

Amendment to the  
Northeast National Petroleum Reserve  
Integrated Activity Plan/  
Environmental Impact Statement

**Record of Decision**

\_\_\_\_\_/S/ CHAD CALVERT\_\_\_\_\_  
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Deputy Assistant Secretary  
Land and Minerals Management

\_\_\_\_\_/JANUARY 11, 2006\_\_\_\_\_  
Date

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# TABLE OF CONTENTS

**Summary**..... 3

**Decision** ..... 9

**Alternatives** 17

**Management Considerations** ..... 23

**ANILCA Section 810 Summary**..... 33

**Mitigation and Monitoring**..... 37

**Public Involvement** ..... 39

## APPENDICES

**Appendix A Modifications and Clarifications** ..... 43

**Appendix B Lease Stipulations and Required Operating Procedures** ..... 52

**Appendix C Maps**..... 77



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# SUMMARY

This Record of Decision (ROD) documents the Secretary of the Interior's decision to approve, with minor modifications and clarifications (see Appendix A), the Final Preferred Alternative as described in the Final Amended Northeast National Petroleum Reserve-Alaska Integrated Activity Plan/Environmental Impact Statement (Final Amended IAP/EIS; amendment). This amendment, which was prepared by the Bureau of Land Management (BLM), describes a plan to make available for oil and gas leasing certain lands currently closed to leasing or under a No Surface Activity (NSA) restriction in the ~ 4.6 million acre Northeast National Petroleum Reserve-Alaska (Planning Area) and to utilize performance-based lease stipulations and required operating procedures (ROPs) to increase flexibility in protecting important surface resources from the impacts of oil and gas activities. The plan emphasizes restrictions on surface activities, consultation with local residents, and coordinated scientific studies to protect wildlife habitat, subsistence areas, and other resources. At the same time, it makes 4,389,000 acres (95 percent of the Planning Area) available for oil and gas leasing, and defers leasing on Teshekpuk Lake (approximately 211,000 acres). In addition, although the Colville River Special Area (CRSA) will remain available for leasing, this ROD defers offering lands in the CRSA in a lease sale, until the Colville River Management Plan is completed. The findings in the Final Amended IAP/EIS and the decisions reflected in this ROD were based upon an open and collaborative public process. Several Federal agencies, the State of Alaska, the North Slope Borough (NSB), Alaska Native regional and community organizations, and thousands of individuals and institutions shared their knowledge and insights about the Planning Area with the BLM.

## PLAN FOUNDATION

The Final Amended IAP/EIS fulfills the 2002 recommendation of the President's National Energy Policy that directs the Secretary of the Interior to "consider additional environmentally responsible oil and gas development, based on sound science and the best available technology, through further lease sales in the National Petroleum Reserve-Alaska" and that "such consideration should ***include areas not currently leased within the northeast corner of the National Petroleum Reserve – Alaska***" (emphasis added).

In a 1981 amendment to the Naval Petroleum Reserves Production Act (NPRPA), 42 U.S.C. 6508, and Congress directed the BLM to undertake an "expeditious program of competitive oil and gas leasing" in the National Petroleum Reserve-Alaska. North Slope oil production, centered at Prudhoe Bay, significantly contributes to the Nation's domestic oil supply. The North Slope fields produce about 16 percent of America's current domestic oil production. The oil industry has discovered and developed other fields to the east and west of Prudhoe. However, production is declining from these older fields and there are indications that the Northeast National Petroleum Reserve-Alaska contains oil and natural gas resources that could help stem production decline on the North Slope.

## MANAGEMENT ALTERNATIVES

The Final Amended IAP/EIS analyzed a "No Action Alternative" and three other alternative future management plans for making part or all of the Northeast National Petroleum Reserve-Alaska available for oil and gas leasing in a manner consistent with responsible protection of other important surface resources. Each alternative offered a different approach to conducting "an expeditious program of competitive leasing of oil and gas" (a goal of the NPRPA) and protecting surface resources from "unnecessary and undue degradation," as required by the Federal Land Policy and Management Act (FLPMA), mitigating impacts of surface resources and providing maximum protection for surface values in designated special areas are required by the NPRPA. Each alternative also included management actions and mitigation that will broadly apply to the Planning Area. The Final Amended IAP/EIS also included lease stipulations and ROPs specific to portions of the Planning Area. These lease stipulations and ROPs address many of the issues identified by the public during the entire amendment process and include decisions the BLM must address in land management plans.

**NOTABLE AREAS**

**Special Areas-** The planning process identified a number of areas in the Planning Area that have particularly important surface values.

- The Teshekpuk Lake Special Area (TLSA). The TLSA is located in the Planning Area, and was designated primarily to protect important nesting, staging, and molting habitat for a large number of waterfowl. The area also provides important habitat for caribou and serves as an important area for subsistence resources and uses.
- Similarly, a portion of the CRSA is located in the Planning Area. The CRSA extends from the eastern boundary of the Planning Area to roughly 5 to 12 miles west or northwest of the bluffs of the Colville River, from approximately Ocean Point to the southern end of the Planning Area and 2 miles on either side of the Kogosukruk and Kikiakrorak Rivers and tributaries of the Kogosukruk River. The lower two-thirds of the Colville River support the highest concentrations of raptors, passerines, and moose on Alaska's North Slope. More than half of the known peregrine, gyrfalcon, and rough-legged hawk territories along this reach are in the Planning Area

**Other Notable Areas-** In addition to the TLSA and the CRSA, other areas containing particularly important surface values (some of which are located within the TLSA as identified in the Final Amended IAP/EIS) include:

