

ENVIRONMENTAL ASSESSMENT

Title Oil & Gas Transportation Plan Renewal

EA Number DOI-BLM-LLAKF010-2010-0005-EA

Type of Action National Petroleum Reserve-Alaska Right-of-Way Grant Renewal (2884.01)

Serial Number FF-094383

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Date Prepared February 17, 2010

Prepared By Bureau of Land Management
Arctic Field Office
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Lands Involved

This is a linear and site right-of-way. Linear authorization will encompass the entire Northeast and Northwest National Petroleum Reserve-Alaska (NPR-A) planning areas with specific seasonal routes determined after as-built digital data are provided at the conclusion of each season.

The site (staging/stacking) locations are:

- Inigok: Sec. 34 and 35, T. 8 N., R. 5 W., UM, approximately 1 acre
- Lonely DEW Line Station: Sec. 16 and 17, T. 18 N., R. 5 W., UM, approximately 1 acre

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GLOSSARY

AHRS

The Alaska Heritage Resource Survey is a data base maintained by the State of Alaska, Department of Natural Resources, Division of Parks and Outdoor Recreation, Office of History and Archaeology (State Historic Preservation Officer). This inventory of cultural and paleontological resources includes objects, structures, buildings, sites, districts, place-names and travel ways, with a general provision that they are over 50 years old. To date over 22,000 sites have been reported within Alaska (however, this is probably only a small percentage of the sites that may actually exist but are as yet unreported).

ANILCA

The Alaska National Interest Lands Conservation Act of 1980, as amended, modified and established designation of federal lands in Alaska for conservation and wilderness. These lands are managed by the U.S. National Park Service (NPS), U.S. Fish and Wildlife Service (FWS), U.S. Forest Service (USFS) and the U.S. Bureau of Land Management (BLM).

ESA

The Endangered Species Act of 1973, as amended is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS). The FWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. An exception is the polar bear is managed by the FWS.

GRAYWATER

Discharge that includes wastewater from any or all of the following: kitchen sink, shower, drinking water, and laundry.

NPR-A

National Petroleum Reserve-Alaska, formally named the Naval Petroleum Reserve #4 (NPR-4) is an area of more than 23 million acres in the northernmost part of Alaska, and was established by executive order on February 27, 1923.

NPRPA

The Naval Petroleum Reserves Production Act of 1976 (PL 94-258), dated April 5, 1976, transferred jurisdiction of NPR-4 to the Secretary of the Interior and renamed it the NPR-A. This act authorized the Secretary to begin further petroleum exploration and closed the NPR-A to all forms of appropriation under the public land laws, including mining and mineral leasing laws.

1. PURPOSE AND NEED

1.1. Introduction

In the fall of 2004, the applicant applied for a BLM authorization to conduct winter overland tundra travel and staging within the National Petroleum Reserve-Alaska (NPR-A) in support of oil and gas operations, as well as non-oil and gas operations on a limited basis. An NPR-A Right-of-Way (ROW) Grant was authorized in March 2005 for a 5-year period ending December 31, 2009. The ROW grant was authorized to be renewed at the end of the designated period, if there were no outstanding non-compliance issues. There is no record of non-compliance issues related to this ROW grant.

In October 2009, the applicant requested the BLM to renew the ROW grant. The BLM initiated review of the ROW grant renewal in December 2009, but postponed it due to the need for clarifications concerning consultation with the U.S. Fish and Wildlife Service's (FWS) recent listing of the Polar Bear under the Endangered Species Act (ESA). The review was restarted after the BLM and the FWS discussed this type of proposed action and determined how to proceed under the requirements of the ESA.

1.2. Need for Action

The need for the proposed action is for the BLM to allow the applicant a ROW that would provide continued winter logistical support to remote petroleum operations, as well as limited non-petroleum operations, on an as-needed basis. Non-petroleum operations are included but are not limited to refueling remote fuel tanks and logistical support for communities in the NPR-A. Communities in the area, as well as petroleum operations need access within NPR-A. Overland tundra travel is recognized as an appropriate use of NPR-A lands in the 2008 Northeast National Petroleum Reserve-Alaska, Supplemental Integrated Activity Plan/Environmental Impact Statement (NE SIAP/EIS) and the 2004 Northwest National Petroleum Reserve-Alaska, Integrated Activity Plan/Environmental Impact Statement (NW IAP/EIS) that provides management direction for the two planning areas. The proposed project is consistent with the Naval Petroleum Reserves Production Act of 1976, as amended (42 USC 78) as it supports oil and gas exploration in the NPR-A.

1.3. Purpose of Action

The objective of the proposed action is to allow the applicant a permit to construct, operate and maintain a ROW in the NPR-A. The ROW would provide the applicant with winter overland tundra transportation corridors and staging areas within the NPR-A for oil and gas and non-oil and gas operations for a period of 5 years.

1.4. Laws, regulations, other NEPA documentation that influence this EA

This EA is based upon – though not limited to – the following laws, regulations, policies, decisions and opinion:

- National Historic Preservation Act (NHPA) of 1966, as amended;
- Endangered Species Act (ESA) of 1973, as amended;
- Naval Petroleum Reserves Product Act (NPRPA) of 1976, as amended;
- Alaska National Interest Lands Conservation Act (ANILCA) of 1980, as amended;
- Executive Order (EO) 11988: Floodplain Management;
- EO 11990: Protection of Wetlands;

- [Record of Decision, Northeast National Petroleum Reserve-Alaska, Supplemental Integrated Activity Plan/Environmental Impact Statement, July 16, 2008;](#)
- [Record of Decision, Northwest National Petroleum Reserve-Alaska, Integrated Activity Plan/Environmental Impact Statement, January 22, 2004;](#) and
- [Biological Opinion for Bureau of Land Management for the Northern Planning Areas of the National Petroleum Reserve-Alaska, July 2008.](#)

1.5. Decision to be Made

The BLM will decide whether to grant the right-of-way renewal to the applicant, and if so, under what terms and conditions not to exceed 5-years.

1.6. Scoping and Issues

The proposed action is within the scope of the planning documents covering the northeast and northwest NPR-A planning areas, as discussed in the:

- [Northeast National Petroleum Reserve-Alaska, Supplemental Integrated Activity Plan/Environmental Impact Statement, 2008, Volume 2, Chapter 4.6;](#)
- [Northwest National Petroleum Reserve-Alaska, Integrated Activity Plan/Environmental Impact Statement, 2003, Volume 2, Section 5;](#) and
- [Biological Opinion for Bureau of Land Management for the Northern Planning Areas of the National Petroleum Reserve-Alaska, July 2008.](#)

The BLM Arctic Field Office has identified the following issues and concerns after reviewing the proposal and discussion with the U.S. Fish & Wildlife Service (USFWS) and the North Slope Borough (NSB):

- Potential land use conflicts with other authorized users at the Lonely DEW Line Station;
- Potential land and resource conflicts with subsistence users;
- Preference for local hire as subsistence representative to help pioneer trails and liaison when encountering subsistence users;
- Equipment falling through stream and lake ice;
- Potential interactions with Polar Bears; and
- Potential for adverse impacts to cultural sites.

The proposed action was announced on the BLM [Arctic Field Office NEPA Register](#) on December 11, 2009. No comments have been received from the public.

A summary listing of related issues considered is provided in Table 1.

Table 1: Environmental Considerations and Preliminary Issue Identification and Impact Determination

Environmental Considerations for Issues Identification and Analysis	Determination¹	Basis of Determination
Air Quality	Minimally Impacted	Protection provided by ROP A-9, A-10, and A-11 in the 2008 NE ROD.
Cultural and Paleontological Resources	Potentially Affected	Protection provided by Section 106 of the National Historic Preservation Act; ROP E-13, I-1. Surface disturbance from activities and ice roads may result in impacts to unknown cultural resources.
Subsistence	Potentially Affected	Protection provided by Alaska National Interest Lands Conservation Act; ROP H-1. Activities may disrupt subsistence users along travel routes if users have to divert away from their hunting area.
Environmental Justice	Not Present	
Waste (Hazardous/Solid)	Minimally Impacted	Protection provided by ROPs A-1 - A-5.
Water Resources	Minimally Impacted	Protection provided by ROPs A-3, A-4, A-5, B-1, B-2, C-3, C-4
Flood Plains/Wetlands and Riparian Zones	Minimally Impacted	Protection provided by ROPs A-3, A-4, A-5, C-2, C-3, C-4 and EO 11988 and EO11990
Invasive, Non-native species	Not Present	
Native American Religious Concerns	Minimally Impacted	Protection provided by ROPs C-2, ROP E-13, H-1 and I-1
Recreation	Minimally Impacted	Protection provided by ROPs C-2 and C-3
Public Health	Not Present	
Sociocultural Systems	Minimally Impacted	Protection provided by ROPs C-2, C-3, C-4, F-1, H-1 and I-1
Vegetation	Minimally Impacted	Protection provided by ROP C-2
Visual Resource Management	Minimally Impacted	Protection provided by ROPs A-1, A-4, A-5, C-2, C-3
Wild & Scenic Rivers	Not Present	
Wilderness	Not Present	
ACECs	Not Present	

Environmental Considerations for Issues Identification and Analysis	Determination ¹	Basis of Determination
Threatened & Endangered Species (T&E)		
Stellar’s and Spectacled Eiders	Not Present	Protection provided by Section 7 of the Endangered Species Act (J), ROP A-4, A-5, E-9
Polar Bear	Potentially Affected	Protection provided by Section 7 of the Endangered Species Act (J), ROP A-4, A-5, A-8, C-1. Denning female bears may be disturbed by vehicle traffic and human activities.
Fish	Minimally Impacted	Protection provided by: ROP A-4, A-5, B-1, B-2, C-3, C-4. EFH finding “not likely to adversely affect”.
non-T&E birds	Minimally Impacted	Protection provided by ROP A-2a, A-4 – A-6, E-9, E-10, E-9-b
non-T&E mammals	Minimally Impacted	Protection provided by ROP A-2a, A-4 – A-7, C-1, F-1-b&c

1: Explanation of Determinations

Potentially Affected: The proposed action or alternative could result in potential impacts to resource or issues to the level that additional mitigation may be required, or there is a need to evaluate potentially significant issues.

Minimally Impacted: Resources or issues would not be affected to a degree requiring further analysis because either the expected impacts from the proposed action and alternative would be minimal, or standard protections (e.g., ROPs and Stipulations from overriding BLM plans or other legal protections) would reduce impacts. Minimally impacted resources or issues will not be analyzed further in this EA.

Not Present: Resources or issues are not expected to be affected by the proposed action or alternatives because activities would occur at a different time or place. Resource or issues not present will not be analyzed further in the EA.

1.7. Summary

This chapter has presented the purpose and need of the proposed action, as well as the relevant issues, i.e., those elements of the human environment that could be affected by the implementation of the proposed action:

- Cultural and paleontological resources
- Subsistence
- Threatened & Endangered Species
 - Polar Bears

2. ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1. Alternative A: No Action

Under the no action alternative the right-of-way grant to conduct overland winter tundra travel throughout the Northeast and Northwest NPR-A planning areas, as identified in this EA, would not be renewed. By not renewing this right-of-way grant, the applicant would not be authorized to provide winter overland tundra transportation and staging services to oil and gas operations or non-oil and gas operations within the Northeast and Northwest NPR-A planning areas.

2.2. Alternative B: Proposed Action

The proposed action would be to construct, operate and maintain a right-of-way with linear and site characteristics in order to provide winter overland tundra transportation and staging within the NPR-A for oil and gas operations and non-oil and gas operations (i.e. construction, community re-supply, etc) for a period of 5 years, on an as-needed basis. Linear authorization would encompass the entire Northeast and Northwest NPR-A planning areas with specific seasonal routes determined after as-built digital data are provided at each season's end. One staging site is Inigok, where either the upper or low gravel pad area may be utilized in coordination with the Authorized Officer, but not both pad areas. The second staging site is the Lonely DEW Line Station.

