

ANCHORAGE FIELD OFFICE
NEPA CLEARANCE SHEET

Document No.: AK-010-2011-0029-CX

Serial/Case File No.: AA-092933

Applicant: University of Alaska

Proposed Action: The BLM is proposing to issue a 20-year permit to the University of Alaska Fairbanks, Reindeer Research Program for the installation of three range exclosures on BLM managed land. The legal authority for this authorization is provided in The Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1701. Et seq.)

Environmental
Coordinator:

Robin Harte

Date:

6/6/11

Group Manager,
Renewable
Resources:

Douglas Ballan

Date:

6-6-2011

Acting
Group Manager,
Lands:

[Signature]

Date:

6/6/2011

AFO Routing Slip:

ANILCA 906(k) State Concurrence Letter on State Selected Lands:

Native Community consultation on Native Selected Lands, 43 CFR§2650.1(2)(i):

ANILCA 810 Subsistence Clearance:

Endangered Species Act Clearance:

National Historic Preservation Act 106 Clearance:

Y/N/NA

X

X

X

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

**Anchorage Field Office
4700 BLM Road
Anchorage, AK 99507
Phone: (907)267-1246
Fax: (907)267-1267**

DECISION RECORD

**University of Alaska
Range Improvement Permit**

I. Decision:

It is my decision to authorize a range improvement permit to the University of Alaska, Case File Number: AA-092933, for a period of twenty (20) years. Mitigation measures and stipulations and conditions are attached.

II. Proposed Action:

The proposed action is to authorize a 20-year permit to the University of Alaska Fairbanks, Reindeer Research Program for the installation of three range exclosures on BLM managed land. The legal authority for this authorization is provided in The Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1701. Et seq.)

The proposed action is in conformance with the Kobuk-Seward Peninsula Resource Management Plan, Approved September 2008.

III. Rationale for the Decision:

The rationale for the decision is based on the need to install grazing exclosures for research and range management purposes. The University of Alaska Fairbanks, resource and interagency land managers agree on the need for baseline data collected from undisturbed vegetation plots. Several interests will benefit from information gathered from long-term vegetation plots in protected exclosures, including but not limited to wildlife managers, climate change scientists, and botanists and reindeer herders.

The area of the proposed activity is not within a critical subsistence use area and no serious wildlife problems are anticipated.

IV. ANILCA Section 810 Compliance:

The proposed action will not significantly restrict subsistence uses. No reasonably foreseeable and significant decrease in the abundance of harvestable resources or in the distribution of harvestable resources, and nor reasonably foreseeable limitations on harvester access will result from the proposed action.

V. Adverse Energy Impact Compliance:

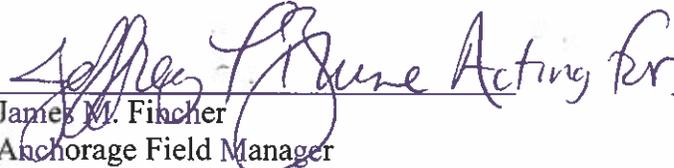
This action has been analyzed as required by Washington Office Instruction Memorandum 2002-053 to determine if it will cause an adverse impact on energy development. The action will not have an adverse direct or indirect impact on energy development, production or distribution. The preparation of a Statement of Adverse Energy Impact is not required.

VI. Consultation and Coordination:

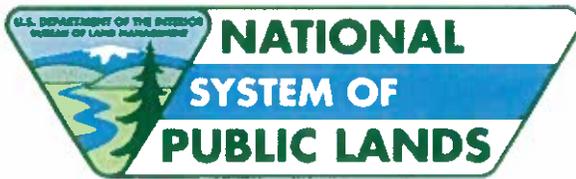
Public participation was accomplished through the development of the Ring of Fire Resource Management Plan which anticipated routine land authorizations in accordance with Title V of FLPMA. Adequate measures to protect public lands through stipulations and required operating procedures are in place. Internal scoping was conducted by AFO staff and included threatened and endangered species, cultural clearances and ANILCA 810 analysis.

VII. Compliance and Monitoring Plan:

Compliance and monitoring of this authorization will be conducted by the BLM Anchorage Field Office. Inspection will be made prior to the applicant's use and after the applicant reclaims the land.

