

# **Draft Environmental Assessment**

## **Ambler Airport Improvements**

67°06'04.41" North Latitude and 157°51'33.60" West Longitude

Township 20 North, Range 5 East, Sections 19, 20, 21, 29, 30, and 31, Kateel River Meridian

**June 2013**

**State Project Number 61303**



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**DRAFT ENVIRONMENTAL ASSESSMENT**

**Ambler Airport Improvements  
State Project Number: 63103**

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

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### **Acronyms and Abbreviations**

ACP	Asbestos Compliance Plan
ACS	American Community Survey
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADHSS	Alaska Department of Health and Social Services
AFM	Ambler Airport
ALP	Airport Layout Plan
ANCSA	Alaska Native Claims Settlement Act
APDES	Alaska Pollutant Discharge Elimination System
APE	Area of Potential Effect
ATSDR	Agency for Toxic Substance and Disease Registry
ATV	all-terrain vehicle
BMP	Best Management Practice
CEQ	Center for Environmental Quality
CFR	Code of Federal Regulations
cy	cubic yards
DCP	Dust Control Plan
DMLW	Alaska Division of Mining, Land, and Water
DNR	Alaska Department of Natural Resources
DOT&PF	Alaska Department of Transportation and Public Facilities
EA	Environmental Assessment
FAA	Federal Aviation Administration
HMCP	Hazardous Materials Control Plan
MIRL	medium intensity runway lighting
NAAQS	National Ambient Air Quality Standards
NANA	NANA Regional Corporation
NAVAIDS	navigational aids
NEPA	National Environmental Policy Act
NOA	naturally occurring asbestos
NWATP	Northwest Arctic Transportation Plan
OHA	DNR Office of History and Archaeology
OMP	Operations and Maintenance Plan
PAPI	Precision Approach Path Indicator
REC	Recognized Environmental Condition
REIL	runway end indicator light
RFFA	Reasonable Foreseeable Future Action
RPZ	Runway Protection Zone
RSA	runway safety area
RVZ	Runway Visibility Zone
R/W	Runway
SAP	Sampling and Analysis Plan
SHPO	State Historic Preservation Officer
SREB	Snow Removal Equipment Building
SSP	Site-Specific Plan
SWPPP	Storm Water Pollution Prevention Plan

USACE	U.S. Army Corps of Engineers
USFWS	U. S. Fish and Wildlife Service
VASI	Visual Approach Slope Indicator

# **1 Introduction**

## **1.1 Project Background**

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is planning a number of needed improvements to the Ambler Airport. The purpose of this project is to meet FAA standards, as well as improve safety, reliability, and operational efficiency of the airport. This project was initiated in 1998, but was suspended in 2003 when naturally occurring asbestos (NOA) was found in the local material site. At a community-wide level, Ambler residents have worked with both the U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry (ATSDR) and the State of Alaska Department of Health and Social Services (ADHSS) on public health evaluations and assessments regarding the local material site and local roads surfaced with gravel from the site. At a project level, DOT&PF conducted extensive new material site investigations to ascertain if any reasonably local sources were available that did not contain NOA. Several candidate sites within a 30-mile radius were evaluated and, based on the results of these investigations, DOT&PF and FAA are resuming their planning efforts to improve the airport.

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA, 42 U.S.C. 4321), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500 et seq.), and other federal laws and regulations. Requirements and guidance specific to FAA were also used in the development of this EA, including FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* (2006), and FAA Order 1050.1E, *Policies and Procedures for Considering Environmental Impacts* (2004). Both of these FAA orders require an EA to address not only NEPA requirements but 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, park lands, and environmental justice, among others. These include the Clean Air Act; Coastal Zone Management Act; Department of Transportation Act, Section 4(f); the Endangered Species Act; the Fish and Wildlife Coordination Act; the National Historic Preservation Act; 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.

## **1.2 Airport Description**

Ambler is an Inupiat community located on the north bank of the Kobuk River, near the confluence of the Ambler and the Kobuk rivers, 45 miles north of the Arctic Circle (Figure 1). It is 138 miles northeast of Kotzebue, 30 miles northwest of Kobuk, and 24 miles northwest of Shungnak. The airport lays at

approximately 67°06'04.41" North Latitude and 157°51'33.60" West Longitude (Township 20 North, Range 5 East, Sections 19, 20, 21, 29, 30, and 31, Kateel River Meridian). The major means of transportation to and from Ambler are airplane, barge, small boat, and snowmachine. There are no roads connecting Ambler to other parts of the state, and the Kobuk River is navigable by boat only from early July to mid-October. Fuel and cargo can be delivered by river barge during spring high-water events if barge services are available, but must often be transported by aircraft.

The Ambler Airport (AFM) is one of 256 airports owned by the State of Alaska and operated by the DOT&PF. Airport construction began in 1978, and the facility occupies 272 acres one mile north of town (Figure 1). The airport is unattended, and the DOT&PF airport manager operates out of Kotzebue. There is a local airport maintenance worker who keeps the runway clear of snow and ensures the lighting systems are functioning as required. Daily schedule and charter services are provided out of Kotzebue, and an air taxi service is based at the airport.

The facility consists of two runways. Runway 18/36, the main runway, is a 3,000-foot (ft)-long by 60-ft-wide lighted gravel runway, and Runway 9/27 is a 2,400-ft-long by 60-ft-wide gravel crosswind runway (Figure 2). A 200-ft by 400-ft apron is located just east of the R/W 9 threshold. The surfaces are considered to be in “fair” condition, with ruts and soft spots.

## **2 Purpose and Need for Proposed Action**

The CEQ regulations implementing NEPA require that an EA specify the underlying Purpose and Need to which an agency is responding in proposing actions and alternatives (40 CFR 1502.13).

The purpose of this project is to meet FAA standards, as well as improve safety, reliability, and operational efficiency of the airport. The following paragraphs document the need to improve those facilities.

### **2.1 Deficient Main Runway and Runway Safety Area Lengths**

The Ambler Airport does not meet current FAA Safety standards for aircraft currently using and forecasted to use the runway. Runway 18-36, the main runway, was designed and constructed to meet A-I standards. Aircraft currently utilizing the runway meet a runway design code of B-II which reflects the need for a longer and wider runway, and longer and wider safety areas.

The primary need for lengthening the runway to 4,000 ft is to accommodate fuel and cargo deliveries that is only available by air, as well as Beech 1900 that is currently serving nearby communities. Larger aircraft such as the DC-6 or C-130 Hercules to be able to more efficiently fly fuel and equipment into the community. Problems delivering fuel by barge on the shallow Kobuk River are substantial, and the community has a critical dependence on air transport as the only reliable transportation mode for bringing fuel, cargo, and building supplies into the community. Currently these large aircraft fly 2-5 times per month into Ambler at reduced loads to accommodate the shorter runway length. A 4,000-ft runway would allow these aircraft to be loaded heavier, and could decrease the cost of shipping fuel and supplies to the community by as much as 75%.

Additionally, the Northwest Arctic Transportation Plan (NWATP) identifies four main routes serving eleven communities from the Kotzebue Airport in the Northwest Arctic subregion. Kotzebue–Ambler–Kobuk–Shungnak is identified as the longest routes at 315 miles roundtrip. The NWATP identifies the Beech 1900 as the design aircraft for future planning purposes, and recommends a 4,000 ft runway design objective for all three upper Kobuk communities. Since both Kobuk and Shungnak have 4,000 ft runway lengths and documented Beech 1900 utilization, it is anticipated that Beech 1900 aircraft would utilize the Ambler runway if it was lengthened to 4000 ft.

Medevac, cargo, and passenger planes servicing Ambler include FAA Design Group II aircraft, including Shorts 330, CASA 212, Cessna 406 Caravan, Beechcraft King Air 200, and Piper Navajo. Table 2-1 compares existing Runway 18/36 conditions at Ambler Airport with FAA B-II design standards, assuming a Beech 1900 design aircraft.

**Table 2-1: Existing and Proposed Runway 18/36 Facilities**

	<b>Existing</b>	<b>B-II Standard*</b>
Runway 18/36 Length	3,000 ft	4,000 ft
Runway 18/36 Width	60 ft	75 ft
RSA length beyond Runway 18/36 end	240 ft	300 ft
RSA width	120 ft	150 ft
RPZ dimensions	1,000 ft x 700 ft x 500 ft	1,700 ft x 1,510 ft x 1,000 ft**

\*Assumes Beech 1900 design aircraft.

\*\* To meet visibility minimum not lower than ¾ mile

RSA = Runway Safety Area; RPZ = Runway Protection Zone

The new Runway Protection Zone (RPZ) that would be designated for the extended runway would extend 1,700 ft beyond each runway end to meet visibility minimums not lower than ¾ mile, per Table 3-8 in Advisory Circular 150/5300-13A. The new RPZs would extend beyond the existing airport property boundary. DOT&PF would need to acquire additional land in order to ensure that these lands are not developed in ways that would be incompatible to the proposed airport improvements. Selecting the larger dimension does not limit the airport’s ability to upgrade the approach visibility minimums in the future.

## **2.2 Reduce Terrain Obstructions**

Runway 18/36 exhibits a vertical rise midway in its length, resulting in a line-of-sight obstruction between the runway ends. Meeting this line of sight is an Airport Design Standard, and is outlined in Advisory Circular 150/5300-13A, Chapter 3 Runway Design, Section 3.05. For optimal safety, pilots in aircraft operating at opposite ends of the same runway should be able to maintain visual contact to avoid conflicts. The vertical rise in the main runway also blocks incoming and departing pilots from seeing the full extent of the runway lighting and thus provides an inaccurate representation of the full runway length.

In addition, terrain obstructions adjacent to the main runway proximate to its intersection with the crosswind runway block the line-of-sight between the runways. Achieving this Runway Visibility Zone (RVZ) is an Airport Design Standard, and is outlined in Advisory Circular 150/5300-13A, Chapter 3 Runway Design, Section 3.05. Removing the vegetation and terrain would improve safety for pilots and aircraft. It would also prepare the airport for implementation of future instrument approach flight procedures.

### **2.3 Reduce Drainage issues**

Poor surface structure and drainage commonly require seasonal runway closures due to muddy conditions that are unsafe for landings and take-offs. There is typically a two-week window during spring thaw when Runway 18/36 must be closed 3–10 different days. During rainy seasons, Runway 18/36 often closes to low-wing, twin engine aircraft, depending on surface conditions. Runway 9/27, the crosswind runway, is closed from spring to fall freeze-up due to soft spots.

### **2.4 Failing Lighting System and Navigational Aids**

The airport lighting system is more than 20 years old and has surpassed its useful life. Any one of the proposed runway improvements—widening, extending, regarding, and resurfacing—would require the medium intensity runway lighting (MIRL) system to be removed and replaced in a new location. The runway end indicator lights (REILs) would also need to be relocated. In addition, the Vertical Approach Slope Indicator (VASI) may need to be relocated or replaced, depending on future FAA siting studies or availability of equipment.

### **3 Proposed Action**

To address existing deficiencies, DOT&PF proposes the following improvements (Figure 3):

1. Lengthen main runway 18/36 to 4,000 ft and widen it to 75 ft
2. Lengthen the main runway safety area (RSA) to 4,600 ft and widen it to 150 ft
3. Improve site visibility by leveling uneven terrain and clearing vegetation
4. Grade and overlay operational surfaces and embankments
5. Install airport lighting and navigational aids (NAVAIDS)
6. Realign 1,240 ft of airport access road (Waring Street) to accommodate the new, extended RSA
7. Rehabilitate and resurface 2,750 ft of Waring Street
8. Acquire approximately 160 acres of land for Airport expansion
9. Expand the existing apron and construct a new Snow Removal Equipment Building (SREB)
10. Construct a material site access road and develop a material site

#### **3.1 Project Details**

##### ***3.1.1 Lengthen and widen runway 18/36***

The proposed action includes extending the runway by 500 ft on each end, for a resulting total length of 4,000 ft, and widening the entire runway to a width of 75 ft. Much of the sub-base materials for the new runway ends would be obtained from surface materials cut from the runways and adjacent area during runway site obstruction removal (see Section 3.1.3). Extending the runway length at each end rather than just one end optimizes the amount of fill material needed and minimizes impacts to wetlands.