Access routes to the NPR-A would be from the Dalton Highway and/or current oilfield infrastructure (i.e. Alpine and/or Kuparuk) using approved winter trails by the Alaska Division of Mining, Land and

Figure 1: Typical Steiger Set-up



Water for state lands, the BLM Arctic Field Office for BLM managed lands and private land owners for other lands. Rubber tracked articulated Steiger Tractors would be used for a majority of the operations with some tracked dozers. These vehicles would tow rubber tracked Marcep oilfield trailers and sleighs or pup trailers on Terra Tires. Tucker Sno-Cats would be used to access areas and provide assistance to transport supplies.

A 4-9 person camp is associated with all overland moves. These sled-mounted units include a kitchen/diner, sleeping rooms, washrooms, offices, shops, generator room(s) and fuel trailers. The camp may be moved by as much as 30 miles in a day depending upon operations. Potable

water would be filtered by the crew or transported from Deadhorse. Non-potable water for use in the shower and laundry facilities would be produced in a skid-mounted snow melter. Greywater would be filtered and discharged onto the tundra per the U.S. Environmental Protection Agency (EPA) General NPDES permit (AKG-33-0000). A skid-mounted incinerator would be used to burn garbage and human waste. Ash from the incinerator would be back-hauled to Deadhorse and tested prior to disposal with the North Slope Borough Service Area 10 Facility.

Fuel for the mobile camp would be stored in sled-mounted tanks, with total capacity of 2,500 gallons. All fuel storage tanks are self-contained to 110% volume. An engineered approved Spill Prevention Control and Countermeasure (SPCC) Plan is on file with the BLM Arctic Field Office. All spills will be reported and cleaned-up by the applicant according to BLM policies and other applicable laws.

2.3. Alternatives Considered but Eliminated from Detailed Analysis

By limiting the proposed action to specific routes, the applicant would be restricted to potential work in the NPR-A. Given the size of the NPR-A, contracting processes with private industry and the nature of petroleum projects occurring in remote locations, it is necessary for the applicant to be able to travel to any location in the NPR-A.

Analysis for the potential use of the Camp Lonely gravel pad to the west of the Lonely DEW Line Station is eliminated from detailed analysis because of the potential litigation the applicant may become part of due to the clean-up actions occurring at this time. Once the cleanup process is complete at the site in the future, the bureau will consider the site in detailed analysis per future authorization.

3. AFFECTED ENVIRONMENT

Environmental characteristics of the general project area have been extensively described in the documents listed below, to which this analysis is tiered:

- [Record of Decision, Northeast National Petroleum Reserve-Alaska, Supplemental Integrated Activity Plan/Environmental Impact Statement, July 16, 2008;](#)
- [Record of Decision, Northwest National Petroleum Reserve-Alaska, Integrated Activity Plan/Environmental Impact Statement, January 22, 2004;](#)
- [Biological Opinion for Bureau of Land Management for the Northern Planning Areas of the National Petroleum Reserve-Alaska, July 2008.](#)

The discussion of the affected environment covers cultural resources, subsistence and polar bears is based on the proposed action and the issues identified in Section 1.5.

3.1. Cultural Resources

There are cultural resources within the planning area that may relate to the entire span of human occupation of the region, including locales relating to the first humans to enter the Western Hemisphere. Historic and prehistoric sites may be located anywhere within the planning area and represent varied ages, cultures, and functions. Because soil forms slowly in the Arctic, sites that are thousands of years old may be near or on the surface. Although snow cover and frozen

ground provide some protection for near-surface (buried) cultural sites, sites with a surface manifestation can and have been adversely impacted by the types of equipment utilized in winter-time overland moves on the North Slope (USDOI BLM, 2008b, pp. 3-90) (USDOI BLM, 2003, pp. III-93)

3.2. Subsistence

The proposed overland right-of-way within the Northeast and Northwest NPR-A is located within the subsistence use areas for the communities of Atqasuk, Barrow, Nuiqsut and Wainwright. The primary subsistence use of the area during the winter overland season is used for caribou, small mammal, bird and furbearer hunting. Under ice fishing may also occur during the latter part of the project timeline. Access by residents to their hunting cabins or camps in the NPR-A is primarily by snowmachine (USDOI BLM, 2008b, pp. 3-106) (USDOI BLM, 2003, pp. III-96).

3.3. Threatened and Endangered Species

The polar bear was listed as threatened by the USFWS in May 2008, and is the only listed animal species likely to be present in the project area when activities would occur (USDOI FWS, 2008). Polar bears may be found all year along the Beaufort Sea coast or on off-shore ice (USDOI BLM, 2008b) (USDOI BLM, 2003) (USDOI FWS, 2008). Pregnant female polar bears select denning sites on land or on sea-ice in October or November, giving birth in the December or January time. They abandon their dens and move offshore with their cubs by the end of March or beginning of April. Den sites have previously been identified at the Eskimo Islands, Atigaru Point, Point Lonely and Cape Halkett. According to the USGS there was a polar bear denning southwest of the Drew Point Well #1 site during the winter and spring of 2010.

4. ENVIRONMENTAL IMAPCTS

4.1. Direct and Indirect Effects

This section provides the evaluation of direct, indirect and cumulative environmental impacts of the Proposed Action. Impacts may be to society, the economy, or the environment. Any issues or concerns raised by the BLM are discussed below. If these resulted in any measures to mitigate the environmental impacts, those measures are also discussed in this section. Finally, any residual impacts to the environment, despite applications of mitigation measures are identified here.

This EA is tiered to the documents identified in Chapter 3, Affected Environment. Issues specifically identified in Section 1.5 for further analysis in this EA are discussed within each section.

4.1.1. Cultural Resources

No adverse effects to cultural resources would take place under the no action alternative because this activity would not be authorized. Surface disturbance from the proposed winter overland transportation and staging activity would not occur.

There is potential for adverse impacts to cultural resources from the proposed action due to surface disturbance from activities and equipment. To avoid this possibility, overland travel routes must be laid out so as not to come within 150 feet the location of any known cultural site

(sites listed on the Alaska Heritage Resource Survey (AHRs) or the North Slope Borough Traditional Land Use Inventory (TLUI)). The applicant is responsible for demonstrating to the BLM that proposed routes are clear of cultural resources prior to initiating operations.

4.1.2. Subsistence

No adverse effects to subsistence resources would take place under the no action alternative because this activity would not be authorized. Surface disturbance and activity from the proposed winter overland transportation and staging activity would not occur.

There is the potential for the proposed action to cause subsistence resources, primarily caribou, to be displaced along travel routes during overland travel. In addition, subsistence users may also be negatively impacted if they have to divert away from the area in which they are hunting to avoid equipment traveling along a route. However, these impacts would be expected to be minor, and only for the duration that the equipment was in the area of active hunting during the overland move.

4.1.3. Threatened and Endangered Species

No adverse effects to polar bears would take place under the no action alternative because this activity would not be authorized. Disturbance and activity from the proposed winter overland transportation and staging activity would not occur.

There is potential for direct effects (incidental take) to polar bears from this project through disturbance (by vehicle traffic and human activities) of denning female bears. Disturbance may cause premature abandonment of den sites and may result in the death of cubs. Bears could also be attracted to garbage and debris at camps. Intentional take of denning polar bears will be mitigated using measures specified in a polar bear interaction plan to be written by the applicant and approved by FWS prior to accessing the ROW.

4.2. Cumulative Effects

Cumulative impacts result from the incremental addition of past, present, and reasonably foreseeable actions. Each action may be individually minor by itself, but when added to others could become significant over a period of time.

The cumulative time frame for the proposed action is tiered to the [Northeast National Petroleum Reserve-Alaska, Supplemental Integrated Activity Plan/Environmental Impact Statement, 2008, Volume 3, Chapter 4.7.1](#) and is refined for this EA to begin approximately in 1950, when first area-wide transportation projects began in earnest on the Alaska North Slope, and specifically in the NPR-A (including NW and NE NPR-A), and continue through about 2020. The ending date is based on the assumption that the relatively low level of activity and management would remain at about the present level.

Although the context of the proposed action encompasses both Northeast and Northwest planning areas for approximately 14,036,368 acres, the intensity of the proposed action is limited to the relatively infrequency of activity relative to the affected area. Therefore, potential effects to the geographic area would be limited within line of sight from the proposed use areas (i.e. routes and staging areas).

Environmental impacts have occurred from oil and gas exploration and non-oil and gas activities and these will likely continue into the future. Climate change is another factor that has affected resources.

Additional past, present, and future activities in the area include community development, military uses, recreation, subsistence, research and monitoring. While the level of such activities may increase slightly within the next 10 years, there are no development proposals that would substantially add to the current levels. The incremental addition of the proposed action would be short-term and dispersed, which should not add to increased cumulative effects.

The proposed action is not anticipated to result in cumulative impacts due to the remoteness of the portion of the area where the activity would occur and the low impact levels associated with the activity.

4.2.1. Cultural

Cultural resources are nonrenewable and not numerous in the planning area, so any effects would have some importance. Because the exact locations of all potential cultural resources sites are unknown, their disturbance cannot be entirely avoided. If sites are found during authorized activities, either the area would be avoided or data would be collected to mitigate losses of cultural resources. Cumulative impacts would be slightly less with the no action alternative compared to the proposed action because the activity level would decrease from the previous five years (USDO I BLM, 2008b, pp. 4-893)

4.2.2. Subsistence

Subsistence is important to the people of the North Slope. Reduction or loss of subsistence resources or access would be a highly significant impact. BLM protective measures have been applied in the NPR-A during the winter operational season without any significant individual or collective direct, indirect, or cumulative impacts to subsistence resources. Activity levels are expected to be similar in the future, including the incremental contribution of the proposed action, such that cumulative impacts are expected to remain insignificant. In addition, lease stipulations and Required Operating Procedures (ROPs) have been developed to avoid the potential for significant restriction of subsistence uses or access to subsistence resources (USDO I BLM, 2008b).

4.2.3. Threatened and Endangered Species

Polar bears could be affected cumulatively from oil and gas exploration, subsistence activities, as well as research and monitoring activities from scientists, industry, and agency personnel. The increased activity associated with this project would add a slight, temporary increase in potential disturbance to polar bears. Mitigation measures described in the FWS approved polar bear interaction plan would reduce the frequency and proximity of disturbance. There would be no incremental increase in human activity with the no action alternative.

4.3. Mitigation and Monitoring

4.3.1. Mitigation

4.3.1.1. Cultural Resources

Prior to the beginning of operations, the applicant will provide the BLM with a map of all routes to be used demonstrating that they avoid all known cultural sites by a minimum of 150 feet.

4.3.1.2. Polar Bear

The applicant shall submit a Polar Bear Interaction Plan to the FWS a minimum of 60 days prior to conducting operations under this ROW Grant. The submitted plan must be approved by the FWS and forwarded to the BLM prior to conducting operations under this ROW Grant.

The applicant shall review and implement the Polar Bear Educational Materials provided by the FWS prior to conducting operations under this ROW Grant.

The applicant shall notify the BLM of potential routes and schedules prior to conducting operations under this ROW Grant.

The applicant shall submit the following materials to the BLM within 30 days of ending each seasonal field operations:

1. Polar Bear Sighting Datasheet (Appendix B);
2. As-built of all snow/ice roads and trails, and as-built corner locations of ice pads at the time structures or routes are ready for utilization. The as-builts shall be submitted in digital format on a CD or from an accessible internet location (such as an ftp site) – or as otherwise requested by the BLM) as follows:
 - a. digital GPS file(s) referencing WGS Datum of 1984 (WGS84) with a defined projection; and
 - b. digital ESRI shapefile(s) or geodatabase(s) feature referencing the North American Datum of 1983 (NAD83) with a defined projection and supplementary metadata (text or .xml file).

4.3.2. Monitoring

4.3.2.1. Cultural Resources

The BLM shall monitor routes to ensure compliance with approved plan of operations, including but not limited to Section 106 of the National Historic Preservation Act. The applicant shall provide the BLM in a timely manner with GPS track logs from project vehicles upon request.

4.3.2.2. Polar Bear

The BLM shall monitor the routes during operations to ensure the routes are in compliance with ROP A-4, A-5, A-8, C-1.