 Acting for _____ Date 6/6/2011
James M. Fincher
Anchorage Field Manager

Attachments: Terms and Stipulations



U.S. Department of the Interior Bureau of Land Management

Anchorage Field Office
4700 BLM Road
Anchorage, Alaska 99507
(907) 267-1246

<http://www.blm.gov/ak/su/en/fo/ado.html>

Categorical Exclusion Vegetation Study Area Enclosures on the Seward Peninsula



Location: Seward Peninsula, Alaska

T2S, R34W, KM
T3S, R34W, KM
T5S, R39W, KM

Prepared By: Anchorage Field Office

A. Background

Defensible scientific data is needed to support decisions relating to how much and where domestic reindeer grazing can or should be authorized. Many factors are influencing changes in the quality and quantity of available Rangifer (both domestic reindeer and wild caribou) forage on the Seward Peninsula. Factors other than permitted reindeer grazing such as wildlife use, human disturbance, or climate change may be causing changes in vegetation communities that are not readily apparent to the human eye. Scientific study of the vegetation is needed to effectively determine the impacts of managed domestic reindeer grazing, as well as the uncontrollable factors of wildlife impacts and climate change.

The drivers of landscape vegetation changes are often difficult to distinguish. Lichen species, a primary winter forage of reindeer and caribou, are particularly susceptible to intense grazing and may take years to rebound to undisturbed levels. The combined effects of grazing, trampling and fecal deposition could modify competitive interactions of plants leading to an almost complete change in the species composition of a community. Grazing may increase or decrease plant species richness, depending on factors such as grazing intensity and nutrient availability.

The Bureau of Land Management currently monitors permitted reindeer grazing range health using the Alaska Grazed Class methodology¹. This monitoring protocol utilizes a procedure developed for evaluating lichen utilization on reindeer range. Range specialists target three of the fifteen permitted grazing ranges on a rotational basis every year. The monitoring locations are not fenced in nor protected from non-climatic disturbances (other wildlife and human disturbances). While data collected on these annual range surveys is useful to determine grazing trends and if the herd is being managed appropriately for long-term sustainability, it does not fulfill the need for long-term, scientifically defensible comprehensive vegetation data needed to assess changes in the ecological composition.

The Seward Peninsula is currently a region under study to help determine climate change impacts to habitats and vegetative communities, including but not limited to grazing resources, invasive plants, and rare or endangered plants. Area resource managers and village residents are concerned about the viability of sustainable reindeer herds and wild subsistence species for long-term food sources. These food sources could experience significant population changes potentially related to changing vegetation and habitats. To specifically quantify any changes to the vegetative communities from factors other than grazing, exclosures need to be established and monitored on active reindeer grazing allotments.

Purpose and Need

The BLM is responding to the University of Alaska Reindeer Research Program's proposal to install grazing exclosures for research and range management purposes. The decision to be made is whether or not to issue the University a permit for the exclosure construction and monitoring activities.

¹ A Procedure for Evaluating Lichen Utilization on Reindeer Range, NRCS/BLM, 2001

There are no known existing, intact and undisturbed vegetation monitoring plots that are protected from grazing and browsing ungulate impacts. Resource and interagency land managers agree on the need for baseline data collected from undisturbed vegetation plots. Several interests will benefit from information gathered from long-term vegetation plots in protected exclosures, including but not limited to wildlife managers, climate change scientists, and botanists and reindeer herders.

The Bureau of Land Management has reviewed the need for long-term monitoring exclosures with the state and federal interagency partners, Kawerak Reindeer Herders Association and the University of Alaska Reindeer Research Program for many years at annual working meetings and collaborative sessions. The University of Alaska Reindeer Research Program has worked closely with the reindeer industry for over two decades and in practice can be considered the research arm of the Kawerak Reindeer Herders Association.

Specific for the reindeer industry, the study focus is to measure the rate of recovery for heavy grazed lichens for at least 30 years by restricting grazing with the installation of exclosures. Concurrently, range managers will examine effects of climate change on the vegetation community. Climate change effects will be measured with the installation of "control" exclosures in sites with minimal or absence of grazing, in the same ecotypes as "treatment" exclosures. Sample plots adjacent to the exterior of exclosures will be monitored to examine vegetation community with continued grazing.

