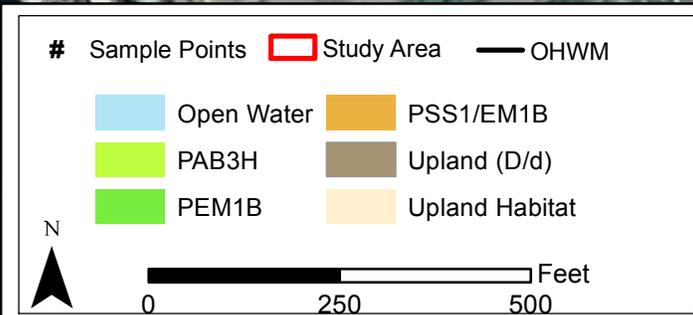
The following table shows updated acreages.

**Table 1: Updated Wetlands and Uplands Acreages**

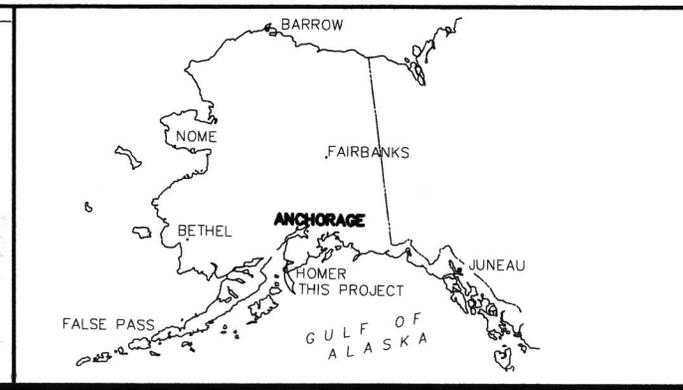
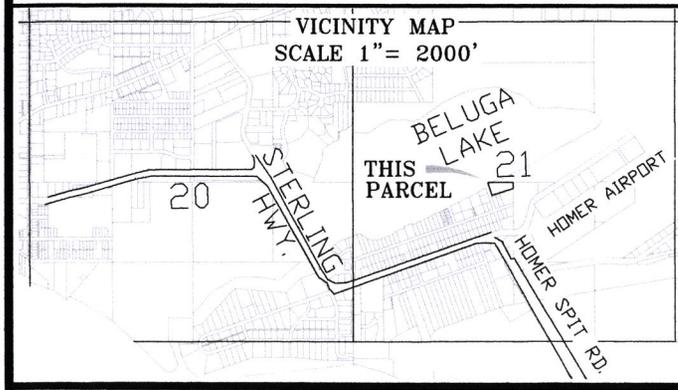
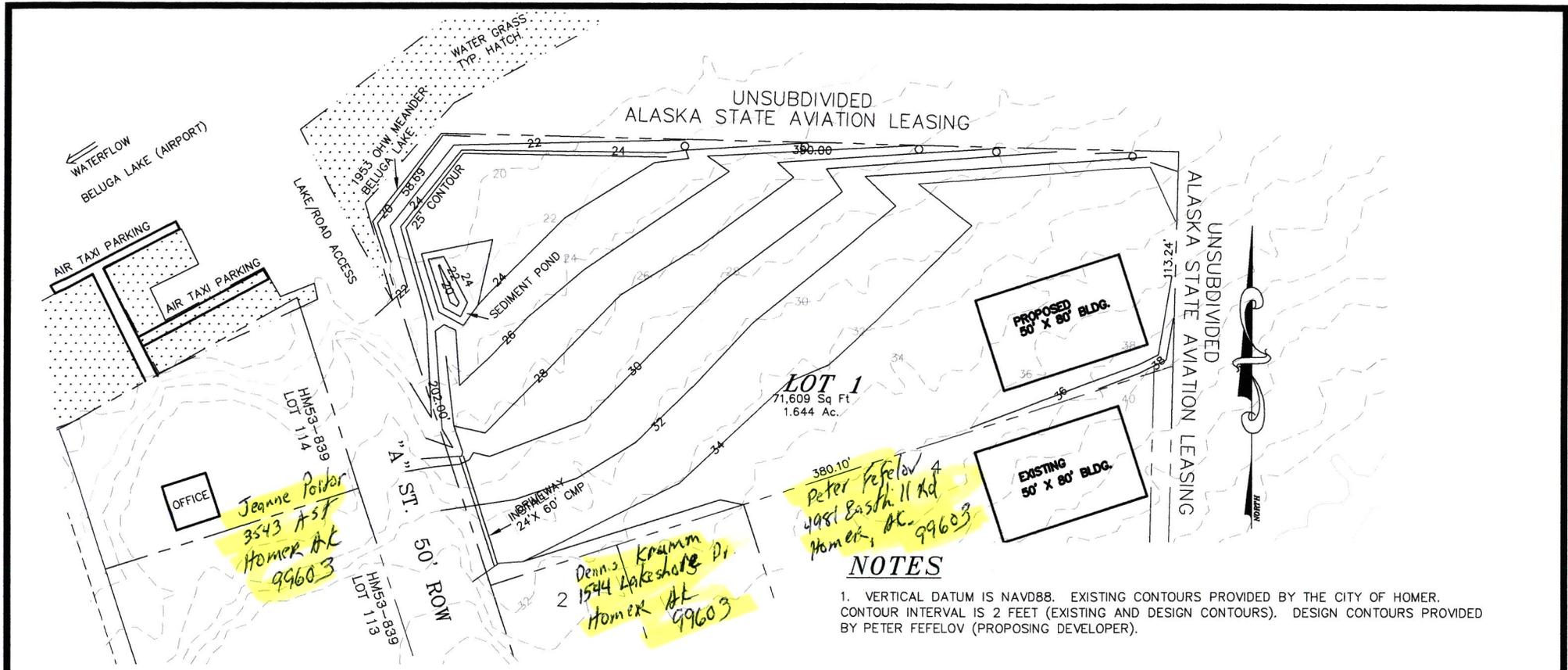
	<b>Acres</b>	<b>Cowardin</b>
Open Water	6.01	
Rooted Vascular Aquatic Bed	2.72	PAB3H
Saturated Emergent	0.80	PEM1B
Saturated Scrub-shrub/Emergent	6.98	PSS1/EM1B
Upland Forest	7.18	Upland
Developed/Disturbed	3.48	Upland

Attachments: Attachment 1: Updated Wetland Delineation Figure 2  
Attachment 2: USACE Drawing from POA-2013-558  
Attachment 3: 2008 Wetlands Delineation (Figure 2)

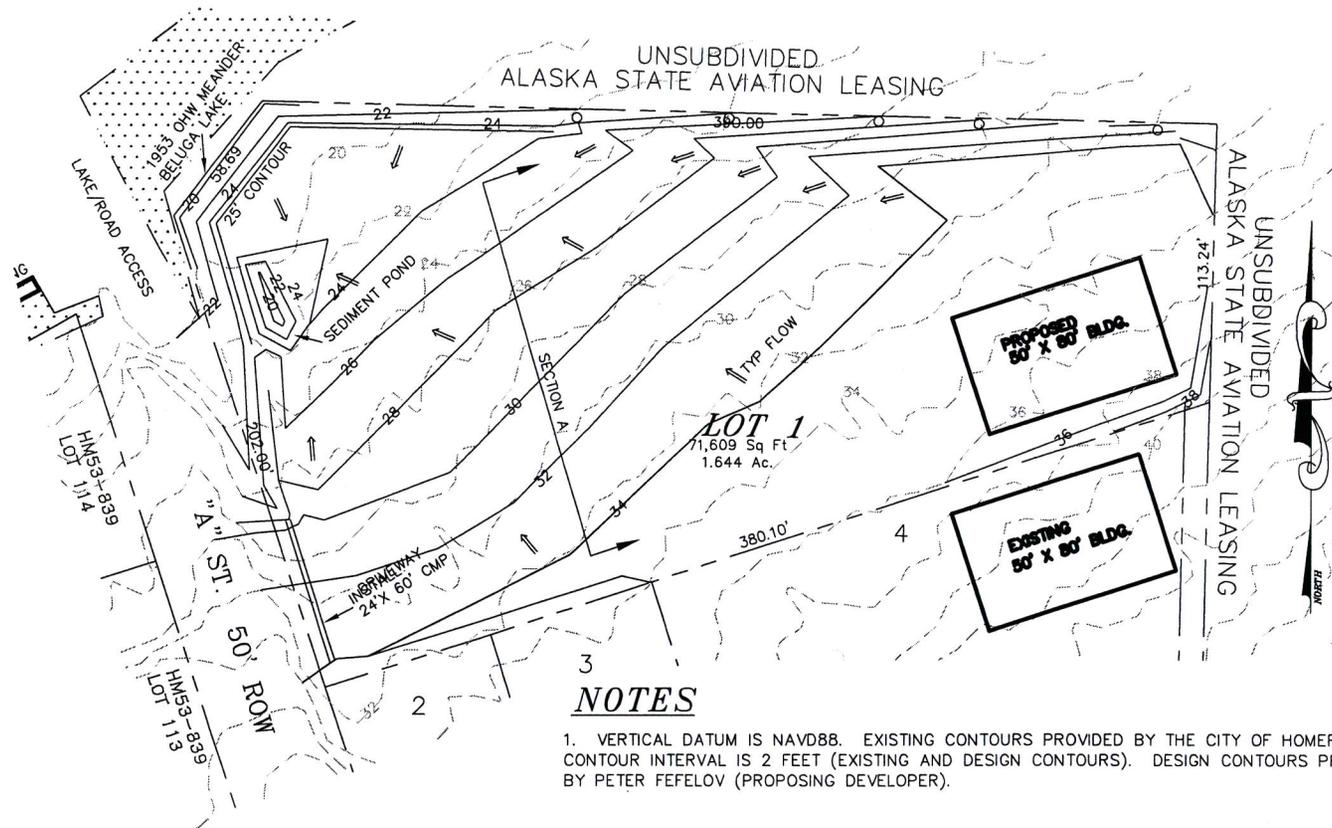
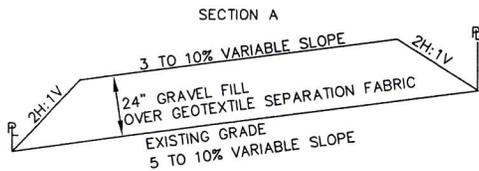
D61485.Stone.NJA.EMC.042214.lej





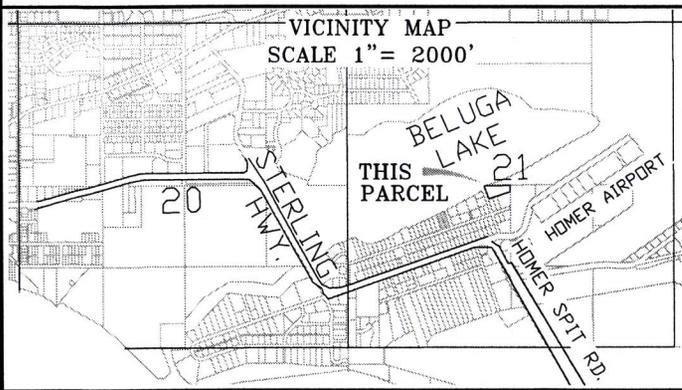


APPLICANT: PETER FEFELOV, 4981 EAST HILL RD., HOMER, AK 99603	
FILE NO.: POA-2013-558	
WATERWAY: BELUGA LAKE	
PROPOSED ACTIVITY: STORAGE YARD	
SECTION SW-1/4, 21, T6S, R13W, S4	
LAT. 59.6421°N, LONG. 151.503061°W	
PLAT No.	HM53-839
JOB No.	4737
DATE	10-24-2013
SCALE	1" = 50' ON 11" X 17"
TAX PARCEL	17919301
PLAT No.	HM53-839
<b>LOT 1</b>	
<b>BAY VIEW SUBDIVISION</b>	
WITHIN THE CITY OF HOMER, HOMER RECORDING DISTRICT	
<b>ABILITY SURVEYS</b>	
REGISTERED LAND SURVEYORS (907) 235-8440 152 DEHEL AVE., HOMER, ALASKA 99603	



**NOTES**

1. VERTICAL DATUM IS NAVD88. EXISTING CONTOURS PROVIDED BY THE CITY OF HOMER. CONTOUR INTERVAL IS 2 FEET (EXISTING AND DESIGN CONTOURS). DESIGN CONTOURS PROVIDED BY PETER FEFELOV (PROPOSING DEVELOPER).



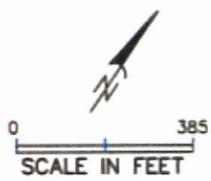
APPLICANT: PETER FEFELOV, 4981 EAST HILL RD., HOMER, AK 99603	
FILE NO.: POA-2013-558	
WATERWAY: BELUGA LAKE	
PROPOSED ACTIVITY: STORAGE YARD	
SECTION SW-1/4, 21, T6S, R13W, S1M	
LAT. 59.6421°N, LONG. 151.503061°W	
PLAT No.	HM53-839
JOB No.	4737
DATE	10-24-2013
SCALE	1" = 50' ON 11" X 17"
TAX PARCEL	17919301
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WITHIN THE CITY OF HOMER, HOMER RECORDING DISTRICT	
<b>ABILITY SURVEYS</b>	
REGISTERED LAND SURVEYORS (907) 235-8440 152 DEHEL AVE., HOMER, ALASKA 99603	



**LEGEND**

- OW OPEN WATER
- PEM PALUSTRINE, EMERGENT
- PSS PALUSTRINE, SCRUB-SHRUB
- DW DISTURBED WETLANDS
- PF PALUSTRINE, FORESTED

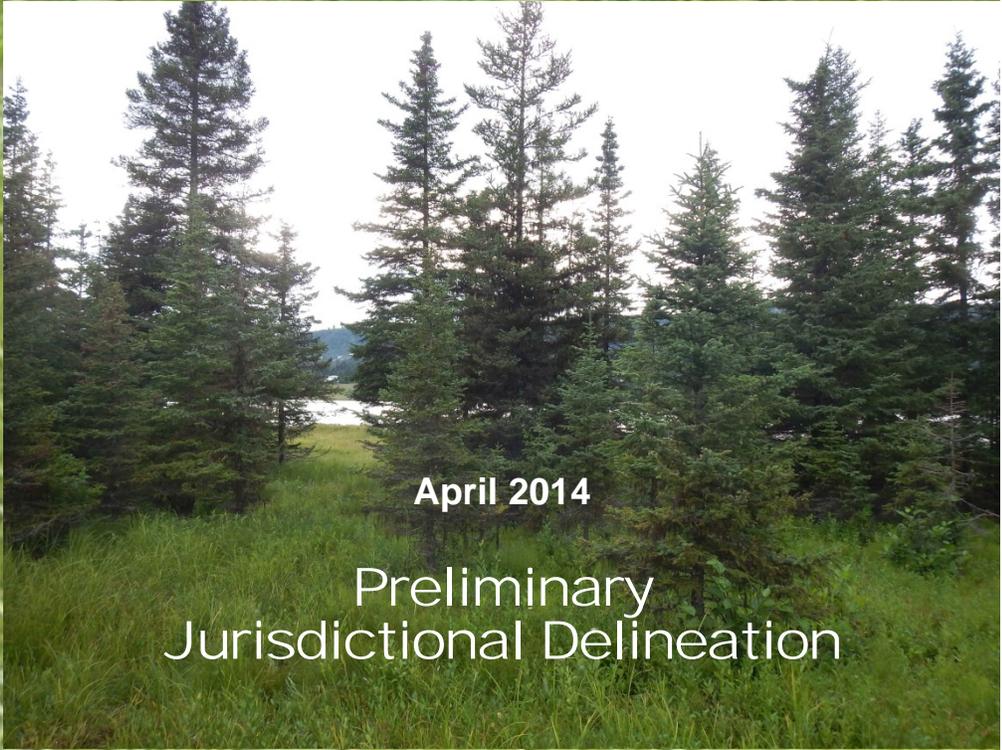
- 4b SAMPLING POINTS



**HOMER AIRPORT IMPROVEMENTS**  
**Project 5777**  
**WETLANDS DELINEATION**  
**Figure 2**

photo:





April 2014

Preliminary  
Jurisdictional Delineation

HOMER BELUGA SEAPLANE  
FACILITIES IMPROVEMENTS



**PRELIMINARY JURISDICTIONAL DETERMINATION**

**HOMER BELUGA SEAPLANE FACILITIES IMPROVEMENTS**

Prepared on behalf of:

State of Alaska  
Department of Transportation and Public Facilities  
Central Region  
4111 Aviation Avenue  
Anchorage, Alaska 99502

Prepared by:

DOWL HKM  
4041 B Street  
Anchorage, Alaska 99503  
(907) 562-2000  
W.O. 61485

State of Alaska  
Department of Transportation and Public Facilities Project No.: 57777  
Federal Project No.: AIP 03-02-0122

April 2014

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**APPENDICES**

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Appendix C.....	Functions and Values

### LIST OF ACRONYMS

CWA	Clean Water Act
DOT&PF	Alaska Department of Transportation & Public Facilities
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
GIS	Geographic Information Systems
NRCS	Natural Resources Conservation Service
OHWM	ordinary high water mark
PJD	Preliminary Jurisdictional Determination
RGL	Alaska Regulatory Guidance Letter
RWD	Routine Wetland Determination
TNW	Traditional Navigable Waterway
U.S	United States
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey

## **1.0 INTRODUCTION AND PURPOSE**

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is proposing to construct a new access road to connect Homer Airport with the Beluga Lake seaplane operating area. Construction includes a new access road for emergency-response vehicles and aircraft between Beluga Lake and the Homer Airport. The access road will have a gate opening along the northwest limit of the airport's security fence. The lakeside development will include a turnaround, staging/parking area, and a ramp suitable for aircraft and small emergency-response vehicles.

The purpose of this project is to meet the demand for seaplane parking, transfers of aircraft between land-based and water-based operations, and for emergency response. The purpose of this Preliminary Jurisdictional Determination (PJD) is to provide the United States (U.S.) Army Corps of Engineers (USACE) with delineated boundaries of jurisdictional Waters of the U.S. and wetlands for a jurisdictional determination by the USACE, under authority granted by Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act.