- Rivers Area. The Rivers Area includes areas on the east side of the Ikpikpuk River; both sides and the bed of the Miguakiak River; the west side of the Colville River; both sides of the Tingmiaksiqvik River (also identified as the Ublutuoch River on USGS quadrangle maps) from the top of the bluff (or bank if there is no bluff) on both sides of the Kikiakrorak and Kogosukruk Rivers and several of the Kogosukruk River tributaries; and both sides of portions of Fish and Judy Creeks. These rivers and creeks provide important spawning, migration, rearing, and over-wintering habitat for both anadromous and resident species of fish. Fishing use includes a substantial subsistence harvest by the residents of Barrow and Nuiqsut and a commercial take at the mouth of the Colville River.
- Deep Water Lakes. Deep Water Lakes includes numerous water bodies that provide important spawning, migration, rearing, and over-wintering habitat for both anadromous and resident species of fish. These areas also provide important habitat for molting waterfowl and loafing and foraging habitat for shorebirds.
- Teshekpuk Lake. Teshekpuk Lake, which is entirely within the TLSA, is a dominant geographic feature of the region. Teshekpuk Lake's range of habitat types includes a 20 to 40-foot deep basin and a complex shoreline that features bays, spits, lagoons, islands, beaches, and extensive shoal areas. Teshekpuk Lake provides over-wintering habitat for fish and breeding habitat for waterfowl and shorebirds and is an important resource for subsistence-based cultures in the region.
- Goose Molting Area. The Goose Molting Area (GMA) includes suitable waterfowl habitats associated with (including lakes north and northeast of) Teshekpuk Lake. The GMA is entirely within the TLSA. This area provides important molting habitat for black brant, Canada geese, and greater white-fronted geese in the Arctic. Up to 30 percent of the Pacific flyway population of brant molt in this area (36,817 were counted in 2001). Up to 27,000 Canada geese, 34,930 molting greater white-fronted geese, and 2,670 snow geese were counted in recent years. This area also contains important breeding habitat for several species of shorebirds, including Birds of Conservation Concern.
- Teshekpuk Lake Caribou Habitat Area (TLCHA). The TLCHA, within the TLSA, includes suitable habitats in the Teshekpuk Lake region that are essential for all season use by caribou,

- including calving and rearing, insect-relief, and migration. Caribou of the Teshekpuk Lake Herd calve from late May to mid-June. For the remainder of the summer, areas of shorelines, barren dunes, and ridges can provide relief from intense insect harassment, which can affect caribou energy budgets and productivity of cows. The land between Teshekpuk Lake and the Beaufort Sea from the Ikpikpuk River to the Kogru River are particularly valuable for this purpose.
- Coastal Area. The Coastal Area includes those areas within  $\frac{3}{4}$  miles of the Beaufort Sea, extending from the western portion of the Planning Area just east of Smith Bay, to the Colville River Delta, including the Kogru River. The Coastal Area, which is within the TLSA, is important for caribou movement within coastal insect-relief areas, and for preventing contamination of marine waters, loss of important bird habitat, alteration or disturbance of shoreline marshes, and impacts to subsistence resources activities.
  - Pik Dunes. The Pik Dunes are located in the extreme southcentral part of the TLSA. The dunes complex occupies roughly 15 square miles, with a maximum north/south extent of  $5\frac{1}{2}$  miles, and a maximum east/west extent of 5 miles. The Pik Dunes, which form a basin containing five lakes, are part of a larger dune area that has been stabilized and or vegetated for at least several thousand years. The Pik Dunes are unique, because they are still exposed and active. Beyond their geologic and scenic uniqueness, the dunes provide: 1) insect-relief habitat for caribou, 2) habitat for several uncommon plant species, and 3) data critical to understanding major climatic fluctuations over the last 12,000 years.
  - Caribou Movement Corridors. The Caribou Movement Corridors consists of two locations within the TLSA – one located east and one located northwest of Teshekpuk Lake. Lakes and other natural surface features in these areas result in relatively narrow passages that restrict caribou movement during both the calving and insect-relief seasons. These potential “bottlenecks” to north/south caribou movement were identified during the planning process as important areas needing special protection.
  - Southern Caribou Calving Area. The Southern Caribou Calving Area is found south/southeast of Teshekpuk Lake and is entirely within the TLSA. This area provides important caribou calving, post-calving, and insect-relief habitat.
  - GMA Lease Tracts Area. The GMA Lease Tracts Area is found north of Teshekpuk Lake. This area over-laps with portions of a number of other Notable Areas, including a portion of the GMA and portions of the Caribou Movement Corridors, and provides important caribou calving, post-calving, insect-relief habitat, and sensitive goose molting habitat. The area has been delineated into seven large lease tracts, ranging in size from 46,000 acres to 59,000 acres in order to control the amount of surface disturbance from oil and gas leasing and potential development within the GMA.

## SUBSISTENCE

Subsistence activities, particularly hunting and fishing, in the Planning Area are exceedingly important to local residents, who are primarily the Inupiat - the Native people of Alaska's North Slope. Subsistence hunting and fishing are central to the Inupiat ages-old cultural system. Moreover, subsistence activities provide critical sustenance for people who reside off Alaska's road network at an extreme distance from the Nation's food-distribution system.

## LEASE STIPULATIONS AND REQUIRED OPERATING PROCEDURES

The lease stipulations and ROPs, as described in Appendix B, will apply to oil and gas leases issued within the Planning Area, including leases on split estate lands (i.e. Federal sub-surface/private surface). Among other requirements of the Final Amended IAP/EIS lease stipulations and ROPs protect surface resources and subsistence activities throughout the Planning Area. The plan protects key surface resource and use areas that were identified through the planning process and imposes strict restrictions on surface activities. The areas and resources receiving special protections include wetlands, fish and wildlife habitat (including habitat for threatened and endangered species), subsistence use and access areas, water quality, vegetation, cultural and paleontological resources, and scenic and recreation values. No surface occupancy lease stipulations are imposed along coastal areas, key rivers and deep water lakes, goose molting areas, and caribou use areas. Lease stipulations and ROPs provide clearly defined setbacks, restrictions, and guidance for all aspects of oil and gas and related operations.

