



# United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
Glennallen Field Office  
P.O. Box 147  
Glennallen, Alaska 99588  
<http://www.blm.gov/ak>

## **Alaska Energy Authority – Seismic Monitoring Site** Environmental Assessment, DOI-BLM-AK-A020-2012-0032-EA

Case File, AA093348

### **DECISION RECORD**

#### **Background**

On August 3, 2012, Alaska Energy Authority submitted an application for a right-of-way for a seismic monitoring site. This site would support one of the study plans in conjunction with the application filed with the Federal Energy Regulatory Commission (FERC) for the Susitna-Watana Hydroelectric Project. The applicant would like to install this site during the 2012 field season.

#### **Decision**

I have decided to select *Alternative 2 – Proposed Action* for implementation. It is my decision to authorize a right-of-way for a 20-year term to facilitate the construction of a seismic monitoring station.

My decision to authorize this right-of-way is summarized as follows (refer to EA, pp. 3-4 for more detail):

1. This right-of-way is issued for twenty years, with the option for renewal.
2. All best management practices identified in the EA or attached as stipulations, terms, or conditions of the right-of-way will be utilized by the Alaska Energy Authority in the development of the project site.

This decision is based on site-specific analysis in the Alaska Energy Authority Seismic Monitoring Site (DOI-BLM-AK-A020-2012-0032-EA) and the management decisions contained in the 2007 East Alaska Resource Management Plan, Record of Decision. The attached Finding of No Significant Impact (FONSI) indicates that the alternative has been analyzed in an EA and has been found to have no significant environmental effects. Therefore, an Environmental Impact Statement is not required and will not be prepared.

#### **Rationale for the Decision**

Alternative 1, the No Action Alternative, was not selected because it would not meet the BLM's purpose for action nor would it meet the BLM's right-of-way authorization objectives identified at 43 CFR § 2801.2.

Alternative 2 was selected because it fulfills the BLM's objectives to meet the needs of State governmental agencies for uses of public lands, consistent with BLM regulations at 43 CFR § 2801.2. Furthermore, the EA has demonstrated that the right-of-way authorization can be granted and the seismic monitoring facility developed in a manner that protects the natural resources, and prevents unnecessary and undue degradation of the public lands (EA, pp. 3-4; 43 CFR § 2801.2).

### **Laws, Authorities, and Land Use Plan Conformance**

The EA and supporting documentation have been prepared consistent with the requirements of various statutes and regulations, including but not limited to:

- Alaska National Interest Lands Conservation Act of 1980 (ANILCA)
- Federal Land Policy and Management Act of 1976 (FLPMA)
- National Environmental Policy Act of 1969 (NEPA)
- National Historic Preservation Act of 1966 (NHPA)

BLM-managed lands in the project area are subject to the East Alaska Resource Management Plan (2007), which allows for making public lands available for the development of multiple use activities when balances with resource protection (EA, pp. 1-2). The selected alternative is therefore consistent with the direction in the applicable land use plan.

### **Public Involvement, Consultation, and Coordination**

A Glennallen Field Office interdisciplinary team of resource specialists prepared the EA (EA, p. 9). Alaska Energy Authority representatives were consulted throughout the process as needed.

Per section 906(k) of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) the State of Alaska, Department of Natural Resources was. Concurrence was received on September 10, 2012.

Public notice of the project was provided on the BLM Glennallen Field Office NEPA Register website on August 24, 2012 (EA, p. 2). No public comments were received.

### **Appeal Opportunities**

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR § 4. To appeal you must file a notice of appeal at the BLM Glennallen Field Office, P.O. Box 147, Milepost 186.5 Glenn Highway, Glennallen, Alaska 99588, within 30 days from receipt of this decision. The appeal must be in writing and delivered in person, via the United States Postal Service mail system, or other common carrier, to the Anchorage Field Office as noted above. *The BLM does not accept appeals by facsimile or email.* The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulation 43 CFR § 4.21 (58 FR 4939, January 19, 1993) for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. Except as otherwise provided by law or other pertinent regulation, a petition for a stay of decision pending appeal shall show sufficient justification based on the following standards: (a) The relative harm to the parties if the stay is granted or denied, (b) The likelihood of the appellant's success on the merits, (c) The likelihood of immediate and irreparable harm if the stay is not granted, and (d) Whether the public interest favors granting the stay.

Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the Office of the Solicitor (see 43 CFR § 4.413); Office of the Regional Solicitor, Alaska Region, U.S. Department of the Interior, 4230 University Drive, Suite 300, Anchorage, Alaska 99508; at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

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Beth Maclean  
Glennallen Field Manager

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Date

### **Attachments**

Finding of No Significant Impact, DOI-BLM-AK-A020-2012-0032-EA  
Right-of-Way Stipulations



# United States Department of the Interior



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**Alaska Energy Authority, Seismic Monitoring Site**  
Environmental Assessment, DOI-BLM-AK-A020-2012-0032-EA

Case File, AA093348

## FINDING OF NO SIGNIFICANT IMPACT

### Background

On August 3, 2012, Alaska Energy Authority (applicant) submitted an application to the Bureau of Land Management (BLM) for a right-of-way for a seismic monitoring site. The site would support one of the study plans in conjunction with the application filed with the Federal Energy Regulatory Commission (FERC) for the Susitna-Watana hydroelectric Project. The applicant would like to install this site during the 2012 field season. Access to this site would occur by helicopter and the instruments would be checked 2 to 3 times per year. The station would remain in place permanently.

### Finding of No Significant Impact

This action and its effects have been evaluated consistent with the Council on Environmental Quality regulations for determining *significance*. Per 40 CFR § 1508.27, a determination of *significance* requires consideration of both context and intensity. The former refers to the relative context in which the action would occur such as society as a whole, affected region, affected interests, etc. The latter refers to the severity of the impact.

#### *Context*

The proposed right-of-way would be used to monitor seismic activity that could affect the potential for a hydro-electric project on the Susitna River. The project site consists of approximately one-half acre on a mountaintop in the remote Talkeetna Mountains. The proposed right-of-way would not affect local, regional, or national resources or interests. The right-of-way would benefit a state agency.

#### *Intensity*

1. *Impacts that may be both beneficial and adverse.*

The EA identifies limited adverse effects as a result of issuing the right-of-way (EA, pp. 5-6). Ultimately, the right-of-way would benefit the Alaska Energy Authority by providing a better understanding of seismic activity in this area.

*2. The degree to which the proposed action affects public health and safety.*

The Proposed Action identifies standard construction practices for developing the seismic monitoring site. The effects are limited to the immediate project footprint. Therefore, there is no potential for the Proposed Action to affect the health and safety of the public at large.

*3. Unique characteristics of the geographic area such as proximity of historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

There are no parks, prime farmlands, or ecologically critical areas in proximity to the Proposed Action. Historic and cultural resources were not identified, neither internally or externally, as an issue for consideration in the EA (EA, pp. 2). A segment of the Nelchina caribou calving grounds are in the project area (EA, pp. 6-7). However, the Proposed Action prohibits ground disturbing activities and helicopter flights in the project area during the active caribou calving season. Therefore, effects to the Nelchina herd during this time will be minimized.

*4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.*

The anticipated effects are similar to many other right-of-way authorizations in remote geographic settings. No unique or appreciable scientific controversy has been identified regarding the effects of the Proposed Action or alternatives. The project area is remote and the concentration of recreational users near the site is very low.

*5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*

Similar to Item 4 above, the anticipated effects are similar to many other right-of-way authorizations in central Alaska as well as in other remote geographic settings. The analysis has not shown that there would be any unique or unknown risks to the human environment.

*6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*

Per the East Alaska Resource Management Plan, the project area is open to multiple uses, including the requested use. This authorization is consistent with the Record of Decision for the applicable land use plan. This project neither establishes a precedent nor represents a decision in principle about future actions.

*7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.*

The Proposed action is related to the Susitna-Watana hydro-electric project. However, the Susitna-Watana Hydroelectric Project is not wholly dependent on this seismic monitoring station.