### **1.1 Project Background, Existing Conditions and Proposed Action**

#### **1.1.1 Background**

*Mission, Goals, Measures and Classifications: A Component of the Alaska Aviation System Plan* (WHPacific, Inc., 2011b) classifies the Homer Airport as a regional airport, such that: 1) it is a primary airport **or** secondary hub for passenger, cargo, or mail traffic, 2) it provides primary access to populations greater than 1,000, and/or 3) it supports economic activities or unusual requirements of a regional or statewide significance.

This state-owned, public-use, primary commercial airport provides air services for the Kenai Peninsula and operates as an air transportation hub for villages inaccessible by the roadway system, such as Seldovia, Port Graham, and Nanwalek. It is located two miles east of the central business district of Homer.

Homer, accessible via the Sterling Highway, receives scheduled air passenger and cargo services, has a flight service station, and is the site of approximately 38,400 annual aircraft operations of all types (WHPacific, Inc., 2011a).

### 1.1.2 Existing Conditions

The Study Area is located in the maritime community of Homer within Section 21, T06S, R13W on United States Geological Survey (USGS) Quad Map Seldovia C-4 and C-5, Seward Meridian. Current airport facilities consist of: a 6,701-foot-long by 150-foot-wide asphalt runway, terminal, lighted helipad, flight service station, and seaplane facilities. Beluga Lake has an unmarked 3,000-foot-long by 600-foot-wide water lane and is open to seaplane operations from April 1 to October 1. Currently, no direct route exists to transport aircraft from Beluga Lake to the main airport for purposes of fueling, maintenance, and/or winter storage. Lake Street, located at the northwest limit of Beluga Lake, provides the sole access point for aircraft operators and emergency-response personnel.

In the absence of a direct route, aircraft operators and emergency personnel must travel south on Lake Street and cross both Ocean Drive and Homer Spit Road before arriving at Kachemak Drive, on the south side of the Homer Airport (Figure 1). Further complicating accessibility issues, a permit is required to haul aircraft between the two facilities, as busy streets must temporarily be shutdown to accommodate large trailers and aircraft. Additionally, as emergency-response equipment is housed south of the airport in DOT&PF facilities, emergency response to Beluga Lake is prolonged, as a result of this lengthy, indirect route.

Beluga Lake was created by bisecting Beluga Slough, a tidally influenced costal marsh, in order to construct Homer Spit Road. A weir and culvert beneath Lake Street maintains seasonal water levels in the lake above historic high tides (USACE, 2008). Per the USACE POA-1981-312, Beluga Lake is within both Section 10 and Section 404 regulatory jurisdiction. With a visible ordinary high water mark (OHWM), Beluga Lake is considered a Waters of the U.S.

### 1.1.3 Proposed Action

The proposed action consists of:

- constructing a new access road from the Homer Airport to Beluga Lake,
- constructing a turnaround area at the terminus of the new access road, and
- constructing a ramp from the access road into Beluga Lake.

## 1.2 Study Area Description

The Study Area includes 8.59 acres (Figure 2) abutting the south side of Beluga Lake, east of the intersection between A Street and Lake Shore Drive. FAA Street marks the terminus of the southern boundary of the Study Area.

## 1.3 Precipitation, Surface Flow, and Soils

Average annual precipitation recorded for 2013 was 22.51 inches (92 percent) (Utah Climate Center, 2014)<sup>1</sup>, typical of the 30-year regional (1981-2010) average of 24.34 inches (Western Regional Climate Center, 2014)<sup>2</sup>. No precipitation events occurred during field investigations, and normal hydrologic conditions were observed within the Study Area. Months preceding the field investigation (June-July) exhibited below-average precipitation levels.

According to the USGS topographic maps, surficial flow from wetlands within the Study Area is to Beluga Lake. Water flows tri-directionally from the north, east, and south into Beluga Lake. Despite multi-directional flow, the lake is not considered a traditional navigable waterway (TNW). Outflow from Beluga Lake is achieved via the weir located underneath Lake Street, connecting to the anadromous waters of Beluga Slough, finally terminating within Kachemak Bay.

Soils identified by the National Resources Conservation Service (NRCS) consist of three types of peat extending landward away from Beluga Lake: 535-Cluine peat (zero to two percent slopes), 673-Spenard peat (zero to four percent slopes), and 675-Spenard peat (eight to 15 percent slopes).

## 2.0 METHODS

DOWL HKM conducted a Preliminary Jurisdictional Determination (PJD) in accordance with Part IV of the Corps of Engineers *Wetlands Delineation Manual* (USACE, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0)* (USACE, 2007). This effort included preliminary mapping, a field investigation, post-field data review, and mapping using Geographic Information Systems (GIS) tools.

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<sup>1</sup> Homer Airport Weather Station - No. USW00025507

<sup>2</sup> Homer Airport Weather Station - No. 503665

## **2.1 Preliminary Mapping**

Aerial imagery from Digital Globe (2012) was used to extrapolate and map potential habitat types within the Study Area. Information gathered from the preliminary data review and analysis was used to develop an initial sampling plan for the field investigation.

## **2.2 Field Investigation**

Two environmental specialists conducted a field investigation of the 8.59-acre site on August 18, 2013. Pedestrian surveys were completed with wetland sampling occurring at least once per community type. The Study Area was sampled based upon the preliminary aerial interpretations of distinct vegetation communities and verified by ground-truthing.

Vegetation species, stratum (tree, shrub, and herbaceous layers), and the percent aerial coverage for each species was recorded on routine wetland data sheets (Appendix B).

## **2.3 Post-Field Data Review**

Wetland areas were classified according to the system guidelines outlined in the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, et al., 1979). Data sheets documenting vegetation, hydrology, and soils were reviewed, and habitat boundaries (wetland/upland) were subsequently digitized and mapped using GIS.

## **2.4 Final Mapping**

Final wetland habitat mapping was based on aerial photograph interpretation, site photographs, field observations, and published USGS topographic data. The appended maps (Appendix A) provide the Study Area location, vicinity, and wetland and upland boundaries.

## **2.5 Preliminary Jurisdictional Determination**

Wetlands and Waters of the United States (U.S.) were analyzed under the USACE and U.S. Environmental Protection Agency (EPA) 2007 CWA guidance to evaluate any potential hydrological connection to a TNW.

## **2.6 Functions and Values Assessment**

Wetland functions are self-sustaining properties of a wetland ecosystem persisting in the absence of society. The functional importance of each wetland habitat type (encompassing hydrological,

water quality, ecological, and social functions) was recorded on data sheets (Appendix C), using criteria outlined in the *Alaska Regulatory Guidance Letter (RGL), ID No. 09-10* (USACE, 2009).

### 3.0 RESULTS

The Study Area is comprised of 3.44 acres of wetlands (40.05%), of which 1.13 acres are below the OHWM within Beluga Lake, and 5.15 acres of uplands (59.95%). Table 1 shows the acreage, Cowardin classification, and associated sample points.

**Table 1: Wetlands and Uplands Acreages**

	Acres	Cowardin	Associated Sample Points
<b>Wetlands</b>			
Rooted Vascular Aquatic Bed	1.13	PAB3H	--
Saturated Emergent	0.47	PEM1B	8
Saturated Scrub-Shrub/Emergent	1.84	PSS1/EM1B	9, 10
<b>Uplands</b>			
Upland	4.77	Upland	1,2,3, 4, 5, 6, 7, 11
Disturbed Road/Trail	0.38	--	--
<b>Total:</b>		<b>8.59</b>	
PAB3H	Palustrine, Aquatic Bed, Rooted Vascular, Permanently Flooded		
PEM1B	Palustrine, Emergent, Persistent, Saturated		
PSS1/EM1B	Palustrine, Scrub-shrub, Broad-leaved Deciduous/Emergent, Persistent, Saturated		

### 3.1 Wetland Cowardin Classifications

Three distinct Palustrine wetland habitat types occur, comprising 40 percent of the total Study Area. All wetlands, excluding the rooted vascular aquatic bed, occur on NRCS’ mapped 675-Spenard Peat soils (eight to 15 percent slopes).

#### 3.1.1 Permanently Flooded Rooted Vascular Aquatic Bed

Dominated by hydrophytic vegetation, the aquatic bed begins at Beluga Lake’s OHWM, within the northernmost boundary of the Study Area. Due to unstable ground surfaces of the floating aquatic bed, field sampling was not possible for this habitat type. Aerial interpretation revealed a distinct line demonstrating the degradation of terrestrial vegetation and the onset of aquatic rooted vascular species. Hydrophytic vegetation consisted mostly of *Carex* and *Calamagrostis species* (sedges and grasses) with interlocking lateral root systems, providing a floating aquatic bed. This rooted vascular aquatic bed is not easily moved by wind or water currents and, as such, remains relatively stationary along Beluga Lake’s shore. At the northern terminus of this habitat

type, the OHWM begins. Uniquely, this habitat type occurs on NRCS-mapped 535-Cluine Peat soils (zero to two percent slopes).

The permanently flooded rooted vascular aquatic bed (Cowardin classification - PAB3H) composes 32.85 percent of the total wetlands.

### 3.1.2 Saturated Persistent Emergent

The saturated persistent emergent wetland parallels the terminus of the rooted vascular aquatic bed along the northern end of the Study Area, in addition to the northeast corner of the project limits. Persistent herbaceous vegetation consists of: *Equisetum arvense* (Field horsetail), *Comarum palustre* (Purple marshlocks), *Parnassia palustris* (Grass of Parnassus), and *Calamagrostis purpurascens* (Purple reedgrass).

While some low-level shrubs (*Rubus chamaemorus* [Cloudberry], *Salix spp.* [Willow species], and *Vaccinium vitis-idea* [Northern mountain-cranberry]) were present, their percentage of aerial cover did not meet Cowardin's stratum threshold (30 percent) to be dually classified as both scrub-shrub and emergent.

Soils tended to be histic epipedons (saturated organics overlain with mineral soils with a chroma of two or less) and exhibited high water tables.

The persistently saturated emergent wetland (Cowardin classification – PEM1B) composes 13.66 percent of the total wetlands.

### 3.1.3 Saturated Broad-Leaved Deciduous Scrub-Shrub/Persistent Emergent

The most prevalent habitat type is the saturated broad-leaved scrub-shrub/persistent emergent wetland, located east of the persistent emergent wetland and north of the Study Area uplands. Dominant shrub species consisted of: *Betula nana* (Swamp birch), Willow species, Northern mountain-cranberry, Cloudberry, and *Empetrum nigrum* (Black crowberry). Notably, as uplands border both the western and southern extents of the wetland habitat type, less-abundant shrubs included *Picea glauca* (White spruce). Emergent vegetation consisted of: Field horsetail, Purple marshlocks, Purple reedgrass, *Carex rostrata* (Swollen beaked sedge), Grass of Parnassus, and

*Poa palustris* (Fowl blue grass). While the herbaceous layer accounted for a greater percentage of aerial cover, the shrub stratum met Cowardin's threshold and, as such, was dually classified.

Soils tended to be histic epipedons (saturated organics overlain with mineral soils with a chroma of two or less) and exhibited high water tables.

The saturated scrub-shrub/emergent wetland (Cowardin classification – PSS1/PEM1B) composes 53.49 percent of the total Study Area wetlands.

### **3.2 Upland Habitat Types**

Two distinct upland habitat types (natural and developed/disturbed) account for 60 percent of the total Study Area. All sampled upland habitats occur on NRCS-mapped 675-Spenard Peat soils (eight to 15 percent slopes).

Natural forested uplands occur within the southern two-thirds of the Study Area and are the sole habitat type with species in all three strata. Mature White spruce dominates the sloped hillside, in combination with shrubs such as: *Alnus viridis* (Sitka alder), *Oplopanax horridus* (Devil's club), and *Rhododendron lapponicum* (Lapland rhododendron). The herbaceous layer consisted largely of: *Athyrium filix-femina* (Alaska lady fern), *Solidago Canadensis* (Canadian goldenrod), and *Linnaea borealis* (American twinflower).

Developed/disturbed uplands occurred in relatively flat areas closely associated with the continuation of Lake Shore Drive (a pedestrian/motorized trail) within the southernmost portion of the Study Area. Vegetation along this developed corridor consists largely of: *Chamerion angustifolium* (Fireweed) and invasive weeds, such as: *Lupinus nootkatensis* (Nootka lupine), *Matricaria discoidea* (Pineapple weed), *Rhinanthus minor* (Yellow rattlebox), *Trifolium pratense* (Red clover), and *Trifolium repens* (White clover).

### **3.3 Vegetation**

Each species identified during field sampling and its corresponding wetland indicator status is located in Appendix B.

### 3.4 Preliminary Jurisdictional Determination

Wetlands and Waters of the U.S. were analyzed under the USACE and EPA 2007 CWA guidance, to evaluate any potential hydrological connection to a TNW. Beluga Lake, while under Section 10 and Section 404 regulatory jurisdiction, is not considered to be a TNW. Outflow from Beluga Lake into the anadromous waters of Beluga Slough is achieved via a weir and culvert located underneath Lake Street. Flow continues from Beluga Slough to Kachemak Bay, a TNW. As all three wetland habitat types are adjacent to Beluga Lake, all are presumed to be jurisdictional to the USACE.

### 3.5 Functional Value Assessment

Table 2 summarizes each wetland type and corresponding functional value assessment. Detailed evaluations of wetlands by habitat type are included in Appendix B.

**Table 2: Wetland Function and Values**

Function and Values	Wetland Type		
	PAB3H	PEM1B	PSS1/EM1B
Flood-Flow Alteration	Moderate	Moderate	Moderate
Sediment Removal	Moderate	Moderate	Moderate
Nutrient and Toxicant Removal	High	High	High
Erosion Control and Shoreline Stabilization	High	N/A	N/A
Production of Organic Matter and its Exports	High	Moderate	Moderate
General Habitat Suitability	Moderate	Moderate	Moderate
General Fish Habitat	Moderate	N/A	N/A
Native Plant Richness	Moderate	Moderate	High
Education or Scientific Value	High	High	High
Uniqueness of Heritage	Low	Low	Low
<b>Overall Functional Rating:</b>	<b>Moderate</b>	<b>Moderate</b>	<b>Moderate</b>
<b>Acreage of Wetland:</b>	<b>1.13</b>	<b>0.47</b>	<b>1.84</b>

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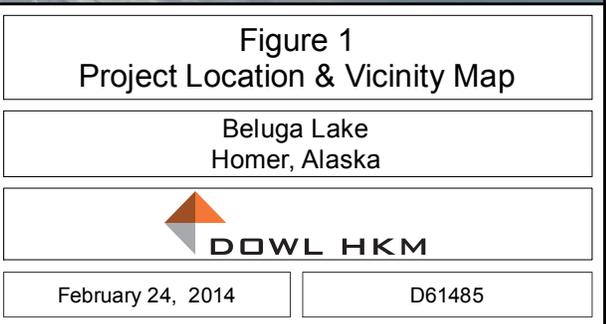
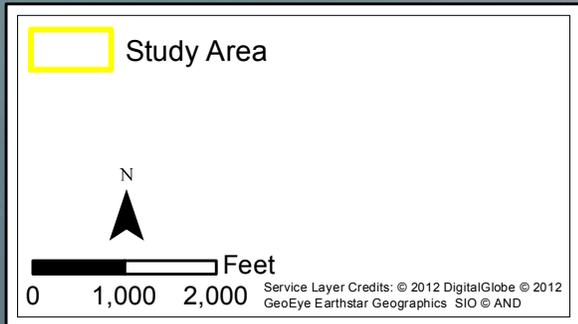
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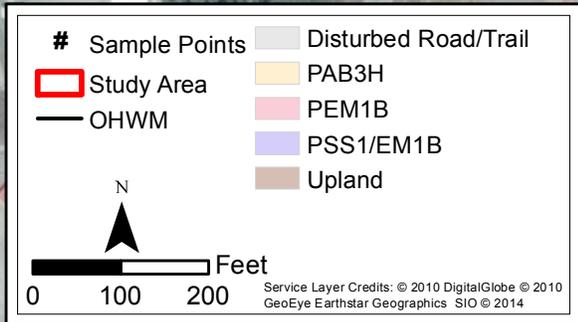
## **APPENDIX A**

### **Figures**

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- A1..... Location and Vicinity Map
- A2..... Study Area





<b>Figure 2</b> <b>Wetland Delineation</b>	
Beluga Lake Homer, Alaska	
<b>DOWL HKM</b>	
March 19, 2014	D61485

## **APPENDIX B**

### **Full Sample Points and Photograph Points**

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- B1 ..... Full Sample Points
- B2 ..... Photograph Points
- B3 ..... Vegetation in the Study Area

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 1  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Flat Open Disturbed  
 Local relief (concave, convex, none): None Slope (%): 1-2  
 Subregion: Southcentral Alaska Lat: 59.64162318 Long: -151.50033300 Datum:  
 Soil Map Unit Name: Cowardin Classification: Upland  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes Hydric Soil Present? No Wetland Hydrology Present? No	<b>Is the Sampled Area within a Wetland? No</b>
Remarks: The sample location was taken within a disturbed, cleared area with a disturbed road/trail running east to west, southeast of the Sterling Highway.	

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

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  Total Number of Dominant Species Across All Strata: 5 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)
1. 2. 3. 4.  Total Cover: 50% of total cover: 20% of total cover:				<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 15 x 2 = 30 FAC species 60 x 3 = 180 FACU species 110 x 4 = 440 UPL species 0 x 5 = 0 Column Totals: 185 (A) 650 (B)  Prevalence Index = B/A = 3.51
<u>Sapling/Shrub Stratum</u> 1. Salix spp. 2. Vaccinium vitis-idaea 3. 4. 5. 6.  Total Cover: 10 50% of total cover: 5 20% of total cover: 2	5 5	Yes Yes	FAC FAC	
<u>Herb Stratum</u> 1. Equisetum arvense 2. Trifolium pratense 3. Matricaria discoidea 4. Calamagrostis canadensis 5. Parnassia palustris 6. Solidago canadensis 7. Trifolium repens 8. Poa palustris 9. Chamerion angustifolium 10.  Total Cover: 175 50% of total cover: 87 20% of total cover: 35	10 40 35 30 15 15 10 10 10	No Yes Yes Yes No No No No No	FAC FACU FACU FAC FACW FACU FACU FAC FACU	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width): 0 % Bare ground: 0 % Cover of Wetland Bryophytes: 0 Total Cover of Bryophytes: 0 (Where applicable)				<b>Hydrophytic Vegetation Present? Yes</b>
Remarks: <i>Rhinanthus minor</i> (Little yellow rattle) 5% (FACU), <i>Phleum pretense</i> (Timothy grass) 5% (FACU), <i>Achillea millefolium</i> (Common yarrow) 5% (FACU). <i>Picea glauca</i> (White spruce) on outskirts. Unknown herb at 20% cover.				