The following study questions will be addressed:

- I. What is the rate of recovery for lichen and vascular plants on heavy grazed lands? This information will be used to inform future management strategies pertaining to range management for reindeer.
- II. How does the lichen and vascular plant community change over time when grazing is restricted?
- III. How is the vegetation community changing due to climate change?

Proposed Action

The BLM is proposing to issue a 20-year permit to the University of Alaska Fairbanks Reindeer Research Program for the installation of three range exclosures on BLM managed land. The legal authority for this authorization is provided in The Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1701. Et seq.)

The University is working collaboratively with reindeer producers, land owners (federal, state, private), and the Natural Resource Conservation Service in developing and installing a series of exclosures and monitoring sites across grazing lands on the Seward Peninsula. The purpose of

the exclosures is to prevent ungulate browsing and other direct, physical impacts in the monitoring sites so researchers can effectively monitor changes to vegetation communities. A total of approximately six acres will be impacted: one acre for each of the three exclosure sites located on the BLM managed land, and three additional acres for nearly 20 miles of foot traffic travel routes over BLM-managed lands to access the six (three on BLM and three on State DNR lands) exclosure sites for construction and monitoring during the summer.

The exclosure design, construction and installation are proposed to be completed by the University of Alaska Fairbanks Reindeer Research Program, under a Cooperative Ecosystems Studies Unit Agreement with the BLM Anchorage Field Office. The University of Alaska Reindeer Research Program will develop vegetation monitoring protocols consistent with all stakeholder needs, develop and implement a methodical sampling scheme to assess rangeland health and assist in the collection of baseline data. The University of Alaska Reindeer Research Program would archive and deliver all data to collaborating stakeholders.

Construction

The materials will be brought out via snow machine with pull-behind sled in the winter on winter trails. The construction access will be via boat, ATV, and foot during late June through mid-July. ATVs will travel only on known existing trails. Further access will be done via foot/hiking/backpacking. Two interns, under the leadership and guidance of Greg Finstad, the program lead professor with the University of Fairbanks, will camp at the exclosure sites for two to three days until construction is complete. Lightweight camping gear will be used and all debris will be removed from site upon completion of the construction.

Monitoring

Monitoring will be conducted in the summer during peak vegetation production stage, the last two weeks of July. Access will be via boat and ATV on known existing trails. Further access will be done via foot/hiking/backpacking. Two interns, under the leadership and guidance of Greg Finstad, the program lead professor with the University of Fairbanks, will access exclosure sites and conduct monitoring using the Sample Point protocol and lichen biomass will be estimated with methods described in Moen et. al (2007). Lightweight backpacking and camping gear will be used and all debris will be removed from site upon completion of the construction.