In addition to the lease stipulations and ROPs developed to protect surface resources throughout the Planning Area, the BLM has identified eleven additional site specific lease stipulations in this section that will specifically apply to biologically sensitive areas. Two of these site specific lease stipulations (Rivers Area [Lease Stipulation K-1] and Deep Water Lakes [Lease Stipulation K-2]) will apply to biologically sensitive rivers and lakes throughout the Planning Area.

The other nine lease stipulations (K-3 through K-11) ensure compliance with the provisions of the NPRPA that require any oil and gas exploration or development within a special area to “be conducted in a manner which will assure the maximum protection of such surface resources to the extent consistent with the requirements of [the] Act for the exploration of the reserve” (42 U.S.C. §§6504[b], 6508). In addition, the lease stipulations will serve the purpose of providing for “conditions, restrictions, and prohibitions as the Secretary [of the Interior] deems necessary or appropriate to mitigate reasonably foreseeable and significantly adverse effects on the surface resources of the National Petroleum Reserve – Alaska (42 U.S.C. § 6508[1]). Lease Stipulations K-3 through K-11 ensure fulfillment of these statutory mandates in this amendment by providing special protections in the TLSA and CRSA. Specifically, Lease Stipulation K-3 ensures that exploration and development activities do not conflict with traditional subsistence users, historic travel routes, and minimize impacts to fish and wildlife resources. Lease Stipulation K-4 minimizes disturbance to molting geese and loss of goose molting, eider, and other waterfowl habitat in the GMA within the TLSA from oil and gas exploration and development activities. Lease Stipulation K-5 provides similar types of protection to caribou and their habitats in the TLCHA within the TLSA. Under Lease Stipulation K-6, coastal areas within the TLSA are afforded special protection to minimize alteration of caribou movement within caribou coastal insect-relief areas and to protect other coastal and marine resources and to provide protection for marine mammals through consultation requirements with local organizations prior to oil and gas activities on the water, e.g. barge traffic. Lease Stipulation K-7 prohibits permanent oil and gas facilities, except for essential pipeline and road crossings, near the Colville, Kikiakrovak, and Kogosukruk Rivers within the CRSA to protect the rivers’ natural features and raptor habitat. Lease Stipulation K-8 prohibits most surface structures in the Pik Dunes to protect caribou insect-relief habitat and the geologic and scenic uniqueness of the dunes. Lease Stipulation K-9 protects caribou movement in the areas between Teshekpuk Lake and Kogru Inlet northwest of Teshekpuk Lake. Lease Stipulation K-10 minimizes disturbance to caribou calving habitat south and southeast of Teshekpuk Lake. Within the GMA Lease Tracts Area (the area north of Teshekpuk Lake) seven large lease tracts have been delineated for the purpose of minimizing impacts to surface resources; Lease Stipulation K-11 protects key surface resources, i.e. goose molting habitat and caribou habitat areas in the GMA Lease Tracts Area by limiting surface disturbance within each of the lease tracts.

## **STUDY REQUIREMENTS AND WORKSHOPS**

### ***Study Requirements***

Multi-year surveys and/or studies are required on a Planning Area-wide basis to prevent the taking of spectacled and Steller's eiders (listed as threatened species under the Endangered Species Act); and minimize impacts to yellow-billed loons (see ROP E-11 in Appendix B), and molting geese north of Teshekpuk Lake (see Lease Stipulation K-4 in Appendix B). Multi-year surveys and/or studies specific to the Teshekpuk Lake Caribou Herd, are required within the TLCHA (see Lease Stipulation K-5 in Appendix B) to determine ways to minimize disturbance to caribou, or alteration or impediments to caribou movements.

### ***Workshop(s)***

The BLM will identify the timing of a workshop(s) involving all interested agencies to bring focus to the specifics of our adaptive management approach described in the ROD. The intent of the adaptive management process is to ensure the continual improvement and/or development of mitigation techniques for potential impacts associated with land use activities. The workshop will include experts in the techniques and concepts associated with adaptive management.



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# DECISION

The plan described in this ROD is hereby adopted for future management of the Northeast National Petroleum Reserve-Alaska. This plan includes the features and conditions of the “final Preferred Alternative” described in the *Northeast National Petroleum Reserve-Alaska Final Amended Integrated Activity Plan/Environmental Impact Statement*, with clarifications and minor modifications explained in Appendix A.

This ROD concludes the Amended IAP/EIS process for the Northeast Planning Area of the National Petroleum Reserve-Alaska. It fulfills the National Environmental Policy Act (NEPA) requirements associated with management planning on the BLM-administered public lands in the Planning Area, including the identification of lands available for oil and gas leasing. It also serves as the NEPA documentation for the first oil and gas lease sale under the amendment, which is currently expected to occur in October/November 2005. Subsequent lease sales may also be held for lands within the portion of the Planning Area available for lease. The Final Amended IAP/EIS may also serve as the NEPA documentation for future lease sales pending a determination by BLM that the EIS addresses potential impacts associated with any future lease sale.

The Final Amended IAP/EIS provides extensive site-specific analysis of the potential environmental and cumulative impacts of future oil and gas lease sales and exploration and development activities projected under the different alternatives on specific resources located in the Planning Area. The Final Amended IAP/EIS does this by first providing detailed information about the environment that will be affected by the alternatives considered, including the specific physical, biological, socio-economic and cultural resources in the Planning Area and their specific locations, and displays that information in detailed maps, figures and tables (see Chapter 3). Reasonable exploration and development projections or scenarios for each alternative were then developed, based on existing technology and known information about the potential oil and gas resources in the Planning Area (see Chapter 4). Finally, these projections or scenarios are applied to the site-specific information about resources in the Planning Area to predict the potential environmental impacts on specific resources from the development scenarios under each alternative (see Chapter 4). The resulting information about the direct, indirect and cumulative impacts on the varied resources from each management alternative forms the basis for BLM’s decision regarding lands that will be made available for oil and gas leasing in the Planning Area and under what conditions.