**SOIL**

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-0.5		100						Organics
0.5-4.5	10yr 3/3	100					Fine Sandy Loam	
4.5-12	10yr 4/6	100					Sandy Loam	
12-20	10yr 4/4	100					Fine Sand	

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

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

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

<b>Restrictive Layer (if present):</b> Type: None Depth (inches): N/A	<b>Hydric Soil Present? No</b>
---	--------------------------------

Remarks: No evidence of hydric soils.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water-stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? No                      Depth (inches): Water Table Present? No                      Depth (inches): Saturation Present? No                      Depth (inches): (includes capillary fringe)	<b>Wetland Hydrology Present? No</b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No evidence of wetland hydrology.	

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 3  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Forested Hummocks  
 Local relief (concave, convex, none): Concave/Convex Slope (%): 2-3  
 Subregion: Southcentral Alaska Lat: 59.64174688 Long: -151.49972074 Datum:  
 Soil Map Unit Name: Cowardin Classification: Upland  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? <u>Yes</u> Hydric Soil Present? <u>No</u> Wetland Hydrology Present? <u>No</u>	<b>Is the Sampled Area within a Wetland? <u>No</u></b>
Remarks: The sample location was taken within hummock upland. Also running through the upland are disturbed road/trails. Chain link fence found and moose scat present.	

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

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Picea glauca</i> 2. 3. 4.  Total Cover: 45 50% of total cover: 22      20% of total cover: 9	45	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)  Total Number of Dominant Species Across All Strata: 7 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 57 (A/B)
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <i>Picea glauca</i> 2. <i>Alnus viridis</i> 3. <i>Oplopanax horridus</i> 4. <i>Vaccinium vitis-idaea</i> 5. <i>Empetrum nigrum</i> 6.  Total Cover: 23 50% of total cover: 11      20% of total cover: 4	5 5 3 5 5	Yes Yes No Yes Yes	FACU FACW FACU FAC FAC	<u>Total % Cover of:</u> <u>Multiply by:</u> OBL species 0      x 1 = 0 FACW species 0      x 2 = 0 FAC species 63      x 3 = 189 FACU species 111      x 4 = 444 UPL species 0      x 5 = 0 Column Totals: 174 (A) 633 (B)  Prevalence Index = B/A = 3.64
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <i>Chamerion angustifolium</i> 2. <i>Solidago canadensis</i> 3. <i>Lupinus nootkatensis</i> 4. <i>Athyrium filix-femina</i> 5. <i>Rubus pedatus</i> 6. <i>Lycopodium annotinum</i> 7. 8. 9. 10.  Total Cover: 106 50% of total cover: 53      20% of total cover: 21	18 10 20 3 45 10	No No Yes No Yes No	FACU FACU FACU FAC FAC FACU	<input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width): 0 % Cover of Wetland Bryophytes: 0 (Where applicable)			% Bare ground: 0 Total Cover of Bryophytes: 25	<b>Hydrophytic Vegetation Present? <u>Yes</u></b>

Remarks: Sphagnum/moss with some fungi (mushroom spp) present. Sample continues with clear upland boundary visible from aerial.

**SOIL**

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Matrix			Redox Features					
Depth (in.)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-2		100						
2-9	10yr 3/4	100					Fine Sandy Loam	Organics
9-21	10yr 4/3	80	10yr 3/6	20			Sandy Gravelly Loam	

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

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

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

<b>Restrictive Layer (if present):</b> Type: None Depth (inches): N/A	<b>Hydric Soil Present? No</b>
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Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)																												
Primary Indicators (any one indicator is sufficient) <table style="width:100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input type="checkbox"/> Surface Water (A1)</td> <td style="width: 50%; border: none;"><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> High Water Table (A2)</td> <td style="border: none;"><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Saturation (A3)</td> <td style="border: none;"><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Water Marks (B1)</td> <td style="border: none;"><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Sediment Deposits (B2)</td> <td style="border: none;"><input type="checkbox"/> Dry Season Water Table (C2)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drift Deposits (B3)</td> <td style="border: none;"><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td></td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Iron Deposits (B5)</td> <td></td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Surface Soil Cracks (B6)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry Season Water Table (C2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Algal Mat or Crust (B4)		<input type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Surface Soil Cracks (B6)		<table style="width:100%; border: none;"> <tr><td style="border: none;"><input type="checkbox"/> Water-stained Leaves (B9)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Presence of Reduced Iron (C4)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Salt Deposits (C5)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td style="border: none;"><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Water-stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Salt Deposits (C5)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)																												
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																												
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																												
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																												
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry Season Water Table (C2)																												
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Other (Explain in Remarks)																												
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<input type="checkbox"/> Geomorphic Position (D2)																													
<input type="checkbox"/> Shallow Aquitard (D3)																													
<input type="checkbox"/> Microtopographic Relief (D4)																													
<input type="checkbox"/> FAC-Neutral Test (D5)																													

<b>Field Observations:</b> Surface Water Present? No                      Depth (inches): Water Table Present? No                      Depth (inches): Saturation Present? No                      Depth (inches): (includes capillary fringe)	<b>Wetland Hydrology Present? No</b>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No evidence of wetland hydrology.

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 4  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Disturbed  
 Local relief (concave, convex, none): None Slope (%): 0  
 Subregion: Southcentral Alaska Lat: 59.64218027 Long: -151.49930355 Datum:  
 Soil Map Unit Name: Cowardin Classification: Upland  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes Hydric Soil Present? No Wetland Hydrology Present? No	<b>Is the Sampled Area within a Wetland? No</b>
Remarks: The sample location was taken within a disturbed road/trail approximately 30 feet wide north of Sampling Point #3. Photo point only as Sampling Point #4 is consistent with the same upland habitat as Sampling Points #1-3.	

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

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  Total Number of Dominant Species Across All Strata: 3 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A/B)
1. 2. 3. 4.  Total Cover: 50% of total cover: 20% of total cover:				<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 75 x 3 = 225 FACU species 85 x 4 = 340 UPL species 0 x 5 = 0 Column Totals: 160 (A) 565 (B)  Prevalence Index = B/A = 3.53
<u>Sapling/Shrub Stratum</u> 1. 2. 3. 4. 5. 6.  Total Cover: 50% of total cover: 20% of total cover:				
<u>Herb Stratum</u> 1. Equisetum arvense 2. Chamerion angustifolium 3. Calamagrostis canadensis 4. Trifolium pratense 5. Trifolium repens 6. Poa palustris 7. Matricaria discoidea 8. Hordeum jubatum 9. Solidago canadensis 10. Rhinanthus minor  Total Cover: 160 50% of total cover: 80 20% of total cover: 32	50 15 20 15 10 5 15 5 15 10	Yes Yes Yes No No No No No No No	FAC FACU FAC FACU FACU FAC FACU FACU FACU FACU	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width): 0 % Bare ground: 0 % Cover of Wetland Bryophytes: 0 Total Cover of Bryophytes: (Where applicable)				<b>Hydrophytic Vegetation Present? Yes</b>
Remarks: <i>Alnus viridis</i> (Sitka alder) present on outskirts of sample point.				

**SOIL**

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.						<sup>2</sup> Location: PL=Pore Lining, M=Matrix.		
<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>					
<input type="checkbox"/> Histosol or Histel(A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Alaska Gleyed (A13) <input type="checkbox"/> Alaska Redox (A14) <input type="checkbox"/> Alaska Gleyed Pores (A15)			<input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> <input type="checkbox"/> Alaska Alpine Swales (TA5) <input type="checkbox"/> Alaska Redox With 2.5Y Hue <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer <input type="checkbox"/> Other (Explain in Remarks)					
			<sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. <sup>4</sup> Give details of color change in Remarks.					
<b>Restrictive Layer (if present):</b>							<b>Hydric Soil Present? No</b>	
Type: None Depth (inches): N/A								
Remarks: No sample pit dug. Photo point only. (Same upland habitat observed in Sampling Points #1-3.)								

**HYDROLOGY**

Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		<b>Wetland Hydrology Present? No</b>
Surface Water Present? No      Depth (inches): Water Table Present? No      Depth (inches): Saturation Present? No      Depth (inches): (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No evidence of wetland hydrology.		

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 5  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Forested Hummocks  
 Local relief (concave, convex, none): convex/concave Slope (%): 3-5  
 Subregion: Southcentral Alaska Lat: 59.64258613 Long: -151.49991126 Datum:  
 Soil Map Unit Name: Cowardin Classification: Upland  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? No Hydric Soil Present? No Wetland Hydrology Present? No	<b>Is the Sampled Area within a Wetland? No</b>
Remarks: The sample location was taken in an open portion of a hummocked, <i>Picea glauca</i> (White spruce) forested area. Clear drainage patterns trending to the north towards Beluga Lake. Moose and bear scat observed.	

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

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <i>Picea glauca</i> 2. 3. 4.  Total Cover: 50 50% of total cover: 25 20% of total cover: 10	50	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)  Total Number of Dominant Species Across All Strata: 3 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)
<u>Sapling/Shrub Stratum</u>				<b>Prevalence Index worksheet:</b>
1. <i>Picea glauca</i> 2. <i>Salix</i> spp. 3. <i>Empetrum nigrum</i> 4. <i>Rhododendron lapponicum</i> 5. <i>Vaccinium vitis-idaea</i> 6. <i>Betula nana</i>  Total Cover: 133 50% of total cover: 66 20% of total cover: 26	10 8 85 5 15 10	No No Yes No No No	FACU FAC FAC FAC FAC FAC	<b>Total % Cover of:</b> <b>Multiply by:</b> OBL species 0      x 1 = 0 FACW species 0      x 2 = 0 FAC species 123      x 3 = 369 FACU species 65      x 4 = 260 UPL species 0      x 5 = 0 Column Totals: 188      (A) 629      (B)  Prevalence Index = B/A = 3.35
<u>Herb Stratum</u>				<b>Hydrophytic Vegetation Indicators:</b>
1. <i>Linnaea borealis</i> 2. 3. 4. 5. 6. 7. 8. 9. 10.  Total Cover: 5 50% of total cover: 2 20% of total cover: 1	5	Yes	FACU	<input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width): 0 % Bare ground: 0 % Cover of Wetland Bryophytes: 0 Total Cover of Bryophytes: 85 (Where applicable)			<b>Hydrophytic Vegetation Present? No</b>	
Remarks:				

**SOIL**

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4		100						Organics
4-10	10yr 3/4	100					Sandy Clay Loam	
10-17	2.5y 4/3	100					Sandy Gravelly Loam	

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

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

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

<b>Restrictive Layer (if present):</b> Type: None Depth (inches): N/A	<b>Hydric Soil Present? No</b>
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Remarks: Restrictive digging gravel layer at 17 inches. The north side of the soil pit contained saturation, while the south side did not. Geomorphic position, sloping south to north plays a role for problematic soils, as water collects within the concave portions of the upland forested hummocks.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water-stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? No                      Depth (inches): Water Table Present? No                      Depth (inches): Saturation Present? No                      Depth (inches): (includes capillary fringe)	<b>Wetland Hydrology Present? No</b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No evidence of hydrology.	

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 6  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Forested Hummocks  
 Local relief (concave, convex, none): Convex Slope (%): 3-5  
 Subregion: Southcentral Alaska Lat: 59.64226053 Long: -151.50005980 Datum:  
 Soil Map Unit Name: Cowardin Classification: Upland  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes Hydric Soil Present? No Wetland Hydrology Present? No	<b>Is the Sampled Area within a Wetland? No</b>
Remarks: The sample point was taken within a <i>Picea glauca</i> (White spruce) forest with hummocks on a northern facing slope.	

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

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Picea glauca</i> 2. 3. 4. Total Cover: 55 50% of total cover: 27 20% of total cover: 11	55	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  Total Number of Dominant Species Across All Strata: 5 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)
<u>Sapling/Shrub Stratum</u> 1. <i>Picea glauca</i> 2. <i>Salix</i> spp. 3. <i>Empetrum nigrum</i> 4. 5. 6. Total Cover: 18 50% of total cover: 9 20% of total cover: 3	10 3 5	Yes Yes Yes	FACU FAC FAC	<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 18 x 3 = 54 FACU species 65 x 4 = 260 UPL species 0 x 5 = 0 Column Totals: 83 (A) 314 (B)  Prevalence Index = B/A = 3.78
<u>Herb Stratum</u> 1. <i>Equisetum arvense</i> 2. 3. 4. 5. 6. 7. 8. 9. 10. Total Cover: 10 50% of total cover: 5 20% of total cover: 2	10	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width): 0 % Bare ground: 0 % Cover of Wetland Bryophytes: 0 Total Cover of Bryophytes: 80 (Where applicable)			<b>Hydrophytic Vegetation Present? Yes</b>	
Remarks: Sparse <i>Picea glauca</i> (White spruce) forest floor with thick organics/peat.				

**SOIL**

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2		100					Fine Sandy Loam	Organics
2-6		100						Peat
6-8		100						Organics
8-21	10yr 3/4	100						

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

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

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

<b>Restrictive Layer (if present):</b> Type: None Depth (inches): N/A	<b>Hydric Soil Present? No</b>
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Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water-stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? No                      Depth (inches): Water Table Present? No                      Depth (inches): Saturation Present? No                      Depth (inches): (includes capillary fringe)	<b>Wetland Hydrology Present? No</b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No evidence of hydrology.	

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 7  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Clearing  
 Local relief (concave, convex, none): None Slope (%): 0  
 Subregion: Southcentral Alaska Lat: 59.64235699 Long: -151.50159126 Datum:  
 Soil Map Unit Name: Cowardin Classification: Upland  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? <u>Yes</u> Hydric Soil Present? <u>No</u> Wetland Hydrology Present? <u>No</u>	<b>Is the Sampled Area within a Wetland? <u>No</u></b>
Remarks: The sample point was taken within an <i>Equisetum arvense</i> (Field horsetail) clearing surrounded by <i>Picea glauca</i> (White spruce) forested hummocks.	

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

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>
1. <i>Picea glauca</i> 2. 3. 4.  Total Cover: 50 50% of total cover: 25      20% of total cover: 10	50	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  Total Number of Dominant Species Across All Strata: 5 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)
<u>Sapling/Shrub Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b>
1. <i>Picea glauca</i> 2. <i>Vaccinium alaskaense</i> 3. <i>Salix</i> spp. 4. <i>Vaccinium vitis-idaea</i> 5. <i>Empetrum nigrum</i> 6. <i>Betula nana</i>  Total Cover: 61 50% of total cover: 30      20% of total cover: 12	3 5 8 15 20 10	No No No Yes Yes No	FACU FAC FAC FAC FAC FAC	<b>Total % Cover of:</b> <u>Multiply by:</u> OBL species 0      x 1 = 0 FACW species 0      x 2 = 0 FAC species 181      x 3 = 543 FACU species 123      x 4 = 492 UPL species 0      x 5 = 0 Column Totals: 304      (A) 1035      (B)  Prevalence Index = B/A = 3.40
<u>Herb Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>
1. <i>Equisetum arvense</i> 2. <i>Linnaea borealis</i> 3. <i>Trifolium pratense</i> 4. <i>Calamagrostis canadensis</i> 5. 6. 7. 8. 9. 10.  Total Cover: 193 50% of total cover: 96      20% of total cover: 38	93 15 55 30	Yes No Yes No	FAC FACU FACU FAC	<input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width): 0      % Bare ground: 0 % Cover of Wetland Bryophytes: 0      Total Cover of Bryophytes: 0 (Where applicable)			<b>Hydrophytic Vegetation Present? <u>Yes</u></b>	
Remarks:				

**SOIL**

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7		100					Clay Loam	Organic
7-21	10yr 3/3	100						
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators:</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>					
<input type="checkbox"/> Histosol or Histel(A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Alaska Gleyed (A13) <input type="checkbox"/> Alaska Redox (A14) <input type="checkbox"/> Alaska Gleyed Pores (A15)			<input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> <input type="checkbox"/> Alaska Alpine Swales (TA5) <input type="checkbox"/> Alaska Redox With 2.5Y Hue <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer <input type="checkbox"/> Other (Explain in Remarks)					
<sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. <sup>4</sup> Give details of color change in Remarks.								
<b>Restrictive Layer (if present):</b>							<b>Hydric Soil Present? No</b>	
Type: None Depth (inches): N/A								
Remarks:								

**HYDROLOGY**

Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? No	Depth (inches): 0	<b>Wetland Hydrology Present? No</b>
Water Table Present? No	Depth (inches): 0	
Saturation Present? No	Depth (inches): 0	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No evidence of hydrology.		

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 8  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Flats  
 Local relief (concave, convex, none): Slight Concave Slope (%): 0-1  
 Subregion: Southcentral Alaska Lat: 59.64262164 Long: -151.50184549 Datum:  
 Soil Map Unit Name: Cowardin Classification: PEM1B  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	<b>Is the Sampled Area within a Wetland? Yes</b>
Remarks: The sample point was taken at the northern edge of the <i>Picea glauca</i> (White spruce) forested upland and the southern boundary to an emergent wetland. Emergent wetland extends to Beluga Lake.	

