

# Appendix F Initial Site Assessment

**Initial Site Assessment**  
**Takotna Airport Project**

*Prepared for:*

Alaska Department of Transportation and Public Facilities  
Central Region

*Prepared by:*

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## 1.0 Introduction

The Alaska Department of Transportation and Public Facilities (DOT&PF) is preparing an airport master plan for the community of Takotna. DOT&PF contracted with HDR Alaska, Inc. (HDR) to develop the master plan and prepare an environmental assessment (EA), a required element of the master plan. This report presents the results of the initial site assessment (ISA) that will become part of the EA for airport improvements at Takotna.

The Takotna Airport was identified by the DOT&PF as needing airport improvements because of facility deficiencies and safety issues (as shown in Figure 1). Two alternatives are under consideration: the proposed action alternative and a no-action alternative. In Alternative C, or the proposed action alternative, the airport would be relocated approximately 2.1 km (1.3 mi) east of the village (Figure 2). In Alternative E, or the no action alternative, no improvements to airport facilities would occur under this project.

The ISA for Takotna consisted of the following activities:

- Visual inspection of the proposed airport location
- Visual inspection of the existing airport and surrounding area
- A review of agency files and coordination with knowledgeable parties
- Records search of property ownership

On September 25, 2000, Sally Boggs of HDR visited the airport and the sites of the proposed alternatives. Visual observations were made of contaminant sources at or affecting the sites.

## 2.0 Limitations

The primary objective of an ISA is to address the potential environmental significance of previous activities and practices at the airport and alternative sites. To do this it is necessary to:

1. Establish a history of previous uses and evidence of noncompliance with regulations, and
2. Determine, through on-site inspection, whether or not there is cause for environmental concern.

## 3.0 Community Background

Takotna is located on the Takotna River in the Kuskokwim Mountains of interior Alaska. The community is approximately 27 kilometers (km) [17 miles (mi)] west of McGrath, the regional economic and transportation hub, and 383 km (238 mi) northwest of Anchorage. Historically, the main economic base of the area was gold mining and Takotna was the center of commerce for local miners. McGrath became the supply center during the 1930's as gold mining declined and commercial companies left Takotna.

Today, Takotna has a combined cash and subsistence economy. Employment is provided by the school district, utility companies, community government and services, the post office, library,

general store, and bar. Takotna is connected by road to Tatalina Air force Station (AFS), constructed about 1950, which offers some opportunities for local employment. The 1999 population reported by the Alaska Department of Community and Regional Affairs (DCRA) is 58, 55 % of whom are Caucasian and 45% Native. The Native community includes Eskimos and Ingalik Indians.

Transportation in Takotna was historically by boat via the Takotna River during open water and overland (by dogsled) after freeze up. Roads were constructed in the 1920's and 1930's that connected Takotna to the Kuskokwim River to the east and the community of Ophir to the west. A road was built from Takotna to Tatalina AFS when that facility was constructed in the 1950's. There are 129 km (80 mi) of roads connected to the community. The existing state owned airport at Takotna is on a ridge north of town at an elevation of 251 meters (m) [825 feet (ft)]. When necessary, the runway at the AFS is available for local civilian use.

Public facilities in the community include a health clinic, school, community hall, washeteria, post office, firehouse, library, generator building and shop, Takotna Community Services Association (TCSA) offices, and the community church. There are also a charter school, private store, and bar.

Electricity is provided by the TCSA using one 85 kilowatt (kW) and two 50 kW diesel generators. Primarily stove oil and wood are used for home heating. Drinking water comes from a combination of a public watering point/washeteria, surface water sources, and individual wells. Sewage is disposed of by using onsite cesspools, seepage pits, pit privy, and honey bucket. There are several buildings in town with septic tanks and separate leach fields. The existing landfill/dump is approximately 3.2 km (2 mi) west of town on the road system. This places it approximately 1,524 m (5,000 ft) from the existing airport, the separation distance required by FAA for avoidance of airplane/bird interactions.

## **4.0 Environmental Review**

### **4.1 Location and Land Ownership**

Takotna lies at approximately 62° 59' N Latitude, 156° 04' W Longitude, Sec. 35, T034N, R036W, Seward Meridian, and the project area involves Sections 2 and 35. Land ownership is a mix of village corporation and native allotments.