Following leasing, any future proposed exploration or development projects in the Planning Area will be subjected to further appropriate site-specific NEPA analysis before permits or approvals for those projects will be granted, ensuring that BLM’s decisions continue to be well informed as activities proceed. These subsequent NEPA reviews will analyze potential environmental impacts to resources based on specific projects and specific plans submitted for each proposed project, and will consider any new information about affected resources and applied technology. These subsequent NEPA reviews will occur for each stage of oil and gas exploration and development activities prior to BLM authorization. They will be site-specific analyses and will be based on information about the individual projects and the specific site conditions and impacts from those projects. These additional reviews will be tiered to the Final Amended IAP/EIS and will be conducted before any on-the-ground oil and gas exploration or development plans are approved.

The BLM plan for management of the Northeast National Petroleum Reserve-Alaska is presented here and includes the lease stipulations and ROPs that are described in detail in Appendix B and shown on Map 1 of this ROD.

## **PLANNING AREA**

Excluding Teshekpuk Lake, which is deferred from leasing, all BLM-administered lands (including non-Federal surface with federally owned subsurface lands) within the Northeast National Petroleum Reserve-Alaska are made available for oil and gas leasing. No Surface Occupancy (NSO) lease stipulations and additional protections for important surface resources will be imposed along coastal areas, key rivers and deep water lakes, goose molting areas, and caribou use areas. Prior to authorizing any leasing in the Teshekpuk Lake deferral area, additional NEPA documentation will be completed and any necessary additional lease stipulations and ROPs will be established. In addition, although the CRSA will remain available for leasing, whether to offer lands in the CRSA in a particular lease sale has been deferred until the Colville River Management Plan is completed.

## **ENVIRONMENTAL IMPACT ANALYSIS**

The environmental impacts analysis in the Final Amended IAP/EIS considers not only the direct and indirect impacts of the various alternatives, but also the cumulative impacts of the different alternatives. The Final Amended IAP/EIS notes that in general the incremental contribution of an alternative to cumulative impacts may be proportional to the projected level of activities for that alternative. However, the analysis in the Final Amended IAP/EIS also recognizes that the impacts of a particular alternative on specific resources depends on the overall level or scale of oil and gas activities that occur and the nature and concentration of resources impacted in any given location. As a result, the impacts analysis in the Final Amended IAP/EIS takes into consideration that the impacts of a particular alternative will be greater in areas of higher oil and gas potential (because more activities may occur there) and greater for activities which occur in areas with high rather than low surface resource values. This is the case, for example, with the action alternatives (including the final Preferred Alternative, as modified by this ROD), which will make available for leasing different amounts of lands surrounding Teshekpuk Lake – lands that not only containing high oil and gas resource potential, but also high wildlife, wildlife habitat, subsistence and other resource values. To account for the greater potential for impacts on surface resources in this sensitive area, BLM has included in the final Preferred Alternative extensive mitigation (a combination of general and site-specific lease stipulations and ROPs). These mitigations consist of various prohibitions and restrictions on oil and gas activities, including a deferral of leasing the remaining un-leased portion of Teshekpuk Lake (approximately 211,000 acres), are designed to minimize impacts and maximize protection of important surface resources in this area while providing development opportunities. Additional mitigation are included in the plan presented in this ROD.

## **STUDY REQUIREMENTS PRIOR TO ANY OIL AND GAS DEVELOPMENT ACTIVITIES**

The BLM Alaska, in conjunction with appropriate Federal, State, NSB, and North Slope Science Initiative (NSSI) representatives, will develop a research study of the effects of disturbance on molting brant and other geese, which utilize the lakes north of Teshekpuk Lake (Map 1A in Appendix C). The study will be completed prior to any authorization of construction of permanent facilities within the goose molting area and will include at least 3 years of data collection focused on:

- 1) providing baseline data for detection and/or measurement of disturbance
- 2) identifying significant development related disturbance factors
- 3) evaluating consequences to geese from disturbance within the GMA considering relevant ROPs and lease stipulations
- 4) identifying additional mitigation measures to protect molting geese which may be necessary as a result of the study; including recommendations for appropriate placement of permanent facilities with respect to the study outcome based on (2)
- 5) identifying specific location of facility(s) within the approximate 5000 acre parcel of land (as depicted on Map 1A in Appendix C) available within the GMA Lease Tracts F and G (also see Lease Stipulation K-11)

Any additional mitigation practices that are identified as a result of this study which are necessary to achieve the goal of Lease Stipulation K-4 will be implemented prior to authorization of any construction.

## LEASE STIPULATIONS AND REQUIRED OPERATING PROCEDURES

The lease stipulations and Required Operating Procedures (ROPs) that are part of this amendment impose restrictions on the establishment of permanent or temporary facilities in several areas within the Planning Area.

- Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited in the streambed of the Colville, Ikpikpuk, Miguakiak, Kikiakrorak, Tingmiaksiqvik, and Kogosukruk Rivers, and Judy and Fish Creeks. Permanent oil and gas facilities are also prohibited within certain distances, ranging from ½ mile to 3 miles, of the high water mark of the banks of these rivers and creeks with the exception of the Ikpikpuk River, where permanent oil and gas facilities are prohibited within ¾ mile of the centerline of the river. These distances will be measured based on the hydrology at the time of application. On a case-by-case basis, and in consultation with Federal, State, and NSB regulatory and resource agencies (as appropriate, based on agency legal authority and jurisdictional responsibility), essential pipeline and road crossings to the main channel will be permitted (unless noted otherwise) through setback areas.
- Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited on lakes or lakebeds and within ¼ mile of the ordinary high water mark of any deep lake as determined to be in lake zone III (i.e., depth greater than 13 feet [4 meters]). On a case-by-case basis, and in consultation with Federal, State and NSB regulatory and resource agencies (as appropriate, based on agency legal authority and jurisdictional responsibility), essential pipeline, road crossings, and other permanent facilities may be considered through the permitting process in these areas where the lessee can demonstrate on a site-specific basis that impacts will be minimal and if it is determined that there is no feasible or prudent alternative.
- Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited onshore within ¼ mile of the ordinary high water mark of Teshekpuk Lake – No Exceptions.
- The plan adopts a number of mitigation to reduce the impacts on resources in the GMA. In the 242,000 acres illustrated on Map 1 as “NSO Goose Molting Area Lakes”, no permanent oil and gas facilities, except for pipelines will be allowed, and no exceptions to this prohibition will be granted. Prior to permitting the construction of a pipeline within the GMA, a BLM sponsored workshop will be convened among appropriate Federal, State, NSB, and affected communities to determine the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources and users. Exploratory drilling within the GMA shall be limited to temporary facilities such as ice pads, ice roads, ice airstrips, and temporary platforms, although an exception will be considered if the lessee demonstrates that construction of permanent facilities outside the identified Goose Molting NSO Areas (such as gravel airstrips, storage pads, and connecting roads) is environmentally preferable (also see Lease Stipulation K-11 regarding allowable surface disturbance). In addition, several other standards will apply to permitted activities.
- Several standards and restrictions will be enforced in the TLCHA (TLCHA) to minimize disturbance to caribou, or alteration of caribou movement. Public transportation routes, i.e., “publicly funded community roads” will be prohibited within the TLCHA. Only “in-field” roads will be permitted within the TLCHA. “In-field” roads, for the purpose of the plan adopted in this