##### ***3.1.2 Lengthen and widen the main runway safety area (RSA)***

To meet B-II Design Standards, the runway requires an RSA that extends 300 ft beyond each runway end and 75 ft from its centerline. The proposed RSA would be 4,600 ft long and 150 ft wide. The embankments would be no steeper than a 4H:1V ratio.

##### ***3.1.3 Improve site visibility***

Both Runway (R/W) 18/36 and R/W 9/27 would be re-graded to remove the vertical obstructions to line-of-sight as required to maintain a RVZ. The work would be staged to ensure the runways remain operational, although at reduced length during construction.



Figure 3 shows the area identified for terrain and vegetation clearing. Vegetation at the runway intersections and the new Runway Protection Zone (RPZ) areas would be sheared to within 1–2 ft of ground surface. Terrain obstruction removal will lower the existing ground by approximately 5 ft at its maximum in between the runways and is anticipated to remove 330,000 cubic yards (cy) of material. This material, along with material excavated from the runways, would be either used for sub-base material in the proposed runway and RSA extensions or placed along the embankments.

### ***3.1.4 Overlay surfaces and embankments***

Cover material free of NOA would be placed on the top of all operational surfaces and embankments. This would improve the structure of the surfaces, as well as cap existing soils that have been shown to contain NOA. The cover material type is undetermined at present, but would consist of either asphalt pavement or clean gravel.

### ***3.1.5 Improve airport lighting and navigational aids***

A new MIRL system and REILs would be installed along the extended and widened runway. Pilots could activate the lighting system using radio controls.

Navigational aids would be improved. The lighted wind cone would be replaced with a new lighted wind cone with a segmented circle to meet current standards. The Visual Approach Slope Indicator (VASI) system may be replaced with a Precision Approach Path Indicator (PAPI) system and relocated to be appropriately spaced from the new runway ends.

### ***3.1.6 Realign airport access road***

About 1,240 ft of Waring Street, the airport access road, would be realigned to the southeast around the expanded RSA, beginning approximately at the existing airport property boundary and extending to the apron. The new road section would remain within the RPZ, which is not recommended by FAA standards. However, relocating the access road outside of the new RPZ would require a longer road and a new crossing of Grizzly Creek, and would impact a Native Allotment. The existing above-ground fuel pipeline to the east of the existing apron would not need to be relocated; however, overhead power lines would require relocation.

### ***3.1.7 Rehabilitate and resurface airport access road***

In addition to the 1,240 ft of realigned access road, DOT&PF would rehabilitate and resurface 2,750 ft of Waring Street. This section starts at the existing airport property boundary and extends to the intersection of the City Landfill road. The road would be re-graded, widened where it has eroded to under its 20-ft design width, and resurfaced. The new surfacing, which would consist of either asphalt pavement or clean gravel, would cap existing materials that contain NOA.

### ***3.1.8 Acquire right-of-way***

DOT&PF would acquire about 160 acres of land from the City of Ambler, NANA Regional Corporation (NANA), and a private property owner to add to the existing airport property. Acquiring this interest would ensure that property needed for the ultimate build-out of the Ambler Airport, as identified in the ALP, is secured for the future, and no buildings or activities could be constructed within the expanded and RPZ areas.

### ***3.1.9 Expand apron and construct new SREB***

The existing 200-ft by 400-ft apron would be expanded north to provide sufficient space for a new SREB. The existing SREB and storage shed would be removed. The new building would be sized to house additional equipment and stockpile materials to maintain the operational surfaces. It is anticipated to offer about double the existing storage space.

### ***3.1.10 Construct access road and develop material site***

A two-lane, 20-ft-wide, 2.8-mile-long road would be constructed between the existing (although closed) airport material site and the proposed material site known as “Area B.” The road would provide year-round access to the material site by the construction contractor. The material site would be developed to obtain borrow fill and surface course for the project. After construction, access and use of the road would be controlled by NANA.

## **3.2 Proposed Action Timeframe**

DOT&PF would like to construct this project in 2013; construction is expected to last two construction seasons.

## **3.3 Proposed Federal Action**

DOT&PF is requesting the following federal actions of the FAA: approval of the revised Airport Layout Plan (ALP) with unconditional approval of the near-term project and participation in funding of the proposed improvements.

## **4 Alternatives**

Two alternatives are fully considered in this EA—the Proposed Action and the No Action Alternative.

### **4.1 Proposed Action**

The Proposed Action is fully evaluated in this EA because it fulfills the stated Purpose and Need for this project.

The Proposed Action would extend and widen the main runway to 4,000 ft to provide acceptable length to land Approach Category C aircraft for occasional fuel and cargo deliveries, and meet the Design Group B-II standards. The RSA would be extended and widened to meet design standards for a 4,000-ft runway. Line-of-sight issues and terrain obstructions along and between the main and crosswind runways would be addressed by grading of terrain and vegetation removal. The outdated lighting and navigational aids would be relocated and replaced with updated systems.

A 1,240-ft section of Waring Street would be rerouted outside of the proposed RSA, and another 2,750 ft of the road would be rehabilitated and resurfaced. The apron would be expanded an additional 200 ft by 200 ft on its north end to accommodate a new SREB to provide sufficient equipment and material storage on the apron.

The Proposed Action would resurface all operational surfaces and the segment of Waring Street between the apron and the intersection with the City Landfill road. The new surfacing, which would consist of either asphalt pavement or clean gravel, would cap existing, degraded surface materials that contain NOA.

Material suitable for constructing the proposed improvements would be sourced from the “Area B” material site, located about two miles northeast of the airport. As part of this project, a 2.8-mile-long access road would be constructed to provide year-round access to the material site which would be developed to obtain needed borrow fill and surface course materials.

#### **4.1.1 Permits or clearances**

Permits and/or clearances listed below would be obtained prior to construction to comply with all applicable federal, state, and local regulations. The Proposed Action would require the following permits or clearances:

- U.S. Army Corps of Engineers (USACE) Section 404 permit for fill in wetlands
- Alaska Department of Environmental Conservation (ADEC) Division of Water 401 Certificate of Reasonable Assurance for fill in wetlands

- ADEC Alaska Pollutant Discharge Elimination System (APDES) General Permit for Discharges from Large and Small Construction Activities for ground disturbances equal to or greater than one acre.
- Section 106 consultation with the State Historic Preservation Officer (SHPO)
- Northwest Arctic Borough Title 9 Permit

## **4.2 No Action Alternative**

NEPA and CEQ regulations in 40 CFR 1502.14(d) require the inclusion of a No Action Alternative in the analysis contained in the environmental document.

Under the No Action Alternative, no improvements would occur, and annual interim maintenance activities to keep the airport open and operations would continue. This alternative would not meet the project purpose and need to improve safety, reliability, and operational efficiency. Moreover, safety, reliability, and operational efficiency would be expected to further deteriorate in the future due to worsening conditions.

### ***4.2.1 Permits or clearances***

No permits or clearances would be needed under the No Action Alternative.

## **4.3 Alternatives Considered but Dismissed**

Several improvement options were explored and ultimately dismissed due to either unjustifiable environmental impacts or additional cost.

***Runway 18/36 extension alternatives.*** Alternatives looking at shifting and extending the main runway and RSA in only one direction were not fully explored because of the known impacts. The ground slopes down away from each runway end, so the greater the distance the new runway extends from the existing runway would require a larger footprint and substantially more fill.

Extending 1,000 ft northeast beyond the R/W 18 direction would require placing fill in wetlands and crossing a water drainage.

Extending 1,000 ft beyond the R/W 36 direction would reduce the overall acreage of wetland impacts, but would require a much longer section of access road relocation and may require a new access road crossing Grizzly Creek.

The Proposed Action represents an alternative designed to balance the topography changes at each of the existing runway ends and the presence of wetlands and water bodies to minimize impacts.

***Material site alternatives.*** The “Area B” material site was the only local material site whose test results indicated little or only trace amounts of NOA in the potential borrow material. Area B’s relative proximity to Ambler airport and the community offers feasible, albeit expensive, access.

Another possible material site was identified up the Ambler River, however it would require about 27 miles of ice road to be constructed. Transporting the material downriver would not be feasible. Use of this material site was dismissed from consideration.

DOT&PF investigated the option of transporting asbestos-free aggregate products to the site by barge, however the shallow channels of the Kobuk River hamper barge access for much of the summer. Hauling amounts needed for the project, either upriver or downriver from the Kobuk area, would require multiple seasons and be both expensive and time-consuming.

See Section 5.4 Natural Resources and Energy Supply for more information about material site considerations and options.

***Material site access road alternatives.*** The material site access road route was selected from several alternatives considered during geotechnical and wetlands studies. Although the selected northern route impacts more acreage of wetlands, the functions and values of the wetlands are less than those of a more southern, direct route. The southern route would cross an uncatalogued fish stream that likely provides rearing habitat for juvenile salmonids (ADF&G communication with DOT&PF, Feb 2013).

## 4.4 Comparison of Alternatives

Table 4-1 compares the environmental consequences associated with the Proposed Action and No Action Alternative.

<b>Table 4-1: Alternatives Comparison</b>		
<b>Environmental Consequences</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
Air Quality	Reduces long-term risks associated with airborne asbestos.	No effect. No potential for improvement.
Fish, Wildlife, and Plants	Vegetation impacts Removed for development: 171 acres Excavated and reseeded: 12.3 acres Tree and shrubs trimmed: 173 acres	None
Wetlands	Airport: 4.5 acres Material Site Access Road: 8.8 acres Material Site: 17.9 acres	None
Compatible Land Use	No substantial increase in noise.	No substantial change in existing noise conditions or compatible land use
Socioeconomic	Net benefit to social and socioeconomic conditions.	None
Environmental Justice	No disproportionate impact to low-income or minority populations.	None
Historical and Archeological Resources	No effect to Historic Properties.	None
Light Emissions and Visual Effects	Negligible impact to the visual environment.	None
Noise	No substantial impact to noise- sensitive locations in project vicinity.	No change in existing noise conditions
Water Quality	Minimal effect to wetlands.	None
Hazardous Materials	No substantial impact to hazardous materials.	None
Construction	Temporary air, noise, wetland and water quality impacts.	None
Federal and State Permits	<ul style="list-style-type: none"> <li>• USACE Section 404 Wetlands Permit</li> <li>• ADEC 401 Certificate</li> <li>• ADEC APDES General Permit</li> </ul>	None
Acres of acquisition	160 acres	None
Excavation	421,000 cubic yards	None
Fill	577,000 cubic yards	None

## 5 Affected Environment and Environmental Consequences

FAA Order 1050.1E and the FAA *Environmental Desk Reference for Airport Actions* describe the environmental impact categories to be analyzed in an EA. The environmental impact categories are subject to requirements specified in statutes, regulations, or executive orders.

This section describes the existing environment that would be affected by the Proposed Action and establishes a baseline for the comparison and selection of alternatives organized by resource categories identified in FAA Order 1050.1E and the FAA *Environmental Desk Reference for Airport Actions*.

This section also analyzes the environmental impacts of the Proposed Action and the No Action Alternative in terms of direct, indirect, and cumulative effects. Direct effects are caused by the action and occur at the same time, whereas indirect effects are caused by the action and are later in time or farther removed in distance. Direct and indirect effects are analyzed together due to the challenges of differentiating between the two. Cumulative impacts are the impacts on the environment, which result from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions (RFFAs) regardless of what agency or person undertakes such other actions (CEQ 1992).

Past projects used in the evaluation of cumulative impacts for the Proposed Action include the original airport construction and subsequent upgrades. A project to improve an existing road to the sewage lagoon is anticipated to be constructed concurrently with this airport project. There are no RFFAs in the airport vicinity within the design period (20 years) used in this evaluation. Cumulative impacts are not evaluated for the No Action Alternative since this alternative does not change the existing environment.

### 5.1 Environmental Categories without Project-Imposed Consequences

This EA is an issue-based EA, meaning that only resource categories that were identified as an issue through project development and agency and public involvement are evaluated in detail. Table 5-1 summarizes the resource categories that were identified as a non-issue and are not evaluated further in this EA.