### **4.2 Site Features and Land Use**

Land surrounding Takotna is in relatively pristine condition. Subsistence hunting and fishing are common activities. Roads and trails are used by wheeled vehicles in summer and snowmachines in winter. Gold mining and trapping are popular commercial activities.

The lands surrounding Takotna are Alaska Native Claims Settlement Act (ANCSA) 14(c)(3) lands. A total of 1,280 acres (ac) is held in trust by the state for Takotna Village until it becomes a second class city. As a stipulation of ANCSA, residents have surface rights only. The 14(c)(3)

lands are commonly referred to by residents as “1280 lands,” because there are 1,280 ac in the trust.

MTNT, Ltd., (the ANCSA village corporation for the villages of McGrath, Takotna, Nikolai, and Telida) land surrounds the village lands, for which the corporation has surface rights only. Doyon, Ltd., (an ANCSA regional corporation) and state lands surround MTNT land. Doyon Ltd. holds the subsurface estate for all uplands except Native Allotments. Any excavation of subsurface materials requires an agreement with Doyon, Ltd. Four Native Allotments, which have been surveyed and conveyed to the allottees, are located on the south bank of the Takotna River in the area directly across from the village.

The existing Takotna Airport is located on Air Navigation Site (ANS) #131, which is still in federal control. Created on June 14, 1933, ANS #131 withdrew 13.9 hectares (34.4 ac) under the jurisdiction of the Department of Interior, for the benefit of the Territory of Alaska, Department of Aviation. DOT&PF now operates Takotna Airport pursuant to Alaska statehood.

The U.S. Air Force (USAF) owns a large parcel of land surrounding Tatalina AFS. Portions of the Iditarod National Historic Trail (INHT) are near Takotna. No other publicly owned park, recreation area, or wildlife refuge is in the vicinity of Takotna. The Iditarod Trail is the only historic property in the area.

### **4.3 Proposed Airport Improvements**

Alternative C, the proposed action alternative, would involve relocating the airport to a new location about 2.1 km (1.3 mi) east of the village (see Figure 2). A new runway would be aligned approximately 05/23, parallel with prevailing winds as described by pilots and residents. A 1.8 km (1.1 mi) airport access road would be constructed from existing roads at the easterly limits of the village to the new apron, as well as 1.8 km (1.1 mi) of power line extension for airport lighting.

This alternative would allow adequate room to adjust the alignment during future stages of the master plan. It would also allow adequate room to extend the runway to 1524 m (5,000 ft) to meet transport class criteria. Extending the runway to the east may impact a stream, which may force development to the west. Land would need to be acquired from MTNT Ltd. The dimensions and components needed to create a new airport that meets current FAA standards and DOT&PF recommendations for the build alternative follow. The runway would be 1,211 m (4,000 ft) long and 23 m (75 ft) wide with a 3 m (10 ft) wide shoulder. FAA standards and DOT&PF recommendations for runway length for a community of this size in this area would be 3,110 ft and 3,300 ft respectively. The Yukon-Kuskowkim Delta Transportation Plan (DOT&PF 1999) recommends 4,000 ft runways for communities in this area and the community has successfully lobbied DOT&PF to plan a runway of this length for Takotna. The runway would sit centered on a safety area 36 m (120 ft) wide that would extend 72 m (240 ft) beyond the runway end. A runway protection zone (RPZ) would extend approximately 300 m (1,000 ft) beyond each end of the runway. The apron would be 60 m by 90 m (200 ft by 300 ft), or 5,574 m<sup>2</sup> (60,000 ft<sup>2</sup>) with an aviation support area approximately 30 m by 90 m (100 ft by 300 ft),

contiguous to the apron. The apron and support area would be connected to the runway by a taxiway 7.5 m (25 ft) wide. An aviation support area, large enough to accommodate three lease lots 30 m by 30 m (100 ft by 100 ft) and a new 5.4 m (18 ft) wide access road would be constructed. An additional maintenance and operations lot, 30 m by 30 m (100 ft by 100 ft), would be developed adjacent to the lease lots.

The build alternative would have lighting that meets DOT&PF's recommendations. This would include radio controlled medium intensity runway lighting, reflective cones, threshold panels, and a lighted windsock and segmented circle. There would also be a supplemental unlighted wind cone. A 7 m by 14 m (24 ft by 46 ft) unheated airport snow removal and equipment storage building would be constructed adjacent to the aviation support area. Fuel for snow removal equipment would be stored in a double-walled skid-mounted tank with a capacity of 1,900 liters (500 gallons). No fuel for aircraft use would be stored in the equipment storage building. Culverts would be installed where needed to maintain existing drainage patterns.