ROD, are defined as operational gravel strips that will be utilized by industry to conduct operational activities associated with development and production activities. The actual length/width and construction details of any road using gravel will be required as a component of any permit application for permanent facilities. A consultation requirement for permitted activities will include an extensive review by the NSB and the Subsistence Advisory Panel of any permit application for development projects that will be proposed in the Northeast Planning Area. Prior to authorization of construction of permanent facilities (outside NSO areas established in other stipulations), the lessee shall design and implement a study of caribou movement unless an acceptable study(s) specific to the Teshekpuk Lake Caribou Herd has been completed within the last 10 years. The study shall include a minimum of four years of current data on Teshekpuk Lake Caribou Herd movements and the study design shall be approved by the Authorized Officer (AO) in consultation with the appropriate Federal, State, and NSB wildlife and resource agencies and prior to authorizing the construction of permanent facilities in this area. The study should provide information necessary to determine facility (including pipeline) design and location. (See Lease Stipulation K-5, Appendix B.)

- In the Coastal Area, permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines established to support exploration and development activities shall be located at least  $\frac{3}{4}$  mile inland from the coastline to the extent practicable. Where, as a result of technological limitations, economics, logistics, or other factors, a facility must be located within  $\frac{3}{4}$  mile inland of the coastline, the practicality of locating the facility at previously occupied sites such as Camp Lonely, various Husky/U. S. Geological Survey (USGS) drill sites, and Distant Early Warning (DEW)-Line sites, shall be considered. Use of existing sites within  $\frac{3}{4}$  mile of the coastline shall also be acceptable where it is demonstrated that use of such sites will reduce impacts to shorelines or otherwise be environmentally preferable. All lessees/permittees involved in activities in the immediate area must coordinate use of these new or existing sites with all other prospective users.
- Exploration and development operations shall be conducted in a manner that minimizes the likelihood for unreasonable conflict between oil and gas and subsistence activities (including, but not limited to bowhead whale subsistence hunting). Before conducting open water activities, the lessee shall consult with the Alaska Eskimo Whaling Commission, the Nuiqsut Whaling Association, Barrow Whaling Captains Association, the NSB, and affected communities to minimize impacts to the fall and spring subsistence whaling activities of the communities of the North Slope.
- If necessary to construct permanent facilities within the CRSA, all reasonable and practicable efforts shall be made to locate permanent facilities as far from raptor nests as feasible. Within 15 miles of raptor nest sites, significant alteration of high quality foraging habitat shall be prohibited unless the lessee can demonstrate on a site-specific basis that impacts will be minimal or it is determined that there is no feasible or prudent alternative. Of particular concern are ponds, lakes, wetlands, and riparian habitats. On a case-by-case basis, and in consultation with appropriate Federal and State regulatory and resource agencies, essential pipeline and road crossings will be permitted through these areas where no other feasible or prudent options are available. Restrictions will also apply to overland moves, seismic work, and any similar use of heavy equipment (other than actual excavations as part of construction) on tundra surfaces during the winter season. In addition, although the CRSA remains available for leasing, lands within the CRSA will not be offered for lease until the Colville River Management Plan is completed.
- Within the Pik Dunes, surface structures, except approximately perpendicular pipeline crossings and ice pads, are prohibited.
- Within the Caribou Movement Corridors and the Southern Caribou Calving Areas, no permanent oil and gas facilities, except pipelines, will be allowed on approximately 320,000 acres (Map 1).

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Prior to approving a proposal for the construction of a pipeline, a BLM sponsored workshop will be convened among appropriate Federal and State agencies, NSB, and affected communities to determine the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources and users.

- Surface disturbance is limited to 300 acres within each of the seven lease tracts north of Teshekpuk Lake (Map 1). No Exceptions to this 300 acre limitation will be allowed. However, the 300 acre limitation does not apply to surface disturbance activities from pipeline construction. Prior to approving a proposal for construction of a pipeline, a BLM sponsored workshop will be convened among appropriate Federal and State agencies, NSB, and affected communities to determine the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources and users.
- Multi-year surveys/studies are required on a Planning Area-wide basis to prevent the taking of spectacled and Steller's eiders (listed as threatened species under the Endangered Species Act) and yellow-billed loons. Multi-year surveys are required within the TLCHA to minimize disturbance to caribou, or alteration of caribou movements. Multi-year studies are required to ascertain the effects of disturbance on molting geese (especially Brant), which utilize the lakes north of Teshekpuk Lake.