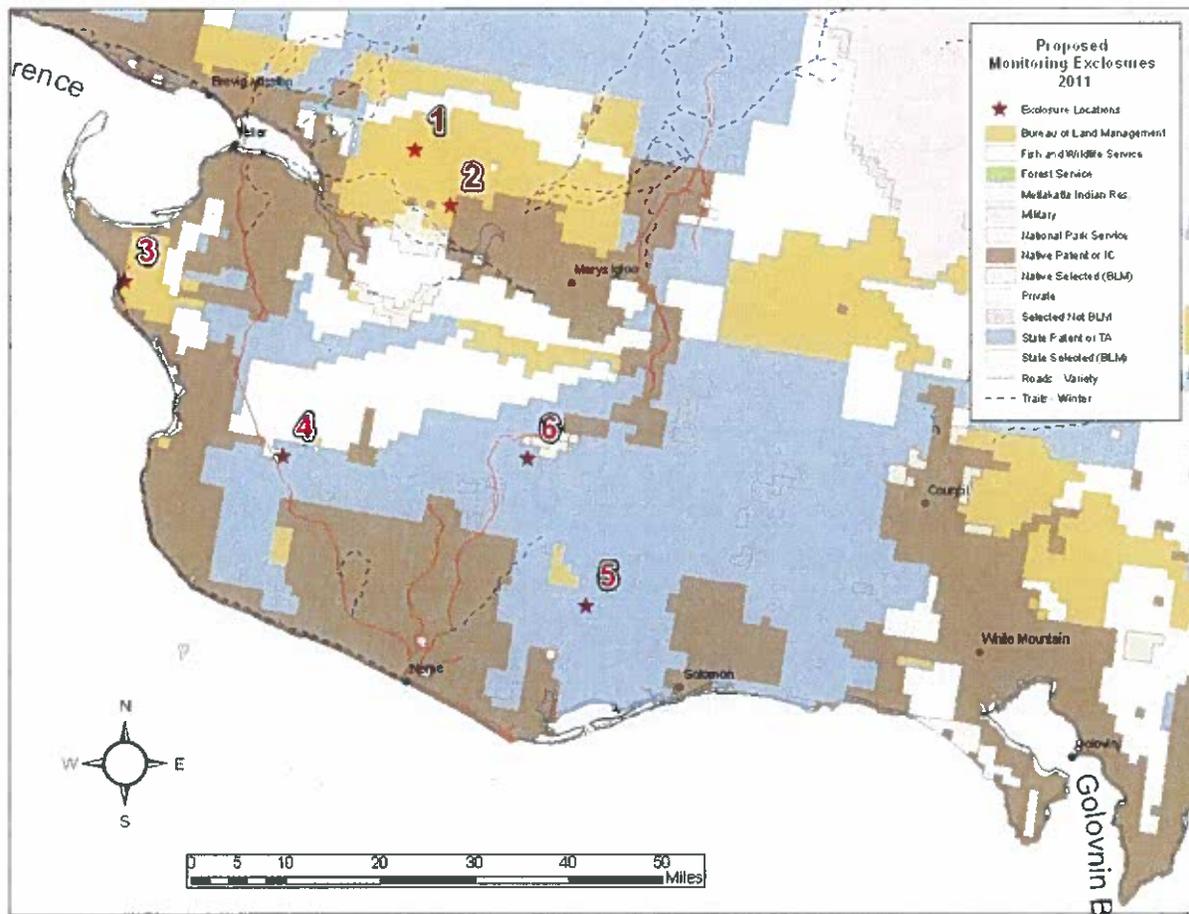
Removal

Within three years after the conclusion of the exclosure monitoring program, the University will dismantle and remove the exclosures in the same manner as they were installed.

Location of Proposed Exclosures

The location of the proposed grazing exclosures to be installed in 2011 on BLM-managed land is

shown on the map below, red star numbers 1, 2, and 3. The other three proposed enclosure locations shown are on land managed by the State of Alaska.



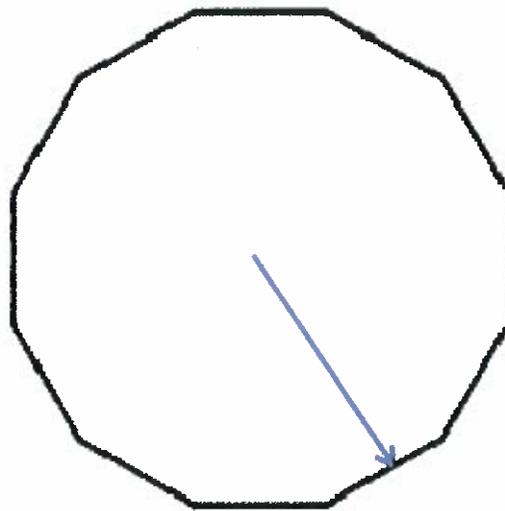
The specific location of all six enclosures is detailed in the table below:

Enclosure	MTR	Description	Section	Lat	Long
1 BLM	K002S034W	T2S, R34W, KM	20	65°18'21.492"N	165°42'40.0314"W
2 BLM	K002S034W	T3S, R34W, KM	13	65°13'52.41"N	165°33'0.09"W
3 BLM	K005S039W	T5S, R39W, KM	30	65°1'39.648"N	166°39'32.4354"W
4 State DNR	K008S036W	T8S, R36W, KM	9	N 64°48'30.19"N	165° 59'2.82"W
5 State DNR	K009S031W	T9S, R31W, KM	35	N64°39'39.64"N	164° 49'0.15"W
6 State DNR	K007S032W	T7S, R32W, KM	22	N 64°52'9.34"N	165° 6'53.62"W