<b>Table 5-1: Environmental Categories without Project-Imposed Consequences</b>	
<b>Resource Category</b>	<b>Evaluation</b>
Coastal Barriers	<ul style="list-style-type: none"> <li>• There are no lands included in the Coastal Barriers Resources Act system located within Alaska. <a href="http://www.fws.gov/CBRA/">http://www.fws.gov/CBRA/</a></li> </ul>
Children’s Environmental Health and Safety Risks	<ul style="list-style-type: none"> <li>• The Proposed Action would not adversely affect children’s health and safety.</li> </ul>

**Table 5-1: Environmental Categories without Project-Imposed Consequences**

<b>Resource Category</b>	<b>Evaluation</b>
Coastal Resources	<ul style="list-style-type: none"> <li>• Ambler is within the Northwest Arctic Borough Coastal District.</li> <li>• The Alaska Coastal Management Program ended June 30, 2011 and the Alaska Division of Coasts and Ocean Management was dissolved.</li> </ul>
Department of Transportation Section 4(f)	<ul style="list-style-type: none"> <li>• There are no DOT&amp;PF Section 4(f) lands within the project area.</li> </ul>
Environmental Justice	<ul style="list-style-type: none"> <li>• There is no disproportionate impact to low-income or minority populations.</li> </ul>
Farmlands	<ul style="list-style-type: none"> <li>• There are no prime or unique farmlands in the State of Alaska, as defined by the Farmland Protection Policy Act of 1981, Public Law 97-98.</li> </ul>
Floodplains	<ul style="list-style-type: none"> <li>• A review of the Federal Emergency Management Agency’s flood maps revealed that no information exists for the Ambler area (2003).</li> <li>• A review of <i>Floodplain Management Services for Alaska Communities</i> revealed that the flood hazard is very low in Ambler (USACE 2011a).</li> <li>• The village is located on a bluff 75 ft above the Kobuk River. The last flood event occurred in 1973 due to ice jamming, with flood water elevation recorded at 47.90 ft. A flood event occurred in 1968 due to heavy rains (no elevation data identified). The area of proposed airport improvements has an elevation of approximately 200 feet, well above the recorded flood level.</li> </ul>
Light Emissions and Visual Impacts	<ul style="list-style-type: none"> <li>• The Proposed Action would not change the overall visual character of the airport or increase light emissions. No concerns about light emissions have been raised by the community.</li> <li>• The visual or aesthetic resources of the project range from disturbed lands consistent with small community development to undisturbed lands comprised of forest, tundra, and meadows. The Proposed Action would not alter the overall visual charter of these resources.</li> </ul>
Noise	<ul style="list-style-type: none"> <li>• Noise analysis is required if forecasted operations exceed 90,000 propeller operations or 700 jet operations per year. Forecasted operations for Ambler do not meet this threshold.</li> <li>• The Proposed Action is not expected to result in increased airport noise impacts to the community.</li> <li>• Temporary impacts from construction are addressed in Section 5.6.</li> </ul>



**Table 5-1: Environmental Categories without Project-Imposed Consequences**

<b>Resource Category</b>	<b>Evaluation</b>
Solid Waste	<ul style="list-style-type: none"> <li>• The city operates an unpermitted, Class 3 landfill outside of town, about two statute miles from the airport.</li> <li>• Solid waste generated by excavation activities are anticipated to be used as fill or buried onsite.</li> <li>• The contractor will be responsible for disposing construction trash, either by getting permission to use the local landfill or transporting and disposing properly at an out-of-town location.</li> </ul>
Water Quality	<ul style="list-style-type: none"> <li>• Wetlands on the airport property and surrounding area may be influenced by surface runoff containing hydrocarbons and other pollutants from the airport runways and apron, as well as fuel storage and handling sites on the apron. Water quality may be affected by filling of wetlands as part of the proposed project, which is discussed in Section 5.10.</li> <li>• There are no ADEC-designated impaired water bodies in the project area.</li> <li>• No private drinking water wells are located within the proposed project limits. No sole source aquifers are located in Alaska.</li> <li>• The Proposed Action would not adversely affect the community water supply, and would have no long-term effects on water quality.</li> <li>• Construction impacts to water quality and potential mitigation measures are identified in Section 5.6.</li> </ul>
Wild and Scenic Rivers	<ul style="list-style-type: none"> <li>• There are no designated state or federal wild and scenic rivers in the vicinity of the Ambler Airport.</li> <li>• The Kobuk River is listed as a designated Wild and Scenic River for the 110-mile segment that flows through the Gates of the Arctic National Park (NWSR 2011). The section designated as Wild and Scenic is far upstream of the project area. Therefore, no Section 7 Determination of the Wild and Scenic Rivers Act would be required.</li> </ul>

## **5.2 Air Quality**

### **5.2.1 Affected environment**

This project was initiated in 1998, but suspended in 2003 when NOA was found in the local material site. Asbestos is a known human carcinogen. If material containing asbestos is disturbed, tiny asbestos fibers can be released into the air. When the fibers are breathed in, they may get trapped in the lungs. Over time, these fibers can accumulate and cause scarring and inflammation, which can affect breathing and lead to serious health problems, including mesothelioma or asbestosis.

Materials from the existing airport gravel pit were used to construct the airport runways and apron, as well as roads and building foundations throughout the City of Ambler. The potential for asbestos exposure occurs during activities which create visible dust, such as all-terrain vehicle (ATV) use and planes landing and taking off from Ambler (Nortech 2008).

At a community-wide level, Ambler residents have worked with both the U.S. Department of Health and Human Services ATSDR and the ADHSS on exposure assessments and public health evaluations regarding the local material site and local roads surfaced with gravel from the site.

The public health investigation of possible environmental asbestos exposure at Ambler did not definitively establish or rule out environmental asbestos exposure among the local population (ADHSS 2005a). The public health evaluation report specifically noted that deferring the construction projects, specifically including this airport project, also carried risks to community safety. They also noted that precautions can be taken during construction activities to minimize airborne dust, and worker exposure can be controlled to U.S. Department of Labor Occupational Health and Safety Administration standards.

Ambler has no non-attainment areas for criteria pollutants included in the national ambient air quality standards (NAAQS) and does not have a State Implementation Plan for any air quality concerns. Findings from an ATSDR study noted dust levels of health concern and recommended that short-term and long-term solutions to road-generated dust and asbestos be developed by appropriate federal, state, city, and Tribal governments (ASTDR 2007).

### **5.2.2 Proposed Action**

*Direct and Indirect Impacts.* The Proposed Action would cap all existing airport runway, apron, and access road surfaces and embankments that were constructed with materials known to contain NOA, which could reduce the risk to residents and visitors in Ambler of exposure to airborne asbestos particles. This cover would be either non-NOA-containing gravel materials or asphalt pavement. Where asphalt pavements could be applied, there would be reduction of surface area that can generate dust activities such as ATV use and aircraft takeoffs and landings.

No air quality analysis is needed because forecasted operations in the study period are fewer than 1.3 million passengers and fewer than 180,000 operations annually. Based on FAA guidelines, it is not necessary to include Air Quality Analysis for such airports (FAA Order 5050.4A, Section 47e(5)(c)(1)).

Temporary air quality impacts from construction are described in Section 5.6.

*Cumulative Impacts.* Reducing either the dust or the asbestos concentration in the dust would have a net benefit to the community. The Proposed Action would also provide access to a material site that contains

non-NOA-containing materials that could be used for construction and cover on other community surfaces.

### ***5.2.3 No Action Alternative***

The No Action Alternative would not provide any long-term solutions to dust control. Therefore, there would be no change in the dust and airborne asbestos exposure to the general community. While there has been no conclusive evidence to date of environmental exposure to the community, more studies were recommended.

## **5.3 Fish, Wildlife, and Plants**

### ***5.3.1 Affected environment***

The headwaters of the 300-mile-long Kobuk River lie in the Baird Mountains, located in the western region of the Brooks Range. The protective barrier of the mountains keeps intense winds from the Kobuk River Valley, imparting the area with warmer, milder summers and colder winters than coastal areas.

Trees approach their northern limit in the Kobuk Valley. Ambler, at the confluence of the Ambler and Kobuk rivers, is in a transitional zone between spruce boreal forest and tundra areas. Forests cover the better-drained areas along higher ground and stream courses. The vegetation along the inland regions of the Kobuk River consists of white spruce and birch, along with willow and alder thickets (DNR OHA 2003). Within the project area, broadleaved scrub-shrub plant communities were predominantly observed. Dry, upland areas make up most of the airport project area, with vegetation consisting of white spruce, aspen, and low shrub and graminoid meadows. In wetland areas visited, predominant vegetation types observed were black spruce, willow thickets, and a mix of smaller shrubs, including dwarf birch, bog blueberry, and several sedge species (see Section 5.10 for more information).

Wildlife in the Ambler area includes moose, wolf, fox, black bear, grizzly bear, and small fur-bearing animals (ADF&G 2003). Caribou of the Western Arctic Caribou Herd migrate across the tundra of the Kobuk River Valley on their annual migration between their calving grounds on the Arctic Coastal Plain and their wintering grounds south of the river. The Onion Portage archaeological site 12 air miles west of Ambler holds evidence of humans harvesting caribou and big game as the herds crossed the Kobuk River for more than 8,000 years (NPS 1988). The vicinity of this project is not considered critical habitat for caribou (USFWS 2003).

Bird species of the region may include golden eagles and peregrine falcons. Both species tend to nest near the upland foothills of the Brooks Range along bluffs and cliff faces and near rivers. Other migratory

birds that may be in the area include swans, geese, and ducks. Tropical migrants like warblers and resident birds include ravens, grey jays, and chickadees may also inhabit the area (USFWS 2003).

The Alaska Department of Fish and Game (ADF&G) *Catalog of Waters Important to the Spawning, Rearing or Migration of Anadromous Fishes* lists two major anadromous fish streams near the project area as (ADF&G 2011):

- Ambler River, #331-00-10490-2205  
Supports chum salmon (spawning), whitefish, and Dolly Varden
- Kobuk River (Nazuruk Channel), #331-00-10490  
Supports chum, pink, and Chinook salmon, Dolly Varden (spawning), whitefish, and sheefish

Grizzly Creek, which flows under Waring Street, was examined by ADF&G as part of the Ambler Bridge Replacement project (State Project #62251) and determined not to contain any fish. The presence of resident and/or anadromous fish within the unnamed stream to be crossed by the proposed material site access road is unknown.

There are no known resident species on the federal list of threatened or endangered species in the project area (USFWS 2011a).

### **5.3.2 Proposed Action**

*Direct and Indirect Impacts.* A total of 230 acres of vegetation impacts would occur as part of the proposed improvements in associated with the airport and Waring Street improvements. About 45 acres would be cleared of vegetation for new development, such as new RSA, apron, and re-aligned roadway. About 12.3 acres would be removed as part of the terrain obstruction removal, and then reseeded with native species after re-grading. Another 173 acres of trees and shrub vegetation at the runway intersections and the new RPZ areas would be selectively trimmed to within 1–2 ft of ground surface. Much of this area has already been disturbed by prior vegetation-clearing activities. The plant communities in these areas are common and represent a minimal impact to vicinity habitat.

Another 114 acres of vegetation would be cleared at the proposed “Area B” material site, and an additional 12 acres would be cleared to construct an access road to the material site.

The project would not affect wildlife migration corridors or habitat areas since the airport has existed at this site for many years (ADF&G 2003).

*Cumulative Impacts.* The additional disturbed acreage at the airport, in combination with past, present, and RFFA projects, has a minimal impact on plants, wildlife, and wildlife habitat.

### **5.3.3 No Action Alternative**

*Direct and Indirect Impacts.* The No Action Alternative would have no impact on existing plant, fish, and wildlife communities in the project area.

## **5.4 Natural Resources and Energy Supply**

### **5.4.1 Affected environment**

*General Geology of Ambler Area.* Ambler is situated between the Jade Mountains and the Cosmos Hills, small ranges of mountains paralleling the southern slopes of the Brooks Range. The rocks in these mountains are mineral-rich and contain large ore deposits. An asbestos mine was temporarily operated at Asbestos Mountain in the Cosmos Hills near Kobuk. Considering the terrain and drainage patterns in the area, it is likely that asbestos-bearing serpentine bedrock was washed down from the Jade Mountains, and the asbestos has eroded from these rocks and was transported throughout the area by glacial, water, and wind action. Surface deposits throughout the area have been found with varying concentrations of asbestos (R&M 2005b).

*Local Material Site Investigations.* DOT&PF has conducted extensive material site investigations to ascertain if any reasonably local sources were available that did not contain NOA. Of the 32 areas studied, 15 were rated with a moderate or high potential for containing material suitable for borrow and aggregate for the airport project (R&M 2005a). Only one material site, designated “Area B,” contained little or only trace amounts of NOA in the potential borrow material.