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

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)  Total Number of Dominant Species Across All Strata: 5 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
1. 2. 3. 4.  Total Cover: 50% of total cover: 20% of total cover:				
<u>Sapling/Shrub Stratum</u> 1. <i>Picea glauca</i> 2. <i>Rubus chamaemorus</i> 3. <i>Salix</i> spp. 4. <i>Vaccinium vitis-idaea</i> 5. 6.  Total Cover: 29 50% of total cover: 14 20% of total cover: 5	1 15 8 5	No Yes Yes Yes	FACU FACW FAC FAC	<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species 35 x 1 = 35 FACW species 115 x 2 = 230 FAC species 33 x 3 = 99 FACU species 1 x 4 = 4 UPL species 0 x 5 = 0 Column Totals: 184 (A) 368 (B)  Prevalence Index = B/A = 2.00
<u>Herb Stratum</u> 1. <i>Equisetum arvense</i> 2. <i>Comarum palustre</i> 3. <i>Parnassia palustris</i> 4. <i>Calamagrostis purpurascens</i> 5. 6. 7. 8. 9. 10.  Total Cover: 155 50% of total cover: 77 20% of total cover: 31	20 35 10 90	No Yes No Yes	FAC OBL FACW FACW	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width): 0 % Bare ground: 0 % Cover of Wetland Bryophytes: 0 Total Cover of Bryophytes: 30 (Where applicable)			<b>Hydrophytic Vegetation Present? Yes</b>	
Remarks:				

**SOIL**

Sampling Point: 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8		100					Clay Loam	Saturated Organics
8-17	10yr 3/2	100						
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators:</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>				
<input type="checkbox"/> Histosol or Histel(A1) <input checked="" type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Alaska Gleyed (A13) <input type="checkbox"/> Alaska Redox (A14) <input type="checkbox"/> Alaska Gleyed Pores (A15)				<input type="checkbox"/> Alaska Color Change (TA4) <sup>4</sup> <input type="checkbox"/> Alaska Alpine Swales (TA5) <input type="checkbox"/> Alaska Redox With 2.5Y Hue <input type="checkbox"/> Alaska Gleyed Without Hue 5Y or Redder Underlying Layer <input type="checkbox"/> Other (Explain in Remarks)				
<sup>3</sup> One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. <sup>4</sup> Give details of color change in Remarks.								
<b>Restrictive Layer (if present):</b>								
Type: None								
Depth (inches): N/A						<b>Hydric Soil Present? Yes</b>		
Remarks: Restrictive digging layer of gravel at 17 inches.								

**HYDROLOGY**

Wetland Hydrology Indicators:		
Primary Indicators (any one indicator is sufficient)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Water-stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? No		Depth (inches):
Water Table Present? Yes		Depth (inches): 2
Saturation Present? Yes (includes capillary fringe)		Depth (inches): 0
		<b>Wetland Hydrology Present? Yes</b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 9  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Flat, Wet Area  
 Local relief (concave, convex, none): Concave Slope (%): 0-3  
 Subregion: Southcentral Alaska Lat: 59.64269426 Long: -151.50112550 Datum:  
 Soil Map Unit Name: Cowardin Classification: PSS1/EM1B  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? <u>Yes</u> Hydric Soil Present? <u>Yes</u> Wetland Hydrology Present? <u>Yes</u>	<b>Is the Sampled Area within a Wetland? <u>Yes</u></b>
Remarks: The sample location (visible from the aerial imagery) was located to the west of the persistent emergent wetland. This habitat type, consisting of both shrubs and emergent vegetation, continues westward to the end of the study area boundary. This PSS1/EM1B wetland marks the northern most boundary of the surrounding uplands.	

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

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)  Total Number of Dominant Species Across All Strata: 6 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
1. 2. 3. 4.  Total Cover: 50% of total cover: 20% of total cover:				
<u>Sapling/Shrub Stratum</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species 65 x 1 = 65 FACW species 30 x 2 = 60 FAC species 48 x 3 = 144 FACU species 3 x 4 = 12 UPL species 0 x 5 = 0 Column Totals: 146 (A) 281 (B)  Prevalence Index = B/A = 1.92
1. Picea glauca 2. Salix spp. 3. Rubus chamaemorus 4. Vaccinium vitis-idaea 5. 6.  Total Cover: 48 50% of total cover: 24 20% of total cover: 9	3 10 20 15	No Yes Yes Yes	FACU FAC FACW FAC	
<u>Herb Stratum</u>				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. Equisetum arvense 2. Comarum palustre 3. Parnassia palustris 4. Poa palustris 5. Carex rostrata 6. 7. 8. 9. 10.  Total Cover: 98 50% of total cover: 49 20% of total cover: 19	20 35 10 3 30	Yes Yes No No Yes	FAC OBL FACW FAC OBL	
Plot size (radius, or length x width): 0 % Cover of Wetland Bryophytes: 0 (Where applicable)	% Bare ground: 0 Total Cover of Bryophytes: 15			<b>Hydrophytic Vegetation Present? <u>Yes</u></b>
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8		100						Saturated Organics
8-12	Gley 1 10GY	100					Sandy Gravel	
12-22	2.5/ 1	100					Organic	Saturated

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

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

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

<b>Restrictive Layer (if present):</b> Type: None Depth (inches): N/A	<b>Hydric Soil Present? Yes</b>
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Remarks:

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water-stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? No                      Depth (inches): Water Table Present? Yes                      Depth (inches): 12 Saturation Present? Yes                      Depth (inches): 0 (includes capillary fringe)	<b>Wetland Hydrology Present? Yes</b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 10  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Flat Scrub Shrub  
 Local relief (concave, convex, none): Convex Slope (%): 0-3  
 Subregion: Southcentral Alaska Lat: 59.64298291 Long: -151.50009132 Datum:  
 Soil Map Unit Name: Cowardin Classification: PSS1/EM1B  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? <u>Yes</u> Hydric Soil Present? <u>Yes</u> Wetland Hydrology Present? <u>Yes</u>	<b>Is the Sampled Area within a Wetland? <u>Yes</u></b>
Remarks: The sample location was taken within a wet scrub shrub area and emergent wetland similar to Sampling Point #9.	

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

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Picea glauca</i> 2. 3. 4.  Total Cover: 20 50% of total cover: 10 20% of total cover: 4	20	Yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)  Total Number of Dominant Species Across All Strata: 7 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 85 (A/B)
<u>Sapling/Shrub Stratum</u> 1. <i>Picea glauca</i> 2. <i>Betula nana</i> 3. <i>Rubus chamaemorus</i> 4. <i>Vaccinium vitis-idaea</i> 5. <i>Empetrum nigrum</i> 6. <i>Salix</i> spp.  Total Cover: 65 50% of total cover: 32 20% of total cover: 13	10 10 15 10 5 15	No Yes Yes No No Yes	FACU FAC FACW FAC FAC FAC	<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species 30 x 1 = 30 FACW species 50 x 2 = 100 FAC species 70 x 3 = 210 FACU species 30 x 4 = 120 UPL species 0 x 5 = 0 Column Totals: 180 (A) 460 (B)  Prevalence Index = B/A = 2.56
<u>Herb Stratum</u> 1. <i>Calamagrostis purpurascens</i> 2. <i>Comarum palustre</i> 3. <i>Equisetum arvense</i> 4. 5. 6. 7. 8. 9. 10.  Total Cover: 95 50% of total cover: 47 20% of total cover: 19	35 30 30	Yes Yes Yes	FACW OBL FAC	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width): 0 % Bare ground: 0 % Cover of Wetland Bryophytes: 0 Total Cover of Bryophytes: 70 (Where applicable)			<b>Hydrophytic Vegetation Present? <u>Yes</u></b>	
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Matrix			Redox Features					
Depth (in.)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12		100						Saturated Organics
12-19	10yr 3/2	100					Sandy Loam	

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

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

<b>Restrictive Layer (if present):</b> Type: None Depth (inches): N/A	<b>Hydric Soil Present? Yes</b>
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Remarks: Restrictive digging layer of gravel at 19 inches.

**HYDROLOGY**

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

<b>Field Observations:</b> Surface Water Present? No Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	Depth (inches): Depth (inches): 12 Depth (inches): 0	<b>Wetland Hydrology Present? Yes</b>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**WETLAND DETERMINATION DATA FORM – Alaska Region**

Project/Site: Homer Borough/City: Kenai Peninsula Sampling Date: August 18, 2013  
 Applicant/Owner: DOT&PF Sampling Point: 11  
 Investigator(s): EG, JG Landform (hillslope, terrace, hummocks, etc.): Gently Sloping Hillslope  
 Local relief (concave, convex, none): Convex Slope (%): 3-5  
 Subregion: Southcentral Alaska Lat: 59.64283664750 Long: -151.49942441100 Datum:  
 Soil Map Unit Name: Cowardin Classification: Upland  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? <u>Yes</u> Hydric Soil Present? <u>No</u> Wetland Hydrology Present? <u>Yes</u>	<b>Is the Sampled Area within a Wetland? <u>No</u></b>
Remarks: End of PSS1/EM1B wetland and <i>Picea glauca</i> (White spruce) forested upland boundary. Sampling Point #11 serves as the wetland/upland boundary.	

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

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)  Total Number of Dominant Species Across All Strata: 4 (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
1. <i>Picea glauca</i> 2. 3. 4.  Total Cover: 35 50% of total cover: 17 20% of total cover: 7	35	Yes	FACU	
<u>Sapling/Shrub Stratum</u> 1. <i>Picea glauca</i> 2. <i>Rubus chamaemorus</i> 3. <i>Betula nana</i> 4. <i>Vaccinium vitis-idaea</i> 5. <i>Empetrum nigrum</i> 6. <i>Vaccinium alaskaense</i>  Total Cover: 90 50% of total cover: 45 20% of total cover: 18	5 25 10 20 15 15	No Yes No Yes No No	FACU FACW FAC FAC FAC FAC	<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <u>Multiply by:</u> OBL species 0              x 1 = 0 FACW species 25          x 2 = 50 FAC species 100          x 3 = 300 FACU species 40          x 4 = 160 UPL species 0              x 5 = 0 Column Totals: 165      (A) 510      (B)  Prevalence Index = B/A = 3.09
<u>Herb Stratum</u> 1. <i>Equisetum arvense</i> 2. 3. 4. 5. 6. 7. 8. 9. 10.  Total Cover: 40 50% of total cover: 20 20% of total cover: 8	40	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Plot size (radius, or length x width): 0 % Cover of Wetland Bryophytes: 0 (Where applicable)			% Bare ground: 0 Total Cover of Bryophytes: 65	<b>Hydrophytic Vegetation Present? <u>Yes</u></b>
Remarks:				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in.)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-13		100					Fine Sandy Loam	Saturated Organics
13-22	10yr 5/3	100						

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

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

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

<b>Restrictive Layer (if present):</b> Type: None Depth (inches): N/A	<b>Hydric Soil Present? No</b>
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Remarks: Satisfy wetland hydrology and vegetation but is not fully hydric.

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Water-stained Leaves (B9) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Salt Deposits (C5) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? No                      Depth (inches): Water Table Present? No                        Depth (inches): Saturation Present? Yes                         Depth (inches): 0-13 (includes capillary fringe)	<b>Wetland Hydrology Present? Yes</b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Saturation was observed only from 0-13 inches. The soil portion of the pit was not saturated.	

# PHOTOGRAPHIC LOG

Alaska DOT&PF

**Wetland Delineation**  
Beluga Lake Seaplane Base  
Homer, Alaska

**DOWL HKM Project**  
No. 61485

**Site Number:** 1  
**Date:** 8/18/13

**Notes:**

Full sample point taken in an open flat disturbed area with a *Picea glauca* (White spruce) forest to the north.

**Investigators:** EG, JG



# PHOTOGRAPHIC LOG

<b>Alaska DOT&amp;PF</b>	<b>Wetland Delineation</b> Beluga Lake Seaplane Base Homer, Alaska	<b>DOWL HKM Project</b> No. 61485
<b>Site Number:</b> 2 <b>Date:</b> 8/18/13	<b>Notes:</b>	Photo point showing transition between a <i>Picea glauca</i> (White spruce) forested upland to the southwest and open disturbed upland area to the northeast.
<b>Investigators:</b> EG, JG		



# PHOTOGRAPHIC LOG

<b>Alaska DOT&amp;PF</b>	<b>Wetland Delineation</b> Beluga Lake Seaplane Base Homer, Alaska	<b>DOWL HKM Project</b> No. 61485
<b>Site Number:</b> 3 <b>Date:</b> 8/18/13	<b>Notes:</b>	Full sample point taken within <i>Picea glauca</i> (White spruce) forest and hummock upland south of sample point three. A chainlink fence was observed on the ground near the sample point.
<b>Investigators:</b> EG, JG		



# PHOTOGRAPHIC LOG

Alaska DOT&PF

**Wetland Delineation**  
Beluga Lake Seaplane Base  
Homer, Alaska

**DOWL HKM Project**  
No. 61485

**Site Number:** 4  
**Date:** 8/18/13

**Notes:**

Photo point taken within a disturbed road/trail approximately 30 feet wide and north of Sample Point #3.

**Investigators:** EG, JG



# PHOTOGRAPHIC LOG

<b>Alaska DOT&amp;PF</b>	<b>Wetland Delineation</b> Beluga Lake Seaplane Base Homer, Alaska	<b>DOWL HKM Project</b> No. 61485
<b>Site Number:</b> 5 <b>Date:</b> 8/18/13	<b>Notes:</b>	Full sample point taken in an open portion of a hummock and <i>Picea glauca</i> (White spruce) forested area. Drainage patterns slope three to five percent towards Beluga Lake to the north.
<b>Investigators:</b> EG, JG		



# PHOTOGRAPHIC LOG

Alaska DOT&PF

**Wetland Delineation**  
Beluga Lake Seaplane Base  
Homer, Alaska

**DOWL HKM Project**  
No. 61485

**Site Number:** 6  
**Date:** 8/18/13

**Notes:**

Full sample point taken within a *Picea glauca* (White spruce) forested area with hummocks on a northern facing slope.

**Investigators:** EG, JG



# PHOTOGRAPHIC LOG

Alaska DOT&PF

**Wetland Delineation**  
Beluga Lake Seaplane Base  
Homer, Alaska

**DOWL HKM Project**  
No. 61485

**Site Number:** 7  
**Date:** 8/18/13

**Notes:**

Full sample point taken within an *Equisetum arvense* (Meadow horsetail) clearing surrounded by *Picea glauca* (White spruce) forested hummocks.

**Investigators:** EG, JG



# PHOTOGRAPHIC LOG

Alaska DOT&PF

**Wetland Delineation**  
Beluga Lake Seaplane Base  
Homer, Alaska

**DOWL HKM Project**  
No. 61485

**Site Number:** 8  
**Date:** 8/18/13

**Notes:**

Full sample point taken at the northern edge of the *Picea glauca* (White spruce) forested upland and the southern boundary of an emergent wetland extending to Beluga Lake.

**Investigators:** EG, JG



# PHOTOGRAPHIC LOG

<b>Alaska DOT&amp;PF</b>	<b>Wetland Delineation</b> Beluga Lake Seaplane Base Homer, Alaska	<b>DOWL HKM Project</b> No. 61485
<b>Site Number:</b> 9 <b>Date:</b> 8/18/13	<b>Notes:</b>	Full sample location (visible from the aerial) within a depressed emergent area with <i>Picea glauca</i> (White spruce) forested uplands to the west. This wetland marks the northern most boundary of the surrounding uplands.
<b>Investigators:</b> EG, JG		



# PHOTOGRAPHIC LOG

<b>Alaska DOT&amp;PF</b>	<b>Wetland Delineation</b> Beluga Lake Seaplane Base Homer, Alaska	<b>DOWL HKM Project</b> No. 61485
<b>Site Number:</b> 10 <b>Date:</b> 8/18/13	<b>Notes:</b>	Full sample point located within a PSS wetland area northeast of <i>Picea glauca</i> (White spruce) forested upland and southwest of PEM wetland.
<b>Investigators:</b> EG, JG		



# PHOTOGRAPHIC LOG

<b>Alaska DOT&amp;PF</b>	<b>Wetland Delineation</b> Beluga Lake Seaplane Base Homer, Alaska	<b>DOWL HKM Project</b> No. 61485
<b>Site Number:</b> 11 <b>Date:</b> 8/18/13	<b>Notes:</b>	Full sample point taken at boundary of PSS wetland and <i>Picea glauca</i> (White spruce) forested upland boundary. This sample point location serves as the wetland/upland boundary.
<b>Investigators:</b> EG, JG		



**Table 3: Vegetation in the Study Area**

Scientific Name	Common Name	Wetland Indicator Status
<i>Alnus viridis</i>	Sitka Alder	FACW
<i>Athyrium filix-femina</i>	Alaska Lady Fern	FAC
<i>Betula nana</i>	Swamp Birch	FAC
<i>Calamagrostis canadensis</i>	Bluejoint	FAC
<i>Calamagrostis purpurascens</i>	Purple Reedgrass	FACW
<i>Carex rostrata</i>	Swollen Beaked Sedge	OBL
<i>Chamerion angustifolium</i>	Fireweed	FACU
<i>Comarum palustre</i>	Purple Marshlocks	OBL
<i>Empetrum nigrum</i>	Black Crowberry	FAC
<i>Equisetum arvense</i>	Field Horsetail	FAC
<i>Hordeum jubatum</i>	Fox-Tail Barley	FACU
<i>Linnaea borealis</i>	American Twinflower	FACU
<i>Lupinus nootkatensis</i>	Nootka Lupine	FACU
<i>Lycopodium annotinum</i>	Running Ground-Pine	FACU
<i>Matricaria discoidea</i>	Pineapple Weed	FACU
<i>Oplopanax horridus</i>	Devil's Club	FACU
<i>Parnassia palustris</i>	Grass of Parnassus	FACW
<i>Picea glauca</i>	White Spruce	FACU
<i>Poa palustris</i>	Fowl Blue Grass	FAC
<i>Rhinanthus minor</i>	Yellow Rattlebox	FACU
<i>Rhododendron lapponicum</i>	Lapland Rhododendron	FAC
<i>Rubus chamaemorus</i>	Cloudberry	FACW
<i>Rubus pedatus</i>	Strawberry-Leaf Raspberry	FAC
<i>Salix spp.</i>	Willow species	FAC
<i>Solidago canadensis</i>	Canadian Goldenrod	FACU
<i>Trifolium pratense</i>	Red Clover	FACU
<i>Trifolium repens</i>	White Clover	FACU
<i>Vaccinium alaskaense</i>	Alaska Blueberry	FAC
<i>Vaccinium vitis-idaea</i>	Northern Mountain-Cranberry	FAC