4.4. Summary of Environmental Consequences

As with any onshore project in the NPR-A, the proposed action has the potential to affect multiple resources. This section identified that the proposed action would result in potential effects to cultural and paleontological resources, subsistence activities and polar bears directly, indirectly and/or cumulatively. However the potential environmental effects of the proposed

action will not be significant because of the incorporation and use of mitigation measures identified as Required Operating Procedures (ROPs) in the appropriate documents identified below, as well as summarized in Table 1, and the project specific mitigation measures identified in this section.

- [Record of Decision, Northeast National Petroleum Reserve-Alaska, Supplemental Integrated Activity Plan/Environmental Impact Statement, July 16, 2008;](#)
- [Record of Decision, Northwest National Petroleum Reserve-Alaska, Integrated Activity Plan/Environmental Impact Statement, January 22, 2004;](#) and
- [Biological Opinion for Bureau of Land Management for the Northern Planning Areas of the National Petroleum Reserve-Alaska, July 2008.](#)

5. CONSULTATION AND COORDINATION

5.1. Agencies, Organizations and Persons Consulted

Public notification of this EA will be on file at the Arctic Field Office and available on the Arctic Field Office Environmental Assessment web site.

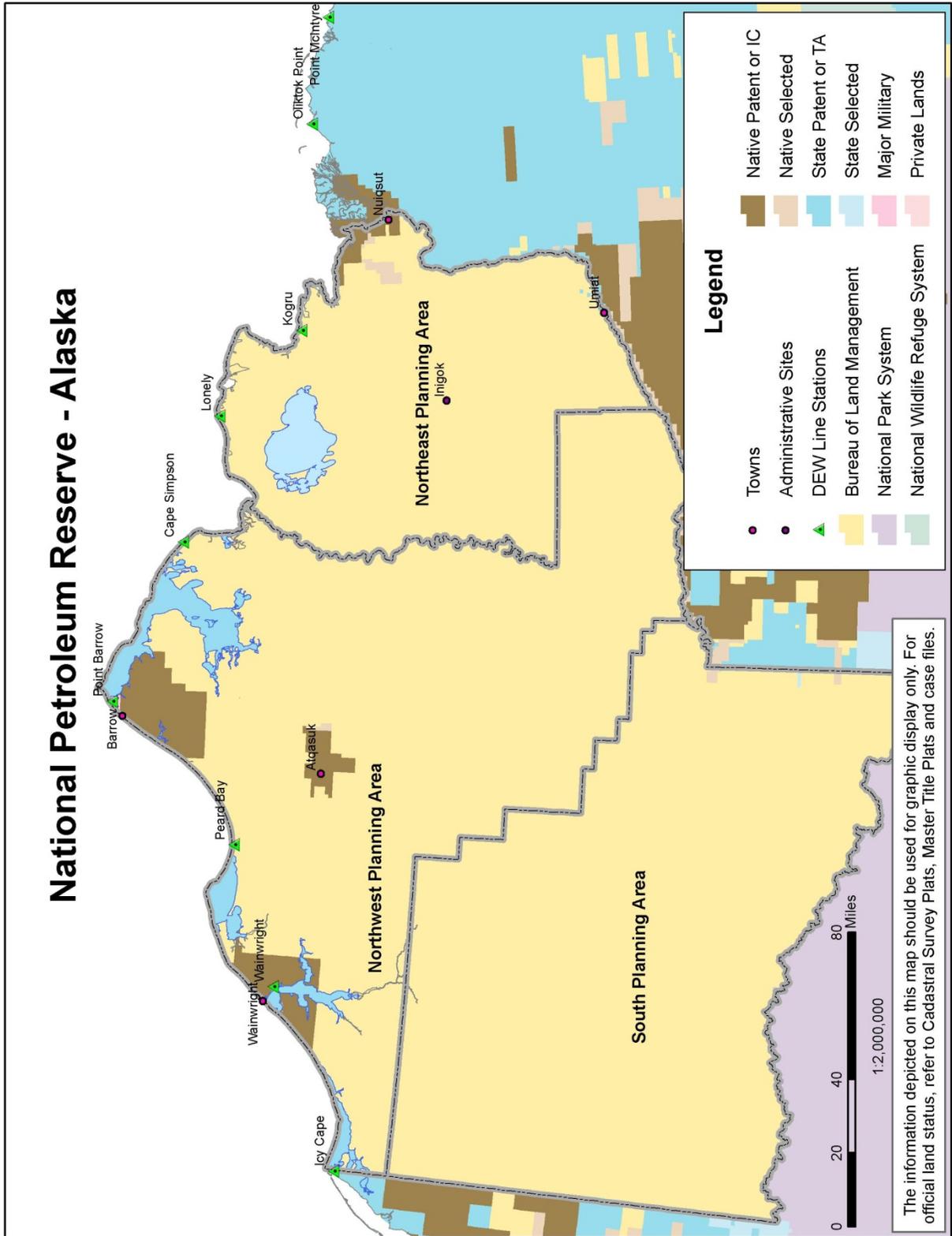
5.2. List of Preparers

NAME	POSITION	OFFICE
Susan Flora	Environmental Scientist	BLM Arctic Field Office
Richard Kemnitz	Hydrologist	BLM Arctic Field Office
Mike Kunz	Archaeologist	BLM Arctic Field Office
Stacie McIntosh	Interdisciplinary Supervisor	BLM Arctic Field Office
Debbie Nigro	Wildlife Biologist	BLM Arctic Field Office
Roger Sayre	Planning & Environmental Coordinator	BLM Arctic Field Office
Matthew Whitman	Fish Biologist	BLM Arctic Field Office
Donna Wixon	Natural Resource Specialist	BLM Arctic Field Office
Shane Walker	Natural Resource Specialist	BLM Arctic Field Office
Dave Yokel	Wildlife Biologist	BLM Arctic Field Office

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7. APPENDIX A: Area Map



9. APPENDIX C: NE IAP/EIS ROD Required Operating Procedures

Definitions

The following definitions in the context of this document apply to general lease stipulations and site specific lease stipulations (K-Lease stipulations) and Required Operating Procedures (ROPs):

Active Floodplain: The lowland and relatively flat areas adjoining inland and coastal waters, including the flood-prone areas of offshore islands, composing, at a minimum, that area subject to a 1% or greater chance of flooding in any given year (also referred to as the 100-year or base floodplain).

Authorized Officer (AO): A position of authority for approval of various activities through delegation from the Secretary of the Interior. Currently, the designated AOs in the State of Alaska for leasing, surface use, and permitting are 1) State Director, 2) Manager of the Arctic Field Office in Fairbanks, and 3) Deputy State Director, Division of Resources.

Body of Water or Water body: A lake, river, stream, creek, or pond that holds water throughout the summer and supports a minimum of aquatic life.

Buffer: A zone extending outward or inward from the periphery of a “protected” feature for a specified distance. Activities and development may be prohibited or limited by type or time within the buffer dependent on the goal associated with applying the buffer.

Consultation: Consultation, as it is referenced in the lease stipulations, does not infer formal consultation as required under other legal mandates such as “Section 7 Consultation” under the ESA. Rather, consultation implies that the BLM or the Lessee/Permittee will contact other agencies or entities to inform them of potential actions and to seek input on noted topics. This includes informal contacts, and written, electronic, and/or verbal communication.

Criteria Air Pollutants: Those pollutants subject to the National Air Quality Standards (<http://www.epa.gov/air/criteria.html>). They currently include carbon monoxide, nitrogen dioxide, lead, ozone (including its precursors oxides of nitrogen and photo-reactive volatile organic compounds), particulate matter with an effective diameter of 10 micrometers in size, particulate matter with an effective diameter of 2.5 micrometers in size, and sulfur dioxide.

Development Activities: Any activity associated with construction and operation of facilities or equipment post exploration.

Field: The term used to describe the area containing surface infrastructure above one or more subsurface reservoirs. In this sense, “field” is analogous to “a Unit participating area or collection of participating areas.” The infrastructure in the field includes, but is not limited to, drilling and production pads, service roads, perhaps an airstrip, and processing and support facilities. Field infrastructure may be used in the development and production of several oil/gas accumulations in different subsurface reservoirs. Fields typically have a primary reservoir that supports initial development in addition to satellite reservoirs that are developed later and tie into

the main facilities. Although oil and gas reservoirs may vary greatly in subsurface depth and other geologic characteristics, because they are located in the same geographic area it is more efficient to coordinate and share the necessary surface infrastructure. Fields may or may not be connected by permanent roads to adjacent fields or transportation facilities outside the field area.

Hazardous Air Pollutants: Those pollutants listed in the 1990 Amendments to the federal Clean Air Act, as amended, (<http://www.epa.gov/ttn/atw/orig189.html>) that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects. They currently include 188 chemicals and compounds.

In-field Roads: “In-field roads” are a component of the potential “footprint” of permanent oil and gas facilities. BLM defines “in-field roads” as gravel roads utilized by industry to conduct operational activities associated with development and production activities. The actual length/width and construction details of any gravel used for roads will be required as a component of any permit application for permanent facilities.

Lease Stipulation: Mitigation developed through BLM planning process/NEPA process that is specifically attached to any lease issued in the Northeast Planning Area.

Permanent Oil and Gas Facilities: Permanent Facilities include production facilities, pipelines, roads, airstrips, production pads, docks and other bottom-founded structures, seawater-treatment plants, and other structures associated with an oil and gas operation that occupy land for more than one winter season; also included are material sites such as sand and gravel, and “temporary platforms” if those platforms are used for production rather than exploration. Exploration wellheads and seasonal facilities such as ice roads and ice pads are excluded, even when the pads are designed for use in successive winters. This definition does not include over-summering ice pads for exploration purposes.

Required Operating Procedure: Mitigation developed through the BLM planning process/NEPA process that is not attached to the oil and gas lease but is required, implemented, and enforced at the operational level for all authorized (not just oil and gas) activities in the planning area.

Required Operating Procedures were developed with various mechanisms in place to ensure compliance. These mechanisms include the following:

1. Some ROPs are pre-application requirements; therefore compliance will precede approval of the proposed activity. For example, ROP H-1 a. requires consultation with affected communities prior to submission of an application for relevant activities within the Northeast Planning Area. If consultation has not taken place, the application will be rejected or will be considered incomplete until such time that the consultation has occurred.
2. Other ROPs are required design features, and will have to be incorporated into the applicant’s proposal. As an integral part of the proposal and the authorization, the requirement does not need to be stipulated to be enforceable. For example, a minimum pipeline height of 7 feet for above ground pipelines is a required design of any approved

above ground pipeline (ROP E-7). Since the authorization (a ROW in this case) authorizes a pipeline with a minimum height of 7 feet, anything less (unless specifically approved through additional NEPA analysis and the permit) is not in compliance and enforcement actions may be taken even if the permit does not specify a minimum of 7 feet.

3. Other ROPs will become conditions of approval on post oil and gas lease land use authorizations and they will be enforceable. For example, ROP C-1 prohibits heavy equipment used for cross-country moves within 1/2 mile of occupied grizzly bear dens.

Restricted Surface Occupancy: No permanent oil and gas facilities, except pipelines and, in some cases, roads, will be allowed.

Site Specific Lease Stipulation (K-Stipulations): A mitigation measure developed through the BLM planning process/NEPA process attached only to leases issued within spatially defined areas in the Northeast Planning Area.

Temporary Platform: A facility that does not require the use of an ice or gravel pad to support oil and gas and related exploration activities. An example of a temporary platform recently used on the North Slope is Anadarko Petroleum's Arctic Drilling Platform used for the company's Hot Ice Project during the winters of 2003-2004. The facility consisted of a series of platform modules joined together and supported above the tundra surface on steel legs. Once the project was completed the platform was disassembled and the support legs were removed, leaving the tundra surface undisturbed. Note: A temporary platform that is used for production, as opposed to exploration, would be considered a permanent oil and gas facility and be subject to the restrictions on placement of such structures.

Applicability of Requirements/Standards

All surface disturbing activities such as exploratory drilling, road/pipeline construction, seismic acquisition, and overland moves require additional authorization(s) issued subsequent to leasing. The stipulations and ROPs require that certain protections of resources and uses be achieved. Requirements and standards listed with the stipulations and ROPs represent BLM's current understanding of how lessees/permittees would achieve the objectives of the stipulation or ROP.