“Area B” is owned by NANA Regional Corporation. Based on past laboratory testing for asbestos, “Area B” may be a source for NOA and non-NOA materials. “Area B” is 114 acres, and has ample aggregate of suitable quality for this project and other area projects.

*Other Material Site Options.* DOT&PF also investigated the option of transporting asbestos-free aggregate products to the site by barge. Given the shallow stretches of the Kobuk River channel, barges cannot make it upriver for much of the summer. Hauling the amounts needed for the project upriver would require multiple seasons. Hauling them downriver from material sites near or above Kobuk would encounter similar issues. It was concluded that barging would be both expensive and time-consuming, and likely not a solution for getting large amounts of asbestos-free material to Ambler (R&M 2005b).

*Energy Supply.* Electricity, provided by the Alaska Village Electrical Cooperative, is generated by diesel and is subsidized through the Power Cost Equalization Subsidy. Bulk fuel is stored and managed in the community.

### **5.4.2 Proposed Action**

*Direct and Indirect Impacts.* The “Area B” material site offers material of sufficient quality and quantity to provide the 577,000 cy of surfacing, base course, and borrow needed for this project. Approximately 421,00 cy of topsoil and excavated borrow would be generated, primarily from the runway line-of-sight improvement actions. Much of the material is anticipated to be used as borrow fill at each RSA end and embankment slopes.

DOT&PF issued Naturally Occurring Asbestos Material Use Interim Guidance and Standards on July 17, 2012, which describe how it intends to comply with the new Alaska law (Chapter 13, Sessions Laws of Alaska 2012) for work involving NOA. Construction documents for the Proposed Action will contain sampling and analysis plans to identify materials as either NOA or non-NOA, and procedures for stockpiling, handling, and use of these materials. See Section 5.6, Construction Impacts, for more information.

The new lighting system would not exceed the existing electrical power capacity of the airport facilities or community. There is an adequate energy supply for the Proposed Action.

*Cumulative Impacts.* Developing a permanent road to the material site would provide a source of gravel borrow and fill for the sewage lagoon road improvements project. The access road may remove financial barriers to other development projects that may not be foreseeable at this time.

## **5.5 Compatible Land Use**

### **5.5.1 Affected environment**

The existing, developed airport site is state-owned and zoned by the City of Ambler for aviation. Waring Street is owned by the city and is maintained by the state from the airport apron to the Grizzly Creek crossing.

The City of Ambler and NANA Regional Corporation owns the land identified on Figure 3 to be acquired for the expanded RPZ. There is no existing development within this area other than a short segment of Waring Street on the Runway 36 end.

The material site and material site access road land is owned by NANA Corporation.

Certain land uses near an airport can cause aviation safety concerns by serving as wildlife attractants. According to FAA AC 150/5200-33B, *Hazardous Wildlife Attractants on or near Airports*, examples of such land uses are solid waste landfills, wastewater treatment facilities, and wetlands and wildlife refuges. The City of Ambler operates an unpermitted landfill that is located about two statute miles southeast of the Runway 36 threshold. The city wastewater lagoon is located just north of town along Waring Street

and is less than one statute mile from of the Runway 36 threshold. There are no wildlife refuges near Ambler; however, wetlands are abundant in the vicinity of the airport.

### **5.5.2 Proposed Action**

*Direct and Indirect Impacts.* The compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of the airport's noise impacts. The Proposed Action is not expected to result in increased airport noise impacts to the community and therefore is not expected to cause any noise-related conflicts with land use.

To prevent land uses that may adversely affect safe aircraft operations, the DOT&PF has identified lands off the end of each new runway threshold for acquisition. These lands would be cleared and maintained to ensure the runway protection zone remains clear of development. A segment of Waring Street (the airport access road) would remain within the proposed RPZ to avoid constructing a new crossing location and road alignment across Grizzly Creek.

Any easement and contract negotiated with NANA with the development and use of a material site and material site access road would be in accordance with their land use plans for the Corporation and their shareholders.

Due to their relatively small size and no near-term plans for expansion, the proximity of the city landfill and wastewater lagoon sites to the proposed action does not pose any additional concern to airport safety over existing conditions.

*Cumulative Impacts.* The project does not conflict with future land use plans and therefore is not anticipated to contribute to any cumulative impacts regarding compatible land use.

### **5.5.3 No Action Alternative**

The No Action Alternative would have no direct or indirect impacts on compatible land use. The access road would continue to allow vehicles to drive within the existing RPZ.

## **5.6 Construction Impacts**

Construction impacts are the temporary impacts to the human and natural environment that are caused by activities associated with project construction. These impacts are examined separately from the permanent impacts of a project resulting from its ongoing existence and operation.

### **5.6.1 Proposed Action**

NOA-containing aggregate has been used for airport, road, and other local projects. Exposure to NOA during construction is a health and environmental concern. As a result of this concern, strategies and technologies to control the release of asbestos will be required during construction.

DOT&PF issued Naturally Occurring Asbestos Material Use Interim Guidance and Standards on July 17, 2012, which describes how it intends to comply with the new Alaska law (Chapter 13, Sessions Laws of Alaska 2012) for work involving NOA. Contractors or owners who propose to use NOA material in or from an NOA area must submit a Site-Specific Plan (SSP) to DOT&PF for review and approval. Table 5-2 outlines the minimum requirements for the SSP.

**Table 5-2: NOA Site-Specific Plan Components**

<b>SSP Component</b>		<b>Description</b>
1	Plans, Specifications, and Material-quantity estimates	<ul style="list-style-type: none"> <li>• Identifies locations and depths where NOA can be placed</li> <li>• Identifies types and depths of non-NOA material for cover material</li> </ul>
2	Project Description	<ul style="list-style-type: none"> <li>• Identifies project components and long-term use</li> </ul>
3	Sampling and Analysis Plan (SAP)	<ul style="list-style-type: none"> <li>• Summarizes soil sample results from known material sources or other areas likely to be disturbed during construction;</li> <li>• Describes investigations to identify sources of non-NOA material in the area;</li> <li>• Describes protocols to sample and test material to identify NOA or non-NOA material;</li> <li>• Identifies alternatives to using NOA material on the project, including cost differences; and</li> <li>• Describes methods to minimize use of higher concentrations of NOA material.</li> </ul>
4	Asbestos Compliance Plan (ACP)	<ul style="list-style-type: none"> <li>• Assigns safety and health responsibilities and supervision</li> <li>• Describes job hazards and site preparation needs</li> <li>• Outlines Air Monitoring procedures, reporting, exposure limits, and corrective actions</li> <li>• Identifies required personnel training, personal protective equipment, medical surveillance program, safe work practices, and decontamination procedures</li> </ul>
5	Dust Control Plan (DCP)	<ul style="list-style-type: none"> <li>• Outlines work and health and safety procedures to avoid and minimize dust emissions and exposure to workers during construction.</li> </ul>
6	Operations & Maintenance Plan (OMP)	<ul style="list-style-type: none"> <li>• Provides instructions for post-construction care, including maintenance activities and public notifications.</li> </ul>

Construction documents for the Proposed Action will contain approved SSPs, which will identify how to determine whether materials are either NOA or non-NOA and procedures for stockpiling, handling, and



use of these materials. The SSPs are designed to provide construction workers with necessary safety procedures and information so they may perform their jobs safely and in compliance with laws regulating employee health and safety. The SSPs will hold employees responsible and supervisors accountable for maintaining safe working conditions and practices.

The Proposed Action would cause the following temporary construction impacts:

- *Air Quality:* The operation of heavy equipment and the excavation, hauling, and placement of fill material can create dust during dry conditions, which may cause temporary air quality impacts. This effect would be temporary and would be controlled by the Best Management Practices (BMPs) and the approved SSPs.
- *Solid Wastes:* Minimal amounts of solid wastes for construction would be generated and properly disposed of in the local existing landfill or packed out by the contractor for proper disposal outside of the community.
- *Noise:* Construction machinery and vehicle activity would temporarily increase noise at the airport. The closest residence is approximately 2,000 ft away from the main runway. Should any construction equipment or material arrive by barge, it would be hauled through the city from the barge landing. Hauling would cause temporary increases in noise from construction vehicles. The construction contractor will prepare a construction phasing plan that will include timing and the location of hauling activities to minimize impacts to residents as much as possible.
- *Water Quality:* The Proposed Action may result in some construction-related sedimentation and runoff into wetlands during excavation and fill activities near wetlands and water bodies. Appropriate BMPs would be implemented during construction to minimize erosion and sedimentation and are summarized in Section 5.12.
- *Access:* Access to the airport and airport facilities would be temporarily altered during construction. The construction contractor would be required to maintain access. Temporary delays may occur.
- *Wildlife:* Birds and mammals that would otherwise be present in the project vicinity would likely move away from the area temporarily during construction.
- *Airport Operations:* Temporary vehicle and aircraft traffic delays and detours may occur during construction activities, but are expected to be minimal. Staged equipment and construction materials may temporarily obstruct airspace. Notices will be published to inform users in advance to avoid or minimize potential conflicts.
- *Wetlands:* Temporary wetland impacts are anticipated in a 25 ft buffer around the construction footprint, from construction equipment and activities. BMPs would be implemented to minimize

the buffer zone and severity of the temporary impacts and are summarized in Section 5.12. It is anticipated that the wetland functions will resume after construction is completed and the area is reseeded.

*Cumulative Impacts.* Cumulative impacts may occur if other construction projects overlap with the construction of the Proposed Action. A pending project to reconstruct the roadway to the Sewage Lagoon is the only foreseeable construction project, and may be deliberately timed to coincide with the construction of the airport project to save on equipment mobilization and material costs. BMPs would be implemented for each project and are anticipated to have minimal cumulative effects.

### ***5.6.2 No Action Alternative***

The No Action Alternative would have no construction impacts.

## **5.7 Socioeconomic Conditions**

### ***5.7.1 Affected environment***

The modern town of Ambler was settled in 1958 by people from Shungnak and Kobuk who moved downriver for the abundance of fish, game, and spruce trees located in the area. The city was incorporated with the State of Alaska in 1971 and is within the boundaries of the Northwest Arctic Borough municipal government.

Ambler is situated on land owned by the NANA Regional Corporation. The NANA Regional Corporation, comprised of over 13,000 shareholders, is a Native Corporation founded as a result of the Alaska Native Claims Settlement Act (ANCSA). The corporation is governed by an elected Board of Directors, drawn from 11 villages, of which Ambler has two representatives (NANA 2010).

The 2011 population of Ambler was 276, 85 percent of whom are Alaska Native, primarily Kuvvangmiut Inupiat. There are approximately 80 households in Ambler, averaging about 4 people in each residence.

*Employment.* Primary employers are the school, the City of Ambler, the Native Village of Ambler, the Maniilaq health clinic, and a few local stores. Most residents follow a traditional subsistence lifestyle. Chum salmon and caribou are the most important food sources. Freshwater fish, moose, bear, and berries are also harvested. Birch baskets, fur pelts, and jade, quartz, bone, and ivory carvings created in Ambler are sold in gift shops throughout the state.

The 2011 American Community Survey (ACS) data estimated 121 residents as employed. The public sector (local and state government) employed 69 residents, representing 57 percent of all workers. Private employers employed 52 residents, representing 43 percent of all workers. There were 42 unemployment

insurance claimants, representing 23 percent residents age 16 and over. The per capita was \$11,947. About 44.5 percent of all residents had incomes below the poverty level (ADOL&WD ALARI 2011).

*Economic Activity.* The City of Ambler anticipates economic growth and activity from exploration and development within the nearby Ambler Mining District and Bornite (also known as Ruby Creek) copper deposit on the upper Kobuk River. The Ambler Mining District site has deposits containing copper, lead, zinc, silver, and gold. The State of Alaska is studying the feasibility of developing a 200-mile road from the Dalton Highway to the Ambler Mining District. The road is intended to facilitate mineral exploration and mine development in the region.

*Transportation.* Ambler residents' major means of transportation are barge, plane, small boat, and snowmachine. The Kobuk River is navigable by boat only from early July to mid-October. Fuel and cargo can be delivered by barge during spring high-water events if barge services are available, but must often be transported by aircraft. Problems delivering fuel by barge on the shallow Kobuk River are substantial, and the community relies on air transport as the only reliable transportation mode to bring fuel, cargo, and building supplies into the community. Small boats are used for inter-village travel and subsistence activities. ATVs and snowmachines are commonly used in winter.