FAC Facultative – species equally likely to occur in wetlands and non-wetlands

FACU Facultative Upland – species usually occurs in non-wetlands

FACW Facultative Wetland – species usually occurs in wetlands

OBL Obligate – species almost always occurs in wetlands

UPL Upland – species almost always occurs in non-wetlands

## **APPENDIX C**

### **Functions and Values**

# WETLAND FUNCTIONS AND SERVICES FORM

*Adopted from USACE - Alaska District RGL ID No. 09-01*

Project Name: Homer Beluga Seaplane Facilities Improvements

Project #: 61485 Assessed By: EJG Date: 02/21/2014

Cowardin Class: PAB3H Wetland Size: 1.13 Wetland Name: N/A  
(If Applicable)

<p><b>A. Flood Flow Alteration</b> <i>(Storage and Desynchronization)</i></p> <ol style="list-style-type: none"> <li>1. Wetland occurs in the upper portion of its watershed.</li> <li>2. Wetland is relatively flat area and is capable of retaining higher volumes of water during storm events, than under normal rainfall conditions.</li> <li>3. Wetland is a closed (depressional) system.</li> <li>4. If flowthrough, wetland has constricted outlet with signs of fluctuating water levels, algal mats, and/or lodged debris.</li> <li>5. Wetland has dense woody vegetation.</li> <li>6. Wetland receives floodwater from an adjacent water course.</li> <li>7. Floodwaters come as sheet flow rather than channel flow.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. Y</li> <li>3. N</li> <li>4. Y</li> <li>5. N</li> <li>6. Y</li> <li>7. Y</li> </ol> <p>5 – 7 (Y) High Function 1 – 4 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">Moderate Function</p>
<p><b>B. Sediment Removal</b></p> <ol style="list-style-type: none"> <li>1. Sources of excess sediment (from tillage, mining or construction) are present upgradient of the wetland.</li> <li>2. Slow-moving water and/or a deepwater habitat are present in the wetland.</li> <li>3. Dense herbaceous vegetation is present.</li> <li>4. Interspersion of vegetation and water is high in wetland.</li> <li>5. Ponding of water occurs in the wetland.</li> <li>6. Sediment deposits are present in wetland (observation or noted in application materials).</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. N</li> <li>3. Y</li> <li>4. N</li> <li>5. N</li> <li>6. N</li> </ol> <p>4 – 6 (Y) High Function 1 – 3 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">Moderate Function</p>
<p><b>C. Nutrient and Toxicant Removal</b> <i>(important with high adjacent land use/industrial areas)</i></p> <ol style="list-style-type: none"> <li>1. Sources of excess nutrients (fertilizers) and toxicants (pesticides and heavy metals) are present upgradient of the wetland.</li> <li>2. Wetland is inundated or has indicators that flooding is a seasonal event during the growing season.</li> <li>3. Wetland provides long duration for water detention.</li> <li>4. Wetland has at least 30% aerial cover of live dense herbaceous vegetation.</li> <li>5. Fine grained mineral or organic materials are present for the wetland (in wetland report).</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y     Adjacent to airport</li> <li>2. Y</li> <li>3. Y</li> <li>4. Y</li> <li>5. N</li> </ol> <p>3 – 5 (Y) High Function 1 – 2 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">High Function</p>

<p><b>D. Erosion Control and Shoreline Stabilization</b> <i>If associated with watercourse or shoreline</i></p> <ol style="list-style-type: none"> <li>1. Wetland has dense, energy absorbing vegetation bordering the water course and no evidence of erosion.</li> <li>2. An herbaceous layer is part of this dense vegetation.</li> <li>3. Trees and shrubs able to withstand erosive flood events are also part of this dense vegetation.</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y</li> <li>2. Y</li> <li>3. N</li> </ol> <p>1 – 3 (Y) High Function None – Low Function</p> <p>High Function</p>
<p><b>E. Production of Organic Matter and its Exports</b></p> <ol style="list-style-type: none"> <li>1. Wetland has at least 30% aerial cover of dense herbaceous vegetation.</li> <li>2. Woody plants in wetland are mostly deciduous.</li> <li>3. High degree of plant community structure, vegetation density, and species richness present.</li> <li>4. Interspersion of vegetation and water is high in wetland.</li> <li>5. Wetland is inundated or has indicators that flooding is a seasonal event during the growing season.</li> <li>6. Wetland has outlet from which organic matter is flushed.*</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y</li> <li>2. N</li> <li>3. Y</li> <li>4. N</li> <li>5. Y</li> <li>6. Y</li> </ol> <p>4 – 6 (Y) High Function 1 – 3 (Y) Moderate Function None – Low Function *If 6 is N, then automatically low function.</p> <p>High Function</p>
<p><b>F. General Habitat Suitability</b></p> <ol style="list-style-type: none"> <li>1. Wetland is not fragmented by development.</li> <li>2. Upland surrounding wetland is undeveloped.</li> <li>3. Wetland has connectivity with other habitat types.</li> <li>4. Diversity of plant species is high.</li> <li>5. Wetland has more than one Cowardin Class (i.e., PFO, PSS, PEM, POW, etc.)</li> <li>6. Has high degree of Cowardin Class interspersion.</li> <li>7. Evidence of wildlife use, e.g., tracks, scat, gnawed stumps, etc., is present.</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y</li> <li>2. N</li> <li>3. Y</li> <li>4. N</li> <li>5. N</li> <li>6. N</li> <li>7. N</li> </ol> <p>5 – 7 (Y) High Function 1 – 4 (Y) Moderate Function None – Low Function</p> <p>Moderate Function</p>
<p><b>G. General Fish Habitat</b> <i>Must be associated with a fish-bearing water</i></p> <ol style="list-style-type: none"> <li>1. Wetland has perennial or intermittent surface water connection to a fish-bearing water body.</li> <li>2. Wetland has sufficient size and depth of open water so as not to freeze completely during winter.</li> <li>3. Observation of fish.</li> <li>4. Herbaceous and/or woody vegetation is present in wetland and/or buffer to provide cover, shade, and/or detrital matter.</li> <li>5. Spawning areas are present (aquatic vegetation and/or gravel beds.)</li> <li>6. Juvenile rest areas.</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y</li> <li>2. N</li> <li>3. N</li> <li>4. Y</li> <li>5. N</li> <li>6. N</li> </ol> <p>4 – 6 (Y) High Function 1 – 3 (Y) Moderate Function None – Low Function</p> <p>Moderate Function</p>

<p><b>H. Native Plant Richness</b></p> <ol style="list-style-type: none"> <li>1. Dominant and co-dominant plants are native.</li> <li>2. Wetland contains two or more Cowardin Classes.</li> <li>3. Wetland has three or more strata of vegetation.</li> <li>4. Wetland has mature trees.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y</li> <li>2. N</li> <li>3. N</li> <li>4. N</li> </ol> <p>3 – 4 (Y) High Function 1 – 2 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">Moderate Function</p>
<p><b>I. Education or Scientific</b></p> <ol style="list-style-type: none"> <li>1. Site has documented scientific or educational use.</li> <li>2. Wetland is in public ownership.</li> <li>3. Accessible trails available.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. Y</li> <li>3. Y</li> </ol> <p>2 – 3 (Y) High Function 1 – (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">High Function</p>
<p><b>J. Uniqueness and Heritage</b></p> <ol style="list-style-type: none"> <li>1. Wetland contains documented occurrence of a state or federally listed threatened or endangered species.</li> <li>2. Wetland contains documented critical habitat, high quality ecosystems, or priority species respectively designated by the U.S. Fish and Wildlife Service</li> <li>3. Wetland has biological, geological, or other features that are determined rare.</li> <li>4. Wetland has been determined significant because it provides functions scarce for the area.</li> <li>5. Wetland is part of: an estuary, bog, or a mature forest.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N     Adjacent to Kachemak C.H.A.</li> <li>2. N</li> <li>3. N</li> <li>4. N</li> <li>5. Y</li> </ol> <p>3 – 5 (Y) High Function 1 – 2 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">Moderate Function</p>

# WETLAND FUNCTIONS AND SERVICES FORM

*Adopted from USACE - Alaska District RGL ID No. 09-01*

Project Name: Homer Beluga Seaplane Facilities Improvements

Project #: 61485 Assessed By: EJG Date: 02/21/2014

Cowardin Class: PEM1B Wetland Size: 0.47 Wetland Name: N/A  
(If Applicable)

<p><b>A. Flood Flow Alteration</b> <i>(Storage and Desynchronization)</i></p> <ol style="list-style-type: none"> <li>1. Wetland occurs in the upper portion of its watershed.</li> <li>2. Wetland is relatively flat area and is capable of retaining higher volumes of water during storm events, than under normal rainfall conditions.</li> <li>3. Wetland is a closed (depressional) system.</li> <li>4. If flowthrough, wetland has constricted outlet with signs of fluctuating water levels, algal mats, and/or lodged debris.</li> <li>5. Wetland has dense woody vegetation.</li> <li>6. Wetland receives floodwater from an adjacent water course.</li> <li>7. Floodwaters come as sheet flow rather than channel flow.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. Y</li> <li>3. N</li> <li>4. N</li> <li>5. N</li> <li>6. Y</li> <li>7. Y</li> </ol> <p>5 – 7 (Y) High Function 1 – 4 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">Moderate Function</p>
<p><b>B. Sediment Removal</b></p> <ol style="list-style-type: none"> <li>1. Sources of excess sediment (from tillage, mining or construction) are present upgradient of the wetland.</li> <li>2. Slow-moving water and/or a deepwater habitat are present in the wetland.</li> <li>3. Dense herbaceous vegetation is present.</li> <li>4. Interspersion of vegetation and water is high in wetland.</li> <li>5. Ponding of water occurs in the wetland.</li> <li>6. Sediment deposits are present in wetland (observation or noted in application materials).</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. N</li> <li>3. Y</li> <li>4. N</li> <li>5. N</li> <li>6. N</li> </ol> <p>4 – 6 (Y) High Function 1 – 3 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">Moderate Function</p>
<p><b>C. Nutrient and Toxicant Removal</b> <i>(important with high adjacent land use/industrial areas)</i></p> <ol style="list-style-type: none"> <li>1. Sources of excess nutrients (fertilizers) and toxicants (pesticides and heavy metals) are present upgradient of the wetland.</li> <li>2. Wetland is inundated or has indicators that flooding is a seasonal event during the growing season.</li> <li>3. Wetland provides long duration for water detention.</li> <li>4. Wetland has at least 30% aerial cover of live dense herbaceous vegetation.</li> <li>5. Fine grained mineral or organic materials are present for the wetland (in wetland report).</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y     Adjacent to airport</li> <li>2. N</li> <li>3. Y</li> <li>4. Y</li> <li>5. Y</li> </ol> <p>3 – 5 (Y) High Function 1 – 2 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">High Function</p>

<p><b>D. Erosion Control and Shoreline Stabilization</b> <i>If associated with watercourse or shoreline</i></p> <ol style="list-style-type: none"> <li>1. Wetland has dense, energy absorbing vegetation bordering the water course and no evidence of erosion.</li> <li>2. An herbaceous layer is part of this dense vegetation.</li> <li>3. Trees and shrubs able to withstand erosive flood events are also part of this dense vegetation.</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. /</li> <li>2. /</li> <li>3. /</li> </ol> <p>1 – 3 (Y) High Function None – Low Function</p> <p>N/A not associated with watercourse/shoreline</p>
<p><b>E. Production of Organic Matter and its Exports</b></p> <ol style="list-style-type: none"> <li>1. Wetland has at least 30% aerial cover of dense herbaceous vegetation.</li> <li>2. Woody plants in wetland are mostly deciduous.</li> <li>3. High degree of plant community structure, vegetation density, and species richness present.</li> <li>4. Interspersion of vegetation and water is high in wetland.</li> <li>5. Wetland is inundated or has indicators that flooding is a seasonal event during the growing season.</li> <li>6. Wetland has outlet from which organic matter is flushed.*</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y</li> <li>2. N</li> <li>3. Y</li> <li>4. N</li> <li>5. N</li> <li>6. Y</li> </ol> <p>4 – 6 (Y) High Function 1 – 3 (Y) Moderate Function None – Low Function *If 6 is N, then automatically low function.</p> <p>Moderate Function</p>
<p><b>F. General Habitat Suitability</b></p> <ol style="list-style-type: none"> <li>1. Wetland is not fragmented by development.</li> <li>2. Upland surrounding wetland is undeveloped.</li> <li>3. Wetland has connectivity with other habitat types.</li> <li>4. Diversity of plant species is high.</li> <li>5. Wetland has more than one Cowardin Class (i.e., PFO, PSS, PEM, POW, etc.)</li> <li>6. Has high degree of Cowardin Class interspersion.</li> <li>7. Evidence of wildlife use, e.g., tracks, scat, gnawed stumps, etc., is present.</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. N</li> <li>3. Y</li> <li>4. N</li> <li>5. N</li> <li>6. N</li> <li>7. Y</li> </ol> <p>5 – 7 (Y) High Function 1 – 4 (Y) Moderate Function None – Low Function</p> <p>Moderate Function</p>
<p><b>G. General Fish Habitat</b> <i>Must be associated with a fish-bearing water</i></p> <ol style="list-style-type: none"> <li>1. Wetland has perennial or intermittent surface water connection to a fish-bearing water body.</li> <li>2. Wetland has sufficient size and depth of open water so as not to freeze completely during winter.</li> <li>3. Observation of fish.</li> <li>4. Herbaceous and/or woody vegetation is present in wetland and/or buffer to provide cover, shade, and/or detrital matter.</li> <li>5. Spawning areas are present (aquatic vegetation and/or gravel beds.)</li> <li>6. Juvenile rest areas.</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. /</li> <li>2. /</li> <li>3. /</li> <li>4. /</li> <li>5. /</li> <li>6. /</li> </ol> <p>4 – 6 (Y) High Function 1 – 3 (Y) Moderate Function None – Low Function</p> <p>N/A/ Not associated with fish-bearing water</p>

<p><b>H. Native Plant Richness</b></p> <ol style="list-style-type: none"> <li>1. Dominant and co-dominant plants are native.</li> <li>2. Wetland contains two or more Cowardin Classes.</li> <li>3. Wetland has three or more strata of vegetation.</li> <li>4. Wetland has mature trees.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y</li> <li>2. N</li> <li>3. N</li> <li>4. N</li> </ol> <p>3 – 4 (Y) High Function 1 – 2 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">Moderate Function</p>
<p><b>I. Education or Scientific</b></p> <ol style="list-style-type: none"> <li>1. Site has documented scientific or educational use.</li> <li>2. Wetland is in public ownership.</li> <li>3. Accessible trails available.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. Y</li> <li>3. Y</li> </ol> <p>2 – 3 (Y) High Function 1 – (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">High Function</p>
<p><b>J. Uniqueness and Heritage</b></p> <ol style="list-style-type: none"> <li>1. Wetland contains documented occurrence of a state or federally listed threatened or endangered species.</li> <li>2. Wetland contains documented critical habitat, high quality ecosystems, or priority species respectively designated by the U.S. Fish and Wildlife Service</li> <li>3. Wetland has biological, geological, or other features that are determined rare.</li> <li>4. Wetland has been determined significant because it provides functions scarce for the area.</li> <li>5. Wetland is part of: an estuary, bog, or a mature forest.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. N</li> <li>3. N</li> <li>4. N</li> <li>5. N</li> </ol> <p>3 – 5 (Y) High Function 1 – 2 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">Low Function</p>

## WETLAND FUNCTIONS AND SERVICES FORM

Project Name: Homer Beluga Lake Seaplane Facilities Improvements

Project #: 61485 Assessed By: EJG Date: 02/21/2014

Cowardin Class: PSS1/EM1B Wetland Size: 1.84 Wetland Name: N/A  
*(If Applicable)*

<p><b>A. Flood Flow Alteration</b>  <i>(Storage and Desynchronization)</i></p> <ol style="list-style-type: none"> <li>1. Wetland occurs in the upper portion of its watershed.</li> <li>2. Wetland is relatively flat area and is capable of retaining higher volumes of water during storm events, than under normal rainfall conditions.</li> <li>3. Wetland is a closed (depressional) system.</li> <li>4. If flowthrough, wetland has constricted outlet with signs of fluctuating water levels, algal mats, and/or lodged debris.</li> <li>5. Wetland has dense woody vegetation.</li> <li>6. Wetland receives floodwater from an adjacent water course.</li> <li>7. Floodwaters come as sheet flow rather than channel flow.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. Y</li> <li>3. N</li> <li>4. N</li> <li>5. Y</li> <li>6. Y</li> <li>7. Y</li> </ol> <p>5 – 7 (Y) High Function            1 – 4 (Y) Moderate Function            None – Low Function</p> <p style="text-align: center;">Moderate Function</p>
<p><b>B. Sediment Removal</b></p> <ol style="list-style-type: none"> <li>1. Sources of excess sediment (from tillage, mining or construction) are present upgradient of the wetland.</li> <li>2. Slow-moving water and/or a deepwater habitat are present in the wetland.</li> <li>3. Dense herbaceous vegetation is present.</li> <li>4. Interspersion of vegetation and water is high in wetland.</li> <li>5. Ponding of water occurs in the wetland.</li> <li>6. Sediment deposits are present in wetland (observation or noted in application materials).</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. N</li> <li>3. Y</li> <li>4. N</li> <li>5. N</li> <li>6. N</li> </ol> <p>4 – 6 (Y) High Function            1 – 3 (Y) Moderate Function            None – Low Function</p> <p style="text-align: center;">Moderate Function</p>
<p><b>C. Nutrient and Toxicant Removal</b>  <i>(important with high adjacent land use/industrial areas)</i></p> <ol style="list-style-type: none"> <li>1. Sources of excess nutrients (fertilizers) and toxicants (pesticides and heavy metals) are present upgradient of the wetland.</li> <li>2. Wetland is inundated or has indicators that flooding is a seasonal event during the growing season.</li> <li>3. Wetland provides long duration for water detention.</li> <li>4. Wetland has at least 30% aerial cover of live dense herbaceous vegetation.</li> <li>5. Fine grained mineral or organic materials are present for the wetland (in wetland report).</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y     Adjacent to airport</li> <li>2. N</li> <li>3. Y</li> <li>4. Y</li> <li>5. Y</li> </ol> <p>3 – 5 (Y) High Function            1 – 2 (Y) Moderate Function            None – Low Function</p> <p style="text-align: center;">High Function</p>