8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.*

“After discussions with Brian Carey on August 30<sup>th</sup>, 2012, it was concluded that the undertaking would have minimal or less than one square meter of surface disturbance and thus have little likelihood of affecting cultural or paleontological resource,” (EA, pp. 2). Historic and cultural resources were not identified, neither internally or externally, as an issue for consideration in the EA (EA, pp. 2).

9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

There are no Federally threatened or endangered species or habitat for these species within the project area (EA, p. 2).

10. *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

The Proposed Action and/or alternatives do not threaten to violate any law. The Proposed Action and alternatives are in compliance with the 43 CFR § 2800 regulations and are consistent with the East Alaska Resource Management Plan and Record of Decision (2007), which provides direction for the protection of the environment on public lands (EA, pp. 2).

## **Conclusion**

Therefore, on the basis of the information contained in the EA, and all other information available to me, it is my determination that:

1. None of the environmental effects identified meet the definition of significance as defined by context and intensity considerations at 40 CFR § 1508.27;
2. The alternatives are in conformance with the East Alaska RMP/ROD (2007); and
3. The Proposed Action and alternatives do not constitute a major federal action having a significant effect on the human environment.

Therefore, neither Environmental Impact Statement nor a supplement to the existing EA is necessary and neither will be prepared.

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Beth Maclean  
Glennallen Field Manager

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Date

## **Attachments**

BLM. 2012. Alaska Energy Authority Seismic Monitoring Site, Environmental Assessment, DOI-BLM-AK-A020-2012-0032-EA. September 2012.

**U.S. DEPARTMENT OF THE INTERIOR**  
**BUREAU OF LAND MANAGEMENT**  
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**Alaska Energy Authority – Seismic Monitoring Site**  
**Environmental Assessment**  
DOI-BLM-AK-A020-2012-0032-EA

Applicant: Alaska Energy Authority  
Case File Number: AA093348

## **1. Introduction**

### 1.1 Summary of Proposed Project

Alaska Energy Authority has submitted a right-of-way application to the BLM Glennallen Field Office for a seismograph station within the Susitna-Watana Project area.

### 1.2 Project Area Description and Land Status

This project area is located on BLM-managed lands approximately 11 miles south of the Susitna River on a hill. This land is State-selected, priority 14.

### 1.3 Background

On August 3, 2012, Alaska Energy Authority submitted an application for a right-of-way for a seismic monitoring site. This supports one of the study plans in conjunction with the application filed with the Federal Energy Regulatory Commission (FERC) for the Susitna-Watana Hydroelectric Project. The applicant would like to install this site during the 2012 field season. Access to this site would occur by helicopter and the instruments would be checked 2 to 3 times per year. The station would remain in place permanently.

### 1.4 Purpose and Need

The BLM action under consideration is issuance of a right-of-way grant for a seismic monitoring site. The need for the action is established by BLM's responsibility the Federal Land Policy and Management Act (FLPMA) to respond to a request for a right-of-way on public lands. The purpose of the action is to allow AEA legal access to public lands for their proposed seismic monitoring sites in a manner that prevents unnecessary or undue degradation to public lands.

#### 1.3.1 Decision to be Made

The decision to be made is whether to authorize the requested right-of-way and, if authorized, what terms and conditions apply to the authorization.

## 1.5 Land Use Plan Conformance

The East Alaska Resource Management Plan and Record of Decision (RMP/ROD) of September 2007 provides the overall long-term management direction for lands encompassed by the proposed project. The proposed action and alternatives are consistent with the RMP/ROD. Specifically, the proposed action is consistent with the following decision in the RMP/ROD:

### I. LANDS AND REALTY

#### *I-1: Goals*

- Provide a balance between land use (rights-of-way, land use permits, leases and sales) and resource protection that best serves the public at large.

## 1.6 Other Applicable Laws, Regulations, Policies, etc.

- National Historic Preservation Act as Amended 1992
- Paleontological Resources Preservation Act of 2009
- Alaska National Interest Lands Conservation Act of 1980 (ANILCA) Section 810, and section 906(k)
- Migratory Bird Treaty Act of 1918 (as amended 1936, 1960, 1969, 1974, 1978, 1986, and 1989)

## 1.7 Summary of Public Involvement

Public notice of this EA was posted on the BLM Glennallen Field Office NEPA Register website on August 24, 2012.