Exclosure Description

The exclosure design incorporates high tensile game fencing. The mesh transitions from 6" squares at the top to 3" X 6" at the bottom to ensure no animals can get a head or leg caught in the mesh. This is the standard fence used by almost all game ranchers/reindeer producers in the country and is what the Large Animal Research Station as well as the University of Alaska Reindeer Research Program uses in their facilities. This structure design prevents any problems with legs or heads of calves getting stuck in the fence itself. Reflectors may be placed on each panel to increase visibility.

Six exclosures will be constructed during the summer of 2011, three on BLM land, and three on State of Alaska land. The twelve-sided exclosures will be constructed with three-meter fence panels. The estimated area of each exclosure unit will be 125.65 square meters, with a radius of 6.25 meters and each side measuring 3.35 meters. One meter adjacent to the fence will be excluded from the area available for plots. The exclusion zone is necessary due to zinc leachate creating a "dead zone," and additional moisture that may accumulate from snow drifting along panels that could affect monitoring data. The exclosures are designed to minimize snow drifting, while providing a sturdy exclosure and minimize maintenance. The maximum area needed for each exclosure and adjacent study area is one acre.



Radius = 6.25 m

- Exclosures constructed of panels held together by galvanized high tensile wire.
- Fixed to the ground with several stakes and wire, no permanent foundation.
- Wire mesh spacing will be 12 cm., adequate to keep out grazing animals.
- Each section is 3.35 meters or approximately 11 feet.

- A 12 sided enclosure (dodecagon) provides for:
 - Area of 125.65 square meters
 - Radius of 6.25 meters
- Materials transported to site by boat, snow machine and ATV.

B. Land Use Plan Conformance

Goals, Objectives, and Management Actions described in the *Kobuk-Seward Peninsula Record of Decision and Approved Resource Management Plan, September 2008* direct the Bureau to “Identify, conserve, and monitor rare and vulnerable habitats and plant communities ... and to recognize and manage lichen-rich plant communities (lichen tussock tundra, white spruce-lichen woodland, etc.) as unique habitats due to the slow growth potential of lichen and its great importance to caribou and reindeer ... and to continue to monitor ... specific plant communities such as lichen-rich and lichen-dominated habitats.”²

The Bureau of Land Management – Alaska Statewide Land Health Standards (2004)³ also directs the Bureau “To ensure that habitats support healthy, productive, and diverse populations and communities of native plants and animals (including special status species and species of local importance, e.g., those used for subsistence).

C. Compliance with NEPA

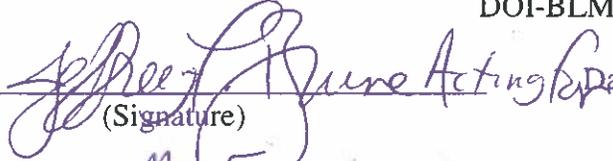
The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 11.9, Appendix 4, Section J.9: Construction of small protective enclosures, including those to protect reservoirs and springs and those to protect small study areas.

This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed, and none of the extraordinary circumstances described in 516 DM2 apply.

I have considered the low-impact floating design and temporary nature of the proposed structures and operations, and believe there is no potential for significant impacts. While the Seward Peninsula does display wilderness characteristics, the proposed structures are temporary in nature and can easily be removed, thus preserving BLMs discretion to designate Wild Lands in the future. This project can be considered without wilderness inventory or further analysis.

² Approved RMP pages 42-43

³ Approved RMP, Appendix D: BLM Alaska Land Health Standards, page 6.

Authorizing Official:  Acting for Date: 6/6/2011
(Signature)

Name: James M. Fincher

Title: Anchorage Field Office Manager

Contact Person

For additional information concerning this CX review, contact:
Laurie Thorpe, Natural Resource Specialist
Anchorage Field Office
4700 BLM Road
Anchorage, Alaska 99507
(907) 267-1208

**United States Department of Interior
Bureau of Land Management
Anchorage Field Office**

Threatened and/or Endangered Species Evaluation

Casefile Number: AA-092933

NEPA Document Number: DOI-BLM-AK-A010-2011-0029-CX

Proposed Action:

The BLM is responding to the University of Alaska Reindeer Research Program's proposal to install grazing exclosures for research and range management purposes.