A lessee/permittee may propose a deviation from the requirements/standards of stipulations and ROPs as part of an authorization application. Prior to approving an alternative procedure as part of the authorization, BLM's staff would analyze the proposal and determine if the proposal incorporating the alternative procedure would achieve the objectives of the stipulations and ROPs. If the BLM determines that the alternative procedure proposed by the applicant would meet the stipulation's or ROP's objective, BLM could approve the alternative procedure.

If BLM determines that the alternative procedure proposed by the applicant is unlikely to meet the objectives of a stipulation or ROP, the AO may allow a deviation from the objectives and requirement/standard in a new decision document supported by additional NEPA analysis.

The BLM could independently require different actions than those listed under requirements/standards. If, after experience or additional study, BLM concludes that a

requirement/standard is not achieving or is unlikely to achieve the protective objective when applied to a specific future on-the-ground action or would not do so as well as the use of recently proven technology or techniques, BLM could at the permitting stage and under the terms of the stipulation or ROP, impose other restrictions to meet the objective.

Stipulations and Required Operating Procedures

Waste Prevention, Handling, Disposal, Spills, Air Quality, and Public Health and Safety:

A-1 Required Operating Procedure

Objective: Protect the health and safety of oil field workers and the general public by disposing of solid waste and garbage in accordance with applicable Federal, state, and local law and regulations.

Requirement/Standard: Areas of operation shall be left clean of all debris.

A-2 Required Operating Procedure

Objective: Minimize impacts on the environment from non-hazardous and hazardous waste generation. Encourage continuous environmental improvement. Protect the health and safety of oil field workers and the general public. Avoid human-caused changes in predator populations.

Requirement/Standard: Lessees/permittees shall prepare and implement a comprehensive waste management plan for all phases of exploration and development, including seismic activities. The plan shall be submitted to the AO for approval, in consultation with Federal, state, and NSB regulatory and resource agencies, as appropriate (based on agency legal authority and jurisdictional responsibility), as part of a plan of operations or other similar permit application. Management decisions affecting waste generation shall be addressed in the following order of priority: 1) Prevention and reduction, 2) recycling, 3) treatment, and 4) disposal. The plan shall consider and take into account the following requirements:

- a. Methods to avoid attracting wildlife to food and garbage. All feasible precautions shall be taken to avoid attracting wildlife to food and garbage. (A list of approved precautions, specific to the type of permitted use, can be obtained from the AO.)
- b. Disposal of putrescible waste. Requirements prohibit the burial of garbage. Lessees and permitted users shall have a written procedure to ensure that the handling and disposal of putrescible waste will be accomplished in a manner that prevents the attraction of wildlife. All putrescible waste shall be incinerated, backhauled, or composted in a manner approved by the AO. All solid waste, including incinerator ash, shall be disposed of in an approved waste-disposal facility in accordance with USEPA and ADEC regulations and procedures. The burial of human waste is prohibited except as authorized by the AO.
- c. Disposal of pumpable waste products. Except as specifically provided, the BLM requires that all pumpable solid, liquid, and sludge waste be disposed of by injection in accordance with USEPA, ADEC, and the Alaska Oil and Gas Conservation Commission regulations and procedures. On-pad temporary muds and cuttings storage, as approved by ADEC, will be allowed as necessary to facilitate annular injection and/or backhaul operations.
- d. Disposal of wastewater and domestic wastewater. The BLM prohibits wastewater discharges or disposal of domestic wastewater into bodies of fresh, estuarine, and marine water, including wetlands, unless authorized by a NPDES or state permit.

A-3 Required Operating Procedure

Objective: Minimize pollution through effective hazardous-materials contingency planning.

Requirement/Standard: For oil- and gas-related activities, a Hazardous Materials Emergency Contingency Plan shall be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. The plan shall include a set of procedures to ensure prompt response, notification, and cleanup in the event of a hazardous substance spill or threat of a release. Procedures applicable to fuel and hazardous substances handling (associated with transportation vehicles) shall consist of Best Management Practices (BMPs) if approved by the AO. The plan shall include a list of resources available for response (e.g., heavy-equipment operators, spill-cleanup materials or companies), and names and phone numbers of Federal, state, and NSB contacts. Other Federal and state regulations may apply and require additional planning requirements. All appropriate staff shall be instructed regarding these procedures. In addition contingency plans related to facilities developed for oil production shall include requirements to:

- a. provide refresher spill-response training to NSB and local community spill-response teams on a yearly basis,
- b. plan and conduct a major spill-response field-deployment drill annually,
- c. prior to production and as required by law, develop spill prevention and response contingency plans and participate in development and maintenance of the North Slope Subarea Contingency Plan for Oil and Hazardous Substances Discharges/Releases for the National Petroleum Reserve - Alaska operating area. Planning shall include development and funding of detailed (e.g., 1:26,000 scale) environmental sensitivity index maps for the lessee's operating area and areas outside the lessee's operating area that could be affected by their activities. (The specific area to be mapped shall be defined in the lease agreement and approved by the AO in consultation with appropriate resource agencies). Maps shall be completed in paper copy and geographic information system format in conformance with the latest version of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration's Environmental Sensitivity Index Guidelines. Draft and final products shall be peer reviewed and approved by the AO in consultation with appropriate Federal, state, and NSB resource and regulatory agencies.

A-4 Required Operating Procedure

Objective: Minimize the impact of contaminants on fish, wildlife, and the environment, including wetlands, marshes and marine waters, as a result of fuel, crude oil, and other liquid chemical spills. Protect subsistence resources and subsistence activities. Protect public health and safety.

Requirement/Standard: Before initiating any oil and gas or related activity or operation, including field research/surveys and/or seismic operations, lessees/permittees shall develop a comprehensive spill prevention and response contingency plan per 40 CFR § 112 (Oil Pollution Act). The plan shall consider and take into account the following requirements:

- a. On-site Clean-up Materials. Sufficient oil-spill-cleanup materials (absorbents, containment devices, etc...) shall be stored at all fueling points and vehicle-maintenance areas and shall be carried by field crews on all overland moves, seismic work trains, and similar overland moves by heavy equipment.

- b. Storage Containers. Fuel and other petroleum products and other liquid chemicals shall be stored in proper containers at approved locations. Except during overland moves and seismic operations, fuel, other petroleum products, and other liquid chemicals designated by the AO that in total exceed 1,320 gallons shall be stored within an impermeable lined and diked area or within approved alternate storage containers, such as over packs, capable of containing 110% of the stored volume. In areas within 500 feet of water bodies, fuel containers are to be stored within appropriate containment.
- c. Liner Materials. Liner material shall be compatible with the stored product and capable of remaining impermeable during typical weather extremes expected throughout the storage period.
- d. Permanent Fueling Stations. Permanent fueling stations shall be lined or have impermeable protection to prevent fuel migration to the environment from overfills and spills.
- e. Proper Identification of Containers. All fuel containers, including barrels and propane tanks, shall be marked with the responsible party's name, product type, and year filled or purchased.
- f. Notice of Reportable Spills. Notice of any reportable spill (as required by 40 CFR § 300.125 and 18 AAC § 75.300) shall be given to the AO as soon as possible, but no later than 24 hours after occurrence.
- g. Identification of Oil Pans (“duck ponds”). All oil pans shall be marked with the responsible party’s name.

A-5 Required Operating Procedure

Objective: Minimize the impact of contaminants from refueling operations on fish, wildlife and the environment.

Requirement/Standard: Refueling of equipment within 500 feet of the active floodplain of any water body is prohibited. Fuel storage stations shall be located at least 500 feet from any water body with the exception of small caches (up to 210 gallons) for motor boats, float planes, ski planes, and small equipment, e.g. portable generators and water pumps, will be permitted. The AO may allow storage and operations at areas closer than the stated distances if properly designed to account for local hydrologic conditions.

A-6 Required Operating Procedure

Objective: Minimize the impact on fish, wildlife, and the environment from contaminants associated with the exploratory drilling process.

Requirement/Standard: Surface discharge of reserve-pit fluids is prohibited.

A-7 Required Operating Procedure

Objective: Minimize the impacts to the environment of disposal of produced fluids recovered during the development phase on fish, wildlife, and the environment.

Requirement/Standard: Discharge of produced water in upland areas and marine waters is prohibited.

A-8 Required Operating Procedure

Objective: Minimize conflicts resulting from interaction between humans and bears during leasing and associated activities.

Requirement/Standard: Oil and gas lessees and their contractors and subcontractors will, as a part of preparation of lease operation planning, prepare and implement bear-interaction plans to minimize conflicts between bears and humans. These plans shall include measures to:

- a. Minimize attraction of bears to the drill sites.
- b. Organize layout of buildings and work areas to minimize human/bear interactions.
- c. Warn personnel of bears near or on drill sites and identify proper procedures to be followed.
- d. Establish procedures, if authorized, to discourage bears from approaching the drill site.
- e. Provide contingencies in the event bears do not leave the site or cannot be discouraged by authorized personnel.
- f. Discuss proper storage and disposal of materials that may be toxic to bears.
- g. Provide a systematic record of bears on the site and in the immediate area.
- h. Encourage lessee/permittee to participate and comply with the Incidental Take Program under the Marine Mammal Protection Act.

A-9 Required Operating Procedure

Objective: Reduce air quality impacts.

Requirement/Standard: Concurrent with implementation of the requirement for adoption of use of ultra low sulfur diesel in the “North Slope Ultra Low Sulfur Diesel Transition Agreement,” as amended, between the State of Alaska, BP Exploration (Alaska) Inc. and ConocoPhillips Alaska, Inc., or implementation of federal regulations requiring use of “ultra low sulfur” diesel within NPR-A if these regulations take effect prior to the “Transition Agreement,” all oil and gas operations (vehicles and equipment) that burn diesel fuels must use “ultra low sulfur” diesel as defined by the Alaska Department of Environmental Conservation – Division of Air Quality, subject to its availability. The use of alternative diesel fuel may be considered and approved by BLM’s Authorized Officer on a case-by-case basis.

A-10 Required Operating Procedure

Objective: Prevent unnecessary or undue degradation of the lands and protect health.

Requirement/Standard: This measure includes the following elements:

- a. Prior to initiation of a NEPA analysis for an application to develop a CPF, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the lessee shall obtain on-site background air quality and meteorology data to be used in predicting potential future air quality conditions resulting from the proposed action and other Reasonably Foreseeable Future Actions. Monitoring should examine the background concentration of criteria air pollutants. Monitoring data collection must meet BLM standards for quality control and quality assurance before use. (The BLM may consult with the applicant and appropriate federal, state, and/or local agencies to avoid duplication of effort.) The monitoring mechanism for the predevelopment stage would be one that does not require an on-site air polluting emission source. If background data exists that the AO determines is representative of that existing at the proposed development site, the AO may waive this requirement.

- b. For developments with a potential for air pollutant emissions as described in subparagraph (a), the lessee shall prepare (and submit for BLM approval) a complete list of reasonably foreseeable air pollutant emissions, including, but not limited to criteria air pollutants and hazardous air pollutants designated under authority of the Clean Air Act, as amended.
- c. For developments with a potential for air pollutant emissions as described in subparagraph (a) and informed by the pollutant emissions identified in subparagraph (b), the AO may require air quality modeling using BLM-approved atmospheric dispersion models that are appropriate for local conditions. (The AO may consult with the applicant and appropriate federal, state, and/or local agencies regarding modeling to inform his/her decision and avoid duplication of effort.) The modeling shall compare predicted impacts to all applicable local, state, and Federal air quality standards and increments, as well as other scientifically defensible significance thresholds (such as impacts to Air Quality Related Values, incremental cancer risks, etc.).
- d. Depending on the significance of the predicted impacts, a lessee proposing a CPF or other facility with potentially significant impacts on air quality may be required to monitor air pollutant emissions and/or air quality impacts for at least one year of operation. Depending upon the initial monitoring results, the AO may require additional monitoring.
- e. If monitoring indicates impacts would cause unnecessary or undue degradation of the lands or fail to protect health (either directly or through use of subsistence resources), the AO may require changes in the lessee's activities at any time to reduce these emissions, such as, but not limited to, use of cleaner-burning fuels or installation of additional emission control systems.

