

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

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

**University of Alaska  
Range Improvement – Grazing Enclosures**

1) Decision:

It is my decision to authorize the University of Alaska to install and operate four additional range enclosures on the Seward Peninsula. The existing 20-year permit issued University of Alaska in 2011 will be amended to include four more enclosures. (Reference Case File Number: AA-092933, Range Improvement Permit Form 4120-7). Mitigation measures and stipulations and conditions are attached.

2) Proposed Action:

The proposed action is to authorize the University of Alaska to install and operate four additional range enclosures 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.

3) Rationale for the Decision:

The rationale for the decision is based on the need to install grazing enclosures 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 enclosures, 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.

4) 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, nor reasonably foreseeable limitations on harvester access will result from the proposed action.

5) 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.

6) Consultation and Coordination:

Public participation was accomplished through the development of the Kobuk-Seward Peninsula 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.

7) 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.

/s/ James M. Fincher

James M. Fincher  
Anchorage Field Manager

04/22/2012

Date

Attachments: Terms and Stipulations

**ATTACHMENT 2**  
**Terms and Stipulations for Range Improvement Permit**  
**University of Alaska Fairbanks, Range Monitoring Enclosures**

- A. Permit Terms: During construction, operation, maintenance, and termination of the project you must:
1. Comply with all existing and subsequently enacted, issued, or amended federal laws and regulations and state laws and regulations applicable to the authorized use;
  2. Rebuild and repair roads and established trails destroyed or damaged by the project;
  3. Do everything reasonable to prevent and suppress wildfires on or in the immediate vicinity of the area;
  4. Not discriminate against any employee or applicant for employment during any phase of the project because of race, creed, color, sex, or national origin. You must also require subcontractors to not discriminate;
  5. When the state standards are more stringent than federal standards, comply with state standards for public health and safety, environmental protection, and siting, constructing, operating, and maintaining any facilities and improvements on the lands;
  6. Immediately notify all federal, state, tribal, and local agencies of any release or discharge of hazardous material reportable to such entity under applicable law. You must also notify BLM at the same time, and send BLM a copy of any written notification you prepared;
- B. Stipulations:
1. Non-Hazardous Solid Waste (trash/refuse/wood debris) will be back hauled from the area and disposed in an approved waste disposal site;
  2. All operations shall be conducted in such a manner as to avoid damage or disturbance to any prehistoric or historic sites or modern camp sites. The Archaeological Resource Protection Act prohibits the excavation, removal, damage, or disturbance of any archaeological resource located on public lands. Violation of this law could result in the imposition of both civil and criminal penalties of the violator. Should any historic or prehistoric resources, or human remains be located during the course of operations under

this permit, the applicant shall immediately cease activities and notify the BLM authorized officer;

3. The University will develop a monitoring and mitigation plan for managing invasive species in this project area. Information about known invasive species at Pilgrim Hot Springs, in Nome and across the Seward Peninsula can be found at <http://aknhp.uaa.alaska.edu/maps/akepic.php>

To prevent non-native invasive plant spread, all vehicles, building materials and equipment used in conjunction with the permit must be thoroughly cleaned **prior to** moving equipment across or onto BLM managed lands and immediately after drilling operations before moving equipment to the next exploration site transportation route, or storage site. Washing and/or brushing equipment to remove material that can contain weed seeds or other propagates helps to insure equipment that is being transported across or onto BLM managed lands are weed and weed seed free. High pressure washing is necessary to treat the insides of bumpers, wheel wells, undercarriages, inside belly plates, excavating blades, buckets, tracks, rollers, drills, buckets, shovels, any digging tools, etc., to remove potential weeds, seeds, and soil carrying weed propagules, and vegetative material.