<p><b>D. Erosion Control and Shoreline Stabilization</b> <i>If associated with watercourse or shoreline</i></p> <ol style="list-style-type: none"> <li>1. Wetland has dense, energy absorbing vegetation bordering the water course and no evidence of erosion.</li> <li>2. An herbaceous layer is part of this dense vegetation.</li> <li>3. Trees and shrubs able to withstand erosive flood events are also part of this dense vegetation.</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. /</li> <li>2. /</li> <li>3. /</li> </ol> <p>1 – 3 (Y) High Function None – Low Function</p> <p>N/A not associated with watercourse or shoreline</p>
<p><b>E. Production of Organic Matter and its Exports</b></p> <ol style="list-style-type: none"> <li>1. Wetland has at least 30% aerial cover of dense herbaceous vegetation.</li> <li>2. Woody plants in wetland are mostly deciduous.</li> <li>3. High degree of plant community structure, vegetation density, and species richness present.</li> <li>4. Interspersion of vegetation and water is high in wetland.</li> <li>5. Wetland is inundated or has indicators that flooding is a seasonal event during the growing season.</li> <li>6. Wetland has outlet from which organic matter is flushed.*</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y</li> <li>2. Y</li> <li>3. Y</li> <li>4. N</li> <li>5. N</li> <li>6. N</li> </ol> <p>4 – 6 (Y) High Function 1 – 3 (Y) Moderate Function None – Low Function *If 6 is N, then automatically low function.</p> <p>Moderate Function</p>
<p><b>F. General Habitat Suitability</b></p> <ol style="list-style-type: none"> <li>1. Wetland is not fragmented by development.</li> <li>2. Upland surrounding wetland is undeveloped.</li> <li>3. Wetland has connectivity with other habitat types.</li> <li>4. Diversity of plant species is high.</li> <li>5. Wetland has more than one Cowardin Class (i.e., PFO, PSS, PEM, POW, etc.)</li> <li>6. Has high degree of Cowardin Class interspersion.</li> <li>7. Evidence of wildlife use, e.g., tracks, scat, gnawed stumps, etc., is present.</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. N</li> <li>3. Y</li> <li>4. N</li> <li>5. Y</li> <li>6. Y</li> <li>7. Y</li> </ol> <p>5 – 7 (Y) High Function 1 – 4 (Y) Moderate Function None – Low Function</p> <p>Moderate Function</p>
<p><b>G. General Fish Habitat</b> <i>Must be associated with a fish-bearing water</i></p> <ol style="list-style-type: none"> <li>1. Wetland has perennial or intermittent surface water connection to a fish-bearing water body.</li> <li>2. Wetland has sufficient size and depth of open water so as not to freeze completely during winter.</li> <li>3. Observation of fish.</li> <li>4. Herbaceous and/or woody vegetation is present in wetland and/or buffer to provide cover, shade, and/or detrital matter.</li> <li>5. Spawning areas are present (aquatic vegetation and/or gravel beds.)</li> <li>6. Juvenile rest areas.</li> </ol>	<p>Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. /</li> <li>2. /</li> <li>3. /</li> <li>4. /</li> <li>5. /</li> <li>6. /</li> </ol> <p>4 – 6 (Y) High Function 1 – 3 (Y) Moderate Function None – Low Function</p> <p>N/A not associated with fish-bearing water</p>

<p><b>H. Native Plant Richness</b></p> <ol style="list-style-type: none"> <li>1. Dominant and co-dominant plants are native.</li> <li>2. Wetland contains two or more Cowardin Classes.</li> <li>3. Wetland has three or more strata of vegetation.</li> <li>4. Wetland has mature trees.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. Y</li> <li>2. Y</li> <li>3. Y</li> <li>4. Y</li> </ol> <p>3 – 4 (Y) High Function 1 – 2 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">High Function</p>
<p><b>I. Education or Scientific</b></p> <ol style="list-style-type: none"> <li>1. Site has documented scientific or educational use.</li> <li>2. Wetland is in public ownership.</li> <li>3. Accessible trails available.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. Y</li> <li>3. Y</li> </ol> <p>2 – 3 (Y) High Function 1 – (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">High Function</p>
<p><b>J. Uniqueness and Heritage</b></p> <ol style="list-style-type: none"> <li>1. Wetland contains documented occurrence of a state or federally listed threatened or endangered species.</li> <li>2. Wetland contains documented critical habitat, high quality ecosystems, or priority species respectively designated by the U.S. Fish and Wildlife Service</li> <li>3. Wetland has biological, geological, or other features that are determined rare.</li> <li>4. Wetland has been determined significant because it provides functions scarce for the area.</li> <li>5. Wetland is part of: an estuary, bog, or a mature forest.</li> </ol>	<p style="text-align: center;">Likely or not likely to Provide (Y or N)</p> <ol style="list-style-type: none"> <li>1. N</li> <li>2. N</li> <li>3. N</li> <li>4. N</li> <li>5. N</li> </ol> <p>3 – 5 (Y) High Function 1 – 2 (Y) Moderate Function None – Low Function</p> <p style="text-align: center;">Low Function</p>





**DOWL HKM**

## **APPENDIX J**

### **Public and Agency Coordination**





## **NOTICE OF INTENT TO BEGIN ENGINEERING AND ENVIRONMENTAL STUDIES**

**Homer Beluga Lake Float Plane Facilities Improvements  
State Project No. 57777**

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is soliciting comments and information on a proposed project to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area. The new access road would include a turnaround area and a ramp into the lake.

The proposed project will comply with Executive Orders: 11990 (Wetlands Protection), 11988 (Floodplain Protection), 12898 (Environmental Justice), 11593 (Historic Preservation), 13084 (Consultation and Coordination with Indian Tribal Governments), 13112 (Invasive Species); the Clean Air Act, Clean Water Act, Fish and Wildlife Coordination Act, Endangered Species Act, National Historic Preservation Act Section 106; Land and Water Conservation Fund Act Section 6(f), and U.S. DOT Act Section 4(f).

To ensure that all possible factors are considered, please provide written comments to the following address by November 23, 2013.

**Brian Elliott, Regional Environmental Manager  
DOT&PF Preliminary Design & Environmental  
PO Box 196900  
Anchorage, AK 99519-6900**

If you have any questions or require additional information, please contact Aaron Hughes, P.E., Project Manager, at 269-0523 or TaraLyn Stone, Environmental Impact Analyst, at 269-0534.

*It is the policy of the DOT&PF that no person shall be excluded from participation in, or be denied benefits of any and all programs or activities we provide based on race, religion, color, gender, age, marital status, ability, or national origin, regardless of the funding source including Federal Transit Administration, Federal Aviation Administration, Federal Highway Administration and State of Alaska Funds.*

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# AFFIDAVIT OF PUBLICATION

STATE OF ALASKA  
THIRD JUDICIAL DISTRICT

Joleesa Stepetin  
being first duly sworn on oath deposes  
and says that he is a representative of  
the Anchorage Daily News, a daily  
newspaper. That said newspaper has  
been approved by the Third Judicial  
Court, Anchorage, Alaska, and it now  
and has been published in the English  
language continually as a daily  
newspaper in Anchorage, Alaska, and  
it is now and during all said time was  
printed in an office maintained at the  
aforesaid place of publication of said  
newspaper. That the annexed is a  
copy of an advertisement as it was  
published in regular issues (and not in  
supplemental form) of said newspaper  
on

October 14, 2013

and that such newspaper was regularly  
distributed to its subscribers during all  
of said period. That the full amount of  
the fee charged for the foregoing  
publication is not in excess of the rate  
charged private individuals.

Signed Joleesa Stepetin

Subscribed and sworn to before me  
this 14th day of October, 2013

Britney Thompson

Notary Public in and for  
The State of Alaska.  
Third Division  
Anchorage, Alaska  
MY COMMISSION EXPIRES

05/18/15



**NOTICE OF INTENT TO BEGIN ENGINEERING AND ENVIRONMENTAL STUDIES**  
Homer Beluga Lake Float Plane Facilities Improvements  
State Project No. 57777

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is soliciting comments and information on a proposed project to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area. The new access road would include a turnaround area and a ramp into the lake.

The proposed project will comply with Executive Orders: 11990 (Wetlands Protection), 11988 (Floodplain Protection), 12898 (Environmental Justice), 11593 (Historic Preservation), 13084 (Consultation and Coordination with Indian Tribal Governments), 13112 (Invasive Species); the Clean Air Act, Clean Water Act, Fish and Wildlife Coordination Act, Endangered Species Act, National Historic Preservation Act Section 106; Land and Water Conservation Fund Act Section 6(f), and U.S. DOT Act Section 4(f).

To ensure that all possible factors are considered, please provide written comments to the following address by November 23, 2013.

**Brian Elliott, Regional Environmental Manager**  
DOT&PF Preliminary Design & Environmental  
PO Box 196900  
Anchorage, AK 99519-6900

If you have any questions or require additional information, please contact Aaron Hughes, P.E., Project Manager, at 269-0523 or TaraLyn Stone, Environmental Impact Analyst, at 269-0534.

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# PROOF OF PUBLICATION

acct# 270217  
I00713783

Cindy Grove

being first duly sworn on oath deposes and says that he/she is an accounting clerk of the Anchorage Daily News, a daily newspaper. That said newspaper has been approved as a proof of publication and it now and has been published in the English language continually as a daily newspaper in Anchorage, Alaska, and it is now and during all said time was printed in an office maintained at the aforesaid place of publication of said newspaper. That the annexed is a copy of an advertisement as it was published in regular issues (and not in supplemental form) of said newspaper on 10/14/13 and that such newspaper was regularly distributed to its subscribers during all of said period. That the full amount of the fee charged for the foregoing publication is not in excess of the rate charged private individuals.

Signed



**NOTICE OF INTENT TO BEGIN ENGINEERING AND ENVIRONMENTAL STUDIES**  
**Homer Beluga Lake Float Plane Facilities Improvements**  
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# HOMER TRIBUNE

## Affidavit of Publication

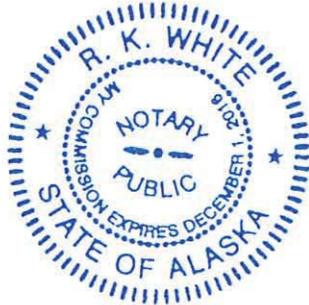
Comes now, Sarah Holub,  
being duly sworn in, says that the following:

Notice of Intent: AK DOT,  
of which a true copy has been attached, has been published 1 week(s)  
in the Homer Tribune, a weekly paper of general circulation, published in the  
city of Homer, Alaska, and that the date of the first paper containing said legal,  
was October 16, 2013 and the last day was  
October 16, 2013.

Sarah Holub

Notary Public )  
State of Alaska ) SS.  
Third Judicial District )

SWORN AND SUBSCRIBED to before me this 21<sup>st</sup> day of  
October, 2013.



NOTARY PUBLIC:  
R. K. White

MY COMMISSION EXPIRES:  
December 1<sup>st</sup>, 2016

435 E. Pioneer Ave. • Homer, AK 99603  
(907) 235-3714 • FAX: 235-3716

**Notice of Intent to Begin Engineering and Environmental Studies  
Homer Beluga Lake Float Plane Facilities Improvements  
State Project No. 57777**

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is soliciting comments and information on a proposed project to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area. The new access road would include a turnaround area and a ramp into the lake.

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## Notice of Intent to Begin Engineering and Environmental Studies: Homer Beluga Lake Float Plane Facilities Improvements

\*\*\*PLEASE DISREGARD THE POSTING FOR THIS PROJECT ON OCTOBER 4, 2013. THE PUBLIC OPEN HOUSE HAS BEEN CANCELLED.

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is soliciting comments and information on a proposed project to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area. The new access road would include a turnaround area and a ramp into the lake.

The proposed project will comply with Executive Orders: 11990 (Wetlands Protection), 11988 (Floodplain Protection), 12898 (Environmental Justice), 11593 (Historic Preservation), 13084 (Consultation and Coordination with Indian Tribal Governments), 13112 (Invasive Species); the Clean Air Act, Clean Water Act, Fish and Wildlife Coordination Act, Endangered Species Act, National Historic Preservation Act Section 106; Land and Water Conservation Fund Act Section 6(f), and U.S. DOT Act Section 4(f).

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### [Attachments, History, Details](#)

#### Attachments

None

#### Revision History

Created 10/8/2013 4:51:43 PM by mlbyrd

#### Details

Department:	Transportation and Public Facilities
Category:	Public Notices
Sub-Category:	
Location(s):	Central Region
Project/Regulation #:	57777
Publish Date:	10/8/2013
Archive Date:	12/15/2013

Events/Deadlines:

## Ashton, Nancy

---

**From:** Knowles, Jonathan W (DOT) <jon.knowles@alaska.gov>  
**Sent:** Monday, September 30, 2013 7:24 AM  
**To:** Ashton, Nancy  
**Cc:** Hansen, Kristen; Hanson, Brian; Stone, Taralyn R (DOT); Hughes, Aaron C (DOT)  
**Subject:** FW: Homer Beluga Float Plane Facilities Improvements State Project #57777

Nancy,

Public comment provided below.

Jon

---

**From:** Rika Mouw [<mailto:rika@alaska.com>]  
**Sent:** Friday, September 27, 2013 4:51 PM  
**To:** Knowles, Jonathan W (DOT)  
**Subject:** Homer Beluga Float Plane Facilities Improvements State Project #57777

Dear Mr. Knowles,

Thank you for the opportunity to comment on the planned access road, ramp and turn around connecting Beluga Lake with the airport. As much as I lament any loss of natural landscape and important habitat surrounding Beluga Lake, I realize that we have come to a time when float plane owners need to have better access to and from the airport. The big spruces, the understory of natural forest vegetation and the wetland vegetation surrounding the lake is an important buffer for the wildlife and water fowl that use Beluga Lake, so minimal disruption is in the best interest for that area. In order to lessen the degradation of the natural vegetation I recommend that:

- 1) The route chosen be where there is **minimal tree and vegetation loss**. It looks like the beginning of the proposed road coming off of the FAA road could be placed a bit more to the west (based on the graphic shown on the fact sheet) to avoid having to cut any trees on the eastern edge of the existing clearing. I would hope every effort is made to keep well within the already cleared area.
- 2) That any tree cutting be done in the **winter months while the ground is frozen** so that the impact to the understory of vegetation beneath the trees be lessened. The less impact the understory receives, the less likely the vegetation will be lost and give way to encroaching invasive plant species. The goal here would be to lessen invasive plants from having another route to the shore of Beluga Lake where so many waterfowl depend on the natural vegetation for food, cover and nesting grounds.
- 3) Consider **not cutting trees all the way to the ground** but rather cutting the trunks to the height of necessary airplane wing clearance. Eliminating shade in currently shaded areas invites the encroachment of invasive plants as well as the encroachment of the aggressive *Calamagrostis canadensis* grass (also commonly known as Bluejoint grass).
- 4) Be very careful about the **quality of fill material, making sure it is free of invasive plant seed**. This has been a big problem on the peninsula in recent years.
- 5) Not knowing how the actual ramp into Beluga Lake is proposed to be built, I suggest that the **ramp into the lake be supported by pilings** to avoid filling right to the shoreline. The existing shoreline vegetation should remain undisturbed by fill by building a ramp on pilings and allowing the vegetation to continue underneath. Again, I thank you for the opportunity to comment on this project and make suggestions that will better mitigate the consequences of this project.

Sincerely,

Rika Mouw  
Homer



December 2, 2013

Homer Beluga Float Plane Facilities Improvements  
Project No. 57777

### **Re: Request for Scoping Comments and Information**

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is soliciting comments and information on a proposed project to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area.

The Beluga Lake Seaplane Base is located in Section 21, T06S, R13W on USGS Quad Map Seldovia C-4 and C-5, Seward Meridian; Latitude 59°-38-40.802N, Longitude 151°-30-7.653W, in Homer, Alaska (see Figure 1).

Previous scoping and studies were conducted for an Environmental Assessment (EA) covering all improvements recommended in the Homer Airport Master Plan (May 2006), including improvements at Beluga Lake. Recommended improvements at Beluga Lake included a haul-out ramp for floatplanes, access road and parking area, a boathouse for a rescue boat and a boat used for maintaining weed control, a dock with 12 slips for floatplanes, gangways, and public restroom facilities. The improvements at Beluga Lake are being scaled back to the proposed scope of work due to funding constraints. This is a new, independent project and an EA is being prepared.

### **Purpose and Need**

The purpose of the proposed project is to provide a more direct route between Beluga Lake and the Homer Airport to facilitate transfers of aircraft between land and water-based operations. There is currently no direct route for moving aircraft between Beluga Lake and the main airport area for fueling, maintenance, or parking. Aircraft are hauled on trailers on busy streets, requiring a permit to close the streets. See Figure 1 for existing and proposed haul route details.

### **Proposed Action**

The proposed project would consist of:

- Constructing a new access road from the airport to Beluga Lake (see Figure 2 for the proposed alignment alternatives)
- Constructing a turnaround area at the end of the new access road
- Constructing a ramp from the access road into the lake
- Clearing and grubbing along the new access road alignment to construct the road and for aircraft clearance

*"Keep Alaska Moving through service and infrastructure."*

- Acquiring property and developing a material site if needed

### **Existing Site Conditions or Facilities**

The Homer Airport is a state owned, public-use, primary commercial service airport. Its service area is the southern Kenai Peninsula and it is an air transportation hub for Seldovia, Port Graham, and Nanwalek, which are inaccessible by road. Homer Airport facilities include; 6,701-foot-long by 150-foot-wide asphalt runway, terminal, lighted helipad, flight service station and float plane facilities. Beluga Lake has an unmarked 3,000-foot-long by 600-foot-wide water lane and is open to floatplane operations from April 1 to October 1. Some portions of the land required for the proposed project is not owned or controlled by the DOT&PF.

