

ENVIRONMENTAL ASSESSMENT

Case File No.: AA-77835

AK-040-02-EA-006

Applicant: State of Alaska  
Department of Transportation and Public Facilities  
2301 Peger Road  
Fairbanks, Alaska 99709-5399

Type of  
Action: Mineral Material Exploration

Location: Section 5, T. 29 N., R. 58 W., Seward Meridian, Alaska

Prepared By: Carl Persson, Geologist

Preparing: Anchorage Field Office  
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Date: December 12, 2001

## I. INTRODUCTION

### A. Purpose and Need for the Proposed Action:

The State of Alaska Department of Transportation and Public Facilities (ADOT&PF), has requested authorization to conduct geotechnical exploration near the village of Anvik in preparation for proposed airport improvements. The geotechnical exploration will determine soil conditions and identify potential sources for mineral materials.

### B. Conformance With Land Use Plan:

The BLM compiled a Management Framework Plan (MFP) for the Southwest Planning Area in 1981. The subject of mineral material exploration was not dealt with in this planning effort, but generally, the plan encourages development of mineral resources.

### C. Relationship to Statutes, Regulations, Policies, Plans or Other Environmental Analyses:

The authority for BLM to allow the Proposed Action is provided generally by 43 CFR 3600, and more specifically by 43 CFR 3610. An EA was prepared by Bureau of Land Management (BLM) specialists in 1996, at the same general location, in response to a request to develop a new source of rock material for a water and sewer project for the village of Anvik. However, since the exploration will involve a broader area than the 1996 rock quarry site, it was determined that a new EA is necessary.

## II. PROPOSED ACTION AND ALTERNATIVES

### A. Proposed Action:

The ADOT&PF is proposing to conduct geotechnical work, including soil studies and mineral material exploration for a proposed airport expansion project for the village of Anvik. The subject lands are located on Native selected lands within Section 5, T. 29 N., R. 58 W., Seward Meridian. Approximate coordinates are 62 degrees 39'15"N and 160 degrees 12'30"W. The exploration will occur on top of the bench south of the current airstrip, adjacent to the Yukon River, in a relatively dry upland environment. The exploration will be conducted using a skid-mounted CME 45 auger drill. A dozer and back hoe will be used to support drilling and test pit excavation. Some road and drilling pad construction will be required. Fifteen to thirty borings will be drilled to 15-50 feet of depth, approximately 250-500 feet apart. Most of the proposed bore holes are surrounding the existing rock pit that has been the subject of two recent mineral material sales conducted by the BLM. The work is scheduled to begin early this winter.

A summary of the Proposed Action as presented in the Field Exploration Plan and in discussions with the ADOT&PF Project Manager, is as follows:

Initial borings will be off the southern end of the existing airstrip and the area surrounding the existing rock pit (see planned bore hole location map located in Case File AA-77835). Equipment would be staged in the village, not onsite. Fuel would be provided by a mobile tank mounted on a pickup truck. No fuel will be stored onsite. Excavation and fill activities will be conducted to prevent silt and sediment from migrating outside of the project area. No explosives will be used in the Proposed Action. Access would be along yet to be constructed access trails. The exact location and associated acreages of the access roads has not yet been determined. The access trails would be constructed by clearing a rough trail to a width of 12 feet or less with a small dozer. Sharp turns will be avoided. The dozer operator will be directed to minimize disturbance to the organic layer. Drill pads located on slopes would be cleared and leveled. All holes will be reclaimed to approximate original ground surface. Where present on drill sites, topsoil and organic layers will be stockpiled on a half sheet of plywood and replaced after the bore hole is reclaimed.

B. No Action Alternative:

The No Action Alternative would deny the mineral material exploration application for public lands administered by the BLM. The project could be delayed for one year, when conveyance of the land is scheduled, or if new material sites had to be located.

III. **AFFECTED ENVIRONMENT**

Anvik is located in interior Alaska, near the mouth of the Anvik River where it flows into the Yukon River. Anvik is located 21 miles south of the village of Grayling, and 34 miles north of the village of Holy Cross, which are the nearest neighboring communities. The human population varies seasonally, but averages approximately 100, with over 90% being predominantly Athabascan Native. Anvik is an incorporated Second Class City governed by a City Council. Access to the general area can be achieved only by small aircraft or boat. The site is located within Section 5, T. 29 N., R. 58 W., Seward Meridian, Alaska.

A. Critical Elements:

The following critical elements of the human environment have been analyzed and are either not present or will not be affected by the Proposed Action or Alternative:

- Areas of Critical Environmental Concern
- Environmental Justice
- Farmlands (Prime or Unique)
- Floodplains
- Invasive, Non-native Species
- Native American Religious Concerns
- Wastes, Hazardous/Solid
- Water Quality (Surface/Ground)
- Wetlands/Riparian Zones
- Wild and Scenic Rivers
- Wilderness

1. Cultural Resources:

An examination of the literature identified several known cultural sites in the vicinity, but no known sites at the rock quarry and immediately surrounding area. SJS Archaeological Services, Inc., did an archaeological literature review and field survey in 1994 for the water and sewer project. In 1995 Northern Land Use Research, Inc. (NLUR) did archaeological monitoring on gravel excavation and associated road blading on the same bench as the current project. No cultural remains were found during this project. During the summer of 2001 a survey crew from the Office of History and Archaeology surveyed the project area. No cultural material was found or is known for the project area except for the Hawk Bluff area.