4. All equipment, personal property, and improvements must be removed within thirty (30) days after permit expiration date or as directed by the authorized officer;
5. Utilize existing road and trails whenever possible;
6. Operations requiring vegetation removal will avoid the migratory bird nesting period of April 15 to July 15;
7. No surface disturbance activities will take place within one-fourth of a mile of bald eagle nest.
8. Activities in wetlands will comply with federal and state permit requirements for alteration of wetlands.
9. Fuel Handling and Storage: Fuel shall be stored at least 150 feet from surface waters. Fuel and other petroleum products and hazardous materials shall be stored in containers designed to hold that product, identified with the owner's name, the contents and date of purchase (e.g. University of Alaska, Jet A, 2011). All fuel spills will be cleaned up immediately, taking precedence over all other matters, except the health and safety of personnel. Spills will be cleaned up utilizing absorbent pads or other Alaska State DEC approved methods. Fuel storage in excess of 55 gallons and/or fuel storage containers that are situated where a spill may reach a water body or watercourse requires secondary containment. Secondary containment is defined as a diked, impermeable impoundment

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capable of containing 110 percent of the volume of the largest independent container. As soon as possible, but not later than 24 hours, notice of any such discharge as defined in Alaska Statute Title 18, Chapter 75, Article 2, will be given to: The Authorized Officer at 1-800-437-7021. Such other Federal and State officials as are required by law to be given such notice including Alaska Department of Environmental Conservation at (907) 478-9300.



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

Anchorage Field Office  
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Anchorage, Alaska 99507  
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<http://www.blm.gov/ak/st/en/fo/ado.html>

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### Categorical Exclusion Vegetation Study Area Enclosures on the Seward Peninsula



#### Location: Seward Peninsula, Alaska

Description	Section
T7S,R35W, Kateel River Meridian	17
T1S,R35W, Kateel River Meridian	8
T1S,R37W, Kateel River Meridian	19
T2S,R35W, Kateel River Meridian	11

Prepared By: Anchorage Field Office

## Background

The Bureau of Land Management (BLM) administers reindeer grazing permits cooperatively with other public land managers – the National Park Service and the Alaska Department of Natural Resources, with range condition advice and recommendations from the Natural Resource Conservation Service. Responsibilities and procedures are outlined in our Memorandum of Understanding, revised in 2010.<sup>1</sup> Managers have chosen this approach to 1) have consistency across the agencies for reindeer grazing activity in each grazing range thereby saving public funds, and 2) enhance customer service through improved efficiency of reindeer grazing permit administration in Northwestern Alaska.

In 2008, the BLM developed a programmatic environmental assessment for reindeer grazing permits on the Seward Peninsula.<sup>2</sup> This effort was made to identify land health standards appropriate to reindeer grazing on the Seward and Baldwin peninsulas, and to maintain a balance between range health and a sustainable and economically viable reindeer industry. These ecological measures of the grazing impacts help managers determine how much and where reindeer grazing can be permitted, and what mitigations are necessary.

The BLM has historically monitored permitted reindeer grazing range health using the Alaska Grazed Class methodology<sup>3</sup>. Since the development of the Alaska Grazed Class methodology in the early 1980's, critics have questioned the validity of the data gathered. The Alaska Grazed Class methodology involves ocular observations of the range utilization and lichen cover percentages, and data values can vary amongst observers with mixed results. The monitoring locations are not fenced in nor protected from non-climatic disturbances (wildlife and human disturbances), and are selected based on lichen-rich ecological communities and BLM land ownership. This data has been useful to determine grazing trends and if the herd is being managed appropriately for long-term sustainability on the BLM areas of the grazing ranges, however it does not fulfill the need for long-term, scientifically defensible comprehensive, landscape-level vegetation data needed to assess changes the impacts of grazing as they relate to ecological composition and growth.

Maintaining rangeland health is critical for a successful, sustainable reindeer industry. Assessing rangeland health on only the BLM-managed lands of each grazing range gives us an incomplete view of the overall rangeland health. The need for landscape level rangeland health data, the entire land-base in each unfenced traditional grazing range, is necessary for reindeer herders and land managers to determine appropriate range utilization, and prevent land degradation and to meet agency mandates. Stakeholders have agreed upon the need for standard methods to examine more precise rates of vegetation recovery after heavy grazing to better inform range management strategies.