### **Preliminary Environmental Research & Summary of Previous Agency Comments**

The environmental impacts are not clearly established at this time and a new EA is being prepared. DOT&PF conducted preliminary research using the most current available data to identify environmental resources within the proposed project vicinity (enclosed). To ensure that all factors are considered in developing the proposed project, please provide your written comments, recommendations, and the additional requested information to our office no later than January 10, 2013.

If you have any questions regarding the project, please contact TaraLyn Stone, Environmental Impact Analyst, at (907) 269-0534, or by e-mail at taralyn.stone@alaska.gov. Questions concerning the design of the proposed project can be directed to Aaron Hughes, P.E., Project Manager, at (907)269-0523.

Sincerely,



Brian Elliott  
Regional Environmental Manager

Enclosures: Figure 1: Location/Vicinity Map  
Figure 2: Project Details  
Preliminary Environmental Research

cc: Aaron Hughes, P.E. Project Manager, DOT&PF Aviation Design  
Jon Knowles, P.E., Consultant Coordinator, DOT&PF Aviation Design  
Taralyn Stone, Environmental Impact Analyst, DOT&PF Preliminary Design & Environmental

## Preliminary Environmental Research

### Air Quality

The State of Alaska Department of Environmental Conservation (ADEC) classifies Homer as a Class II, attainment/unclassified area, specifically the Cook Inlet Intrastate Area, in Alaska Administrative Code Title 18 Part 50.015. The Homer area is in attainment with the Environmental Protection Agency National Ambient Air Quality Standards. The proposed improvements are not expected to induce increased operations therefore the proposed project would result in minimal impacts to air quality in the Homer area.

### Coastal Resources

There is no Coastal Zone Management Program in the State of Alaska, effective July 1, 2011, therefore, the Coastal Zone Management Act does not apply.

### Compatible Land Use and Noise

The proposed project would be constructed on existing airport property and would not alter the existing fleet mix, number or type of aircraft operations, air traffic, approaches, runway utilization or flight tracks. Aviation-related noise impacts or affected land uses are not expected. The project is compatible with existing and planned land uses in the vicinity of the project.

### Construction Impacts

The Contractor would supply material for the road, subgrade structure and surfacing. Similarly, the Contractor would obtain disposal sites. If the Contractor elects to use an undeveloped material site, contract language will require the Contractor to comply with FAA environmental Orders which may include an environmental assessment, acquire all necessary permits and clearances for the site(s) and provide copies to the State of Alaska Department of Transportation and Public Facilities (DOT&PF) and the Project Engineer prior to development. Per DOT&PF specifications, the Contractor will also be responsible for implementing a Storm Water Pollution Prevention Plan (SWPPP). Material from a borrow site that has not received the appropriate permits and clearances will not be accepted for project construction. Disposal of excess material outside the right-of-way is not anticipated for this project.

### Department of Transportation Act: Section 4(f)

There are no known historic sites in the area of the project. Known Section 4(f) resources of national, State, or local significance in the area of the project are as follows:<sup>1</sup>

Description	Type
Homer Airport Critical Habitat Area	Wildlife Refuge
Kachemak Bay Critical Habitat Area	Wildlife Refuge

No physical taking of lands being used for park or other purposes is required in conjunction with this project. Adverse indirect impacts to Section 4(f) resources are not expected.

### Farmlands

There are no areas of Prime Farmland in the vicinity of the project.<sup>2</sup>

## Fish, Wildlife, and Plants

### Threatened and Endangered Species

Federally or State listed threatened or endangered species potentially present in the project area are listed below:<sup>3</sup>

Species	Federal Status
Steller's Eider ( <i>Polysticta steller</i> )	Threatened
Kittlitz's Murrelet ( <i>Brachyramphus brevirostri</i> )	Candidate
Yellow-billed Loon ( <i>Gavia Adamsii</i> )	Candidate

Consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of Endangered Species Act may be required to determine if the project may affect endangered, threatened or candidate species is anticipated.

### Anadromous Fish Stream/Lake

There are no anadromous fish streams or lakes in the project area. The nearest anadromous stream is located west of Beluga Lake in the Beluga Slough.<sup>4</sup>

### Essential Fish Habitat

There is no essential fish habitat within the project area.<sup>5</sup>

### Migratory Birds

The wetlands, lakes and ponds in and around the project area are resting and feeding areas for nesting and migratory waterfowl, shorebirds, songbirds and raptors. All vegetation clearing would take place outside the USFWS recommended clearing windows for the region.

### Eagles

Bald eagles may nest in the vicinity of the project. Surveys for eagle nests would be conducted prior to construction to determine if an eagle permit would be required.

### Invasive Species

Winter Dandelion (*Taraxacum officinale*) is known to occur in the area of the project. The DOT&PF will comply with all federal, state, and local laws and regulations regarding invasive species during construction of the proposed project to minimize the potential to introduce or spread invasive species.<sup>6</sup>

### Floodplains

The project is located in Zone A of a mapped 100-year floodplain as shown on Flood Insurance Rate Map 0201076045B. Because work is proposed within a mapped floodplain, a City of Homer Flood Hazard permit would be required.<sup>7</sup>

### Hazardous Materials, Pollution Prevention, and Solid Waste

The six (6) sites located within 1,000 feet of the study area are listed below:<sup>8</sup>

Site Name	Hazard ID	Location Details	Status	Type
D&S Trucking	1843	Approx. 100 ft. W. of Study	Cleanup Complete	Contaminated

		Area 1562 Homer Spit Road		Site
Homer Tesoro Airport	23227, 24659	Approx. 400 ft. west of study area 1495 Ocean Drive, Homer, AK 99603	Cleanup Complete– Institutional Controls	LUST
Alaska Oil Sales Homer Bulk Facility	23566	1566 Ocean Drive	Cleanup Complete	LUST
Homer Spit Tesoro	24660	Approx. 250 ft. west of study area. 1554 Homer Spit Road	Cleanup Complete– Institutional Controls	LUST
Maritime Helicopters	23632	Within study area 3520 FAA Road	Cleanup Complete	LUST
FAA Homer Facility	25345	Approx. 1,000 ft. east of study area 2100 Kachemak Drive	Active	Contaminated Site

The potential of encountering hazardous material during construction is low. The project is not expected to generate, disturb, transport or treat, store or dispose of hazardous waste. The project would generate additional solid waste during construction.

### Historical, Architectural, Archeological, and Cultural Resources

There are no historic sites inventoried in the Alaska Heritage Resource Survey within the area of the project. Property records indicate there is one 45 year old warehouse structure located within the area of potential effect. Additional consultation with the State Historic Preservation Office, tribal entities, and other consulting parties will be conducted.<sup>9</sup>

### Light Emissions and Visual Impacts

The rolling topography and evergreen forest in the area of the new alignment would minimize impacts from proposed lighting and the visual changes which may result from the proposed project. Light emissions impacts from the addition of roadway lighting are unlikely to have an adverse effect on human activity or the use or characteristics of protected properties. The project is not expected to create a substantial visual contrast with the existing environment.

### Natural Resources and Energy Supply, and Sustainable Design

The project is not expected to have a measureable adverse effect on local supplies of energy or natural resources.

### Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks

The project is not expected to disproportionately affect minority or low-income populations or cause disproportionate risks to children that would result from environmental health or safety risks. The project will not require the acquisition of real property or displacement of persons.

### Water Quality

Beluga Lake, where stormwater from the project area would discharge, is not impaired. Construction plans will include measures to control erosion and sedimentation. All construction activities would be conducted according to the Alaska Pollution Discharge Elimination System

Construction General Permit. The project is not likely to contribute to an exceedance of water quality standards.<sup>10</sup>

## Wetlands

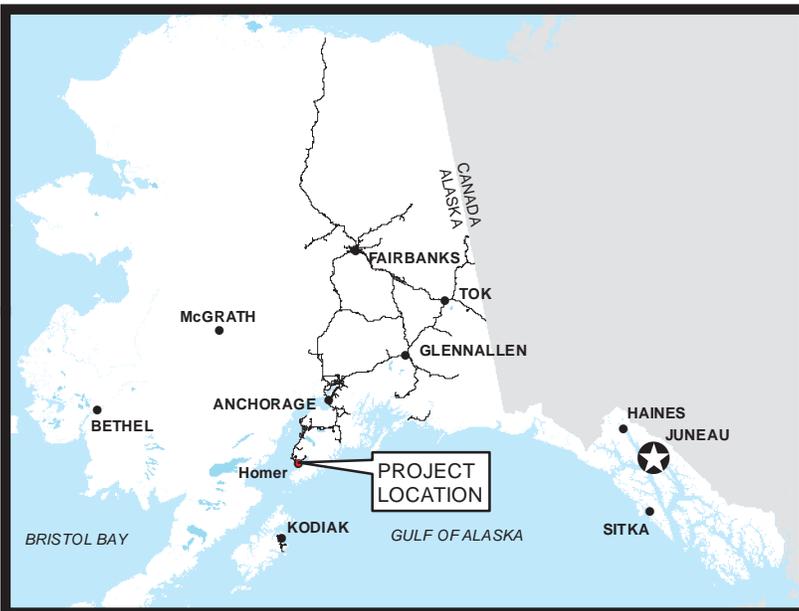
Beluga Lake is the only wetland or water of the U.S. shown on the USFWS National Wetland Inventory maps. However, the City of Homer wetlands map indicated there is an area of moderate to high value wetlands in the area of the project. A wetland delineation and functions and values assessment will be conducted for the project area. If wetlands are identified during the delineation then further coordination with USACE would be conducted.<sup>11</sup>

## Wild and Scenic Rivers

There are no wild and scenic rivers in the vicinity of the project.<sup>12</sup>

## References

- 
- <sup>1</sup> ADF&G “Refuges, Sanctuaries, Critical Habitat Areas & Wildlife Ranges”, <http://www.adfg.alaska.gov/index.cfm?adfg=protectedareas.locator>, Accessed 10/9/13  
City of Homer “Parks and Trails Map” [http://www.cityofhomer-ak.gov/sites/default/files/fileattachemnts/parks\\_and\\_trails.pdf](http://www.cityofhomer-ak.gov/sites/default/files/fileattachemnts/parks_and_trails.pdf), Accessed 10/9/13
- <sup>2</sup> NRCS “Web Soil Survey” <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>, Accessed 8/3/13
- <sup>3</sup> ADF&G “Special Status Species” <http://www.adfg.alaska.gov/index.cfm?adfg=specialstatus.main>, Accessed 10/23/13
- <sup>4</sup> ADF&G “Fish Resource Monitor” <http://gis.sf.sdfg.state.ak.us/FlexMaps/fishresourcemonitor.html?mode=awe>, Accessed 10/3/2013
- <sup>5</sup> NOAA “Essential Fish Habitat Mapper” <http://www.habitat.noaa.gov/protection/efh/habitatmapper.html>, Accessed 10/23/13
- <sup>6</sup> UAA “Alaska Natural Heritage Program” <http://aknhp.uaa.alaska.edu/maps/akepic/>, Accessed 10/9/13
- <sup>7</sup> FEMA “FEMA Map Service Center” <https://msc.fema.gov/webapp/wcs/stores/servlet/CategoryDisplay?catalogId=10001&storeId=10001&categoryId=12001&langId=-1&userType=G&type=1&dfirmCatId=12009&future=false>, Accessed 10/23/13
- <sup>8</sup> ADEC “Spill Prevention and Response”, [http://dec.alaska.gov/spar/csp/db\\_search.htm](http://dec.alaska.gov/spar/csp/db_search.htm) Accessed 10/2/2013
- <sup>9</sup> ADNDR “Alaska Heritage Resources Survey” list review on September 23, 2013. AHRs data is not available online and access required authorization.
- <sup>10</sup> ADEC “Alaska’s Impaired Waters” <http://www.dec.alaska.gov/water/wqsar/Docs/2010impairedwaters.pdf>  
Accessed 10/9/13
- <sup>11</sup> USFWS “National Wetlands Inventory” <http://fws.gov/wetlands/Wetlands-Mapper.html>, Accessed 8/12/13, City of Homer, “Homer Wetlands Map” <http://www.cityofhomer-ak.gov/sites/default/files/fileattachments/Wetlands.pdf>, Accessed 8/12/13
- <sup>12</sup>NPS “National Wild and Scenic Rivers System”, <http://www.rivers.gov/alaska.php>, Accessed 10/23/13



bing™

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**Figure 1  
Project Location  
&  
Vicinity Map**

Sec 21 T6S R13W  
Seward Meridian, Alaska



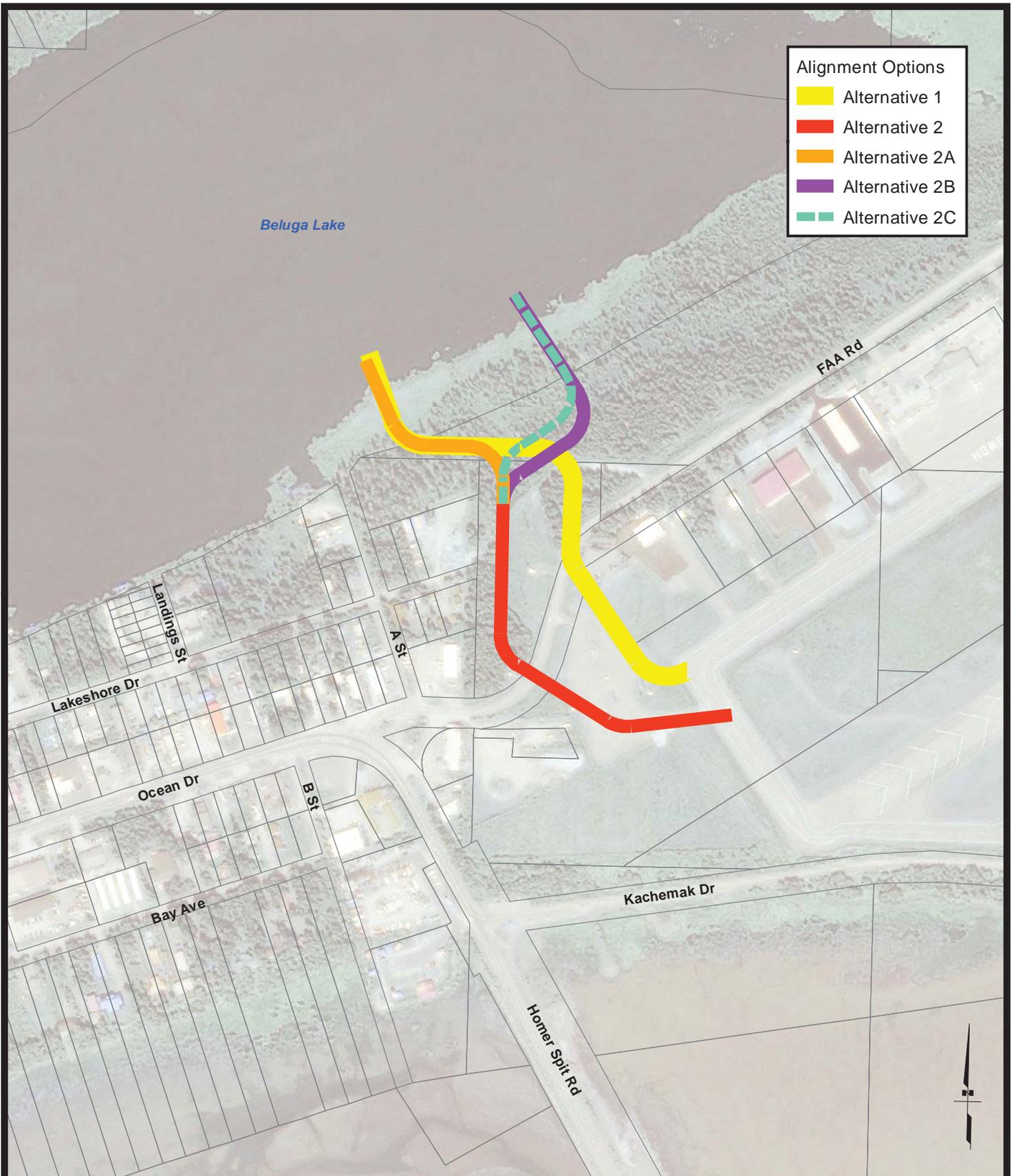
**STATE OF ALASKA**  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

DOT & PF Project No. 57777

Homer, Alaska

DATE: Oct 24, 2013

61485



Alignment Options	
	Alternative 1
	Alternative 2
	Alternative 2A
	Alternative 2B
	Alternative 2C