## 1.8 Issues Identified / Issues Eliminated from Further Analysis

An interdisciplinary team was assembled and met on August 21, 2012. Internal Scoping identified the following issues to be considered:

- **Wildlife:** Will helicopter access in this area affect the Nelchina caribou herd calving area?
- **Wilderness Characteristics:** Will this site affect the wilderness characteristics?

The following issues were considered but eliminated from further analysis:

- *Effects to riparian habitat and resources* – The project footprint is on a hilltop and covered in rock. No riparian habitat or resources are present at the proposed project site.
  - *Effects to Federally threatened and endangered species* – Currently, there are no Federally threatened or endangered wildlife species inhabiting the project area, nor any suitable habitat for any T&E species.

- *Effects to Visual Resources-* BLM includes four Visual Resource Management (VRM) inventory classifications in the East Alaska Resource Management Plan (EARMP) for managing scenic values. Of the four, Class I is the most restrictive; Class IV is the least restrictive. The proposed project area is within an area designated as Class IV. The proposed action is consistent with VRM Class IV.
- *Effects to Cultural and Paleontological Resources* – After discussions with Brian Carey from the Alaska Energy Authority, on August 30, 2012, it was concluded that the undertaking would have minimal or less than one square meter of surface disturbance and thus have little likelihood of affecting cultural or paleontological resources. Therefore, this undertaking is not subject to further NHPA Section 106 review under the terms of the Protocol for Managing Cultural Resources on Lands administered by the Bureau of Land Management in Alaska, between the Bureau of Land Management and the State Historic Preservation Officer, signed April 17, (Appendix 2: Category One).

## **2. Alternatives**

### **2.1 Alternative 1 - No Action Alternative**

Under the No Action Alternative, the BLM would deny the requested right-of-way application. Rejecting the application would prohibit AEA from obtaining the desired data for their seismic study in relation to the Susitna-Watana Hydroelectric Project.

### **2.2 Alternative 2 - Proposed Action Alternative**

The BLM would authorize a non-exclusive right-of-way for a seismic site for 20 years with option for renewal, for approximately a ½ acre site encompassing this seismic monitoring site and helicopter landing area.

A contractor for AEA is planning to install a seismograph station in the vicinity of the Susitna-Watana Hydroelectric Project. A long-term earthquake monitoring system network would be established during the 2012 field season to begin collecting background seismicity and strong motion data at the dam site and lower reservoir area. The permanent microseismic earthquake monitoring network would consist of one six-component strong motion and broadband seismograph station and three, three-component broadband seismograph stations at the dam site and lower reservoir area. The instrument at the dam site would also have a strong motion recorder. The stations would link through a repeater site into the State Wide Area Network (WAN) system at Honolulu.

The seismograph station would be located with sensors in bedrock below grade, and a one-meter diameter above ground plastic vault would be used to access the sensor. The vault would be concreted into the soil and a slab would be placed at the bottom. Cabling from the vault would be buried and would connect to a 4' X 4' X 5' fiberglass housing unit, which would be anchored by a concrete footing or guy wires. An above-ground hut would contain the instrument, datalogger, and batteries and would be powered by solar power. The housing/hut would protect the instrument and power bank from inquisitive animals.

The WAT3, three-component broadband seismograph station, would be located on BLM-managed land. The seismograph station design is similar to other stations established by the State of Alaska/AEIC as part of their seismic monitoring network.

The WAT3 is planned to be installed in late August 2012; installation would occur over two days (approximately). The site is accessible only by helicopter. Inspection and maintenance of the instrument site would be required to maintain the data collection network, and it is estimated that the instruments would be checked 2 to 3 times per year. The station would remain in place permanently.



Figure 1: Photo of hut that would be placed on site.