## **OVERLAND TRAVEL AND ASSOCIATED ACTIVITIES**

Overland travel and associated activities for permitted uses are guided by specific ROPs. Under BLM's off-highway vehicle (OHV) classification system the Planning Area is designated as "Limited," confining recreational OHV use to winter use of snow machines and other low ground-pressure vehicles. Within the National Petroleum Reserve-Alaska, no summer recreational use of OHVs is permitted. The summer use of OHVs (including all-terrain vehicles and airboats) to support traditional subsistence activities and access is allowed. The use of airboats during the summer is limited to streams, lakes, and estuaries that are seasonably accessible by motorboat. To prevent impacts to soils, water quality, vegetation, and wildlife (in particular nesting waterfowl), airboat use in areas of seasonal flooding of tundra and temporary shallow waters adjacent to streams, lakes, and estuaries is prohibited.

## **CONCLUSION**

This Decision satisfies the goals of the NPRPA to conduct an expeditious program of oil and gas leasing, while providing maximum protection to the important surface values of Special Areas. It places strict restrictions on land use activities and imposes all practicable mitigation and monitoring to ensure adequate protection of surface resources of the Planning Area including Special Areas, and the prevention of unnecessary and undue degradation. The BLM's obligations to protect threatened and endangered species, subsistence uses and resources, wildlife and their habitat, fisheries, wild and scenic rivers, and wetlands and floodplains resources is also satisfied through this Decision.



[map 1](#)



# ALTERNATIVES

The alternatives presented in the Final Amended IAP/EIS are consistent with the purposes of the statutes governing the National Petroleum Reserve–Alaska. Each alternative offers a different approach to serving the “total energy needs of the nation” and balancing the goals of providing for expeditious exploration and development of the Reserve in accordance with the NPRPA. The alternatives provide maximum protection to surface resource values of the designated Special Areas and protecting all surface resources from “unnecessary and undue degradation” as required by FLPMA.

## Final Decision

The Final Decision is very similar to Alternative D described in the Final Amended EIS/IAP, but provides additional mitigation to protect important surface resources. (See Appendix A for explanations of clarifications and modifications.) The Preferred Alternative makes available approximately 95 percent (approximately 4,389,000 acres) of the Planning Area’s approximately 4.6 million acres for oil and gas leasing (Map 1). Management practices will emphasize performance-based lease stipulations and ROPs on surface activities, consultation with local residents, and coordinated scientific studies to protect wildlife habitat, subsistence use areas, and other surface resources. Under the Final Decision, Teshekpuk Lake (approximately 211,000 acres) will be deferred from leasing. This deferral will preclude exploratory drilling and development activities, including pipeline construction. Current leases will not be affected by the deferral. Although the CRSA will remain available for leasing, offering lands in the CRSA for lease will be deferred until the completion of the Colville River Management Plan.

The Final Decision makes available approximately 389,000 acres that were unavailable in the 1998 ROD. The additional lands made available by the Final Decision are within the area of highest oil and gas potential in the Northeast Planning Area, and are within the TLSA. However, several major protective measures have been developed to provide maximum protection to important surface resources and subsistence activities in the TLSA while allowing exploration development opportunities:

- Areas north of Teshekpuk Lake, within the GMA, that are important for molting brant and other sensitive waterfowl will be protected with a NSO lease stipulation (approximately 242,000 acres) (Map 1). Lakes and adjacent lands identified as important habitat for molting geese and other waterfowl will be included in the NSO area. Because many of these lakes are in very close proximity, the buffer areas around the lakes often overlap resulting in the NSO area depicted on Map 1. In addition to providing protection to molting geese and other waterfowl, this restriction will also provide protection for caribou calving and insect-relief habitats. While providing necessary protections to key resources, this lease stipulation will allow for exploration of the region. Within the NSO area(s), permanent oil and gas facilities will be prohibited, but a pipeline(s) will be allowed on conditions determined during a workshop to be convened to identify the best area for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources and users. Exploration activities will be allowed within the NSO, including seismic acquisition and exploratory drilling during the winter season only. As previously described in the Decision Section, within the GMA, BLM will develop a research study of the effects of disturbance on molting brant and other geese, which utilize the lakes north of Teshekpuk Lake (Map 1A in Appendix C). The study will be completed prior to any authorization of construction of permanent facilities within the GMA. The study will include at least 3 years of data collection and will focus on the effects of disturbance on molting geese, specifically black brant, which utilize the lakes surrounding the specific study area(s). The results of the study will be used to identify additional mitigation to protect molting geese including recommendations for appropriate placement of permanent facilities based on the study’s findings. In addition, study results will be used to identify specific location of facility(s) within the approximate 5000 acre parcel of land (as depicted on Map 1A in Appendix C) available within the

GMA Lease Tracts F and G (also see Lease Stipulation K-11). See Lease Stipulations K-4, K-5, and K-11 in Appendix B.

- The area extending from the eastern shore of Teshekpuk Lake eastward towards the Kogru Inlet will be protected with a NSO stipulation (approximately 45,000 acres). This area is currently identified as important for caribou movement during the calving and insect-relief seasons. The area is a relatively narrow passage between the Teshekpuk Lake and Kogru Inlet that is inundated with many smaller lakes, and is currently identified as a “bottleneck” to caribou north/south movement. Within the NSO area, permanent oil and gas facilities will be prohibited, but pipelines will be allowed on conditions determined during a workshop to be convened to identify the best area for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. Exploration activities will be allowed within this NSO such as seismic acquisition and exploratory drilling during the winter season only. See Lease Stipulation K-9 in Appendix B.
- The area adjacent to the northwest corner of Teshekpuk Lake will be protected with a NSO lease stipulation (approximately 9,700 acres). This area is currently identified as important for caribou movement during the calving and insect-relief seasons. See Lease Stipulation K-9 in Appendix B.
- The areas southwest and southeast of Teshekpuk Lake will be protected with a NSO stipulation (approximately 233,000 acres). These areas have been identified as important for caribou calving and post-calving, and providing insect relief. Within these NSO areas, permanent oil and gas facilities will be prohibited, but pipelines will be allowed on conditions determined during a workshop convened to identify the best area for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources and users. Exploration activities will be allowed within each NSO, such as seismic acquisition and exploratory drilling during the winter season only. See Lease Stipulation K-10 in Appendix B.
- The area north of Teshekpuk Lake is delineated into seven large lease tracts. These tracts range from 46,000 to 59,000 acres. A maximum limit of 300 acres of permanent surface disturbance resulting from oil and gas activities is established for each tract. This further reduces the potential impacts of oil and gas development by limiting impacts to a defined amount of surface disturbance. See Lease Stipulation K-11 Appendix B.