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<sup>1</sup> BLM, 2010, Memorandum of Understanding, Management of Reindeer Grazing Permits in Northwestern Alaska

<sup>2</sup> BLM, 2008, Programmatic Environmental Assessment, Reindeer Grazing Permits on the Seward Peninsula

<sup>3</sup> A Procedure for Evaluating Lichen Utilization on Reindeer Range, NRCS/BLM, 2001

The BLM 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.

In 2009, the BLM entered into a cooperative agreement with the University of Alaska Fairbanks Reindeer Research Program to establish a unified monitoring protocol to assess rangeland health for all public land managing agencies, and install range exclosures to implement a methodical, scientifically defensible sampling scheme. This project will also help satisfy the requisite for establishing long-term monitoring plots to demonstrate vegetation changes relating to climate change influence. The University thus developed A Monitoring Protocol for Collaborative Monitoring of Seward Peninsula, Alaska Reindeer Grazing Lands.<sup>4</sup>

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. Several interests will benefit from information gathered from long-term vegetation plots in protected exclosures, including but not limited to reindeer herders, wildlife managers, climate change scientists, and botanists studying the vegetation on the Seward Peninsula.

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 where grazing is moderate to heavy. 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 heavily 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?

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<sup>4</sup> Moore 2011, A Monitoring Protocol, University of Alaska Fairbanks

In 2011, to further implement the collaborative approach to effective rangeland monitoring and management, the BLM authorized the installation of three grazing exclosures on BLM managed land in active reindeer grazing ranges on the Seward Peninsula as part of a region-wide, long-term vegetation monitoring program.<sup>5</sup> A total of six exclosures were installed in 2011, three on BLM land, and three on State land. There were no known existing, intact and undisturbed vegetation monitoring plots that are protected from grazing and browsing ungulate impacts until the six that were established in 2011. While six exclosures now exist in the study area, due to the extensive acreage in each range and seasonal movement of reindeer throughout the year impacting different areas in different intensities, additional exclosure sites are needed to provide a more comprehensive landscape-level assessment of the vegetation throughout the active reindeer grazing ranges on the Seward Peninsula.

### **Purpose and Need**

Nineteen sites - four on BLM land, fifteen on State land - have been proposed for additional exclosure installation and operation in 2012. This environmental analysis considers the four (out of nineteen) additional exclosures on BLM land to continue the ongoing collaborative range monitoring program on the Seward Peninsula. The decision to be made is whether or not to authorize the construction and installation of the grazing exclosures on BLM land, at the locations shown on the enclosed Map. The existing Range Improvement Permit (issued in 2011) would be amended to include these four additional exclosures.

### **Proposed Action**

The BLM is proposing to authorize the University of Alaska to install and operate four additional range exclosures on BLM managed land. The existing 20-year permit issued in 2011 to the University of Alaska would be amended to include these additional exclosures. The permit is a *Range Improvement Permit (Form 4120-7)* as listed in section 1740.23 of BLM Manual 1740 – Renewable Resource Improvements and Treatments. This Manual identifies the objectives, policies, and standards that are common and apply to planning, analyzing, construction, maintaining, replacing and/or modifying renewable resource improvements and treatments for the range management program to achieve management objectives on BLM managed lands. The legal authority cited in the Manual for this authorization is 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 8 acres will be impacted: one acre for each of the four exclosure sites

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<sup>5</sup> DOI-BLM-AK-A010-2011-0029-CX, Case File No. AA-092933

located on the BLM managed land and four additional acres for approximately 16 miles of foot traffic travel routes over BLM-managed lands to access enclosure sites for construction and monitoring during the summer (three on BLM and sixteen on State DNR lands). Foot traffic is expected to be minimized due to the availability of funding for aviation support for construction and monitoring access. Only those enclosures relatively close to the road system or river corridor will be accessed by foot.

The enclosure design has been developed by the University of Alaska Fairbanks Reindeer Research Program, under a Cooperative Ecosystems Studies Unit Agreement with the BLM Anchorage Field Office. The mobilization of materials will be done cooperatively with the UAF Reindeer Research Program and BLM, with subsequent construction and baseline monitoring proposed to be completed by the UAF Reindeer Research Program. The vegetation monitoring protocols consistent with all stakeholder needs has been developed for a methodical sampling scheme to assess rangeland health and assist in the collection of baseline data. The UAF Reindeer Research Program will archive and deliver all data to collaborating stakeholders.