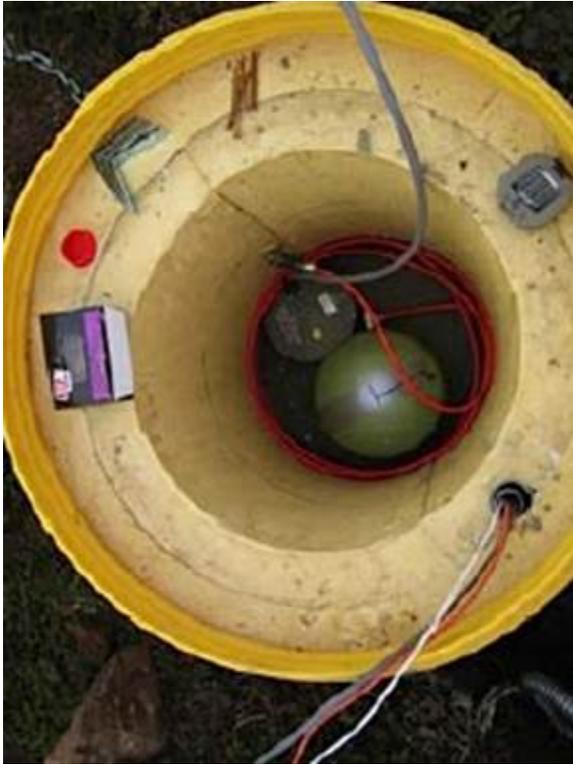


Figure 2: Photo of instruments that would be placed on site.



Figure 3: Additional photo of instruments that would be placed on site.

### 2.3 Alternatives Considered but not Analyzed in Detail

Request that AEA move this site onto State lands. The project would have no informational utility to AEA if it were constructed in another location.

## 3. Affected Environment and Environmental Effects

### 3.1 Wildlife

### 3.1.1 Affected Environment

The proposed action occurs on a mountain top in the Talkeetna Mountains, and approximately 10.25 miles south of the Susitna River. BLM's existing information about wildlife species inhabiting the wildlife area is very limited, but continues to expand as new information is collected. General management guidelines are in place to minimize disturbance to various species. The primary wildlife issue associated with disturbance to the Nelchina caribou (*Rangifer tarandus granti*) herd during calving season.

Caribou generally inhabit tundra/alpine habitats; this species spends approximately 75% of its time in tree-less areas (Skoog 1969). The Nelchina caribou herd mainly occurs in Alaska Department of Fish and Game's (ADFG) Game Management Unit (GMU) 13. The calving grounds of the Nelchina caribou herd occur in the eastern Talkeetna Mountains from the Little Nelchina River, north to the Fog Lakes (ADFG 2008) and at elevations generally between 3,000 and 4,500 feet above sea level, just above the tree line (Skoog 1969). The Nelchina caribou herd disperses in summer and fall to extend from Butte Lake to the flats near Lake Louise (ADFG 2008). Nelchina caribou wintering grounds are extensive, occurring from Cantwell, across the northern expanse of GMU 13, into GMUs 11, 12, and 20E (ADFG 2008).

Currently, the Nelchina caribou herd is estimated at 46,500 animals (ADFG 2012). The ADFG has a population objective of 35,000 to 40,000 animals in the Nelchina caribou herd and an annual harvest objective between 3,000 to 6,000 animals (ADFG 2008). As a result of the current population numbers, an additional 2,425 drawing permits have been issued to resident sport hunters in an attempt to maintain the population objective (ADFG 2012).

Small mammals, such as pika and arctic ground squirrel, may be present at elevation, while snowshoe hare, red squirrel, and microtine rodents are found below treeline. Large mammals such as wolves, grizzly bears, moose and Dall sheep may inhabit or annually transit the area. Golden eagles, other raptors, and ptarmigan may also inhabit the area. Migratory birds pass through the general area in the spring and in the fall. However, nesting habitat for most migratory birds will be negligibly affected due to elevation of proposed action site, small area disturbed, and short time of annual disturbance.

### 3.1.2 Direct and Indirect Effects from No Action Alternative

There would be no adverse effects to wildlife resources as a result of the No Action Alternative.