Performance-based lease stipulations and ROPs (patterned after those developed for the northwest portion of the National Petroleum Reserve – Alaska) will be used to mitigate the impacts of energy development and other land uses throughout the Planning Area. These mitigation will provide BLM the flexibility to adapt management decisions to changing and uncertain environmental conditions on the ground. These restrictions will provide protection for important natural resources, including vegetation, wetlands, water quality, fish and wildlife (including threatened species), cultural and paleontological resources, subsistence resources and traditional uses, and scenic and recreation values. The restrictions which are presented in Appendix B provide setbacks, consultation, guidance and limitations on all aspects of oil and gas related activities including:

- Waste Prevention Handling, Disposal, Spills, and Public Safety
- Water Use for Permitted Activities
- Winter Overland Moves and Seismic Work
- Oil and Gas Exploratory Drilling
- Facility Design and Construction
- Use of Aircraft for Permitted Activities
- Oilfield Abandonment
- Subsistence Consultation for Permitted Activities
- Orientation Programs Associated with Permitted Activities
- Endangered Species Act Section 7 Consultation Process

Additional seasonal and spatial restrictions will also be applied to provide protection of specific environmentally sensitive areas, particularly within the TLSA and the CRSA. These areas are described in the Summary Section of this ROD under Notable Areas, and in the lease stipulations and ROPs outlined in Appendix B. Environmentally sensitive areas and their applicable lease stipulations are listed below.

- Rivers Area (see Lease Stipulation K-1)
- Deep Water Lakes (see Lease Stipulation K-2)
- Teshekpuk Lake (see Lease Stipulation K-3)
- Goose Molting Area (see Lease Stipulation K-4)
- TLCHA (see Lease Stipulation K-5)
- Coastal Area (see Lease Stipulation K-6)
- Colville River Special Area (see Lease Stipulation K-7)
- Pik Dunes (see Lease Stipulation K-8)
- Caribou Movement Corridor Areas (see Lease Stipulation K-9)
- Southern Caribou Calving Areas (see Lease Stipulation K-10)
- Lease Tracts Area (see Lease Stipulation K-11)

### **Alternative A (No Action Alternative)**

The No Action Alternative is comprised of decisions established in the ROD for the 1998 Northeast IAP/EIS (Map 2 in Appendix C). The decisions described in this Alternative constitute the existing management practices of the Northeast National Petroleum Reserve–Alaska.

Under this alternative, approximately 87 percent (4 million acres) of the Planning Area’s approximately 4.6 million acres would be available for oil and gas leasing. Management practices would emphasize prescriptive-based lease stipulations on surface activities, consultation with local residents, and coordinated scientific studies to protect wildlife habitat, subsistence use areas, and other resources. The prescriptive-based stipulations developed for this alternative in the 1998 Northeast IAP/EIS ROD are listed in Appendix E of the Final Amended IAP/EIS. Because no new oil and gas activities are proposed under this Alternative, it would have fewer impacts to the environment than the other alternatives. However, this alternative would not satisfy the recommendation of the President’s National Energy Policy, that the Secretary of the Interior consider additional environmentally responsible oil and gas development, and it would not facilitate satisfaction of the Nation’s energy needs, as reflected in the NPRPA, by increasing the domestic energy supply. This Alternative would not provide increased flexibility in protecting surface resources, as do the Alternatives that utilize performance-based lease stipulations and ROPs.

### **Alternative B**

Alternative B would make available approximately 95 percent (4,387,000 acres) of the Planning Area’s approximately 4.6 million acres for oil and gas leasing (Map 3 in Appendix C). Management practices would emphasize performance-based lease stipulations and ROPs on surface activities, consultation with local residents, and coordinated scientific studies to protect wildlife habitat, subsistence use areas, and other resources. In addition, approximately 213,000 acres north of Teshekpuk Lake would be unavailable for oil and gas leasing, to provide protection of wildlife and subsistence resources and users.

Performance-based lease stipulations and ROPs (patterned after those developed for the northwest portion of the National Petroleum Reserve – Alaska) would be used to mitigate the impacts of energy development and other land uses throughout the Planning Area. As explained previously, these mitigation would provide BLM greater flexibility to adapt management decisions to changing and uncertain environmental conditions on the ground. These restrictions are presented in Section 2.6.3 (Alternative B and Alternative C Stipulations and Required Operating Procedures) of the Final Amended IAP/EIS and pertain to Waste Prevention Handling, Disposal, Spills, Public Safety, Water Use for Permitted Activities, Winter Overland Moves and Seismic

Work, Oil and Gas Exploratory Drilling, Facility Design and Construction, Use of Aircraft for Permitted Activities, Oilfield Abandonment, Subsistence Consultation for Permitted Activities, Orientation Programs Associated with Permitted Activities, and Endangered Species Act Section 7 Consultation Process.

Additional seasonal and spatial restrictions are applied to provide protection of specific environmentally sensitive areas. These areas are described in Section 2.2.1 (Areas with Additional Lease Stipulations) and in the stipulations outlined in Section 2.6.3.2 (Lease Stipulations That Apply to Biologically Sensitive Areas) of the Final Amended IAP/EIS. These lease stipulations would apply to the approximately 4,387,000 acres made available under this Alternative. Environmentally sensitive areas and their applicable stipulations are Rivers Area (Lease Stipulation K-1), Deep Water Lakes (Lease Stipulation K-2), Teshekpuk Lake (Stipulation K-3), Goose Molting Area (Lease Stipulation K-4), TLCHA (Lease Stipulation K-5), Coastal Area (see Stipulation K-6), Colville River Special Area (Lease Stipulation K-7), and Pik Dunes (Lease Stipulation K-8).