A-11 Required Operating Procedure

Objective: Ensure that permitted activities do not create human health risks through contamination of subsistence foods.

Requirement/Standard: A lessee proposing a permanent oil and gas development shall design and implement a monitoring study of contaminants in locally-used subsistence foods. The monitoring study shall examine subsistence foods for all contaminants that could be associated with the proposed development. The study shall identify the level of contaminants in subsistence foods prior to the proposed permanent oil and gas development and monitor the level of these contaminants throughout the operation and abandonment phases of the development. If ongoing monitoring detects a measurable and persistent increase in a contaminant in subsistence foods, the lessee shall design and implement a study to determine how much, if any, of the increase in the contaminant in subsistence foods originates from the lessee's activities. If the study determines that a portion of the increase in contamination in subsistence foods is caused by the lessee's activities, the AO may require changes in the lessee's processes to reduce or eliminate emissions of the contaminant. The design of the study/studies must meet the approval of the AO. The AO may consult with appropriate Federal, state, and NSB agencies prior to approving the study/studies design. The AO may require/authorize changes in the design of the studies throughout the operations and abandonment period, or terminate or suspend studies if results warrant.

Water Use for Permitted Activities:**B-1 Required Operating Procedure**

Objective: Maintain populations of, and adequate habitat for, fish and invertebrates.

Requirement/Standard: Water withdrawal from rivers and streams during winter is prohibited.

B-2 Required Operating Procedure

Objective: Maintain natural hydrologic regimes in soils surrounding lakes and ponds, and maintain populations of, and adequate habitat for, fish and invertebrates, and waterfowl.

Requirement/Standard: Water withdrawal from lakes may be authorized on a site-specific basis depending on water volume, and depth, and fish population and species diversification. Current water withdrawal requirements specify:

- a. Lakes that are ≥ 7 feet with sensitive fish (any fish except ninespine stickleback or Alaska blackfish), water available for withdrawal is limited to 15% of calculated volume deeper than 7 feet; lakes that are between 5 and 7 feet with sensitive fish, water available for withdrawal would be calculated on a case by case basis.
- b. Lakes that are ≥ 5 feet with only non-sensitive fish (i.e., ninespine stickleback or Alaska blackfish), water available for withdrawal is limited to 30% of calculated volume deeper than 5 feet.
- c. Any lake with no fish present, regardless of depth, water available for withdrawal is up to 35% as specified within the permit.
- d. A water-monitoring plan may be required to assess draw down and water quality changes before, during, and after pumping any fish-bearing lake or lake of special concern.
- e. The removal of naturally grounded ice may be authorized from lakes and shallow rivers on a site-specific basis depending upon its size, water volume, and depth, and fish population and species diversification.
- f. Removed ice aggregate shall be included in the 15% or 30% withdrawal limits_ whichever is the appropriate case_ unless otherwise approved.
- g. Any water intake structures in fish bearing or non-fish bearing waters shall be designed, operated, and maintained to prevent fish entrapment, entrainment, or injury. Note: All water withdrawal equipment must be equipped and must utilize fish screening devices approved by the Alaska Department of Natural Resources (ADNR).
- h. Compaction of snow cover or snow removal from fish-bearing water bodies shall be prohibited except at approved ice road crossings, water pumping stations on lakes, or areas of grounded ice.

The following lease stipulations and ROPs apply to overland moves, seismic work, and any similar cross-country vehicle use of heavy equipment on nonroaded surfaces during the winter season. These restrictions do not apply to the use of such equipment on ice roads after they are constructed.

Winter Overland Moves and Seismic Work:**C-1 Required Operating Procedure**

Objective: Protect grizzly bear, polar bear, and marine mammal denning and/or birthing locations.

Requirement/Standard:

- a. Cross-country use of heavy equipment and seismic activities is prohibited within 1/2 mile of occupied grizzly bear dens identified by the ADFG unless alternative protective measures are approved by the AO in consultation with the ADFG.
- b. Cross-country use of heavy equipment and seismic activities is prohibited within 1 mile of known or observed polar bear dens or seal birthing lairs. Operators shall consult with the USFWS and/or NOAA Fisheries, as appropriate, before initiating activities in coastal habitat between October 30 and April 15.

C-2 Required Operating Procedure

Objective: Protect stream banks, minimize compaction of soils, and minimize the breakage, abrasion, compaction, or displacement of vegetation.

Requirement/Standard:

- a. Ground operations shall be allowed only when frost and snow cover are at sufficient depths to protect the tundra. Ground operations shall cease when the spring snowmelt begins (approximately May 5 in the foothills area where elevations reach or exceed 500 feet and approximately May 15 in the northern coastal areas). The exact dates will be determined by the AO.
- b. Only low-ground-pressure vehicles shall be used for on-the-ground activities off ice roads or pads. A list of approved vehicles can be obtained from the AO. Limited use of tractors equipped with wide tracks or “shoes” will be allowed to pull trailers, sleighs or other equipment with approved undercarriage. Note: This provision does not include the use of heavy equipment such as front-end loaders and similar equipment required during ice road construction.
- c. Bulldozing of tundra mat and vegetation, trails, or seismic lines is prohibited; however, on existing trails, seismic lines or camps, clearing of drifted snow is allowed to the extent that the tundra mat is not disturbed.
- d. To reduce the possibility of ruts, vehicles shall avoid using the same trails for multiple trips unless necessitated by serious safety or superseding environmental concern. This provision does not apply to hardened snow trails for use by low-ground-pressure vehicles such as Rolligons.
- e. The location of winter ice roads shall be designed and located to minimize compaction of soils and the breakage, abrasion, compaction, or displacement of vegetation. Offsets may be required to avoid using the same route or track in the subsequent year.
- f. Motorized ground-vehicle use within the CRSA associated with overland moves, seismic work, and any similar use of heavy equipment shall be minimized within the Colville River Raptor, Passerine, and Moose Area from April 15 through August 5, with the exception that use will be minimized in the vicinity of gyrfalcon nests beginning March 15. Such use will remain _ mile away from known raptor nesting sites, unless authorized by the AO.

C-3 Required Operating Procedure

Objective: Maintain natural spring runoff patterns and fish passage, avoid flooding, prevent streambed sedimentation and scour, protect water quality and protect stream banks.

Requirement/Standard: Crossing of waterway courses shall be made using a low-angle approach. Snow and ice bridges shall be removed, breached, or slotted before spring breakup. Ramps and bridges shall be substantially free of soil and debris. Except at approved crossings, operators are encouraged to travel a minimum of 100 feet from known overwintering fish streams and lakes.

C-4 Required Operating Procedure

Objective: Avoid additional freeze-down of deep-water pools harboring over-wintering fish and invertebrates used by fish.

Requirement/Standard: Travel up and down streambeds is prohibited unless it can be demonstrated that there will be no additional impacts from such travel to over-wintering fish or the invertebrates they rely on. Rivers and streams shall be crossed at shallow riffles from point bar to point bar whenever possible.

Facility Design and Construction:**E-9 Required Operating Procedure**

Objective: Avoidance of human-caused increases in populations of predators of ground nesting birds.

Requirement/Standard:

- a. Lessee shall utilize best available technology to prevent facilities from providing nesting, denning, or shelter sites for ravens, raptors, and foxes. The lessee shall provide the AO with an annual report on the use of oil and gas facilities by ravens, raptors and foxes as nesting, denning, and shelter sites.
- b. Feeding of wildlife is prohibited and will be subject to noncompliance regulations.

E-10 Required Operating Procedure

Objective: Prevention of migrating waterfowl, including species listed under the Endangered Species Act, from striking oil and gas and related facilities during low light conditions.

Requirement/Standard: Illumination of all structures between August 1 and October 31 shall be designed to direct artificial exterior lighting inward and downward, rather than upward and outward, unless otherwise required by the Federal Aviation Administration.

E-13 Required Operating Procedure

Objective: Protect cultural and paleontological resources.

Requirement/Standard: Lessees shall conduct a cultural and paleontological resources survey prior to any ground-disturbing activity. Upon finding any potential cultural or paleontological resource, the lessee or their designated representative shall notify the AO and suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the AO.

Use of Aircraft for Permitted Activities:**F-1 Required Operating Procedure**

Objective: Minimize the effects of low-flying aircraft on wildlife, traditional subsistence activities, and local communities.

Requirement/Standard: The lessee shall ensure that aircraft used for permitted activities maintain altitudes according to the following guidelines (Note: This ROP is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and ROPs. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data):

- a. Aircraft shall maintain an altitude of at least 1,500 feet above ground level (AGL) when within _ mile of cliffs identified as raptor nesting sites from April 15 through August 15 and within _ mile of known gyrfalcon nest sites from March 15 to August 15, unless doing so would endanger human life or violate safe flying practices. Permittees shall obtain information from the BLM necessary to plan flight routes when routes may go near falcon nests.
- b. Aircraft shall maintain an altitude of at least 1,000 feet AGL (except for takeoffs and landings) over caribou winter ranges from December 1 through May 1, unless doing so would endanger human life or violate safe flying practices. Caribou wintering areas will be defined annually by the AO. The AO will consult directly with the Alaska Department of Fish and Game in annually defining caribou winter ranges.
- c. Land user shall submit an aircraft use plan as part of an oil and gas exploration or development proposal. The plan shall address strategies to minimize impacts to subsistence hunting and associated activities, including but not limited to the number of flights, type of aircraft, and flight altitudes and routes, and shall also include a plan to monitor flights. Proposed aircraft use plans should be reviewed by appropriate Federal, state, and Borough agencies. Consultations with these same agencies will be required if unacceptable disturbance is identified by subsistence users. Adjustments, including possible suspension of all flights, may be required by the AO if resulting disturbance is determined to be unacceptable. The number of takeoffs and landings to support oil and gas operations with necessary materials and supplies should be limited to the maximum extent possible. During the design of proposed oil and gas facilities, larger landing strips and storage areas should be considered so as to allow larger aircraft to be employed, resulting in fewer flights to the facility.
- d. Use of aircraft, especially rotary wing aircraft, near known subsistence camps and cabins or during sensitive subsistence hunting periods (spring goose hunting and fall caribou and moose hunting) should be kept to a minimum.
- e. Aircraft used for permitted activities shall maintain an altitude of at least 2,000 feet AGL (except for takeoffs and landings) over the Teshekpuk Lake Caribou Habitat Area from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices. Aircraft use (including fixed wing and helicopter) by oil and gas lessees in the Goose Molting Area should be minimized from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices.

Subsistence Consultation for Permitted Activities:**H-1 Required Operating Procedure**

Objective: Provide opportunities for participation in planning and decision making to prevent unreasonable conflicts between subsistence uses and oil and gas and related activities.