### 3.1.3 Direct and Indirect Effects from Proposed Action Alternative

The proposed action is located within the immediate vicinity of the Nelchina caribou herd's traditional calving grounds and wintering grounds. Caribou have been known to display strong escape responses to both fixed-wing and helicopters during calving season, which is generally from late May to early June (McCourt et al. 1974, Calef et al. 1976, Maier et al. 1998, Wolfe et al. 2000), post-calving season, and winter (Wolfe et al. 2000). Altitude of aircraft had a major influence, especially with flights under 100 meters above ground level; however, they appreciably dissipate with altitudes above 300 meters above ground level (Wolfe et al. 2000).

Higher elevations are favored in July when insect activity/harassment is at its peak (Skoog 1969). These higher elevations provide cooler temperatures and higher wind velocities due to exposed, windswept terrain (Skoog 1969). However, escape responses to helicopters depends on many variables such as season, degree of habituation, proximity to landing area, composition of the group encountered, and weather conditions (Wolfe et al 2000). The Nelchina caribou's calving grounds are within the FOX3 military operations area, thus Nelchina caribou have been subjected to multiple instances of low-level aircraft disturbance over a period of years. Therefore Nelchina caribou may exhibit a higher tolerance level to aerial overflights due to habituation.

The BLM currently addresses this potential disturbance of wildlife from aircraft activity in the following described special stipulations (Recommended Mitigation). With full implementation of the stipulations, disturbance impacts to wildlife would be minimized, in general, and avoided altogether during important periods such as caribou calving grounds during active calving season (late May to early June).

#### 3.1.4 Cumulative Effects

Aircraft overflights and helicopter landings by private pilots, to a limited extent, have happened in the past, still occur presently, and are expected to continue in the future. These infrequent and short interval private landings do contribute to low levels of human disturbance and stress on local wildlife species for most of the year. Since there are no other helicopter landings authorized to conduct similar activities within the project area; cumulative impacts to wildlife resources, including caribou, are perceived to be negligible.

#### 3.1.5 Recommended Mitigation

No surface disturbing activities between May 1 and June 15. Avoid helicopter inspection and maintenance visits during active caribou calving season (late May to early June). Aircraft associated with permitted activities will maintain an altitude of at least 1,000 feet above ground level except during landing and takeoff.

### 3.2 Wilderness Characteristics

#### 3.2.1 Affected Environment

The BLM must conduct and maintain inventories regarding the presence or absence of wilderness characteristics and consider lands with wilderness characteristics in land use plans and when analyzing projects under NEPA (BLM Washington Office IM-2011-154). Lands with wilderness characteristics provide a range of uses and benefits in addition to their value as settings for solitude or primitive and unconfined recreation.

The criteria for determining wilderness characteristics are established by the IM indicated above. To be identified during the inventory process as having wilderness characteristics, lands must:

- 1) Consist of roadless area of 5,000 acres or more or of sufficient size to be manageable as wilderness; and
- 2) Generally appear to be affected primarily by the forces of nature with the imprint of human activity substantially unnoticeable in the area as a whole; and
- 3) Possess outstanding opportunities for solitude; and/or
- 4) Possess outstanding opportunities for a primitive and unconfined type of recreation.

An inventory of lands with wilderness characteristics has been completed for this area and the area has been found to have wilderness characteristics. Because the entire region is extremely vast and remote, there are outstanding opportunities for solitude and primitive recreation. All of the lands inventoried retain their natural appearance, and are without permanent improvements and human habitation. Opportunities for solitude and for primitive, unconfined recreation are present due to the lack of roads and trails, and due to the fact that access to the planning area is possible only with aircraft or by foot. The area has wilderness characteristics and is identified as Land with Wilderness Characteristics.

### 3.2.2 Direct and Indirect Effects from No Action Alternative

There would be no adverse effects to Lands with Wilderness Characteristics as a result of the No Action Alternative.

### 3.2.3 Direct and Indirect Effects from Proposed Action Alternative

Given the small foot print, intermittent use, and the permit stipulations, the proposed activity in this area can be implemented in a manner that does not permanently impair existing wilderness characteristics. The establishment of the site will be substantially unnoticeable in the area as a whole.