#### **4.4 Site Specific Information**

##### *4.4.1 Alternative C – Proposed Action Alternative*

Under the proposed action alternative, construction of the airport and access road in a new location would require fill and surfacing materials. There are no known gravel sources in the community and gravel would have to be imported. Materials suitable for construction of the embankment are available locally. The most likely embankment material source is adjacent to the proposed runway. Materials would be excavated and placed during winter. Dewatering time will depend on the water and ice content of the material. Best management practices would be employed to prevent water quality impacts due to draining embankment material. Final selection of a materials source is left to the discretion of the contractor who may elect to use a source of their own choosing.

Electricity would be installed on overhead power poles set within the access road right of way but outside of the embankment. Disturbance would be minimal because installation would be done after freeze-up and would only require the drilling of an approximately 28 centimeters (12 inches) diameter hole for each pole.

##### *4.4.2 Alternative E - No Action*

Consideration of a no action alternative in the EA is required by the National Environmental Policy Act. No construction would occur if this alternative was selected.

#### **4.5 Previous Environmental Investigations**

No records of previous environmental investigations at any of the proposed build alternatives were located.

#### 4.6 Land Use Checklist Survey

Individuals and organizations expected to have knowledge of historic and existing land use and activities in the project area including the Takotna Village Council, the Takotna Community Association, and MTNT Ltd. were contacted or sent a checklist to complete. As of this report, none of the checklist surveys have been returned.

#### 4.6 Records Search

The Alaska Department of Environmental Conservation (ADEC) maintains an inventory of spills and contaminated sites. A search of their files found no records relating to the project area.

#### 4.7 Photographs

Both aerial and on-the-ground photographs of the project area were examined. The following table summarizes the aerial photographs reviewed.

<b>Year</b>	<b>Scale</b>	<b>Color/BW</b>
1989	1":1000'	BW
1997	1":800'	Color
2000	1":600'	Color

*Proposed Action (Alternative C):* Other than trails, no unusual features or evidence of previous activities (e.g. established dumps) were evident in the aerial photography - there were no buildings, structures, or equipment.

*No Action (Alternative E):* No signs of based aircraft, fuel storage facilities, or refueling equipment were evident on the aerial photography. A small shed on the north side of the apron is apparent in the 1997 photography that is not present in 1989.

The locations of photos taken are shown on the attached exhibit and briefly described below.

#### Photograph #

1. Automobile engine just west of access road and north of runway.
2. Transformer and cable north of runway (ACME Electric Corp. Distribution Transformer).
3. Transformer north of runway.
4. Transformers, cable, electrical boxes north of runway.
5. "HEET" antifreeze bottles, trash north of runway.
6. Empty 55 gallon drum in equipment storage area north of runway.
7. Empty 55 gallon drum used for target practice north of runway.
8. Fuel filters used for target practice north of runway.
9. Drums stored adjacent to airport property south of runway.
10. Junked vehicles and drums adjacent to airport property south of runway.
11. Crushed 55 gallon drums off east end of runway.

12. Parked dump truck and lowboy with empty 55 gallon drums and oil container at east end of apron area.
13. Empty 55 gallon drum with trash on north side of apron area.
14. Junked vehicles on north side of apron area.
15. Parked vehicles on north side of apron area.
16. Empty "Coleman" fuel cans on north side of apron area.
17. Wetland Site #1 in proposed project location.
18. Wetland Site #2 in proposed project location.
19. Iditarod trail just west of small stream crossed by proposed access road (looking east).
20. Iditarod trail just west of small stream crossed by proposed access road (looking west).