Requirement/Standard: Lessee/permittee shall consult directly with affected communities using the following guidelines:

- a. Before submitting an application to the BLM, the applicant shall consult with directly affected subsistence communities, the NSB, and the National Petroleum Reserve - Alaska Subsistence Advisory Panel to discuss the siting, timing and methods of their proposed operations to help discover local traditional and scientific knowledge, resulting in measures that minimize impacts to subsistence uses. Through this consultation, the applicant shall make every reasonable effort, including such mechanisms as conflict avoidance agreements and mitigating measures, to ensure that proposed activities will not result in unreasonable interference with subsistence activities.
- b. The applicant shall submit documentation of consultation efforts as part of its operations plan. Applicants should submit the proposed plan of operations to provide an adequate time for review and comment by the National Petroleum Reserve - Alaska Subsistence Advisory Panel and to allow time for formal Government-to-Government consultation with Native Tribal governments. The applicant shall submit documentation of its consultation efforts and a written plan that shows how its activities, in combination with other activities in the area, will be scheduled and located to prevent unreasonable conflicts with subsistence activities. Operations plans must include a discussion of the potential effects of the proposed operation, and the proposed operation in combination with other existing or reasonably foreseeable operations.
- c. A subsistence plan addressing the following items must be submitted:
 1. A detailed description of the activity(ies) to take place (including the use of aircraft).
 2. A description of how the lessee/permittee will minimize and/or deal with any potential impacts identified by the AO during the consultation process.
 3. A detailed description of the monitoring effort to take place, including process, procedures, personnel involved and points of contact both at the work site and in the local community.
 4. Communication elements to provide information on how the applicant will keep potentially affected individuals and communities up-to-date on the progress of the activities and locations of possible, short-term conflicts (if any) with subsistence activities. Communication methods could include holding community meetings, open house meetings, workshops, newsletters, radio and television announcements, etc.
 5. Procedures necessary to facilitate access by subsistence users to conduct their activities. In the event that no agreement is reached between the parties, the AO shall consult with the directly involved parties and determine which activities will occur, including the timeframes. During development, monitoring plans must be established for new permanent facilities, including pipelines, to assess an appropriate range of potential effects on resources and subsistence as determined on a case-by-case basis given the nature and location of the facilities. The scope, intensity, and duration of such plans will be established in consultation with the AO and Subsistence Advisory Panel. Permittees that propose barging facilities, equipment, supplies, or other

materials to NPR-A in support of oil and gas activities in the planning area shall notify, confer, and coordinate with the Alaska Eskimo Whaling Commission, the appropriate local community whaling captains' associations, and the NSB to minimize impacts from the proposed barging on subsistence whaling activities.

Orientation Programs Associated with Permitted Activities:

I-1 Required Operating Procedure

Objective: Minimize cultural and resource conflicts.

Requirement/Standard: All personnel involved in oil and gas and related activities shall be provided information concerning applicable stipulations, ROPs, standards, and specific types of environmental, social, traditional, and cultural concerns that relate to the region. The lessee/permittee shall ensure that all personnel involved in permitted activities shall attend an orientation program at least once a year. The proposed orientation program shall be submitted to the AO for review and approval and should:

- a. provide sufficient detail to notify personnel of applicable stipulations and ROPs as well as inform individuals working on the project of specific types of environmental, social, traditional and cultural concerns that relate to the region.
- b. Address the importance of not disturbing archaeological and biological resources and habitats, including endangered species, fisheries, bird colonies, and marine mammals, and provide guidance on how to avoid disturbance.
- c. Include guidance on the preparation, production, and distribution of information cards on endangered and/or threatened species.
- d. Be designed to increase sensitivity and understanding of personnel to community values, customs, and lifestyles in areas in which personnel will be operating.
- e. Include information concerning avoidance of conflicts with subsistence, commercial fishing activities, and pertinent mitigation.
- f. Include information for aircraft personnel concerning subsistence activities and areas/seasons that are particularly sensitive to disturbance by low-flying aircraft. Of special concern is aircraft use near traditional subsistence cabins and campsites, flights during spring goose hunting and fall caribou and moose hunting seasons, and flights near North Slope communities.
- g. Provide that individual training is transferable from one facility to another except for elements of the training specific to a particular site.
- h. Include on-site records of all personnel who attend the program for so long as the site is active, though not to exceed the 5 most recent years of operations. This record shall include the name and dates(s) of attendance of each attendee.
- i. Include a module discussing bear interaction plans to minimize conflicts between bears and humans.
- j. Provide a copy of 43 CFR 3163 regarding Non-Compliance Assessment and Penalties to on-site personnel.
- k. Include training designed to ensure strict compliance with local and corporate drug and alcohol policies. This training should be offered to the NSB Health Department for review and comment.
- l. Include training developed to train employees on how to prevent transmission of communicable diseases, including sexually transmitted diseases, to the local

communities. This training should be offered to the NSB Health Department for review and comment.

Endangered Species Act—Section 7 Consultation Process:

J. The lease areas may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or to have some other special status. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activities that will contribute to the need to list such a species or their habitat. The BLM may require modifications to or disapprove a proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. The BLM will not approve any activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 USC § 1531 et seq., including completion of any required procedure for conference or consultation.

10. APPENDIX D: NW IAP/EIS ROD Required Operating Procedures

The stipulations and required operating procedures (ROP's) were developed through the IAP/EIS process. They are based on knowledge of the resources in the planning area and current industry practices. They are consistent with existing policies and laws.

In developing these stipulations and ROP's, BLM has tried not to include requirements that already exist as regulation or law. Most requirements identified here as stipulations constitute significant restrictions on the conduct of operations under a lease. For example, a stipulation that does not allow permanent facilities within one mile of a river could result in a well being located far enough from the (lessee's) optimum site to prevent an oil reservoir from being fully developed. Such restrictions must be attached to the lease. As part of a lease contract, lease stipulations are specific to the lessee. All oil and gas activity permits subsequently issued to a lessee will comply with the lease stipulations appropriate to the activity under review.

The ROP's are pre-application requirements, procedures, management practices, or design features that BLM adopts here as operational requirements. These requirements will be addressed through the permitting process. An oil and gas lease does not in itself authorize any on-the-ground activity. Seismic operations, drilling, ice road construction, pipeline construction, etc. require additional land use authorizations. Any applicant requesting such authorization will have to address the required operating procedures either before submitting the application (e.g., subsistence consultation, brant surveys) or as part of the application proposal (e.g., proposal states garbage will not be buried, or pipelines and roads will be separated by 500 ft or more). Requirements that are met prior to submission of the application, as well as procedures, practices, and design features that are an integral part of a proposal, do not need to be stipulated in a permit or lease. Because ROP's are identified in this ROD as operational requirements, not as lease stipulations, their applicability goes beyond the oil and gas leasing to any permitted activity where the requirement is relevant.

The Authorized Officer (AO) may add additional more restrictive stipulations as determined necessary by further NEPA analysis and as developed through consultation with other Federal, State, and NSB regulatory and resource agencies. Laws or regulations may require other Federal, State, and NSB permits (e.g., Clean Water Act [CWA] Section 404) for an oil and gas project to proceed. Specific State permits are required when the State has authority, under Federal or State law or regulation, to enforce the provision in question. Specific permits issued by Federal agencies other than BLM could include permit conditions that are more stringent than those presented below. Standardized stipulations that BLM commonly applies to authorized activities are listed in Appendix 13 of the Final IAP/EIS.

Definitions. The following definitions apply to stipulations and required operating procedures described here.

Active Floodplain: The lowland and relatively flat areas adjoining inland and coastal waters, including the flood-prone areas of offshore islands, composing, at a minimum, that area subject

to a one percent or greater chance of flooding in any given year (also referred to as the 100-year or base floodplain).

Body of Water or Waterbody: A lake, river, stream, creek, or pond that holds water throughout the summer and supports a minimum of aquatic life.

Permanent Oil and Gas Facilities: Production facilities, pipelines, roads, airstrips, production pads, docks and other bottom-founded structures, seawater-treatment plants, and other structures associated with an oil and gas operation that occupy land for more than one winter season. Material sites and seasonal facilities such as ice roads and ice pads are excluded, even when the pads are designed for use in successive winters.

Exceptions to Lease Stipulations and Required Operating Procedures

As specified in Congressional legislation, exploration, development and production of the NPR-A shall be conducted in a manner that provides maximum protection for special areas, prevents unnecessary and undue surface damage, minimizes ecological disturbances, and avoids conflicts with subsistence activities. However, such protection efforts are generally not intended as a prohibition of petroleum and related activities. The BLM acknowledges that effective mitigation will come with some cost to oil and gas operations. However, a balance must be achieved to provide opportunities for successful oil and gas operations while providing maximum protection for the environment and local residents. While many prescriptive stipulations have been converted to performance-based lease stipulations and required operating procedures based on resource management objectives, there will remain a need to consider exceptions and modifications on a case-by-case basis. The following guidelines for considering and granting exceptions to stipulations or ROP's will be used.

In the event that an exception to a stipulation or ROP is requested and before an exception may be granted, the lessee/permittee shall demonstrate to the satisfaction of the AO that implementation of the stipulation or ROP is technically not feasible; or is economically prohibitive; or an environmentally preferable alternative is available and the alternative proposed by the lessee/permittee fully satisfies the objective(s) of the Lease Stipulation or ROP.

The lessee/permittee shall notify the AO in a timely manner that an exception is going to be requested. In demonstrating to the AO that the alternative proposal meets the above criteria, the lessee/permittee shall provide sufficient documentation (technical reports, new/revised procedures, scientific research results, etc.) to allow for a thorough review/evaluation of the proposal.

Before considering or granting an exception to a stipulation or ROP, consultation requirements must be met. Except in the case of an emergency, the AO shall consult with the appropriate Federal, State, and NSB regulatory and resource agencies before an exception may be granted. The AO's power to grant exceptions to a stipulation or ROP is limited to those subjects, uses, and permits over which the BLM has authority. Exceptions may be granted in emergencies involving human health and safety.

The BLM may also initiate an exception to a stipulation or ROP when information (technical reports, new/revised procedures, scientific research results, etc.) becomes available that demonstrates the alternative proposal satisfies the objective of the stipulation or ROP and meets the management objectives for the area in which the alternative is proposed. Before granting an exception (other than those granted for emergencies), whether proposed by the lessee/permittee or the BLM, the action shall undergo appropriate NEPA review.

A. Waste Prevention, Handling, Disposal; Spills, and Public Safety

A-1 Required Operating Procedure

Objective: Protect the health and safety of oil field workers and the general public by avoiding the disposal of solid waste and garbage near areas of human activity.

Requirements/Standard: Areas of operation shall be left clean of all debris.

A-2 Required Operating Procedure

Objective: Minimize impacts on the environment from non-hazardous waste generation. Encourage continuous environmental improvement. Protect the health and safety of oil field workers and the general public. Avoid human-caused changes to predator populations.

Requirement/Standard: Lessees/permittees shall prepare and implement a comprehensive waste management plan for all phases of exploration and development, including seismic activities. Management decisions affecting waste generation shall be addressed in the following order of priority: 1) prevention and reduction, 2) recycling, 3) treatment, and 4) disposal. The plan shall be submitted to the AO for approval, in consultation with Federal, State and North Slope Borough regulatory and resource agencies, as appropriate (based on agency legal authority and jurisdictional responsibility), as part of a plan of operations or other similar permit application. The plan shall consider and take into account the following requirements:

- a. Methods to avoid attracting wildlife to food and garbage: All feasible precautions shall be taken to avoid attracting wildlife to food and garbage. (A current list of approved precautions, specific to type of permitted use, can be obtained from the AO.)
- b. Disposal of putrescible waste: Current requirements prohibit the burial of garbage. Lessees and permitted users shall have a written procedure to ensure that the handling and disposal of putrescible waste will be accomplished in a manner that prevents the attraction of wildlife. All putrescible waste shall be incinerated, backhauled, or composted in a manner approved by the AO. All solid waste, including incinerator ash, shall be disposed of in an approved waste-disposal facility in accordance with U.S. Environmental Protection Agency (EPA) and Alaska Department of Environmental Conservation (ADEC) regulations and procedures. The burial of human waste is prohibited except as authorized by the AO.
- c. Disposal of pumpable waste products: Except as specifically provided, BLM requires all pumpable solid, liquid, and sludge waste be disposed of by injection in accordance with EPA, ADEC, and the Alaska Oil and Gas Conservation Commission regulations and procedures. On-pad temporary muds and cuttings storage, as approved by ADEC, will be allowed as necessary to facilitate annular injection and/or backhaul operations.
- d. Disposal of wastewater and domestic wastewater: BLM prohibits wastewater discharges or disposal of domestic wastewater into bodies of fresh, estuarine, and marine

water, including wetlands, unless authorized by the National Pollution Discharge Elimination System (NPDES) or State permit.

A-3 Required Operating Procedure

Objective: Minimize pollution through effective hazardous-materials contingency planning.