Specific for the reindeer industry, the study focus is to measure the rate of recovery for heavy grazed lichens for 30 years by restricting grazing within the area of the exclosures. Concurrently, range managers will examine effects of climate change on the vegetation community. Climate change effects will be measured with the installation of "control" exclosures in sites with minimal or absence of grazing, in the same ecotypes as "treatment" exclosures. Sample plots adjacent to the exterior of exclosures will be monitored to examine vegetation community with continued grazing.

Location of Proposed Action:

Five sites on the southern Seward Peninsula, between Nome and Teller Alaska (T2S, R34W, KM; T3S, R34W, KM; T5S, R39W, KM).

Description of Proposed Action:

The BLM is proposing to issue a 20-year permit to the University of Alaska Fairbanks Reindeer Research Program for the installation of three range exclosures on BLM managed land. The University is working collaboratively with reindeer producers, land owners (federal, state, private), and the Natural Resource Conservation Service in developing and installing a series of exclosures and monitoring sites across grazing lands on the Seward Peninsula. The purpose of the exclosures is to prevent ungulate browsing and other direct, physical impacts in the monitoring sites so researchers can effectively monitor changes to vegetation communities. The total amount of land that will be impacted will be three acres, one acre for each exclosure, and temporary foot traffic over approximately 20 miles of land (State and BLM managed) to access the exclosure sites for construction and monitoring during the summer.

The exclosure design, construction and installation are proposed to be completed by the University of Alaska Fairbanks Reindeer Research Program, under a Cooperative Ecosystems Studies Unit Agreement with the BLM Anchorage Field Office. The University of Alaska Reindeer Research Program will develop vegetation monitoring protocols consistent with all stakeholder needs, develop and implement a methodical sampling scheme to assess rangeland health and assist in the collection of baseline data. The University of Alaska Reindeer Research Program would archive and deliver all data to collaborating stakeholders.

Construction

The materials will be brought out via snow machine with pull-behind sled in the winter on winter trails. The construction access will be via boat, ATV, and foot during late June through mid-July. ATVs will travel only on known existing trails. Further access will be done via foot/hiking/backpacking. Two interns, under the leadership and guidance of Greg Finstad, the program lead professor with the University of Fairbanks, will camp at the exclosure sites for two to three days until construction is

complete. Lightweight camping gear will be used and all debris will be removed from site upon completion of the construction.

Monitoring

Monitoring will be conducted in the summer during peak vegetation production stage, the last two weeks of July. Access will be via boat and ATV on known existing trails. Further access will be done via foot/hiking/backpacking. Two interns, under the leadership and guidance of Greg Finstad, the program lead professor with the University of Fairbanks, will access enclosure sites and conduct monitoring using the Sample Point protocol and lichen biomass will be estimated with methods described in Moen et. al (2007). Lightweight backpacking and camping gear will be used and all debris will be removed from site upon completion of the construction.

Removal

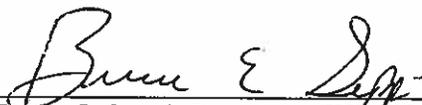
Within three years after the conclusion of the enclosure monitoring program, the University will dismantle and remove the enclosures in the same manner as they were installed.

Enclosure Description

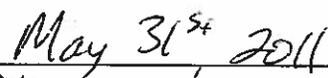
Six enclosures will be constructed during the summer of 2011, three on BLM land, and three on State of Alaska land. The twelve-sided enclosures will be constructed with three-meter fence panels. The estimated area of each enclosure unit will be 125.65 square meters, with a radius of 6.25 meters and each side measuring 3.35 meters. One meter adjacent to the fence will be excluded from the area available for plots. The exclusion zone is necessary due to zinc leachate creating a "dead zone," and additional moisture that may accumulate from snow drifting along panels that could affect monitoring data. The enclosures are designed to minimize snow drifting, while providing a sturdy enclosure and minimize maintenance. The maximum area needed for each enclosure and adjacent study area is one acre.