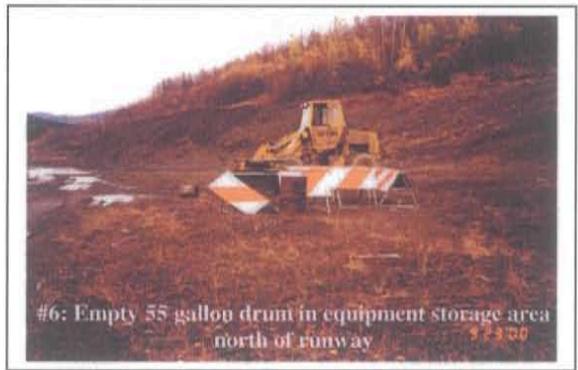
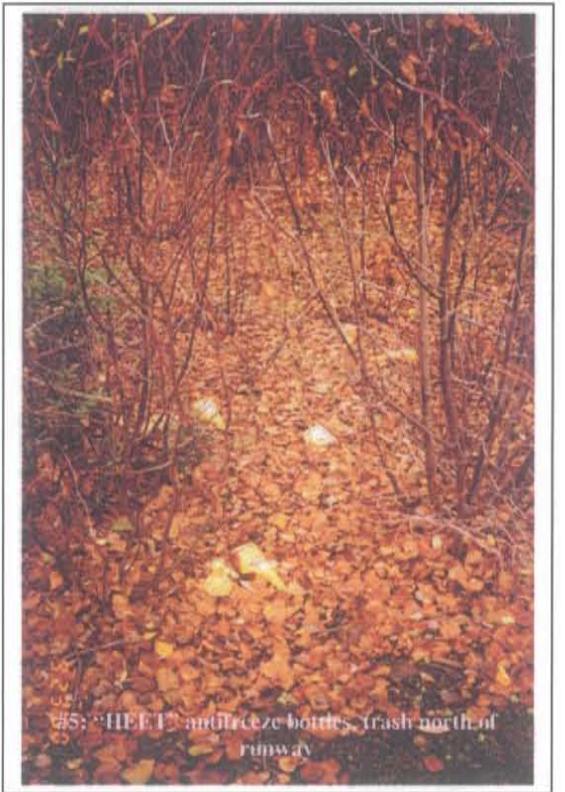
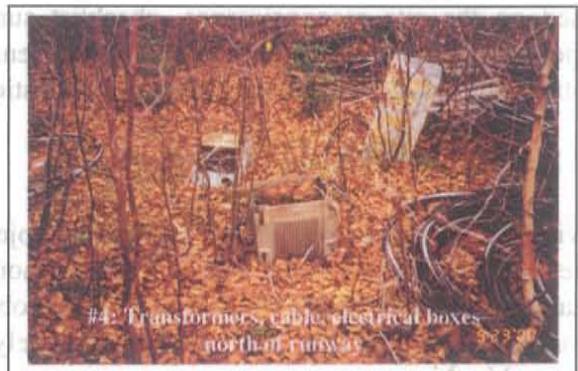
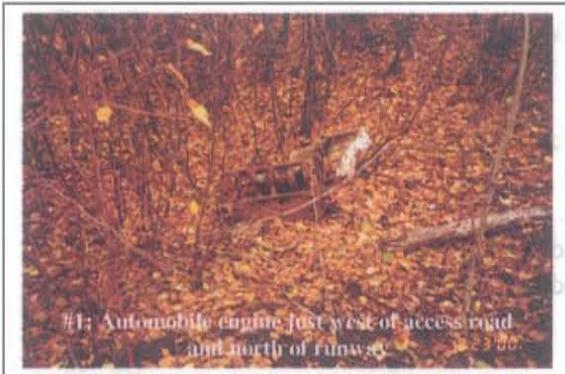
## **5.0 Conclusion**