### 3.2.4 Cumulative Effects

With the authorization of the seismic monitoring site, it is possible that increased interest and other monitoring activities could take place in this area in the future. The proposed action alone would not impair the wilderness characteristics that the area

currently has to offer. However, with increasing activity, including ongoing private activities or future permit requests, would come a greater pressure on the wilderness characteristics of the area.

#### **4. Consultation and Coordination**

Because the land is State-selected, concurrence with the Proposed Action has been requested from the State of Alaska, Department of Natural Resources.

#### **5. List of Preparers**

Brenda Becker, Realty Specialist  
Denton Hamby, Outdoor Recreation Planner  
Sarah Bullock, Wildlife Biologist  
John Jangala, Archaeologist

#### **6. References Cited**

- Alaska Department of Fish and Game (ADFG). 2009. Caribou management report of survey-inventory activities 1 July 2006 – 30 July 2008. P. Harper, editor. Juneau, Alaska.
- Alaska Department of Fish and Game (ADFG). 2012. ADF&G issuing more permits to harvest caribou in unit 13. Press Release. C. Campbell, commissioner. Juneau, Alaska.
- BLM Washington Office Instruction Memorandum-2011-154. Requirement to Conduct and Maintain Inventory Information for Wilderness Characteristics and to Consider Lands with Wilderness Characteristics in Land Use Plans
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- Department of the Interior, Bureau of Land Management. 2007. East Alaska Approved Resource Management Plan and Record of Decision.
- Maier, J.A.K., S.M. Murphy, R.G. White, and M.D. Smith. 1998. Responses of caribou to overflights by low-altitude jet aircraft. *Journal of Wildlife Management* 62: 752-766.
- McCourt, K.H., J.D. Feist, D. Doll, and J.J. Russell. 1974. Disturbance studies of caribou and other mammals in the Yukon and Alaska, 1972. Biological Report Series 5. Renewable Resources Consulting Services Ltd.
- Skoog, R.O. 1969. Ecology of the caribou (*Rangifer tarandus granti*) in Alaska. Dissertation. University of California, Berkeley, California.
- Wolfe, S.A., B. Griffith, and C.A. Grey Wolfe. 2000. Response of reindeer and caribou to human activities. *Polar Research* 19(1): 63-73.

## Appendices / Attachments

**Assessment of Undertakings Not Subject to Further Section 106 Review Glennallen Field Office**

**GDO Document No.** GFO-12-30

**BLM Serial No.** AA093348      **Environmental Assessment No.** DOI-BLM-AK-A020-2012-032-EA

**Class of Inventory:** No Further Review

**Dates of Inspection:** 08/31/2012

**Inspector:** John Jangala

**Maps:** Talkeetna Mountains (C-3)

**Applicant:** Alaska Energy Authority Facilities (AEA)

**Location:** The project will occur south of the Susitna River and Fog Creek. More specifically, the project will take place along a ridge in Sec. 21, T.30N., R.5E., SM.

**Project Description:** The Bureau of Land Management proposes to authorize AEA to install a seismic monitoring station in the vicinity of Fog Creek. The station will be installed in a 32 inch diameter hole dug into loose rock covering bedrock. The sensor will connect to a nearby 4 ft. by 4 ft. by 5 ft. fiberglass equipment shed, placed on the ground's surface.

**Acreage:** Less than .1 acres

**Recommendations:** According to the Protocol for Managing Cultural Resources on Lands administered by the Bureau of Land Management in Alaska, between the Bureau of Land Management and the State Historic Preservation Officer, signed April 17, 1998, this undertaking is not subject to further Section 106 review (Appendix 2: Category One). The project will involve less than one square meter of ground disturbance. As long as the applicant adheres to the attached stipulations, the applicant may proceed as proposed in the application. However, if heritage or paleontological resources are encountered during implementation of the project, the project will cease and the Glennallen Field Office, cultural resource staff, shall be notified.

The following stipulation should be attached to the permit: "There shall be no disturbance of any archaeological or historical sites, including graves and remains of cabins, and no collection of any artifacts whatsoever. Also, collection of vertebrate fossils, including mammoths and mastodon bones, tusks etc., is strictly prohibited. If historic resources are encountered then all artifacts will be respectfully left in place and the Glennallen Field Office's cultural resources staff will be notified immediately."