- Enclosures constructed of panels held together by galvanized high tensile wire.
- Fixed to the ground with several stakes and wire, no permanent foundation.
- Wire mesh spacing will be 12 cm., adequate to keep out grazing animals.
- Each section is 3.35 meters or approximately 11 feet.
- A 12 sided enclosure (dodecagon) provides for:
 - Area of 125.65 square meters
 - Radius of 6.25 meters
- Materials transported to site by boat, snow machine and ATV.

The impact of the proposed action and alternatives on threatened and endangered plants and animals and their habitats has been evaluated in accordance with the Endangered Species Act of 1973, as amended. Based on currently available information, the proposed action would not affect any threatened or endangered species or their habitats. Therefore, no consultation with the U. S. Fish and Wildlife Service is considered necessary pursuant to Section 7 of the Act and none will be undertaken.



Bruce E. Seppi, Examining Wildlife Biologist



Date

**DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ANCHORAGE FIELD OFFICE
ANCHORAGE, ALASKA**

REPORT OF DETERMINATIONS FOR SECTION 106 of the NHPA

Project Name	Reindeer Grazing Exclosures on the Seward Peninsula
Cultural Project Number	CR-AK-010-2011-020
Serial Number	AA-092933
NEPA Number	DOI-BLM-AK-A010-2011-0029-CX
Applicant	University of Alaska, Fairbanks Reindeer Research Program
Quadrangle	Teller A-2, A-4, B-2
Date	6/1/2011

1. Location: NE1/4NE1/4 Section 19, T 2 South, R 34 West, Kateel River Meridian
SW1/4NW1/4 Section 30, T 5 South, R 39 West, Kateel River Meridian
NE ¼ Section 13, T 3 South, R 34 West, Kateel River Meridian

Acreage: 6

2. Action Type: Right of way

3. Project Description:

The BLM is proposing to authorize the installation of three range exclosures on BLM managed land. The University of Alaska Fairbanks Reindeer Research Program is working collaboratively with reindeer producers, land owners (federal, state, private), and the Natural Resource Conservation Service in developing and installing a series of exclosures and monitoring sites across grazing lands on the Seward Peninsula. The purpose of the exclosures is to prevent ungulate browsing in the monitoring sites so researchers can effectively monitor changes to vegetation communities. Three exclosures are proposed on BLM, AFO land, and three are proposed on lands managed by the State of Alaska.

Each exclosure will be floating to increase stability, and will measure 12.5 meters across and will be anchored at a maximum of two points. Material will be galvanized metal, and will be brought to the proposed sites in winter via snowmobile. Personnel will erect the exclosures in the summer and will access the areas via ATV using existing trails. Similarly sized plots adjacent to the fenced areas will be monitored as control plots. The total proposed APE for each exclosure is one acre. An additional 3 acres is needed for ATV and snowmobile travel to and from the monitoring areas, for a total APE of 6 acres.

4. Consultation Procedures:

The AHRS database was reviewed for cultural resources in the project vicinity. There are no known cultural resources within or near the proposed APEs.

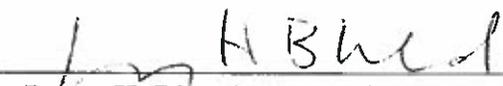
5. Findings and Recommendations:

As a scientific research project with minimal ground disturbance, this project has no potential to affect historic properties. Under the BLM, Alaska State Protocol Agreement, this project is considered exempt from further review under section 106 of the National Historic Preservation Act. The following exemption applies to this undertaking:

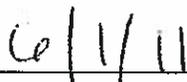
Exemption 1: Activities that involve less than one square meter (11 square feet) of cumulative ground disturbance, provided the activity is not taking place on a National Register listed or eligible property. Examples include many guiding permits.

Based on the low impact of the proposed action and conditions described above, it is my recommendation that this project will have **no effect on historic properties**. The CX for the project includes a stipulation for inadvertent discovery of cultural resources.

I certify that this examination complies with pertinent historic preservation laws and regulations.