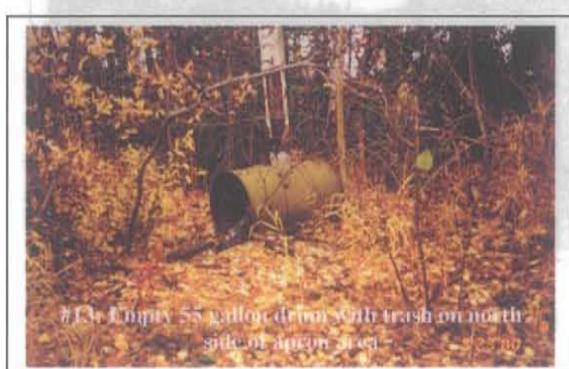
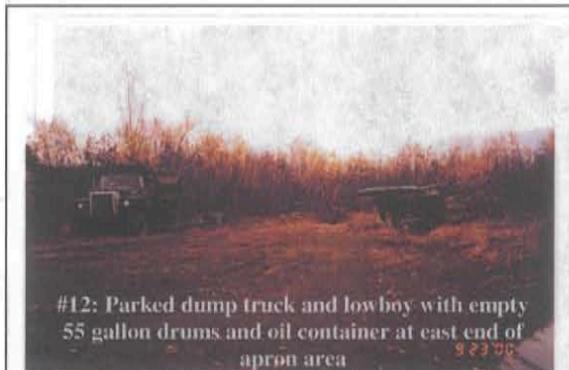
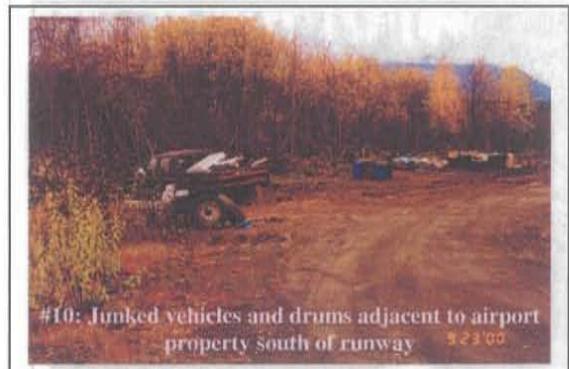
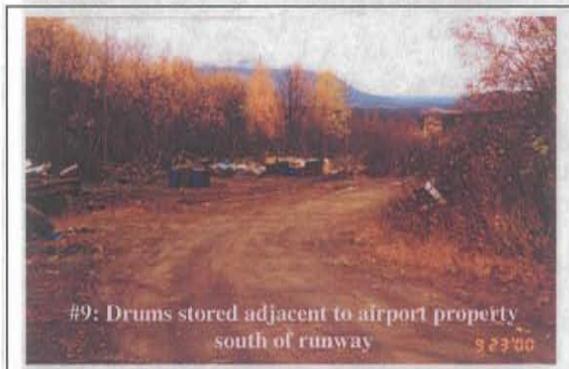
Based on the site reconnaissance, checklist survey, examination of aerial photographs, and inspection of ADEC records, the risk of encountering hazardous materials or areas of contamination at either the build alternative location or the existing airport is low.