Signed:

John W. Jangala  
Glennallen Field Office Archaeologist (AKA-020)

**Appendix 1.**  
**COMPLIANCE WITH ANILCA SECTION 810**  
**EVALUATION AND FINDING**

**E.A. No.:** DOI-BLM-AK-A020-2012-0032-EA

**Applicant:** Alaska Energy Authority

**EVALUATION:**

**1. Effect of Proposed Action on Subsistence Uses and Needs**

**Fisheries:** The proposed action of granting an authorization to construct a three component broadband seismograph station would not significantly reduce harvestable fisheries resources that are available for subsistence use. The proposed action would not alter the distribution, migration, or location of harvestable fisheries resources due to the location of the site and distance away from water bodies containing fishable species. Approved mitigation measures would prevent any degradation of adjacent water sources and fisheries habitat. The proposed action will be restricted to a small area on the top of a mountain in the Talkeetna Mountain Range; therefore would not create any legal or physical barriers that would limit access by subsistence users of the fisheries. Finally, the proposed actions takes place on state-selected BLM lands, only open to sport fishing--as regulated by the State of Alaska, and not open to federal subsistence fishing.

**Wildlife:** The proposed action of granting an authorization to construct a three component broadband seismograph station, visited tri-annually via helicopter, would not appreciably reduce harvestable wildlife resources that are available for subsistence taking on BLM administered lands. The proposed action is located and restricted to a small area on the top of a mountain in the Talkeetna Mountain Range. Big game such as moose, bear, and caribou occur in the area and may avoid disturbance during construction and helicopter visitation. Small game and upland birds in the immediate vicinity of the proposed action may also be temporarily displaced when human disturbance is occurring. The proposed action occurs within the Nelchina Caribou Herd's calving grounds; however, the high elevation location and small area impacted would result in a negligible disturbance to the caribou. The Nelchina Caribou herd is currently estimated at approximately 46,000 animals and harvest regulations are liberal.

The proposed action takes place on state-selected BLM lands and is not currently open to federal subsistence hunting. The proposed action would occur in an area that is remote from local villages and important subsistence use areas. State subsistence and sport hunters do use the area for hunting caribou; however, the Nelchina caribou herd migrates through the region and generally provides local residents with hunting opportunities closer to their villages.

The proposed action would not alter the distribution, migration, or location of harvestable wildlife resources. Most disturbance impacts will be from initial construction and the short annual inspection flights. The proposed action would not create any legal or physical barriers that would limit subsistence harvest and access. Currently, the proposed action is only open for sport and state subsistence harvest, as regulated by the State of Alaska.

**Other Resources:** The proposed action would not appreciably restrict any other harvestable resources such as wood, water, berries or vegetation. The proposed action is located on a mountain top, far from local villages and traditional gathering areas used by subsistence users.

**2. Availability of other lands, if any, for the purposes sought to be achieved:**

The land within this proposed action is BLM managed lands; however, the area of interest is state-selected lands. There are large tracts of native corporation and State of Alaska lands in the vicinity of the proposed action area. Lands available for the purposes proposed by the applicant are limited to the line formed by the Talkeetna thrust fault and are in proximity to a proposed dam reservoir site. Therefore, no other lands were considered.

**3. Other alternatives, if any, which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes:**

The no action alternative would require BLM to reject the amendment to the existing right-of-way authorization; however, there is no substantial evidence that would indicate a significant restriction to use, occupancy, or disposition of public lands needed for subsistence purposes as a result of the proposed action. Hence, no other alternatives were evaluated.

**FINDINGS:**

The proposed activity would not significantly restrict subsistence use in or near the proposed action area. No reasonably foreseeable and significant decrease in the abundance of harvestable resources or in the distribution of harvestable resources, and no reasonably foreseeable limitations on harvester access have been forecasted to emerge as a function of the proposed action that is analyzed in this document.

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/s/ Sarah L. Bullock

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08-23-2012

Date