Jenny H. Blanchard, AFO Archaeologist



Date of Determination

A clear copy of (or an original of) the USGS Topographic Map of the project and the area surveyed must be attached.
AK8111-1 (April 1992)

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Anchorage Field Office

**COMPLIANCE WITH
ANILCA SECTION 810**

EVALUATION AND FINDINGS

Case File Numbers: AA-092933

DOI-BLM-AK-A010-2011-0029-CX

APPLICANT: University of Alaska

PROPOSED ACTION: The BLM is proposing to issue a 20-year permit to the University of Alaska Fairbanks Reindeer Research Program for the installation of three range enclosures on BLM managed land.

LOCATION: Township 2 South, Range 34 W, Section 19; T 3S, R 34W Section 13; T 5S, R 39W Section 30; Kateel River Meridian

EVALUATION

The University is working collaboratively with reindeer producers, land owners (federal, state, private), and the Natural Resource Conservation Service in developing and installing a series of enclosures and monitoring sites across grazing lands on the Seward Peninsula. The purpose of the enclosures is to prevent ungulate browsing and other direct, physical impacts in the monitoring sites so researchers can effectively monitor changes to vegetation communities. A total of approximately six acres will be impacted: one acre for each of the three enclosure sites located on the BLM managed land, and three additional acres for nearly 20 miles of foot traffic travel routes over BLM-managed lands to access the six (three on BLM and three on State DNR lands) enclosure sites for construction and monitoring during the summer.

The materials will be brought out via snow machine with pull-behind sled in the winter on winter trails. The construction access will be via boat, ATV, and foot during late June through mid-July. ATVs will travel only on known existing trails. Further access will be done via foot/hiking/backpacking. Construction for the enclosure sites will take two to three days to complete. Lightweight camping gear will be used and all debris will be removed from site upon completion of the construction.

Monitoring will be conducted in the summer during peak vegetation production stage, the last two weeks of July. Access will be via boat and ATV on known existing trails. Further access will be done via foot/hiking/backpacking. Lightweight backpacking and camping gear will be used and all debris will be removed from site upon completion of the construction. Each of the three sites will take approximately one day to access and conduct monitoring.

Within three years after the conclusion of the enclosure monitoring program, the University will dismantle and remove the enclosures in the same manner as they were installed.

Three of the proposed range enclosures would be located on BLM managed lands. These lands do fall under the authority of the Federal Subsistence Board and the Subsistence Regulations for the Harvest of Wildlife on Federal Public Lands in Alaska or the Subsistence Regulations for the Harvest of Fish and Shellfish on Federal Public Lands and Waters in Alaska.

The construction and monitoring would be temporary in nature ranging from two to three days for construction to one day per site for annual monitoring. The most important subsistence wildlife resource for local communities is the Western Arctic Caribou herd. Construction and monitoring would be conducted in June-July when most of the herd is on their summer feeding grounds in the northwest Arctic. The Seward Peninsula is primarily used by the herd for

winter range. Lastly, the habitat enclosure acreage, relative to the amount of habitat available throughout the caribou range would be insignificant.

Effect of proposed action on subsistence uses and needs

- Fisheries: The proposed action 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. The proposed action will not create any legal or physical barriers that would limit access by subsistence users of the fisheries resource.
- Wildlife: The proposed action would not significantly reduce harvestable wildlife resources that are available for subsistence use. The proposed action will not alter the distribution and location of harvestable wildlife resources, including caribou or molting waterfowl. The proposed action would not create any legal or physical barriers that would limit subsistence harvest and access.
- Other Resources: The proposed action would not appreciably impact any other harvestable renewable resources such as wood, berries, vegetation or water.

Availability of other lands for the purpose sought to be achieved:

Other lands available are National Park Service, Native lands, and State lands. The proposal would utilize both BLM and State Department of Natural Resource lands.

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

There is no substantial evidence that would indicate a significant impact as a result of the proposed action. No other alternatives were evaluated.

FINDING: This proposed action will not significantly restrict subsistence uses. As a result of the proposed action there are no reasonably foreseeable significant decreases in the abundance or distributions of subsistence resources and no reasonably foreseeable limitations to subsistence access.

PREPARED BY: Jeff Beversdorf DATE: June 2, 2011
GEOFF S. BEVERSDORF