Due to the lack of permanent, all-season roads connecting Ambler with outside communities, the primary mode of transportation to Ambler is airplane. The AFM is located a mile outside of town and is actively used for passenger travel and import of fuel and cargo. Daily scheduled flights are provided out of Kotzebue and air taxis provide charter flights. Hageland Aviation and Bering Air provide regularly scheduled passenger service to Ambler from Kotzebue. In addition, Ambler's local airline, Ambler Air, offers flights to Fairbanks. Air cargo services are provided by Ryan Air and rates range between \$1.03 and \$1.21 per pound (with an included fuel surcharge), and all services cost a minimum of \$20.

### ***5.7.2 Proposed Action***

*Direct and Indirect Impacts.* The project may generate short-term, cash-based local employment opportunities during construction. Having a runway of sufficient length to transport mining equipment may route additional construction and development activities associated with the proposed Ambler Mining District through the Ambler airport and community, rather than Kobuk or Dahl Creek airport.

Improving the efficiency of fuel and cargo deliveries has the potential to reduce the cost of living in Ambler, or reduce the rate of cost escalations. Alaskan communities have identified urban migration trends as cost-of-living increases in rural villages escalate. However, no changes or shifts of population movement or growth, public service demands, or changes in business and economic activity are expected as a direct result of the project.

### **5.7.3 No Action Alternative**

Existing difficulties delivering fuel and cargo would be unaddressed. Fuel and cargo aircraft would need to continue to transport at less efficient capacities to land on the shorter, 3,000-ft runway. Costs of fuel and other commodities would continue to increase over time.

## **5.8 Historical, Archeological, and Cultural Resources**

### **5.8.1 Affected environment**

The Area of Potential Effect (APE) includes the direct construction footprint, which includes the runway extension, the runway margins proposed for widening, the airport property between the main and crosswind runways, use of the existing airport material site, vegetative clearing, development and use of the “Area B” material site, the construction of the material site Access Road, and rehabilitation of Waring Street from the airport to its intersection with the road to the landfill. Indirect effects were considered, but not anticipated from these construction activities.

In September 2001, staff from DNR Office and History and Archaeology (OHA) conducted an on-the-ground reconnaissance-level cultural resource survey and archaeological testing on the airport improvement and existing material site sections of the APE. The OHA report disclosed that no cultural resources were encountered. “Area B” and the proposed access road to it were not included in the study area.

In July 2004, Northern Land Use Research conducted an archaeological investigation of the proposed “Area B” material site. No cultural resources were discovered during this investigation.

While no field investigations for cultural resources have been conducted in the proposed access road to the “Area B” material site, DOT&PF consulted with OHA, and OHA staff recommended that the area – located predominantly on sloping, wetland terrain – posed a low probability of containing cultural or archaeological resources.

### **5.8.2 Proposed Action**

*Direct, Indirect, and Cumulative Impacts.* DOT&PF and FAA believe the proposed activities would not affect any historic resources because there are no known historic resources present in the surveyed sections of the APE. In addition, there is low potential for undocumented cultural resources in the proposed access road to the “Area B” material site. SHPO concurred with this finding by letter on March 20, 2013.

### **5.8.3 No Action Alternative**

*Direct and Indirect Impacts.* The No Action Alternative would not affect historic, archaeological, or cultural resources.

## **5.9 Hazardous Materials**

### **5.9.1 Affected environment**

A Phase I Environmental Site Investigation was conducted in 2011 to identify any existing, potential, or suspect conditions resulting from the use, handling, and disposal of hazardous substances in or near the project area. The study area encompasses the airport property, the proposed acreage for acquisition, and the Airport Road corridor. The investigation consisted of a review of historical records and aerial photos, state and federal databases containing information about contaminated sites, interviews with the airport manager, and a field investigation.

A Recognized Environmental Condition (REC) is the presence or likely presence of a hazardous substance or petroleum product under conditions that indicate an existing release, a past release, or a material threat of a release into structures on the project area or into the project area's ground, groundwater, or surface water. The 2012 assessment revealed no evidence of RECs in connection with the project area and the surrounding parcels except the following:

- Petroleum spills, and associated stained soil and odor, were noted in the DOT&PF snow equipment shed. The petroleum spills are considered a REC; however, they are relatively small and not considered an immediate threat to human health or the environment.
- The site above-ground storage tanks, drums, and petroleum pipeline were not considered RECs because no spills or leaks were observed. No RECs were noted for adjacent properties.

An historical REC is an environmental condition that may have constituted a REC in the past, but which has been closed by a regulatory agency or is otherwise no longer considered a material threat. The 2012 noted the following historical REC:

- The spill of 20 gallons of aviation fuel on the gravel in front of the DOT&PF storage sheds is considered an historical REC. The gravel and soil in this area were reportedly excavated and disposed of offsite. It remains a potential environmental concern because it is possible that residual contamination could remain in this area.

### **5.9.2 Proposed Action**

The Proposed Action would require excavation and construction activities on the apron and runway surfaces and embankments. Airborne dust and asbestos are discussed under Construction Impacts in

Section 5.6. The removal of the existing DOT&PF storage buildings may generate hazardous material that may require special handling and disposal by the contractor. The identified RECs are anticipated to be low risk for hazardous materials.

Before starting construction activities, the contractor would prepare a site-specific Hazardous Materials Control Plan (HMCP). If contamination is encountered unexpectedly during construction activities, the ADEC would be notified and the response efforts would be handled in accordance with an ADEC-approved Corrective Action Plan. Detailed BMPs and housekeeping measures would be outlined in the contractor's Storm Water Pollution Prevention Plan (SWPPP) and HMCP. The contractor would be required to practice proper hazardous material storage and handling and adhere to the DOT&PF emergency response procedures, which stipulate that all work must stop immediately and the site secured to prevent unauthorized access if hazardous materials are encountered. In addition, the appropriate regulatory authorities must be notified immediately. Phone numbers of the National Response Center and emergency response services would be made accessible at work sites.

### ***5.9.3 No Action Alternative***

The No Action Alternative would not involve construction or ground-disturbing activities; therefore, no potential for encountering hazardous materials would exist.

## **5.10 Wetlands**

### ***5.10.1 Affected environment***

HDR Alaska prepared a wetlands report and map of the project area based on field investigations in September 2012, high-resolution aerial photography, and previous field investigation data. The study area included the existing airport property, proposed land acquisition areas, the Waring Street road corridor, Area B material site and access route alternatives, and an alternate material site along the Ambler River, which is no longer under consideration for this project (see Table 5-3).

A portion of study area including the Ambler Airport borrow site and access corridor was previously delineated in 2005; however, by circumstance of age as well as quality of aerial imagery available at the time of the study, it was determined that a re-evaluation of the 2005 findings was required to update the existing mapping and descriptions to meet current regulatory guidelines. Partial information from the 2005 investigations was used in combination with the 2012 field data to produce thorough wetland mapping and quantify wetland and habitat acreages for the entire study area. More information on delineation methods and findings can be found in the February 2013 *Final Jurisdictional Determination Report*.

**Table 5-3: Wetland Study Area Descriptions and Locations**

<b>Study Area Name</b>	<b>Study Area Description</b>	<b>Public Land Survey System Description</b>	<b>Acreage</b>	<b>Wetland Acreage</b>
Airport Improvements Area	Area directly adjacent to the existing Ambler Airport and the 0.7 miles of road approaching the airport.	Township 20 North, Range 5 East, Sections 19, 20, 29, 30, & 31, Kateel River Meridian	356	46.9
“Area B” Material Site	The 139-acre site is located 2 miles northeast of the Ambler Airport.	Township 20 North, Range 5 East, Section 21, Kateel River Meridian	135	17.9
North Access Corridor to Area B	A 2.85-mile-long, 200-ft-wide road corridor to the Area B Material Site.	Township 20 North, Range 5 East, Sections 16, 17, 20, 21, & 29, Kateel River Meridian	86	35.1
South Access Corridor to Area B (Dismissed)	A 1.75-mile-long, 200-ft-wide road corridor to the Area B Material Site.	Township 20 North, Range 5 East, Sections 21, 28, and 29, Kateel River Meridian	50	37.4
<b><i>Total Study Area</i></b>			<b><i>627</i></b>	<b><i>137.3</i></b>

The majority of wetlands surrounding the Airport are black spruce forested, scrub, and shrub wetlands (PFO4B, PFO4/SS1B, and PFO4/SS4B). They are found around the perimeter of the existing runways and clearings of the airport improvement area. This habitat type is also prevalent in the alternative access road corridor to the Area B Material site. This habitat type is dominated by black spruce, with shrub understory typically including Labrador Tea, dwarf birch, bog blueberry, cloudberry, and lingonberry. Black spruce forested scrub-shrub wetlands have a moderate value as wildlife habitat primarily because of the mixture of both tree and shrub cover, which provide habitats for some species not found in strictly shrub-dominated habitats. Foraging moose use this habitat; however, it does not provide the same high-quality forage found in the shrub and meadow habitats. Berries provide a seasonal food source for small mammals, birds, and bears (ABR 2005).

Black spruce scrub-shrub wetlands (PSS4B, PSS4/1B, and PSS1/4B) occur across the entire study area. Near the airport it is found at the north end of the primary runway. This area is dominated by stunted black spruce, dwarf birch, bog blueberry, Richardson’s willow, several sedge species, as well as Labrador tea, cloudberry, and lingonberry. Black spruce scrub-shrub wetlands function similarly to black spruce forested scrub-shrub wetlands. The mixture of black spruce and deciduous shrubs provide a moderate

wildlife habitat value for species not found in habitat dominated only by deciduous shrubs. Moose forage in these habitats; however, it is not the same as the high-quality forage found in shrub and meadow habitats. Berries found here may be used for subsistence berry-picking, as well as a food source for small mammals, birds, and bears.

Low shrub/sedge wetland habitat (mapping classifications include PSS1/EM1B, PEM1/SS1B, PSS1/EM1C, and PEM1/SS1C) can be found at the north end of the main runway. This habitat type is dominated by dwarf birch, bog blueberry, Richardson’s willow, arctic willow, diamond-leaf willow, and several species of sedge. Wildlife values are primarily in the provision of foraging habitats for a variety of mammals and as nesting habitat for some birds (primarily songbirds and a few shorebirds). Moose are likely to forage in this habitat, as browse is readily available (ABR 2005).

Small areas of graminoid meadow wetlands (mapping classifications include PEM1B and PEM1C) and sedge marsh wetlands (mapping classifications include PEM1F) are emergent and open water wetlands found in depressions in the airport improvements area and south access route to the material site. These wetlands provide foraging and nesting areas for waterfowl and shorebirds, and staging areas for some migratory species of waterfowl. Moose also forage on emergent vegetation in these habitats. Graminoid meadow wetlands and sedge marsh wetlands are important for retaining sediments and exporting organic matter. These wetlands located in closed depressions adjacent to the airport may retain potentially pollutant-laden airstrip and road runoff rather than releasing it into nearby drainages and ultimately into the Ambler River.

Table 5-4 provides a summary of the various wetland habitats and associated NWI codes by location within the study area.