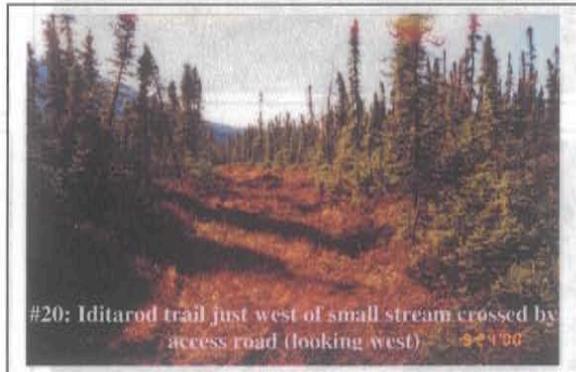
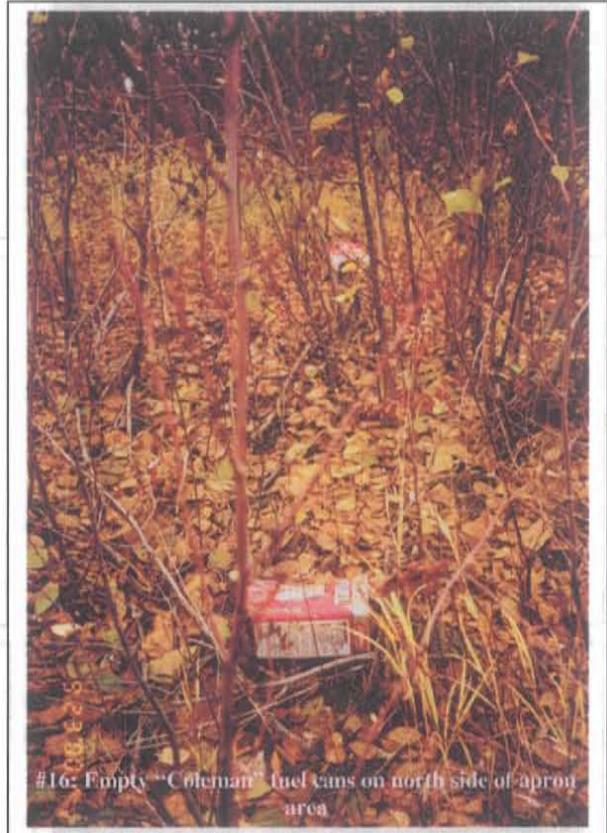
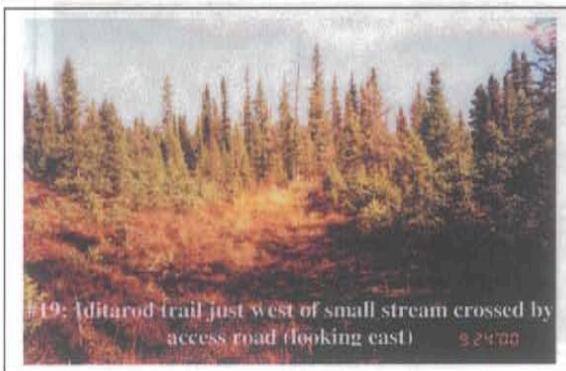
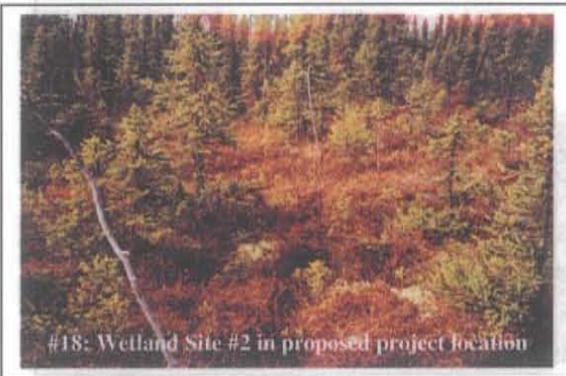
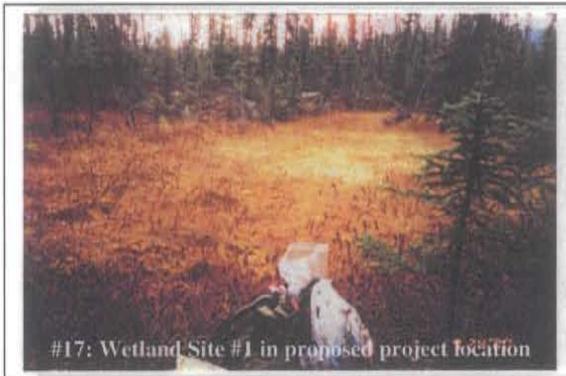
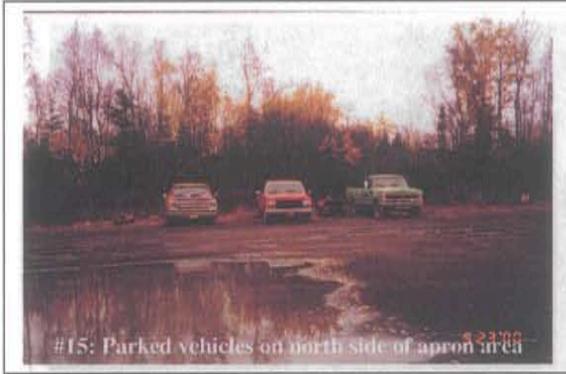
## **6.0 Hold Harmless Statement**

Environmental conditions may exist in the project area that could not be identified by visual observations. HDR's initial site assessment should not be construed to mean that there are no hazardous materials at any site, but that HDR's observation of the surface and the examination of records did not disclose the presence or likely presence of hazardous materials except as indicated in this report.