Requirement/Standard: For oil- and gas-related activities, a Hazardous-Materials Emergency-Contingency Plan shall be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. The plan shall include a set of procedures to ensure prompt response, notification, and cleanup in the event of a hazardous substance spill or threat of a release. Procedures applicable to fuel and hazardous substances handling (associated with transportation vehicles) may consist of Best Management Practices if approved by the AO. The plan shall include a list of resources available for response (e.g., heavy-equipment operators, spill-cleanup materials or companies), and names and phone numbers of Federal, State, and NSB contacts. Other Federal and Stipulations and Required Operating Procedures Appendix B-3 Northwest NPR-A Integrated Activity Plan/Environmental Impact Statement State regulations may apply and require additional planning requirements. All staff shall be instructed regarding these procedures.

A-4 Required Operating Procedure

Objective: Minimize the impact of contaminants on fish, wildlife, and the environment, including wetlands, marshes and marine waters, as a result of fuel, crude oil and other liquid chemical spills. Protect subsistence resources and activities. Protect public health and safety.

Requirement/Standard: Before initiating any oil and gas or related activity or operation, including field research/surveys and/or seismic operations, lessees/permittees shall develop a comprehensive spill prevention and response contingency plan per 40 CFR 112 (OPA). The plan shall consider and take into account the following requirements:

- a. On-site clean-up materials. Sufficient oil-spill-cleanup materials (absorbents, containment devices, etc.) shall be stored at all fueling points and vehicle-maintenance areas and shall be carried by field crews on all overland moves, seismic work trains, and similar overland moves by heavy equipment.
- b. Storage Containers. Fuel and other petroleum products and other liquid chemicals shall be stored in proper containers at approved locations. Except during overland moves and seismic operations, fuel, other petroleum products, and other liquid chemicals designated by the AO in excess of 1,320 gallons in storage capacity, shall be stored within an impermeable lined and diked area or within approved alternate storage containers such as overpacks, capable of containing 110 percent of the stored volume.
- c. Liner Materials. Liner material shall be compatible with the stored product and capable of remaining impermeable during typical weather extremes expected throughout the storage period.
- d. Permanent Fueling Stations. Permanent fueling stations shall be lined or have impermeable protection to prevent fuel migration to the environment from overfills and spills.

- e. Proper Identification of Containers. All fuel containers, including barrels and propane tanks, shall be marked with the responsible party's name, product type, and year filled or purchased.
- f. Notice of Reportable Spills. Notice of any reportable spill (as required by 40 CFR 300.125 and 18 AAC 75.300) shall be given to the AO as soon as possible, but no later than 24 hours after occurrence.

A-5 Required Operating Procedure

Objective: Minimize the impact of contaminants from refueling operations on fish, wildlife, and the environment.

Requirement/Standard: Refueling of equipment within 500 ft of the active flood plain of any fishbearing waterbody and 100 ft from non-fish-bearing water bodies is prohibited. Small caches (up to 210 gallons) for motorboats float planes, ski planes, and small equipment, e.g. portable generators and water pumps, will be permitted. The AO may allow storage and operations at areas closer than the stated distances if properly designed to account for local hydrologic conditions.

A-6 Required Operating Procedure

Objective: Minimize the impact on fish, wildlife, and the environment from contaminants associated with the exploratory drilling process.

Standard/Requirement: Surface discharge of reserve-pit fluids is prohibited unless authorized by applicable NPDES, ADEC, and NSB permits (as appropriate) and approved by the AO.

A-7 Required Operating Procedure

Objective: Minimize the impacts to the environment of disposal of produced fluids recovered during the development phase on fish, wildlife, and the environment.

Requirement/Standard: Procedures for the disposal of produced fluids shall meet the following:

- a. In upland areas, including wetlands, disposal will be by subsurface-disposal techniques. The AO may permit alternate disposal methods if the lessee demonstrates that subsurface disposal is not Appendix B-4 Stipulations and Required Operating Procedures Record of Decision Feasible or prudent and the alternative method will not result in adverse environmental effects.
- b. In marine waters, approval of discharges by the AO will be based on a case-by-case review of environmental factors and consistency with the conditions of an NPDES permit. Discharge of produced fluids will be prohibited at locations where currents and water depths, in combination with other conditions, are not adequate to prevent impacts to known biologically sensitive areas. Alternate disposal methods will require an NPDES permit certified by the State.

A-8 Required Operating Procedure

Objective: Minimize conflicts resulting from interaction between humans and bears during leasing and associated activities.

Requirement/Standard: Oil and gas lessees and their contractors and subcontractors will, as a part of preparation of lease operation planning, prepare and implement bear-interaction plans to minimize conflicts between bears and humans. These plans shall include measures to:

- a. Minimize attraction of bears to the drill sites.
- b. Organize layout of buildings and work areas to minimize human/bear interactions.
- c. Warn personnel of bears near or on drill sites and identify proper procedures to be followed.
- d. Establish procedures, if authorized, to deter bears from the drill site.
- e. Provide contingencies in the event bears do not leave the site or cannot be deterred by authorized personnel.
- f. Discuss proper storage and disposal of materials that may be toxic to bears.
- g. Provide a systematic record of bears on the site and in the immediate area.

B. Water Use for Permitted Activities**B-1 Required Operating Procedure**

Objective: Maintain populations of, and adequate habitat for, fish and invertebrates.

Requirement/Standard: Water withdrawal from rivers and streams during winter is prohibited.

B-2 Required Operating Procedure

Objective: Maintain natural hydrologic regimes in soils surrounding lakes and ponds and maintain populations of, and adequate habitat for, fish and invertebrates.

Requirement/Standard: Water withdrawal from lakes may be authorized on a site-specific basis depending on size, water volume, depth and fish population and species diversification.

Current water withdrawal requirements specify:

- a. Water withdrawals from any fish bearing lake 7 feet or deeper shall be limited to 15 percent of the estimated free water volume located beneath the ice.
- b. Water withdrawals from lakes with depths between 5 and 7 feet that contain only ninespine stickleback and/or Alaska blackfish are limited to up to 30 percent of the under-ice volume.
- c. Water withdrawal may be authorized from any lake if the proponent demonstrates that no fish exist in the lake.
- d. A water-monitoring plan may be required to assess draw down and water quality changes before, during, and after pumping any fish-bearing lake.
- e. The removal of naturally grounded ice may be authorized from lakes and shallow rivers on a site-specific basis depending upon its size, water volume, depth, and fish population and species diversification.
- f. Removed ice aggregate shall be included in the 15 percent or 30 percent (whichever is the appropriate case) withdrawal limits, unless otherwise approved.
- g. Any water intake structures in fish-bearing waters shall be designed, operated and maintained to prevent fish entrapment, entrainment, or injury.

- h. Compaction of snow cover or snow removal from fish-bearing water bodies shall be prohibited except at approved ice road crossings, water pumping stations on lakes or areas of grounded ice.

C. Winter Overland Moves and Seismic Work

The following stipulations and ROP's apply to overland moves, seismic work, and any similar crosscountry vehicle use of heavy equipment on non-roaded surfaces during the winter season. These restrictions do not apply to the use of such equipment on ice roads after they are constructed.

C-1 Required Operating Procedure

Objective: Protect grizzly bear, polar bear, and marine mammal denning and/or birthing locations.

Requirement/Standard:

- a. Cross-country use of heavy equipment and seismic activities are prohibited within ½ mile of occupied grizzly bear dens identified by Alaska Department of Fish & Game (ADF&G) unless alternative mitigation measures are approved by the AO in consultation with ADF&G.
- b. Cross-country use of heavy equipment and seismic activities are prohibited within 1 mile of known or observed polar bear dens or seal birthing lairs. Operators shall consult with the U.S. Fish and Wildlife FWS (FWS) and/or NOAA Fisheries, as appropriate, before initiating activities in coastal habitat between October 30 and April 15.

C-2 Required Operating Procedure

Objective: Protect stream banks, minimize compaction of soils, and minimize the breakage, abrasion, compaction, or displacement of vegetation.

Requirement/Standard:

- a. Ground operations shall be allowed only when frost and snow covers are at sufficient depths to protect the tundra. Ground operations shall cease when the spring snowmelt begins, approximately May 5 in the foothills area where elevations reach or exceed 500 ft, and approximately May 15 in the northern coastal areas. The exact dates will be determined by the AO.
- b. Only low-ground-pressure vehicles shall be used for on-the-ground activities off ice roads or pads. A list of approved vehicles can be obtained from the AO. Limited use of tractors equipped with wide tracks or "shoes" will be allowed to pull trailers, sleighs, or other equipment with approved undercarriage. (**Note:** This provision does not include the use of heavy equipment such as front-end loaders and similar equipment required during ice road construction.)
- c. Bulldozing of tundra mat and vegetation, trails, or seismic lines is prohibited; however, on existing trails, seismic lines or camps, clearing of drifted snow is allowed to the extent that the tundra mat is not disturbed.
- d. To reduce the possibility of ruts, vehicles shall avoid using the same trails for multiple trips unless necessitated by serious safety or superseding environmental concern. This

provision does not apply to hardened snow trails for use by low-ground-pressure vehicles such as Rolligons.

- e. The location of winter ice roads shall be designed and located to minimize compaction of soils and the breakage, abrasion, compaction, or displacement of vegetation. Offsets may be required to avoid using the same route or track in the subsequent year.

C-3 Required Operating Procedure

Objective: Maintain natural spring runoff patterns, avoid flooding, prevent streambed sedimentation, protect water quality and protect stream banks.

Requirement/Standard: Crossing of waterway courses shall be made using a low-angle approach. Snow and ice bridges shall be removed, breached or slotted before spring breakup. Ramps and bridges shall be substantially free of soil and debris.

C-4 Required Operating Procedure

Objective: Avoid additional freeze down of deep-water pools harboring over-wintering fish and invertebrates used by fish.

Requirement/Standard: Travel up and down stream beds is prohibited. Rivers and streams shall be crossed at shallow riffles from point bar to point bar whenever possible.

E. Facility Design and Construction

E-8 Required Operating Procedure

Objective: Minimize the impact of mineral materials mining activities on air, land, water, fish, and wildlife resources.

Requirement/Standard: Gravel mine site design and reclamation will be in accordance with a plan approved by the AO. The plan shall consider:

- a. Locations outside the active flood plain.
- b. Design and construction of gravel mine sites within active flood plains to serve as water reservoirs for future use.
- c. Potential use of site for enhancing fish and wildlife habitat.

E-9 Required Operating Procedure

Objective: Avoidance of human-caused increases in populations of predators of ground nesting birds.

Requirement/Standard: Lessee shall utilize best available technology to prevent facilities from providing nesting, denning, or shelter sites for ravens, raptors, and foxes. The lessee shall provide the AO with an annual report on the use of oil and gas facilities by ravens, raptors and foxes as nesting, denning, and shelter sites.

E-10 Required Operating Procedure

Objective: Prevention of migrating waterfowl, including species listed under the Endangered Species Act, from striking oil and gas and related facilities during low light conditions.

Requirement/Standard: Except for safety lighting, illumination of higher structures shall be designed to direct artificial exterior lighting inward and downward, rather than upward and outward. All drilling structures, production facilities, and other structures that exceed 20 ft shall be illuminated as outlined above.

E-13 Required Operating Procedure

Objective: Protect cultural and paleontological resources. Requirement/Standard: Lessees shall conduct a cultural and paleontological resources survey prior to any ground-disturbing activity. Upon finding any potential cultural or paleontological resource, the lessee or their designated representative shall notify the AO and suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the AO.