<b>Table 5-4: Wetland Habitat Mapping Summary</b>			
<b>Wetland Study Area</b>	<b>Habitat Type</b>	<b>NWI Codes</b>	<b>Acreage</b>
Ambler Airport Improvements Area	Black Spruce Forest/Shrub Wetland	PFO4/SS1B, PFO4/SS4B	21.6
	Black Spruce Scrub/Shrub Wetland	PSS1/4B, PSS4/1B, PSS4B	11.5
	Low Shrub/Sedge Wetland	PSS1/EM1B, PSS1/EM1C	3.1
	Willow Thicket Wetland	PSS1C, PSS1F	7.0
	Graminoid Meadow Wetland	PEM1C	2.5
	Sedge Marsh Wetland	PEM1F	0.6
	Pond	PUBH	0.1
	Stream	R3UBH	0.3



<b>Table 5-4: Wetland Habitat Mapping Summary</b>			
<b>Wetland Study Area</b>	<b>Habitat Type</b>	<b>NWI Codes</b>	<b>Acreage</b>
	Upland	U	308.8
	<i>Ambler Airport Improvements Area Wetland Subtotal</i>		<i>46.7</i>
	<i>Ambler Airport Improvements Area Acreage Subtotal</i>		<i>355.5</i>
Area “B” Material Site	Black Spruce Forest/Shrub Wetland	PFO4/SS1B	
	Black Spruce Scrub/Shrub Wetland	PSS1/4B, PSS4/EM1B	3.6
	Low Shrub/Sedge Wetland	PSS1/EM1B	10.2
	Willow Thicket Wetland	PSS1C	3.9
	Graminoid Meadow Wetland	PEM1C	0.2
	Upland	U	117.0
	<i>Area “B” Material Site Wetland Acreage Subtotal</i>		<i>17.9</i>
	<i>Area “B” Material Site Area Subtotal</i>		<i>134.9</i>
North Access Corridor to the Area “B” Material Site	Black Spruce Forest/Shrub Wetland	PFO4/SS1B, PFO4/SS4B, PFO4B	22.9
	Black Spruce Scrub/Shrub Wetland	PSS1/4B, PSS4/1B, PSS4B, PSS4/EM1B	11.1
	Low Shrub/Sedge Wetland	PSS1/EM1C	0.6
	Graminoid Meadow Wetland	PEM1C	0.3
	Sedge Marsh Wetland	PEM1F	0.2
	Upland	U	51.3
	<i>North Access Corridor to Area “B” Material Site Wetland Subtotal</i>		<i>35.1</i>
	<i>North Access Corridor to Area “B” Material Site Acreage Subtotal</i>		<i>86.4</i>
South Access Corridor to the Area “B” Material Site (Dismissed)	Black Spruce Forest/Shrub Wetland	PFO4/SS1B, PFO4/SS4B	15.9
	Black Spruce Scrub/Shrub Wetland	PSS4/1B	6.5
	Low Shrub/Sedge Wetland	PSS1/EM1B	1.1
	Willow Thicket Wetland	PSS1C	4.8
	Graminoid Meadow Wetland	PEM1C	0.4
	Sedge Marsh Wetland	PEM1F	7.9
	Pond	PUBH	0.8
	Stream	R3UBH	0.1
	Upland	U	12.6
	<i>South Access Corridor to Area “B” Material Site Wetland Subtotal</i>		<i>37.4</i>
	<i>South Access Corridor to Area “B” Material Site Acreage Subtotal</i>		<i>50.0</i>

The study area wetland types perform flow regulation and erosion control functions. Because they are located near the barren, unvegetated developed areas, these wetlands may retain potentially pollutant-laden airstrip and road runoff rather than releasing it into nearby drainages and ultimately into the Ambler River.

### **5.10.2 Proposed Action**

*Direct and Indirect Impacts.* Construction of the Proposed Action would result in unavoidable impacts to wetlands located within the study area (see Figure 4). Executive Order 11990, “Protection of Wetlands,” requires that there be no practicable alternative to the Proposed Action if it affects wetlands, and that the project includes all practicable measures to avoid and minimize harm to wetlands. DOT&PF has determined that there are no practicable alternatives that would result in less impact on wetlands without other significant consequences. The project components have been reduced as much as possible and still meet the project purpose and need. Temporary construction impacts to wetlands are discussed in Section 5.6.

The Proposed Action would permanently impact approximately 30.5 acres of wetlands through excavation or fill and is summarized in Table 5-5.

Assuming a conservative 15 ft buffer around planned construction could be impacted by equipment and material staging, another 5.4 acres of temporary impacts are anticipated. These areas would be reseeded and restored after construction is completed and are anticipated to retain their functions.

Avoidance, minimization, and compensatory mitigation are the primary measures available to conserve wetlands for this project. The avoidance and minimization, mitigation, and enhancement measures are listed in Section 5.12 and in the *Wetlands Avoidance and Minimization Analysis* attached in Appendix B.

*Cumulative Impacts:* Present and reasonably foreseeable future airport projects that result in impacts to wetlands would be developed in accordance with the federal rule of *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule* (33 CFR Part 325 and 332) would reduce, minimize, or compensate the extent of these impacts.

**Table 5-5: Wetland Impacts**

<b>Proposed Action Component</b>	<b>Wetland Type</b>	<b>Impact Area (acres)</b>	<b>Fill (cy)</b>	<b>Excavation (cy)</b>
Airport/Waring Street	PFO4/SS1B	0.28	307,000	342,000
	PSS1/4B	2.97		
	PSS4/1B	0.14		
	PSS1/EM1C	0.35		
	PSS1C	0.03		
	R3UBH	0.05		
Material Site Access Road	PFO4/SS4B	4.73	51,000	1,500
	PFO4B	0.58		
	PSS4B	2.78		
	PSS4/1B	0.07		
	PSS4/EM1B	0.19		
	PSS1/4B	0.12		
	PSS1/EM1C	0.27		
	PEM1C	0.08		
Area B Material Site Development	PSS1/4B	3.48	0	200,000 – 300,000
	PSS4/EM1B	0.14		
	PSS1/EM1B	10.17		
	PSS1C	3.86		
	PEM1C	0.24		
<b>Total</b>		<b>30.52</b>	<b>358,000</b>	<b>543,500 – 643,500</b>

### ***5.10.3 No Action Alternative***

The No Action Alternative would not result in impacts to wetlands.

### **5.11 Wetlands Avoidance, Minimization, and Mitigation Measures**

The Proposed Action has unavoidable wetland impacts that would permanently impact approximately 30.5 acres of jurisdictional wetlands and waters of the U.S. The new *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule* emphasizes a “watershed approach” to include all aquatic resources (water bodies and wetlands) in proposed mitigation plans: “[T]his rule should apply to compensatory mitigation for all types of aquatic resources that can be impacted by activities authorized by DA [Department of the Army] permits, including streams and other open waters.”

The DOT&PF proposes participation in the in-lieu fee program to offset these unavoidable impacts to 30.5 acres of wetlands and proposes compensatory mitigation ratios based on wetland functional value and Appendix B of the Alaska District Regulatory Guidance Letter, RGL ID No. 09-01. The in-lieu fee will be established through coordination with the Conservation Fund, the approved in-lieu fee provider for the Northwest Arctic Borough area.

Proposed wetland avoidance and minimization measures for this project are listed below and documented in the *Wetland Avoidance and Minimization Analysis* (Appendix B):

- The material site access road has been designed to cover the minimum footprint necessary to provide a stable road base for industrial vehicles and projected use.
- Temporary construction impact areas will be limited to 15 feet on each side of the access road and runway improvements.
- Drainage culverts will be installed through the embankment at appropriate sites to maintain the natural flow of surface water.
- Stream crossing culverts will be properly sized to maintain hydrology
- On-site, non-NOA material will be used as source material for embankments and runway improvements.
- Materials would be stockpiled within the project fill footprint, or developed/upland areas, to avoid impacting additional ground.
- Cut slopes would be seeded or otherwise stabilized to prevent erosion.
- Erosion and sedimentation control measures will be used during construction and permanent stabilization will be implemented as early as possible in construction.
- Staking will be done to delineate the planned outside limits of disturbance prior to construction to ensure that impacts will be limited to that area.
- Sedimentation basins will be use as necessary during construction.
- Setbacks from water channels and standing water will be maintained for refueling and vehicle maintenance activities to avoid impacts to the water bodies from an accidental spill.
- Spill response equipment will be readily available and construction personnel should be trained in spill response to contain any accidental leaks of oil or fuel from construction equipment.

## **5.12 Summary of Environmental Commitments**

The following commitments would be included as part of the Proposed Action to reduce environmental impacts:

### ***5.12.1 Air quality***

- Measures to control fugitive dust such as pre-watering sites prior to excavation, applying a dust palliative, controlling construction traffic patterns and haul routes, and covering or otherwise stabilizing fill material stockpiles will be implemented during construction. These will be outlined in detail in the approved SSP.

### ***5.12.2 Water quality***

- The contractor will be required to comply with the APDES Construction General Permit and prepare and implement a SWPPP (subject to DOT&PF approval and based on DOT&PF's Erosion Sediment Control Plan).

### ***5.12.3 Construction***

- 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.

### ***5.12.4 Aircraft operations***

- An air traffic control plan will be developed and implemented during construction.
- Construction will be scheduled so that only one runway threshold is displaced at a time.
- The construction contractor will notify the DOT&PF Project Engineer of any activities that would change available landing surface or NAVAIDs so this information can be broadcast to airport users. The Project Engineer will inform the DOT&PF Airport Manager, who will coordinate and issue all required Notices to Airmen.
- Construction activities will be staged to minimize delays to aircraft or passengers.

### ***5.12.5 Hazardous waste, pollution prevention, and solid waste***

- DOT&PF will require the construction contractor to develop a Hazardous Materials Control Plan (HMCP) to address storage and handling of hazardous materials, including fuel and lubricants, and spill response.
- Construction contracts will include a provision that if contaminated soil or groundwater is suspected or encountered during construction activities, the construction contractor will contact the DOT&PF Project Engineer and stop the work, so that the DOT&PF can coordinate with ADEC in accordance with 18 Alaska Administrative Code 75.300. All contamination will be handled and disposed of in accordance with an ADEC-approved corrective action plan.
- All solid wastes generated during construction will be disposed of at the local landfill or packed out and disposed at a permitted landfill.

### ***5.12.6 Historical, archaeological, and cultural resources***

- The construction contract will contain the provision, “Should cultural or paleontological resources be discovered as a result of this activity, all work that could impact these resources will halt and the DOT&PF Project Engineer and SHPO will be notified immediately.” Work will not resume at these sites until Section 106 consultation is conducted with FAA and SHPO.

### ***5.12.7 Fish, wildlife, and plants***

- DOT&PF will comply with the Migratory Bird Treaty Act by either adhering to the U.S. Fish and Wildlife Service (USFWS) recommended bird timing window of May 5 to July 25 or by sufficiently altering vegetated sites before migratory birds arrive so that they do not provide nesting habitat.

### ***5.12.8 Wetlands***

- The project footprint would be staked prior to construction and maintained for the duration of the project to avoid additional impacts to wetlands from construction activities.
- Embankment fill material will be stockpiled within the project fill footprint or upland areas of the airport to avoid impacts to wetlands.
- Setbacks from water channels and standing water will be maintained for refueling and vehicle maintenance activities to avoid impacts to the water bodies from an accidental spill.
- DOT&PF will provide fee in-lieu compensation for the approximately 31 acres of wetland and waters of the U.S. impacts associated with the Proposed Action.

## **6 Public Involvement and Agency Coordination**

### **6.1 Scoping**

During the initial stage of the Ambler Airport environmental process, federal, state, and local regulatory agencies; local government; Alaska Native organizations; and the public were consulted about the project to identify potential concerns, measures of mitigation, and alternatives. Outreach in 2003 included agency scoping letter packages, Section 106 Consultation, a public newsletter, and public meeting. Outreach activities in 2012 included agency scoping letter packages, updated Section 106 consultation, and a public information meeting. See the 2003 Scoping Summary Report and subsequent scoping records in Appendix A for all records.

#### ***6.1.1 Agency scoping***

A scoping package was sent to federal, state, and local agencies in March 2003 that provided information and solicited comments regarding the proposed project. The package described the project's purpose and need, the project area, and preliminary research and findings, and comments were requested. At that time, the proposed action included extending the crosswind runway and relocating the airport apron. A copy of the agency scoping package can be found in the 1993 Scoping Summary Report (Appendix A). A phone call was made to agency representatives on March 24, 2003, to confirm that the letter was received. An additional phone call was made to agency representatives on April 8, 2003, to request comments and remind agencies of the comment period end date.

A 2012 scoping package was sent to 32 federal, state, and local agencies in June 2012 to provide an update on the project, present current research and findings, and solicit comments. Table 6-1 summarizes resource agency comments, from both 2003 and 2012 scoping efforts, that are relevant to the current project.