**Takotna Photos**









Date  
March 2001

Figure  
**1**

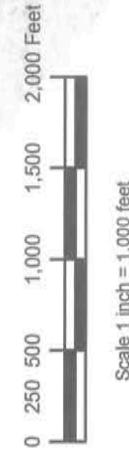
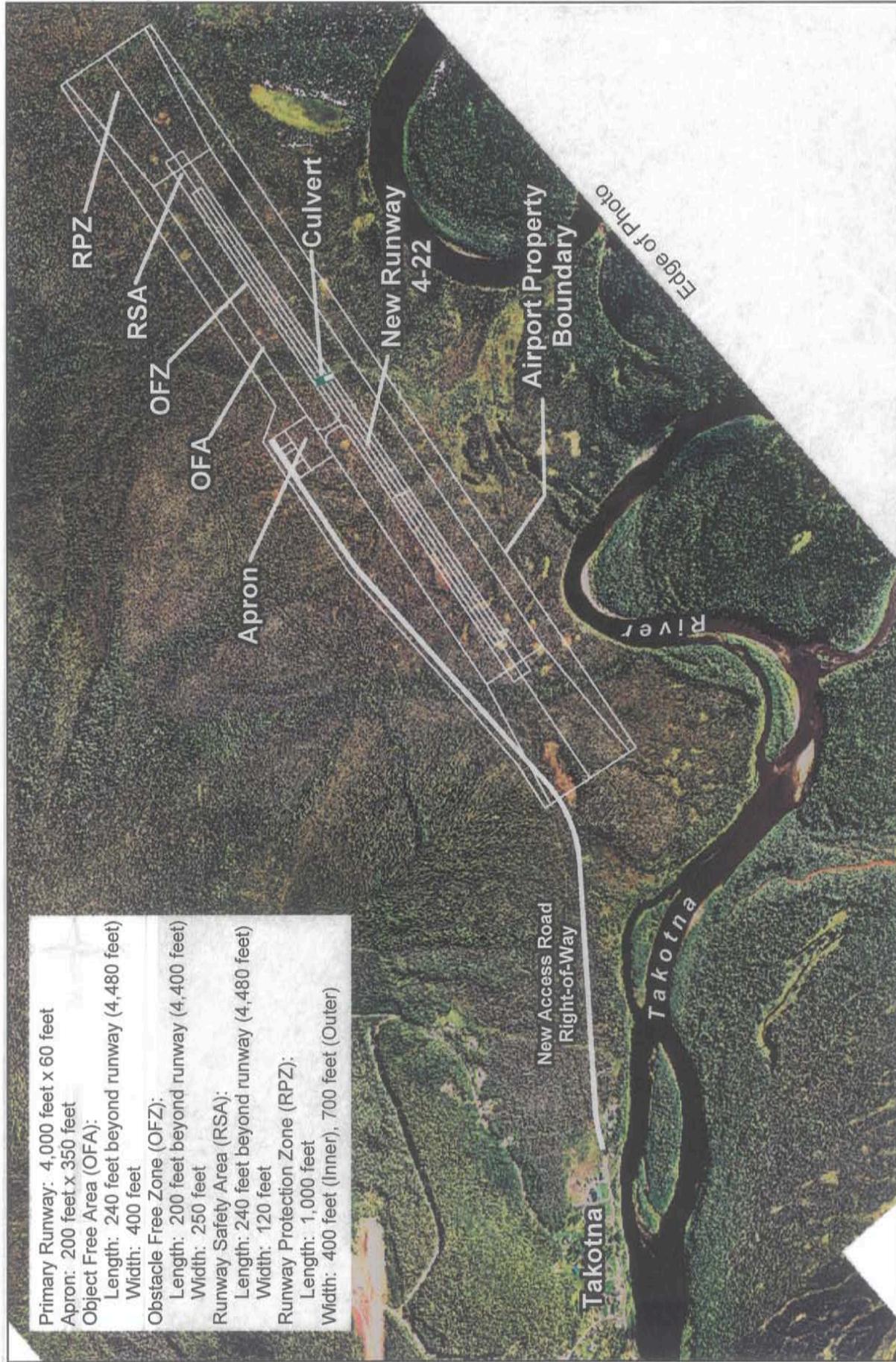
Takotna Airport Project  
Project No. 54011

### Existing Airport Conditions



Scale 1 inch = 400 ft.

Primary Runway: 4,000 feet x 60 feet  
 Apron: 200 feet x 350 feet  
 Object Free Area (OFA):  
 Length: 240 feet beyond runway (4,480 feet)  
 Width: 400 feet  
 Obstacle Free Zone (OFZ):  
 Length: 200 feet beyond runway (4,400 feet)  
 Width: 250 feet  
 Runway Safety Area (RSA):  
 Length: 240 feet beyond runway (4,480 feet)  
 Width: 120 feet  
 Runway Protection Zone (RPZ):  
 Length: 1,000 feet  
 Width: 400 feet (Inner), 700 feet (Outer)



Takotna Airport Project  
 Project No. 54011

### Proposed Action (Alternative C)

Date  
 March 2001

Figure  
 2