#### Access and Construction

The majority of the enclosure materials will be mobilized to location via helicopter slinging during the month of June. Panels will be pre-constructed at helicopter slinging staging areas. Staging areas may be on State Selected land along the Teller Road (Staging Area A), Teller Native Corporation land near the Teller airport (Staging Area B), and on State land along the Kougarok Road (Staging Area C). The University of Alaska Reindeer Research Program will be responsible for securing permission for staging, access and construction activities on non-BLM managed (State Department of Natural Resources, Teller Native Corporation). Some enclosure materials for locations closer to Nome on the road system may be transported to site in the winter via snow machine. The construction access may be via helicopter, boat, ATV, and foot during June through July. ATVs will travel only on known existing trails. Two to three interns, under the leadership and guidance of Greg Finstad, the program lead professor with the University of Fairbanks Reindeer Research Program, will camp, if necessary, at the enclosure 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. However, with the planned pre-construction of the enclosure panels at the helicopter staging sites, assembly at the enclosure sites should take only 4-6 hours each, eliminating much of the need for overnight logistics.

#### Monitoring

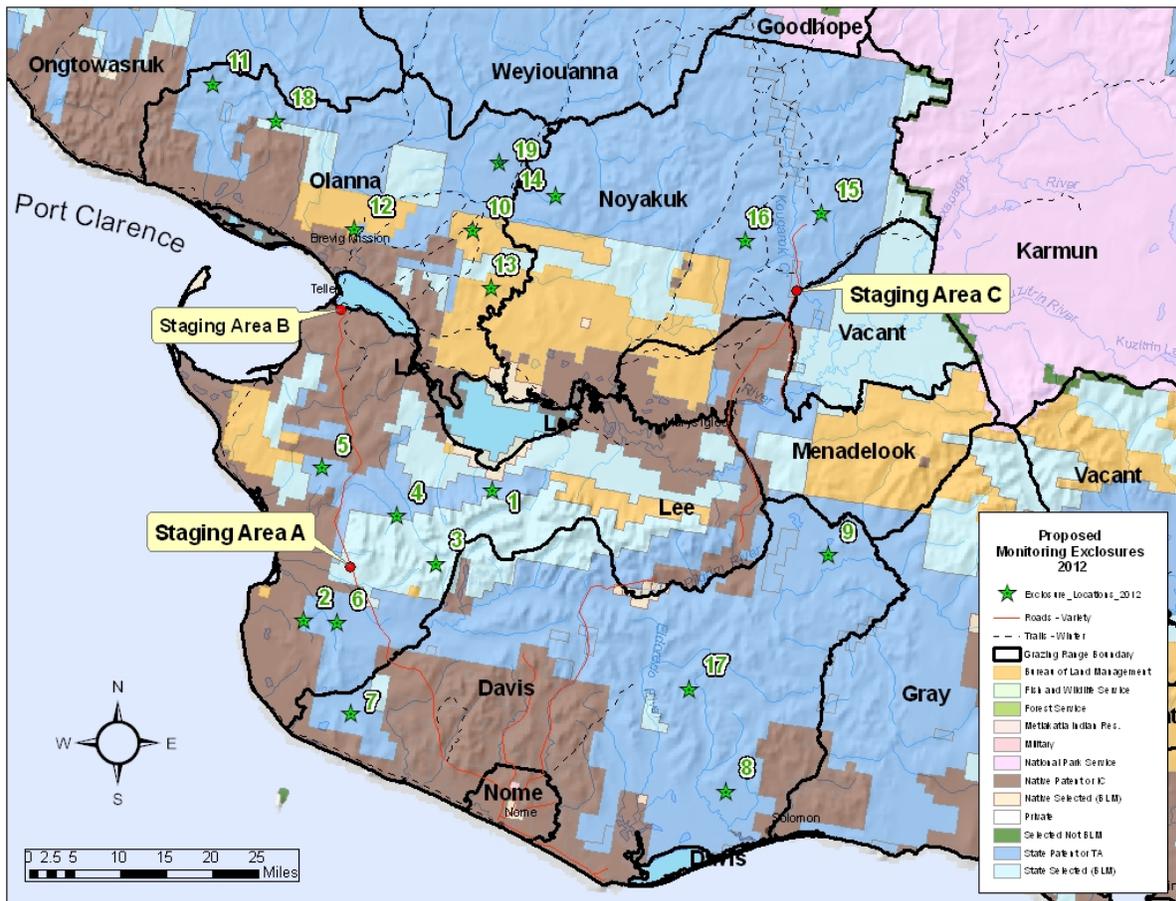
Monitoring at the enclosure sites will be conducted in the summer during peak vegetation production stage, typically the last two weeks of July. Access will be via boat and ATV on known, existing trails and via helicopter if funding allows. As per the Kobuk-Seward Resource Management Plan, the use of off-highway vehicle (OHV) to access enclosure sites will be via 17(b) easements as necessary. Two to three interns, under the leadership and guidance of Greg Finstad, the program lead professor with the University of Fairbanks Reindeer Research Program, 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).