**Table 6-1: Agency Scoping Comment Summary**

Name	Agency	Comments
Nancy Ihlenfeldt*	Alaska Department of Fish and Game	<ul style="list-style-type: none"> <li>• The Ambler River supports chum salmon (spawning), whitefish, sheefish, Arctic char, and Arctic grayling. The Kobuk River supports chum and Chinook salmon, Arctic char, sheefish, whitefish, and Arctic grayling.</li> <li>• ADF&amp;G does not have survey data for the creek that Grizzly Bridge crosses, but assumes they support resident fish. Construction of a culvert would be fine if sized correctly for fish passage.</li> <li>• All fish (anadromous and resident) caught by the residents of Ambler are considered subsistence.</li> <li>• There are no State Critical Habitat Areas near Ambler.</li> <li>• Wildlife in the Ambler area includes moose, wolf, fox, black bear, grizzly bear, and small fur-bearing animals.</li> <li>• The project will not affect wildlife migration corridors or habitat areas since the airport has existed at this site for many years.</li> </ul>
Kerry Walsh*	Department of Natural Resources	<ul style="list-style-type: none"> <li>• DNR supports the improvements to the airport for the increased safety, reliability, and operational efficiency.</li> <li>• The Northwest Area Management Plan for State Lands (February 1989) address the management intent for this area. The Ambler airport is located within Native-owned land, so there is no management intent stated for this area.</li> <li>• Depending on the source for gravel and the amount needed for the proposed improvements a reclamation plan may be required.</li> <li>• DNR may have more project specific comments during the Alaska Coastal Management Program consistency review and/or at a later phase of the project.</li> </ul>



**Table 6-1: Agency Scoping Comment Summary**

Name	Agency	Comments
Larry Bright*	U.S. Fish and Wildlife	<ul style="list-style-type: none"> <li>• Ambler is located well inland and is not within the range of the endangered short-tailed albatross or the threatened spectacled eider.</li> <li>• Since the area is located near the base of the Brooks Range, the area likely consists of black spruce boreal forest, wetlands, and tundra. Caribou, moose, bears, marten, and other species could be expected. The area is not considered important critical habitat for caribou.</li> <li>• May encounter golden eagles and peregrine falcons, which tend to nest near the upland foothills of the Brooks Range along bluffs and cliff faces, and near rivers. However, because the airport is located away from the river’s edge it is not expected that the project would interfere with either species.</li> <li>• Other migratory birds that may be in the area include swans, geese, and ducks. Tropical migrants like warblers and resident birds include ravens, grey jays, and chickadees may also inhabit the area.</li> <li>• Wetlands are likely in the area. USFWS is interested in how much wetlands would be impacted by the project.</li> <li>• One way to mitigate impacts is to use timing restrictions on project construction. USFWS recommends that gravel fill be placed in habitat during the winter to minimize disturbance to nesting sites during the summer.</li> </ul>

**Table 6-1: Agency Scoping Comment Summary**

Name	Agency	Comments
Jim Baumgartner*	Alaska Department of Environmental Conservation	<ul style="list-style-type: none"> <li>• An open burn approval from the Air Permits Office will be needed if ADOT&amp;PF clears or burns slash greater than 40 acres.</li> <li>• There should be minimal air quality-related issues associated with the project, provided that DOT&amp;PF’s contractor(s) implement fugitive dust measures for material hauling and placement during dry weather (summer roadway watering), and ensure that rock crushing activities (if any) comport with applicable Federal New Source Performance Standards and reasonable dust control measures during aggregate crushing and screening such as spray bars.</li> <li>• The DOT&amp;PF should incorporate into their construction contract(s) an obligation to use fugitive dust control measures.</li> <li>• The DOT&amp;PF should ensure that the contractor has a valid Air Quality Control Operating Permit for the aggregate crushing activities (non-metallic mineral processing plan), depending on the age and size of the contractor’s equipment.</li> </ul>
Larry Peltz*	National Marine Fisheries Service	<ul style="list-style-type: none"> <li>• There are no endangered species under the jurisdiction of NMFS in the Ambler area.</li> <li>• The proposed airport improvements will not impact salmon Essential Fish Habitat (EFH).</li> </ul>
Roswell Schaffer*	Northwest Arctic Borough, Manager	<ul style="list-style-type: none"> <li>• No objection to the proposed improvements of the Ambler Airport.</li> </ul>
Barbara McManus*	City of Ambler	<ul style="list-style-type: none"> <li>• The Ambler Airport improvements are all very important, especially the repair of Grizzly Bridge.</li> <li>• Resurfacing the runways is not mentioned in the list of improvements to the airport, but should be considered. In the spring and during times of heavy rain, the Ambler Airport has had to close because of the soft surface. Last spring the airport was closed for a week.</li> </ul>
Tom Okleasik	Northwest Arctic Borough	<ul style="list-style-type: none"> <li>• The Northwest Arctic Borough Title 9 permit is required prior to activities.</li> </ul>

**Table 6-1: Agency Scoping Comment Summary**

Name	Agency	Comments
R. Bruce Sackinger	DNR-Lands	<ul style="list-style-type: none"> <li>• DOT&amp;PF may need to apply to DNR for a permit to construct an ice road where it crosses the submerged lands of the Ambler River.</li> <li>• Part of the proposed ice road (perhaps the first 5 or 6 miles) appears coincident with RST 124, the NIMIUK POINT - SHUNGNAK TRAIL, a qualified RS 2477 right-of-way (see AS 19.30.400). Such rights-of-way are managed by the State of Alaska Department of Natural Resources unless they have been transferred to the DOT&amp;PF. DOT&amp;PF will need to coordinate with DNR before development.</li> <li>• The reach of the Ambler River adjacent to the “Ambler River Material Site” appears to be navigable. Portions of the material site below the OHW of the Ambler River may be submerged state land; DOT&amp;PF may therefore need to apply to DNR for a material sale contract for such portions.</li> </ul>
Mary Leykom	U.S. Army Corps of Engineers	<ul style="list-style-type: none"> <li>• An individual Department of the Army permit is required prior to conducting proposed work, since the proposed project would involve work in and/or placement of dredged and/or fill material into waters of the United States under the Corps regulatory jurisdiction.</li> </ul>

*\* 2003 Comment.*

*Comments related to Alaska Coastal Management Program compliance were not included, as this program has been discontinued.*

### **6.1.2 Section 106**

In March of 2013, Findings letters were sent to the SHPO and to ANCSA parties, Tribes, and other involved parties. The letters described previous historic property research and field investigation results, and included a project description, project area map, and map of the preliminary APE. DOT&PF and FAA believe the proposed activities would not affect any historic resources because there are no known historic resources present in the surveyed sections of the APE. In addition, there is low potential for undocumented cultural resources in the proposed access road to the “Area B” material site. SHPO concurred with this finding by letter on March 20, 2013.

### ***6.1.3 Tribal consultation***

To meet the requirements of Section 106 of the NHPA and Executive Order 13175, the Ambler Traditional Council, a federally recognized Tribe, was invited to participate in the NEPA process for the project. On August 6, 2012, FAA sent a government-to-government consultation initiation letter to the Ambler Traditional Council. The scoping letter describes the proposed project, summarizes the research and consultation that has taken place regarding historic properties in the project area, and requests comments regarding the project. No response was received.

### ***6.1.4 Public involvement***

Project newsletters, posters, and comments sheets were sent to the postmaster in Ambler in March 2003. Project posters and comment sheets were distributed to the Ambler School, City Office, and the IRA Tribal Council Office. In addition, project posters and comment sheets were placed in the foyer and lobby of the Ambler Post Office. Newsletters were distributed to every post office box holder. Written and verbal comments were accepted by mail, fax, email, and phone. Two Ambler residents provided comments, both in favor of the proposed improvements. Questions and issues included whether the fuel line would be relocated, whether the FAA weather station would be impacted, and whether an emergency telephone could be installed near the school or Tribal office to help when there are flight difficulties.

A public information meeting was held on December 18, 2012, to provide the community with a project update. No formal comments were solicited or received as part of the meeting. The discussion and questions focused on the issue of using and handling NOA-containing materials as part of this project. Commenters expressed an interest in reducing dust generation from the road and runways. Commenters also expressed an interest in local employment opportunities generated by the proposed construction projects. Full meeting notes are included in Appendix A.

## **7 List of Preparers**

<b>Name</b>	<b>Title and Role</b>
Ryan Anderson, P.E.	DOT&PF Aviation Design Group Chief
Chris Johnston, P.E.	DOT&PF Project Manager
Paul Karczmarczyk	DOT&PF Environmental Impact Analyst, Environmental Analysis and Document Review
Scott Maybrier	DOT&PF Design Engineer
Mark Dalton	HDR Alaska, Inc. Contract Manager
Linda Smith	HDR Alaska, Inc. Project Manager, Environmental Analysis, and Document Author
Jon Schick	HDR, Inc. GIS Analyst and Graphics editor
Malcolm Salway	HDR Alaska, Inc. Wetlands Analysis
Simon Wigren	HDR Alaska, Inc. 404 Permit Preparation
Tina Adair	HDR Alaska, Inc. Technical Editor
Quentin Gehring	Shannon & Wilson Geotechnical Engineer
Becki Kniveton	Shannon & Wilson, Phase I Environmental Site Assessment

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# Figures




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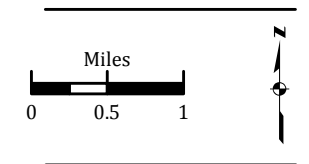
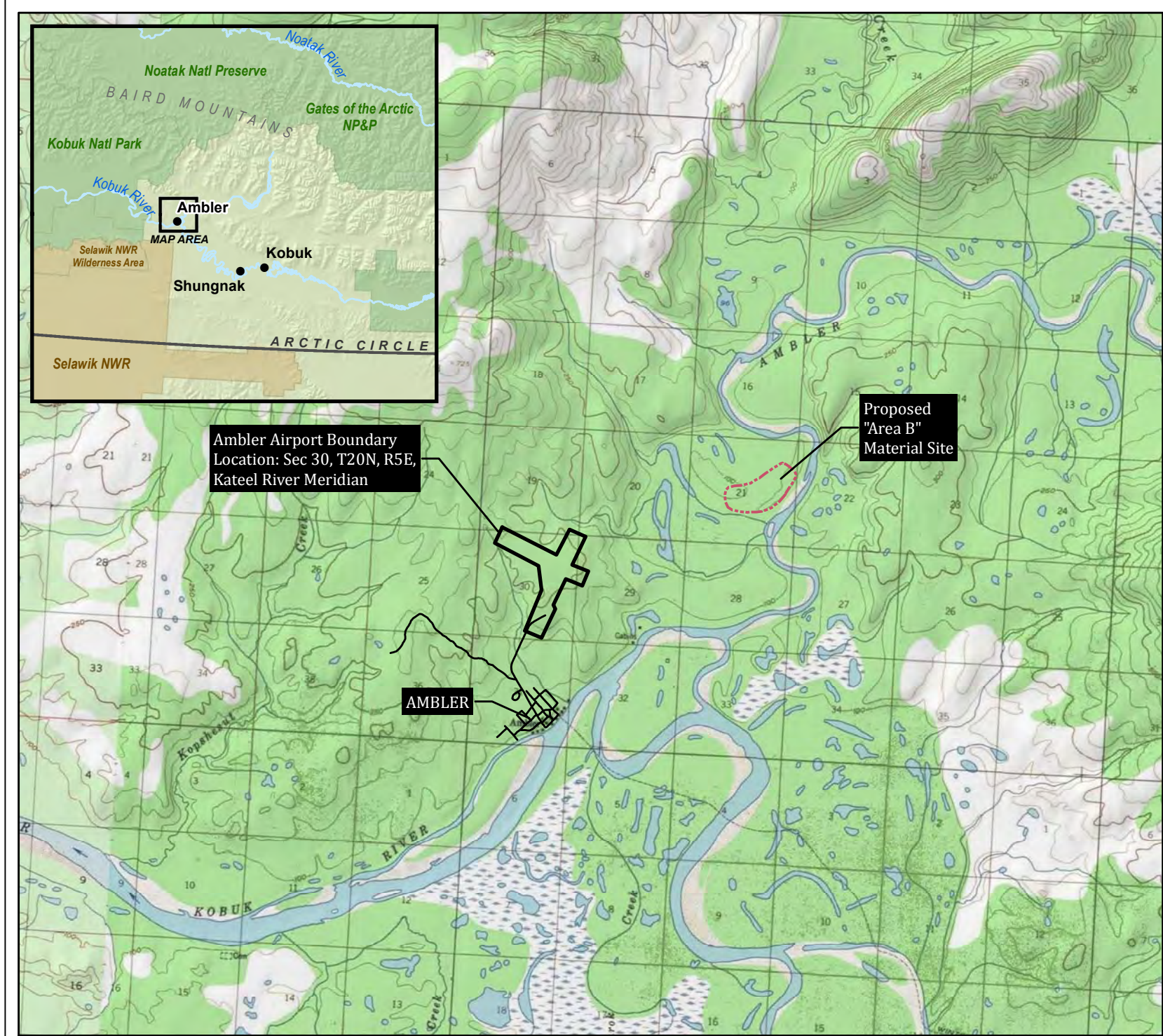
# Ambler Airport Improvements

ENVIRONMENTAL ASSESSMENT  
ADOT&PF Project No. 61303

## FIGURE 1 Project Location and Vicinity

### LEGEND

-  Existing Road
-  Airport Boundary
-  Material Site







Datum: NAD 1983  
Projection: Albers  
Sources: NGS, DNR, ADOT&PF, HDR, GINA  
Author: HDR Alaska, Inc.  
Date: January 17, 2013

# Ambler Airport Improvements

ENVIRONMENTAL ASSESSMENT  
ADOT&PF Project No. 61303

## FIGURE 2 Existing Airport Property

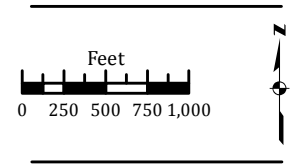
### LEGEND

-  Airport Property
-  Runway Protection Zone (RPZ)
-  Existing Road
-  Stream



Existing Airport  
Material Site  
(CLOSED)

\* Aerial photography source:  
DOT&PF, dated Aug. 2012.  
Actual photo date unknown.