F. Use of Aircraft for Permitted Activities**F-1 Required Operating Procedure**

Objective: Minimize the effects of low-flying aircraft on wildlife, traditional subsistence activities, and local communities. Requirement/Standard: The lessee shall ensure that aircraft used for permitted activities maintain altitudes according to the following guidelines:

- a. Aircraft shall maintain an altitude of at least 1,500 ft above ground level (AGL) when within ½ mile of cliffs identified as raptor nesting sites from April 15 through August 15 and within ½ mile of known gyrfalcon nest sites from March 15 to August 15, unless doing so would endanger human life or violate safe flying practices. Permittees shall obtain information from BLM necessary to plan flight routes when routes may go near falcon nests.
- b. Aircraft shall maintain an altitude of at least 1,000 ft AGL (except for takeoffs and landings) over caribou winter ranges from December 1 through May 1, unless doing so would endanger human life or violate safe flying practices. Caribou wintering areas will be defined annually by the AO.
- c. The number of takeoffs and landings to support oil and gas operations with necessary materials and supplies should be limited to the maximum extent possible. During the design of proposed oil and gas facilities, larger landing strips and storage areas should be considered so as to allow larger aircraft to be employed, resulting in a fewer number of flights to the facility.
- d. Use of aircraft, especially rotary wing aircraft, near known subsistence camps and cabins or during sensitive subsistence hunting periods (spring goose hunting and fall caribou and moose hunting) should be kept to a minimum.
- e. Aircraft used for permitted activities shall maintain an altitude of at least 2,000 ft AGL (except for takeoffs and landings) over the Caribou Study Area from June 15 through July 31, unless doing so would endanger human life or violate safe flying practices.
- f. Aircraft shall maintain an altitude of at least 2,000 ft AGL (except for takeoffs and landings) over the Caribou Coastal Insect-Relief Areas from June 15 through July 31, unless doing so would endanger human life or violate safe flying practices.

H. Subsistence Consultation for Permitted Activities**H-1 Required Operating Procedure**

Objective: Provide opportunities for participation in planning and decision-making to prevent unreasonable conflicts between subsistence uses and oil and gas and related activities.

Requirement/Standard: Lessee/permittee shall consult directly with affected communities using the following guidelines.

- a. Before submitting an application to the BLM, the applicant shall consult with directly affected subsistence communities, the North Slope Borough, and the NPR-A Subsistence Advisory Panel to discuss the siting, timing and methods of proposed operations.

Through this consultation, the applicant shall make every reasonable effort, including such mechanisms as conflict avoidance agreements and mitigating measures, to ensure that proposed activities will not result in unreasonable interference with subsistence activities.

- b. The applicant shall submit documentation of consultation efforts as part of its operations plan. Applicants should submit the proposed plan of operations to provide an adequate time for review and comment by the NPR-A Subsistence Advisory Panel and to allow time for formal government-to-government consultation with Native Tribal Governments. The applicant shall submit documentation of its consultation efforts and a written plan that shows how its activities, in combination with other activities in the area, will be scheduled and located to prevent unreasonable conflicts with subsistence activities. Operations plans must include a discussion of the potential effects of the proposed operation, and the proposed operation in combination with other existing or reasonably foreseeable operations.

I. Orientation Programs Associated with Permitted Activities

I-1 Required Operating Procedure

Objective: Minimize cultural and resource conflicts.

Requirement/Standard: All personnel involved in oil and gas and related activities shall be provided information concerning applicable stipulations, required operating procedures, standards, and specific types of environmental, social, traditional, and cultural concerns that relate to the region. The lessee/permittee shall ensure that all personnel involved in permitted activities shall attend an orientation program at least once a year. The proposed orientation program shall be submitted to the AO for review and approval and should:

- a. Provide sufficient detail to notify personnel of applicable stipulations and required operating procedures as well as inform individuals working on the project of specific types of environmental, social, traditional and cultural concerns that relate to the region.
- b. Address the importance of not disturbing archaeological and biological resources and habitats, including endangered species, fisheries, bird colonies, and marine mammals, and provide guidance on how to avoid disturbance.
- c. Include guidance on the preparation, production, and distribution of information cards on endangered and/or threatened species.
- d. Be designed to increase sensitivity and understanding of personnel to community values, customs, and lifestyles in areas in which personnel will be operating.
- e. Include information concerning avoidance of conflicts with subsistence, commercial fishing activities, and pertinent mitigation.
- f. Include information for aircraft personnel concerning subsistence activities and areas/seasons that are particularly sensitive to disturbance by low flying aircraft. Of special concern is aircraft use near traditional subsistence cabins and campsites, flights during spring goose hunting and fall caribou and moose hunting seasons, and flights near North Slope communities.
- g. Provide that individual training is transferable from one facility to another, except for elements of the training specific to a particular site.

- h. Include on-site records of all personnel who attend the program for so long as the site is active, though not to exceed the 5 most recent years of operations. This record shall include the name and dates(s) of attendance of each attendee.
- i. Include a module discussing bear interaction plans to minimize conflicts between bears and humans

GENERAL STIPULATIONS

All operations will be conducted in such a manner as not to cause damage or disturbance to any fish or wildlife and subsistence resources.

No chasing by vehicles or buzzing by aircraft of any wildlife. Particular attention will be given to not disturbing caribou.

Holder shall prohibit the feeding of wildlife. Garbage or other potentially edible items which would attract wildlife shall be kept in covered containers while awaiting incineration.

All operations shall be conducted with due regard for good resource management and in such a manner as not to block any stream, or drainage system, or change the character or course of a stream, or cause the pollution or siltation of any stream or lake.

All activities shall be conducted so as to avoid or minimize disturbance to vegetation.

Cultural and Paleontological Resources. Any cultural or Paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the AO. An evaluation of the discovery will be made by the AO to determine appropriate actions to prevent the loss of significant cultural or scientific values. The Holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the AO after consulting with the Holder.

Black water shall be kept separate from grey wash and kitchen waste water. Grey wash water and kitchen waste water may be filtered to remove the solids and the liquid discharged to the land surface. All solids and sludges shall be incinerated.

All solid wastes shall be removed from the public lands to Alaska State DEC approved solid waste disposal facilities. Solid waste combustibles may be incinerated. All non-combustible solid waste, including ash from incineration and fuel drums, shall be removed for approved disposal. There will be no burial of garbage or human wastes.

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.

As soon as possible, but not later than 24 hours, notice of any such discharge of oil or hazardous substance as defined in AS 46.03.755, 18 AAC 75.300-.307, will be given to the Authorized Officer and any other Federal and State officials as are required by law.

ADEC approved oil spill cleanup materials (absorbents) will be carried by each field crew and stored at all fueling points and vehicle maintenance areas.

State and Federal safety standards for fuel handling will be followed.

No fuel storage or refueling of equipment will be allowed within the flood plain of a river or lake.

Drip basins or absorbent diapers will be placed under all non dry-disconnect-type fuel line couplings and valves.

Fuel and other petroleum products storage of 55 gallons or greater must have secondary containment with 110% of the capacity of the primary storage. The secondary containment, such as lined and bermed systems, must meet local, State and federal codes and regulations. Above ground storage of fuels or other petroleum products in excess of 660 gallons, or an aggregate above ground storage capacity of greater than 1320 gallons; or any facility which, due to location, could reasonably expect spilled fuels to reach waters of the United States or adjoining shorelines must prepare and maintain a Spill Prevention Control and Countermeasure (SPCC) Plan in accordance with 40 CFR 112 regulations.

All fuel containers, including barrels and propane tanks, shall be marked with Permittee's name, product type, and year filled or purchased (e.g., Company Name, Hydraulic Fluid, 1994).

FINDING OF NO SIGNIFICANT IMPACT

Title Oil & Gas Transportation Plan Renewal

EA Number DOI-BLM-LLAKF010-2010-0005-EA

Type of Action National Petroleum Reserve-Alaska Right-of-Way Grant Renewal (2884.01)

Serial Number FF-094383

Applicant Cruz Construction, Incorporated
3852 North Clark Wolverine Road
Palmer, Alaska 99645

Date Prepared July 15, 2010

Prepared By Bureau of Land Management
Arctic Field Office
1150 University Avenue
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Lands Involved

This is a linear and site right-of-way. Linear authorization will encompass the entire Northeast and Northwest National Petroleum Reserve-Alaska (NPR-A) planning areas with specific seasonal routes determined after as-built digital data are provided at the conclusion of each season.

The site (staging/stacking) will be used on an as-needed basis and are located:

- Inigok: Sec. 34 and 35, T. 8 N., R. 5 W., UM, approximately 1 acre
- Lonely DEW Line Station: Sec. 16 and 17, T. 18 N., R. 5 W., UM, approximately 1 acre

INTRODUCTION

The Bureau of Land Management (BLM) has conducted an environmental assessment (EA No. DOI-BLM-LLAKF010-2010-0005-EA) for a proposed action to address an oil and gas transportation plan renewal in the National Petroleum Reserve-Alaska, Northwest and Northeast Planning Areas. The proposed action would establish and maintain an annual right-of-way with linear and site characteristics in order to provide winter overland tundra transportation and staging within the NPR-A for oil and gas operations and non-oil and gas operations (i.e., construction, community re-supply, etc) for a period of 5 years, on an as-needed basis. Linear authorization will encompass the entire Northeast and Northwest NPR-A planning areas with specific seasonal routes determined after as-built digital data are provided at each season's end. One staging site is Inigok, where either the upper or low gravel pad area may be utilized in coordination with the Authorized Officer, but not both pad areas. The second staging site is the Lonely DEW Line Station, which will be used in coordination with the Authorized Officer.

EA No. DOI-BLM-LLAKF010-2010-0005-EA is attached to this Finding of No Significant Impact (FONSI). A no action alternative and the proposed action alternative were analyzed in the EA.

PLAN CONFORMANCE AND CONSISTENCY

The proposed action is based upon and tiered to, when appropriate, the following laws, regulations, policies, decisions and opinion:

- National Historic Preservation Act (NHPA) of 1966, as amended;
- Endangered Species Act (ESA) of 1973, as amended;
- Naval Petroleum Reserves Product Act (NPRPA) of 1976, as amended;
- Alaska National Interest Lands Conservation Act (ANILCA) of 1980, as amended;
- Executive Order (EO) 11988: Floodplain Management;
- EO 11990: Protection of Wetlands;
- [Record of Decision, Northeast National Petroleum Reserve-Alaska, Supplemental Integrated Activity Plan/Environmental Impact Statement, July 16, 2008;](#)
- [Record of Decision, Northwest National Petroleum Reserve-Alaska, Integrated Activity Plan/Environmental Impact Statement, January 22, 2004;](#) and
- [Biological Opinion for Bureau of Land Management for the Northern Planning Areas of the National Petroleum Reserve-Alaska, July 2008.](#)

FINDING OF NO SIGNIFICANT IMPACT DETERMINATION

Based upon a review of the EA and the supporting documents, I have determined that the proposed action is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27 and do not exceed those effects described in the following documents:

- [Northeast National Petroleum Reserve-Alaska, Supplemental Integrated Activity Plan/Environmental Impact Statement, 2008, Volume 2, Chapter 4.6;](#)
- [Northwest National Petroleum Reserve-Alaska, Integrated Activity Plan/Environmental Impact Statement, 2003, Volume 2, Section 5;](#) and

- [Biological Opinion for Bureau of Land Management for the Northern Planning Areas of the National Petroleum Reserve-Alaska, July 2008.](#)

Therefore, an environmental impact statement is not needed. This finding is based on the context and intensity of the project as described:

Context

The proposed action is an area-wide action directly involving limited project areas and timing within the Northeast and Northwest Planning Areas of the NPR-A. The proposed action would typically be the only or one of a few actions occurring in remote locations of the NPR-A. The proposed action by itself does not have international, national or state-wide importance; it does have regional-wide importance.

Intensity

The discussion below is organized around the Ten Significance Criteria described in 40 CFR 1508.27 and incorporated into the BLM’s Critical Elements of the Human Environment list, laws, regulations and bureau policies.

The following factors were considered in the EA to evaluate the significance this proposal (40 CFR 1508.27): Beneficial and adverse impacts; effects on public health and safety; unique cultural or ecological areas within or near the project area; potentially controversial or uncertain effects; whether the action may establish a precedent for future actions with significant effect; cumulative effects; adverse impacts to important scientific, cultural or historical resources; effects to endangered or threatened species or habitat; or whether the action threatens a violation of federal, state, local or tribal law, regulation or policy imposed for the protection of the environment, where non-federal requirements are consistent with federal requirements.

MONITORING AND MITIGATION

Stipulations and Required Operating Procedures (ROPs) from the 2008 NE NPR-A SIAP/EIS Record of Decision and 2003 NW NPR-A IAP/EIS Record of Decision are attached to the EA, including mitigation measures that are specific to the proposed action.

APPROVAL

Authorized Officer
/s/Lon Kelly, Field Manager

July 16, 2010
Date