Suspected grave sites are located a mile to the north, near the village along the top of Hawk Bluff. Hawk Bluff is a sensitive area for cultural resources. Site XHC-00084 is identified in the AHRS as containing house pits and burials. Site XHC-00017 is identified as an historic site of the Ingalik people. The ADOT&PF has identified this area as “proposed material site D”. Consultation with the SHPO’s Office of Compliance and Review section reveals that the contractor will not use the material site previously proposed for the Hawk Bluff area in light of this information.

2. Subsistence:

No subsistence use of the site, past or present, is known or suspected.

3. T&E Species:

T&E species consultation on the original pit development was conducted in 1995 by the U.S. Fish and Wildlife Service (USF&WS), National Marine Fisheries Service, and the Nature Conservancy Heritage Program. No unique or special habitat was identified at the site. No T&E species of plants or animals were identified. However, the site is near inactive peregrine falcon nesting sites. No peregrine falcons have been using these nesting sites in recent years. No fisheries values were identified at the site.

B. Geology:

The geology of the site consists of Holocene alluvium with a thick organic layer on top, covering an unknown bedrock, at approximately 8-12 foot depth. The most recent geologic map of the area indicates Holocene alluvium. The underlying bedrock may consist of a highly weathered Tertiary-Cretaceous aged volcanics, which are shown on the geologic map in a wide belt to the north, south and west of the site. Detailed geologic maps have never been compiled for this part of the State.

C. Land Status:

The land is withdrawn by Public Land Order (PLO) No. 5184, a blanket land order which in 1972 withdrew lands for classification and Native selection. PLO No. 5184 also withdrew lands from State selection, the staking of mining claims and mineral leasing. The surface estate is selected by Deloy Ges Corporation, the local Anvik village Native Corporation, selection application F-14832-B. On conveyance to the village, the subsurface would go to Doyon, the local regional Native Corporation. Additionally there is a top-filing by the State of Alaska, selection application AA-76964. Letters of non-objection have already been received from Doyon and Deloy Ges Corporation (formerly Ingalik Village Corporation).

D. Vegetation:

Existing vegetation consists of approximately 50/50 cover of white spruce, and hardwoods consisting of paper birch and cottonwood, with a ground cover of various willows, berries, prickly rose and labrador tea. A thick organic soil layer underlies the vegetation. The timber present on the site has minimal value commercially.

V. ENVIRONMENTAL CONSEQUENCES

A. Impacts of the Proposed Action:

1. Critical Elements:

a. Air Quality:

There will be minor impacts to the local air quality caused by dust and emissions from the dozer and drill equipment. The impacts will be temporary.

b. Cultural Resources:

There is a possibility of unknown grave sites being disturbed by ground clearance activities. Several known cultural sites were identified in the general area, but no sites are known in the vicinity of the proposed rock quarry and access road. The project area lies in a location that would make cultural sites unlikely due to steep topography, distance, and elevation from the river.

c. T&E Species:

Hawk Bluff has had nesting sites of peregrine falcons in the past. According to the USF&WS, no peregrines have been using this site in recent years. They reported nine known nest locations within a 15 mile radius of Anvik. There was concern expressed by the USF&WS that the noise and activity could prevent potential future nesting activity on Hawk Bluff. This concern should be eliminated by timing the work to occur after August when the nesting activity has ceased and the birds have migrated south for the winter, and finishing the work before April, when they arrive and begin nesting activity in the spring.

2. Soil/Vegetation:

The principle impact of the proposed geotechnical work would be the temporary removal of soil and vegetation from a relatively undisturbed area. Topsoil will be stockpiled so it will be available for final reclamation at some unspecified period in the future.

3. Noise:

The trail and drill pad construction will create moderate amounts of noise and dust. The dust and any other potential erosion problems will be minimized or eliminated by doing the work during the winter. The noise may cause some local wildlife to temporarily relocate. Again this impact will be minimized or

eliminated by doing the work during the winter. The work should have negligible effects on the little public use that does occur in this area.

4. Wildlife:

The Proposed Action will not cause any impacts to Peregrine nesting sites in the general area. Additionally, there is the remote possibility of moose or bear collision related injury or mortality from truck or other vehicle traffic associated with the project. However, the noise and general level of activity around the site could cause these species to temporarily leave the area while operations are occurring. The timing of the project, with most of the work occurring during the winter, will also minimize wildlife impacts.

5. Cumulative and Residual Impacts:

The only on site residual impact of the Proposed Action will be the disturbance of approximately several acres of land, including access, and the potential future creation of a new mineral material quarry. The only off site residual impact will be the future benefit to the public of the completion of the airport improvements.

6. Mitigation Measures:

The impact analysis has identified a potential for unknown grave sites at Material Source Site D location. Site D must be avoided and no surface disturbance allowed.

Several public safety issues were identified in the analysis. The access route must be limited to 25 mph speed limitation to reduce the possibility of vehicles colliding with ATVs or animals. The route should be signed notifying the public of potential hazards.

The impact to wildlife will be mitigated by having excavation and clearing activities occur between August 31 through April 15.

B. Impacts of the No Action Alternative:

The No Action Alternative would not prevent future work for the proposed airport improvements, but would merely delay the project until after conveyance of this land, or new material sites were located. Impacts at that time would be similar to the Proposed Action.

V. CONSULTATION AND COORDINATION

A. List of Preparers:

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Jeff Denton, Subsistence Coordinator

Donna Redding, Archeologist

Mike Zaidlicz, Forester