**Project Details**

Sec 21 T6S R13W  
Seward Meridian, Alaska



**STATE OF ALASKA**  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

DOT & PF Project No. 57777

Homer, Alaska

DATE: Nov 15, 2013

FIGURE 2

Agency	Name	Title	Phone
<b>State</b>			
AK Department of Commerce, Community, & Economic Development (ADCCED) *	Taunnie Boothby	Floodplain Mgr	269-4583
AK Department of Environmental Conservation (ADEC) *	Generic		
ADEC, Division of Spill Prevention and Response, Contaminated Sites *	Steve Bainbridge	Program Manager	269-7503
ADEC, Division of Water, APDES *	James Rypkemna	Storm Water and Wetlands Manager	334-2288
ADEC, Division of Water, Compliance *	Brenda Krauss	Environ Program Spec III	465-5321
ADEC, Division of Water, Wastewater Discharge Authorization, Stormwater and Wetlands *	William Ashton	Env Engineer	269-7564
ADEC, Division of Air Quality, Non-Point & Mobile Sources Program *	Cindy Heil	Program Director	269-7579
AK Department of Fish and Game (ADF&G), Division of Habitat *	Ginny Litchfield	Habitat Biologist	714-2477
ADF&G, Division of Wildlife Conservation*	Jeff Selinger	Area Biologist	262-9368
AK Department of Natural Resources (ADNR), Division of Parks & Outdoor Recreation (DPOR) *	Jack Blackwell	Area Super	262-5581
ADNR, DPOR, Land and Water Conservation Fund 6(f) *	Jean Ayers	Grant Administrator	269-8694
ADNR, Division of Mining, Land, & Water (MLW), Southcentral Regional Office (SRO) *	Renee Romsland	Natural Resource Specialist II	269-8479
ADNR, MLW*	Michael Walton	Natural Resource Specialist II	269-8609
ADNR, Division of Mining, Land, & Water, RAD *	Brandon McCutcheon	Natural Resource spec III	269-8536
ADNR, Division of Parks & Outdoor Recreation (DPOR), State Historic Preservation Officer (SHPO) *	Generic		
ADNR, DPOR, SHPO *	Judy Bittner	Chief	269-8715
ADNR, Division of Agriculture *	Stoney Wright	Invasive Weed and Ag Pest Coord	745-8105
<b>Federal</b>			
Bureau of Land Mangement (BLM) *	Generic		
National Marine Fisheries Service (NMFS) *	Generic		
	Jeanne Hanson	Field Supervisor	271-3029
National Oceanic and Atmospheric Administration (NOAA) *	Generic		
NOAA *	Kaja Brix	Director	586-7235
NOAA *	Brad Smith	Field Office Supervisor	271-3023
U.S. Army Corps of Engineers (USACE) *	Generic		
U.S. Coast Guard (USCG) *	James Helfinstine		463-2268
U.S. Environmental Protection Agency (USEPA) *	Jennifer Curtis	NEPA Reviewer	271-6324
U.S. Forest Service (Seward Ranger District)*	Tom Malecek	District Ranger	224-3374
USFS *	Robert Stovall	Deputy District Ranger	
USFS *	Amanda Mico (transitioning)	NEPA Coordinator	
U.S. Fish and Wildlife Service (USFWS) *	Generic		
USFWS *	Frances Mann	Project Planning Regional Coordinator	786-3668
USFWS *	Doug Palmer	Field Supervisor	262-9863
USFWS Migratory Birds and BGEPA	Cheryl Anderson	Fish & Wildlife Biologist	260-0129
USFWS Endangered Species *	Ellen Lance	Branch Chief	271-1467
		Cons Planning/Env Contaminants	
USFWS*	Lori Verbrugge	Branch Chief	271-2785
U.S. National Park Service (USNPS) *	Joan Darnell	Resource Tm Leader	644-3526
<b>Regional</b>			
Kenai River Center *	John Czarnecki	KRC Manager	714-2463
Kenai Peninsula Borough *	Max Best	Planning Director	262-8618

Kenai Peninsula Borough \*  
City of Homer \*  
Kachemak Bay Conservation Society  
Ninilchik Traditional Council

Dan Bevington	Floodplain Administrator	714-2464
Rick Abboud	City Planner/Floodplain Administrator	235-3106
Roberta Highland	President	
Richard 'Greg' Encelewski	President	

**From:** Berkhahn, Patti [<mailto:PBerkhahn@borough.kenai.ak.us>]  
**Sent:** Wednesday, December 11, 2013 4:21 PM  
**To:** Stone, Taralyn R (DOT)  
**Cc:** Litchfield, Virginia P (DFG); [pberkhahn@borough.kenai.ak.us](mailto:pberkhahn@borough.kenai.ak.us)  
**Subject:** ADF&G scoping comments: Homer Beluga Float Plane Facilities

#### Homer Beluga Floatplane Facilities ADF&G, Habitat Division Scoping Comments

While the project is adjacent to the Homer Airport Critical Habitat Area (CHA), no part of the project lies within the CHA. Beluga Lake is not anadromous; however it likely contains resident fish species. Under 16.05.841 the Fishway Act, ADF&G, Habitat Division has the authority to regulate activities that could impact fish passage. This project does not appear to impact fish passage. Therefore a Special Area or Fish Habitat Permit from ADF&G, Habitat Division is not required.

ADF&G, Habitat Division recommends contacting USFWS regarding Threatened and Endangered Species and Migratory Birds to understand what steps need to be taken to protect these species. Comply with clearing windows while cutting trees and brush.

The route with the least impacts to the wetlands is recommended.

Patti Berkhahn  
Habitat Biologist III  
ADFG, Habitat Division  
River Center  
514 Funny River Road  
Soldotna, AK 99669  
907 714-2476  
[patricia.berkhahn@alaska.gov](mailto:patricia.berkhahn@alaska.gov)  
(State agency housed in Kenai Peninsula Borough Building)

**From:** [Stone, Taralyn R \(DOT\)](#)  
**To:** ["kbayconservation@gmail.com"](mailto:kbayconservation@gmail.com)  
**Cc:** [Elliott, Brian A \(DOT\)](#); [Ashton, Nancy](#); [Hughes, Aaron C \(DOT\)](#)  
**Subject:** Homer Beluga Lake Additional Information  
**Date:** Thursday, October 10, 2013 11:29:09 AM

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Hi Roberta,

As we just discussed on the phone, the following link will take you to the Online Public Notice for this project. My apologies for the confusion about the meeting.

<http://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=169854>

This Notice asks that comments be received by November 23, 2013. Please be aware that any comments received after that date will still be considered in the development of the project.

The DOT&PF Open House was held on August 5<sup>th</sup> at the council chambers. Agency Scoping letters that include our research to date will be distributed in the next couple weeks and you have been added to the mailing list. The scoping letters will be distributed via email.

Please feel free to contact me if you have any additional questions. If you have project design or engineering related questions please contact Aaron Hughes at 269-0523.

Thanks,

Tara Stone

TARALYN STONE



**Department of Transportation and Public Facilities**

PD&E | ENVIRONMENTAL IMPACT ANALYST

OFFICE 907.269.0534 | FAX 907.243.6927

P.O. BOX 196900 | ANCHORAGE, AK 99519-6900

[TARALYN.STONE@ALASKA.GOV](mailto:TARALYN.STONE@ALASKA.GOV) | [DOT.ALASKA.GOV](http://DOT.ALASKA.GOV)

**From:** [Stone, Taralyn R \(DOT\)](#)  
**To:** "Kachemak Bay Conservation Society"  
**Cc:** [Hughes, Aaron C \(DOT\)](#); [Ashton, Nancy](#); [Knowles, Jonathan W \(DOT\)](#)  
**Subject:** RE: Homer Beluga Lake Additional Information  
**Date:** Wednesday, October 30, 2013 1:07:40 PM

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Hi Cindy,

Thanks for your interest in the project. Before answering your question, I want to let you know that your group will also be receiving an agency scoping letter very shortly.

On both the agency scoping letter and the public notice, which you discuss, there is a statement requesting comments by approximately a month after the notices are posted or distributed. This is only a request to help us progress through the environmental process. Agencies and the public are free to submit comments at any time during the design process as you recommended.

Once we are further in design, we will be doing additional public and agency scoping as needed. Also, when the draft EA is complete it will be made available for public and agency comment.

Hope this answers your question,

Tara Stone

TARALYN STONE



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**From:** Kachemak Bay Conservation Society [<mailto:kbayconservation@gmail.com>]

**Sent:** Wednesday, October 30, 2013 10:45 AM

**To:** Stone, Taralyn R (DOT)

**Subject:** Re: Homer Beluga Lake Additional Information

Dear Tara,

I do have a question concerning the Beluga Lake Improvement Project. The public notice states that the comments are due by 11-23-13, however it is my understanding that the state is still developing alternative layouts and developing a new Environmental Assessment that will not be available until February of 2014. Should not the comment period be extended so that this information may be processed in our comments?

Thank you,

Cindy Birkhimer, Secretary  
Kachemak Bay Conservation Society

On Thu, Oct 10, 2013 at 11:28 AM, Stone, Taralyn R (DOT) <[taralyn.stone@alaska.gov](mailto:taralyn.stone@alaska.gov)> wrote:  
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Please feel free to contact me if you have any additional questions. If you have project design or engineering related questions please contact Aaron Hughes at 269-0523.

Thanks,  
Tara Stone

TARALYN STONE



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--  
Kachemak Bay Conservation Society  
Homer, Alaska  
[kbayconservation@gmail.com](mailto:kbayconservation@gmail.com)

**From:** [Kachemak Bay Conservation Society](#)  
**To:** [Stone, Taralyn R \(DOT\)](#)  
**Cc:** [Hughes, Aaron C \(DOT\)](#); [Elliott, Brian A \(DOT\)](#); [Knowles, Jonathan W \(DOT\)](#); [Ashton, Nancy](#)  
**Subject:** Re: Homer Beluga Floatplane 57777 Scoping Comments  
**Date:** Tuesday, January 07, 2014 3:51:14 PM

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Thank you.

On Tue, Jan 7, 2014 at 1:07 PM, Stone, Taralyn R (DOT) <[taralyn.stone@alaska.gov](mailto:taralyn.stone@alaska.gov)> wrote:

Thank you for your interest in the proposed project to construct a floatplane launch, access road, and turnaround at the Homer Airport in Homer, Alaska. The DOT&PF will take all your comments into consideration during the design of the proposed project. The project is currently in the preliminary design phase and the exact layout of the facilities is yet to be determined. Once a layout has been chosen, DOT&PF will conduct additional scoping with you and the other resource agencies.

Regarding your comment below, DOT&PF follows the US Fish and Wildlife Services Land Clearing Timing Guidance for Alaska (2009). For the Homer area, the guidance recommends not clearing vegetation between May 1 and July 15. This means that all vegetation clearing for the proposed project would take place before May 1 and after July 15.

I hope this answers your questions. We will contact you again once additional information on the project design is available.

Thanks,

Tara Stone

TARALYN STONE



**Department of Transportation and Public Facilities**  
PD&E | ENVIRONMENTAL IMPACT ANALYST

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[TARALYN.STONE@ALASKA.GOV](mailto:TARALYN.STONE@ALASKA.GOV) | [DOT.ALASKA.GOV](http://DOT.ALASKA.GOV)

**From:** Kachemak Bay Conservation Society [mailto:[kbayconservation@gmail.com](mailto:kbayconservation@gmail.com)]  
**Sent:** Tuesday, January 07, 2014 12:27 PM  
**To:** Stone, Taralyn R (DOT)  
**Subject:** Homer Beluga Floatplane 57777

Dear Taralyn,

KBCS has a question regarding the Preliminary Environmental Research that was done on 57777. KBCS need a clarification regarding paragraph on page 4 which states:

#### Migratory Birds

The wetlands, lakes and ponds in and around the project area are resting and feeding areas for nesting and migratory waterfowl, shorebirds, songbirds and raptors. All vegetation clearing would take place outside the USFWS recommended clearing windows for the region.

Does the statement outside the USFWS recommended clearing window infer that the USFWS recommendations will not be followed or does infer that the region itself is located outside the USFWS clearing window recommendations. Please advise.

Thank you,

Kachemak Bay Conservation Society  
Homer, Alaska  
[kbayconservation@gmail.com](mailto:kbayconservation@gmail.com)

--

Kachemak Bay Conservation Society  
Homer, Alaska  
[kbayconservation@gmail.com](mailto:kbayconservation@gmail.com)

**From:** [Stone, Taralyn R \(DOT\)](#)  
**To:** [Hughes, Aaron C \(DOT\)](#)  
**Cc:** [Knowles, Jonathan W \(DOT\)](#); [Ashton, Nancy](#)  
**Subject:** FW: Request for Scoping Comments and Information: Homer Beluga Float Plane Facilities Improvements (57777)  
**Date:** Wednesday, December 18, 2013 9:30:33 AM  
**Attachments:** [image002.wmz](#)  
[image004.png](#)  
[image001.wmz](#)

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FYI. Not sure if AKCEC SWEPP is APDES SWPPP or something else.

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**From:** Rick Abboud [mailto:RAbboud@ci.homer.ak.us]  
**Sent:** Wednesday, December 18, 2013 9:27 AM  
**To:** Stone, Taralyn R (DOT)  
**Cc:** Walt Wrede  
**Subject:** Request for Scoping Comments and Information: Homer Beluga Float Plane Facilities Improvements (57777)

Taralyn,

The City of Homer is in support of the project generally because it will increase efficiency at the airport and improve public safety. We are concerned about any undue harm to the environment in general and specifically the introduction of sediment or chemical runoff off site or into Beluga Lake during and after completion of the project.

I wanted to document the permit(s) necessary from the City of Homer for your proposed project. If the project is not subject to a AKCEC SWEPP permit, it will be subject to a City Development Activity Plan.

Thank you,

Rick

**Rick Abboud**  
**City Planner**  
**491 E. Pioneer Ave**  
**Homer, AK 99603**  
**(907) 235-3106**

**From:** [Hughes, Aaron C \(DOT\)](#)  
**To:** [Ashton, Nancy](#)  
**Cc:** [Hanson, Brian](#); [Knowles, Jonathan W \(DOT\)](#); [Stone, Taralyn R \(DOT\)](#)  
**Subject:** FW: Homer Beluga Float Plane Facility Improvements  
**Date:** Thursday, November 14, 2013 2:42:17 PM

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Please add Chuck to the distribution list.

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**From:** Pinckney, Charles A (DNR)  
**Sent:** Thursday, November 14, 2013 2:40 PM  
**To:** Hughes, Aaron C (DOT)  
**Cc:** Alvarez, Monica M (DNR)  
**Subject:** RE: Homer Beluga Float Plane Facility Improvements

Aaron,

Please include my email on your distribution list for this project. I will be coordinating comments for the Division of Mining, Land & Water within DNR.

Thanks,

Chuck Pinckney  
334-2551

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**From:** Phelps, Bruce G (DNR)  
**Sent:** Wednesday, October 23, 2013 7:34 AM  
**To:** Alvarez, Monica M (DNR)  
**Cc:** Pinckney, Charles A (DNR)  
**Subject:** FW: Homer Beluga Float Plane Facility Improvements

Fyi/action

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**From:** McCutcheon, Brandon J (DNR)  
**Sent:** Wednesday, October 23, 2013 7:15 AM  
**To:** Phelps, Bruce G (DNR); Alvarez, Monica M (DNR)  
**Subject:** FW: Homer Beluga Float Plane Facility Improvements

This potentially looks like a Chuck project.

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**From:** Hughes, Aaron C (DOT)  
**Sent:** Tuesday, October 22, 2013 10:20 AM  
**To:** Boothby, Taunnie L (CED); DEC-Webmaster (DEC sponsored); Bainbridge, Steven T (DEC); Rypkema, James (DEC); Krauss, Brenda K (DEC); Ashton, William S (DEC); Heil, Cynthia L (DEC); Litchfield, Virginia P (DFG); Selinger, Jeff S (DFG); Blackwell, Jack D (DNR); Ayers, Jean M (DNR); Romsland, Renee C (DNR); Walton, Michael L (DNR); McCutcheon, Brandon J (DNR); DNR, Parks OHA Review Compliance (DNR sponsored); Bittner, Judith E (DNR); Wright, Stoney J (DNR);  
[AK\\_Anchorage\\_FO@blm.gov](mailto:AK_Anchorage_FO@blm.gov); [Hcd.Anchorage@noaa.gov](mailto:Hcd.Anchorage@noaa.gov); [jeanne.hanson@noaa.gov](mailto:jeanne.hanson@noaa.gov);  
[Hcd.Anchorage@noaa.gov](mailto:Hcd.Anchorage@noaa.gov); [kaja.brix@noaa.gov](mailto:kaja.brix@noaa.gov); [brad.smith@noaa.gov](mailto:brad.smith@noaa.gov); [cepoa-rd-kenai@usace.army.mil](mailto:cepoa-rd-kenai@usace.army.mil); [james.n.helfinstine@uscg.mil](mailto:james.n.helfinstine@uscg.mil); [curtis.jennifer@epa.gov](mailto:curtis.jennifer@epa.gov); [tmalecek@fs.fed.us](mailto:tmalecek@fs.fed.us);  
[rstovall@fs.fed.us](mailto:rstovall@fs.fed.us); [amico@fs.fed.us](mailto:amico@fs.fed.us); [ak\\_fisheries@fws.gov](mailto:ak_fisheries@fws.gov); [R7\\_Kenai\\_Fish\\_Comment@fws.gov](mailto:R7_Kenai_Fish_Comment@fws.gov);  
[frances\\_mann@fws.gov](mailto:frances_mann@fws.gov); [ak\\_kenaifish@fws.gov](mailto:ak_kenaifish@fws.gov); [cheryl\\_anderson@fws.gov](mailto:cheryl_anderson@fws.gov); [ellen\\_lance@fws.gov](mailto:ellen_lance@fws.gov);  
[lori\\_verbrugge@fws.gov](mailto:lori_verbrugge@fws.gov); [joan\\_darnell@nps.gov](mailto:joan_darnell@nps.gov); [jczarn@borough.kenai.ak.us](mailto:jczarn@borough.kenai.ak.us);

[MBest@borough.kenai.ak.us](mailto:MBest@borough.kenai.ak.us); [dbevington@borough.kenai.ak.us](mailto:dbevington@borough.kenai.ak.us); [planning@ci.homer.ak.us](mailto:planning@ci.homer.ak.us);  
[RAbboud@ci.homer.ak.us](mailto:RAbboud@ci.homer.ak.us); [kbayconservation@gmail.com](mailto:kbayconservation@gmail.com); [ntc@niniilchiktribe-nsn.gov](mailto:ntc@niniilchiktribe-nsn.gov)  
**Subject:** Homer Beluga Float Plane Facility Improvements

Good Morning,

The Alaska Department of Transportation and Public Facilities has initiated an airport improvement project to construct a new access road connecting the Homer Airport with the Beluga Lake seaplane operating area. The project will include a turnaround area and ramp into the lake. The improvements will fulfill the immediate public needs for improved floatplane access from the airport to the lake.

This is a new, independent project separate from the scoping and studies conducted for the Homer Airport Master Plan (May 2006) which also included a parking area, boathouse, dock with 12 slips for floatplanes, gangways and public restroom facilities. This project will be limited to the access road, turnaround area, and ramp into the lake.

A new environmental process will be initiated even though these improvements were considered in the Environmental Assessment conducted for the Homer Airport Master Plan. We have started developing alternative layouts and will be sending out an agency scoping letter soon for your review and comment. Additionally, we are developing a new Environmental Assessment and anticipate it will be ready for review by February of 2014.

Thank you for your time and we look forward to working with you on this project.

**Aaron Hughes, P.E., Aviation Design Project Manager**  
**State of Alaska DOT&PF, Central Region Aviation Design Section**  
4111 Aviation Drive, Anchorage, Alaska 99519-6900  
Phone 907.269.0523 | Fax 907.269.0620