Sources: ADOT&PF, HDR  
Author: HDR Alaska, Inc.  
Date: January 25, 2013  
Projection: AK State Plane Zn 6 NAD83 feet

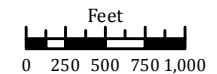
# Ambler Airport Improvements

ENVIRONMENTAL ASSESSMENT  
ADOT&PF Project No. 61303

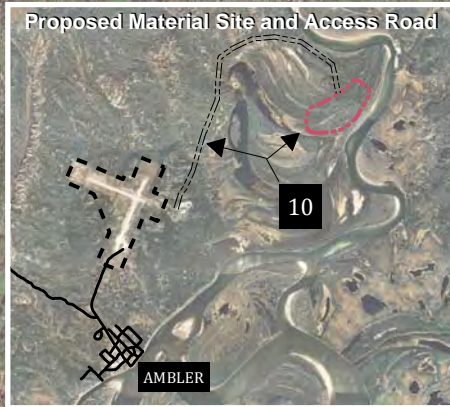
## FIGURE 3 Proposed Airport Improvements

### LEGEND

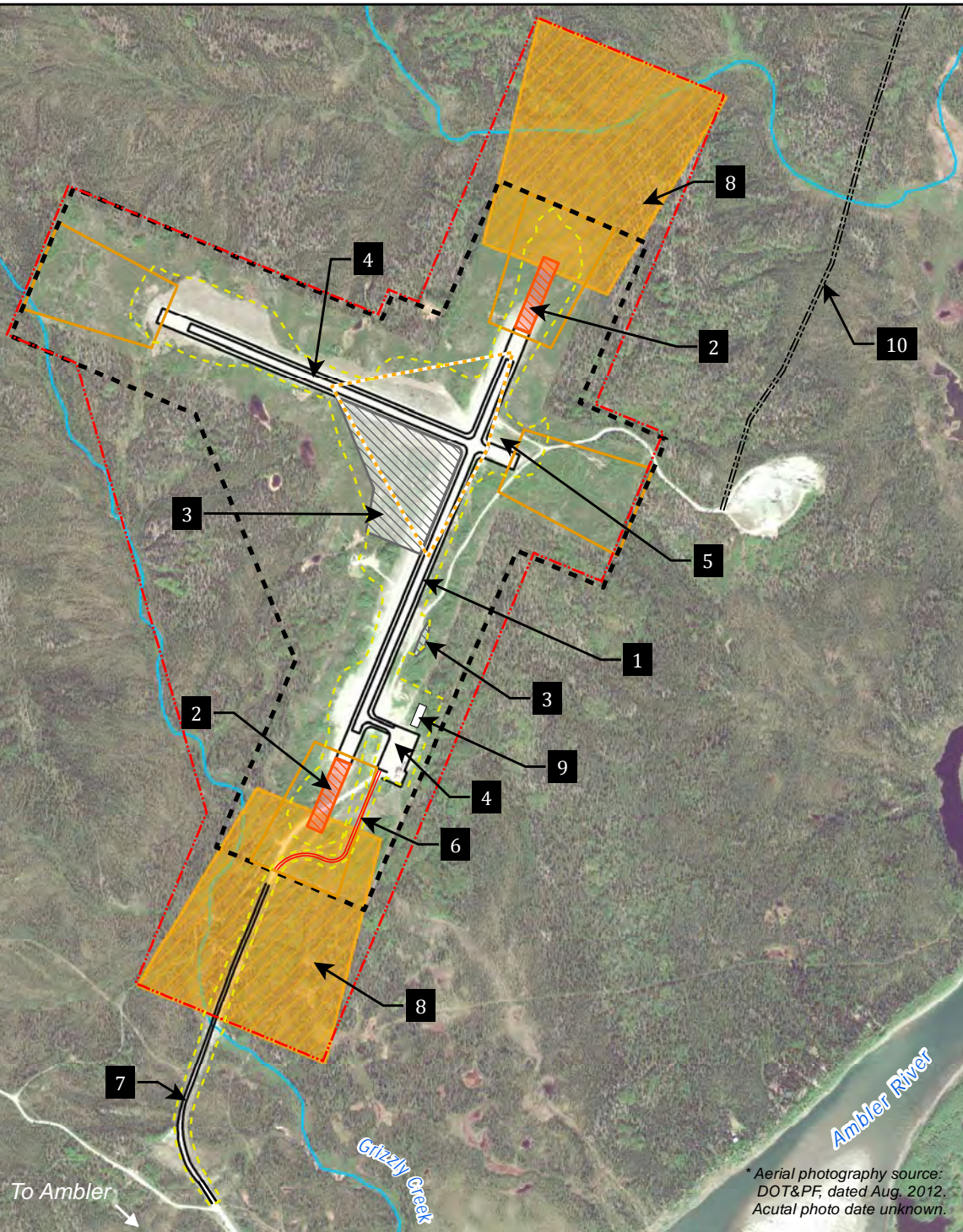
- Proposed Improvements**
-  RPZ Extension
  -  Runway and RSA Extension
  -  Terrain Obstruction Excavation
  -  Proposed Airport Property
  -  Material Site
  -  Material Site Access Road
  -  Airport Access Road Realignment
  -  Toe of Slope
- Existing Features**
-  Existing RPZ
  -  Existing Property
  -  Runway Visibility Zone (RVZ)
  -  Stream



Sources: ADOT&PF, HDR  
Author: HDR Alaska, Inc.  
Date: May 3, 2013  
Projection: AK State Plane Zn 6 NAD83 feet



- ### PROPOSED IMPROVEMENTS
1. Lengthen main runway 18-36 to 4,000 ft. and widen to 75 ft.
  2. Lengthen runway 18-36 Runway Safety Area (RSA) to 4,600 ft. and widen to 150 ft.
  3. Remove terrain obstructions
  4. Overlay runway, taxiway, apron, and embankments with surface coarse material
  5. Install airport lighting and navigational aids
  6. Realign 1,240 ft. of Waring Street.
  7. Rehabilitate and resurface 2,750 ft. of Waring Street.
  8. Acquire land for Airport expansion and proposed Runway Protection Zones (RPZs)
  9. Construct new Snow Removal Equipment Building (SREB)
  10. Construct material site access road and develop material site



Aerial photography source:  
DOT&PF, dated Aug. 2012.  
Aerial photo date unknown.

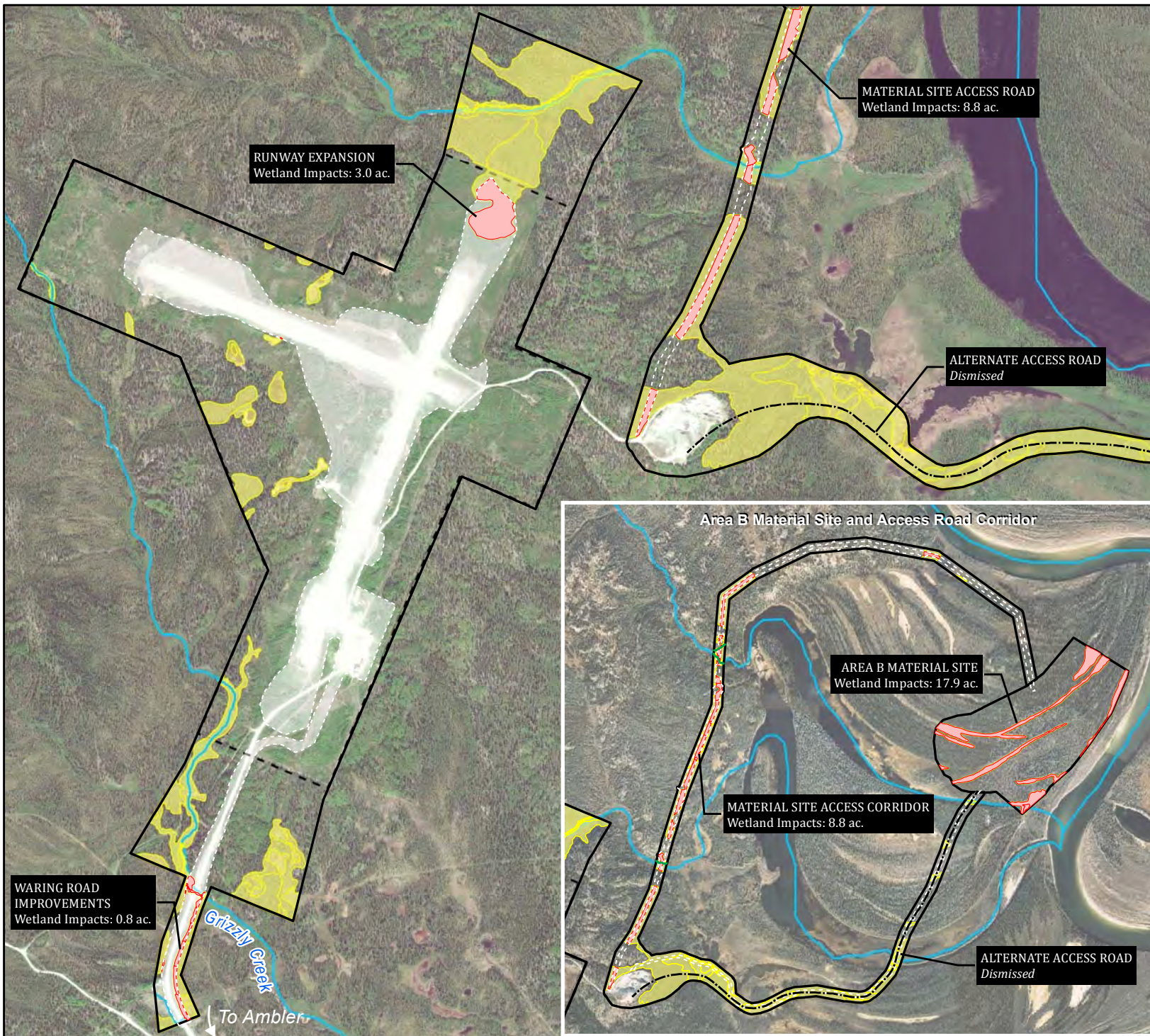
# Ambler Airport Improvements

ENVIRONMENTAL ASSESSMENT  
ADOT&PF Project No. 61303

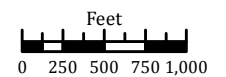
## FIGURE 4 Wetland Impacts

### LEGEND

-  Wetland Impacts
-  Wetland
-  Wetland Mapping Area
-  Stream
-  Cut/Fill Area
-  Airport Property



\* Aerial photography source:  
DOT&PF, dated Aug. 2012.  
Actual photo date unknown.



Sources: ADOT&PF, HDR  
Author: HDR Alaska, Inc.  
Date: April 5, 2013  
Projection: AK State Plane Zn 6 NAD83 feet