**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.

**Location of Proposed Enclosures**

The locations of the proposed grazing enclosures to be installed in 2012 on BLM-managed land are shown on the map below, green star numbers 3, 10, 12, and 13. The other sixteen proposed enclosure locations shown are on State managed lands.



The location of the four proposed enclosures on BLM is detailed below:

Enclosure #	MTR	Description	Section	Lat	Long
3	K007S035W	T7S,R35W,KM	17	64.887343	-165.80918
10	K001S035W	T1S,R35W,KM	8	65.412521	-165.895336
12	K001S037W	T1S,R37W,KM	19	65.379835	-166.333601
13	K002S035W	T2S,R35W,KM	11	65.328	-165.788887

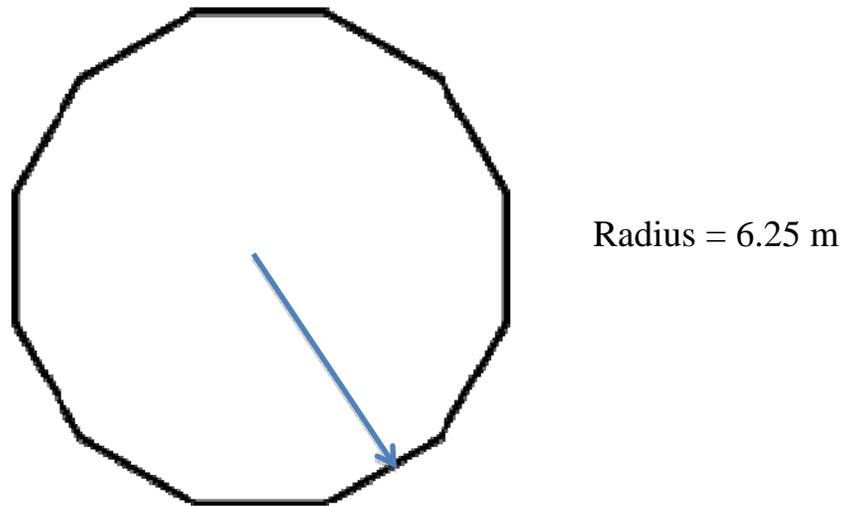
## Exclosure Description

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 will be placed on each panel to increase visibility, particularly for the travelling public in winter/snow whiteout conditions.



*This is what the exclosures look like - this one was completed in 2011. Each panel is 11'x11'*

Six exclosures were constructed during the summer of 2011, three on BLM land, and three on State of Alaska land. The exclosures proposed for installation in 2012 are to be of the same material and design. The twelve-sided exclosures are constructed with three-meter fence panels (each panel approximately 11'x11'). 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 (approximately 11'). 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.



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

### 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.”<sup>6</sup>

The BLM – Alaska Statewide Land Health Standards (2004)<sup>7</sup> 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).”

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<sup>6</sup> Approved RMP pages 42-43

<sup>7</sup> Approved RMP, Appendix D: BLM Alaska Land Health Standards, page 6.