### **Alternative C**

Alternative C would make 100 percent of the Planning Area's 4.6 million acres available for oil and gas leasing (Map 4 in Appendix C). Alternative C would also utilize the same performance-based lease stipulations and ROPs developed for the Alternative B to mitigate the impacts of energy development and other land uses on resources in the Planning Area. These mitigations would provide greater flexibility to BLM to adapt management decisions to uncertain or changing environmental conditions.

All lands within the Planning Area would be available for leasing; however, additional seasonal and spatial lease stipulations would be applied to protect environmentally sensitive areas. Performance-based lease stipulations and ROPs (patterned after those developed for the northwest portion of the National Petroleum Reserve – Alaska) would be used to mitigate the impacts of energy development and other land uses, throughout the Planning Area. As explained previously, these mitigation would provide BLM greater flexibility to adapt management decisions to changing and uncertain environmental conditions on the ground. These restrictions pertain to the same activities as identified for the Alternatives B and D.

Additional seasonal and spatial lease stipulations and ROPs would be applied to provide protection of environmentally sensitive areas. These lease stipulations would apply to the entire Planning Area, approximately 4.6 million acres. Alternative C would utilize the same lease stipulations for environmentally sensitive areas as Alternative B. Environmentally sensitive areas and their applicable stipulations include Rivers Area (Lease Stipulation K-1), Deep Water Lakes (Lease Stipulation K-2), Teshekpuk Lake (Stipulation K-3), Goose Molting Area (Lease Stipulation K-4), TLCHA (Lease Stipulation K-5), Coastal Area (Stipulation K-6), Colville River Special Area (Lease Stipulation K-7), and Pik Dunes (Lease Stipulation K-8).

### **Alternative D**

Alternative D, the preferred alternative in the Final Amended IAP/EIS, would make available approximately 95 percent (approximately 4,389,000 acres) of the Planning Area's 4.6 million acres for oil and gas leasing (Map 5 in Appendix C). Management practices would emphasize performance-based stipulations and ROPs on surface activities, consultation with local residents, and coordinated scientific studies to protect wildlife habitat, subsistence use areas, and other resources. Under the final Preferred Alternative, Teshekpuk Lake (approximately 211,000 acres) would be deferred from leasing. This deferral would preclude exploratory drilling and pipeline construction. Current leases are not affected by the deferral.

The final Preferred Alternative would make available approximately 389,000 acres that were unavailable in the 1998 ROD. The additional lands made available by the final Preferred Alternative would be within the area of highest oil and gas potential in the Northeast Planning Area, and would be within the TLSA. However, several major protective measures would be implemented to protect important resources and subsistence activities in the TLSA:

- Areas north of Teshekpuk Lake that are important for molting black brant and other sensitive waterfowl would be protected with a NSO stipulation (approximately 217,000 acres). Lakes and adjacent lands identified as important habitat for molting geese and other waterfowl would be included in the NSO area. Because many of these lakes are in very close proximity, the buffer areas around the lakes often overlap resulting in the NSO area depicted by Map 5. In addition to providing protection to molting geese and other waterfowl, this restriction would also provide protection for caribou calving, and insect-relief habitats. While providing necessary protections to key resources, this stipulation would allow for exploration of the region. Within the NSO area(s), permanent oil and gas facilities would be prohibited, but pipelines and inter-community or other permanent roads constructed with public funds for general transportation purposes would be allowed. Exploration activities would be allowed within the NSO, including seismic acquisition and exploratory drilling during the winter season only. See Lease Stipulation K-4 in Section 2.6.4 (Alternative D Stipulations and Required Operating Procedures).
- The area extending from the eastern shore of Teshekpuk Lake approximately 4 miles eastward towards the Kogru Inlet would be protected with a NSO stipulation (approximately 16,500 acres). This area is currently identified as important for caribou movement during the calving and insect-relief seasons. The area is a relatively narrow passage between the Teshekpuk Lake and Kogru Inlet that is inundated with many smaller lakes, and is currently identified as a “bottleneck” to caribou north/south movement. Within the NSO area, permanent oil and gas facilities would be prohibited, including pipelines and inter-community public access roads. Exploration activities would be allowed within this NSO including seismic acquisition and exploratory drilling during the winter season only. See Lease Stipulation K-9 in Section 2.6.4 (Alternative D Stipulations and Required Operating Procedures).
- The area south/southeast of Teshekpuk Lake would be protected with a NSO stipulation (approximately 141,000 acres). This area, in addition to areas north of Teshekpuk Lake, is currently identified as important to caribou calving, post-calving, and insect relief. Within the NSO area, permanent oil and gas facilities would be prohibited, excluding pipelines and inter-community public access roads. Exploration activities would be allowed within this NSO, including seismic acquisition and exploratory drilling during the winter season only. See Lease Stipulation K-10 in Section 2.6.4 (Alternative D Stipulations and Required Operating Procedures).
- The area north of Teshekpuk Lake would be delineated into seven large lease tracts. These tracts would range from 46,000 to 59,000 acres. Each tract would establish a maximum limit of 300 acres of permanent surface disturbance resulting from oil and gas activities. The total allowed surface disturbance in the Lease Tract Area would be approximately 2,100 acres. See Lease Stipulation K-11 in Section 2.6.4 (Alternative D Stipulations and Required Operating Procedures).

Performance-based lease stipulations and ROPs (patterned after those developed for the northwest portion of the National Petroleum Reserve – Alaska) would be used to mitigate the impacts of energy development and other land uses, throughout the Planning Area. As explained previously, these mitigation would provide BLM greater flexibility to adapt management decisions to changing and uncertain environmental conditions on the ground. These restrictions pertain to the same activities as identified for Alternatives B and C.

Additional seasonal and spatial lease stipulations and ROPs would be applied to provide protection of environmentally sensitive areas. These lease stipulations would apply to the entire Planning Area, approximately 4.6 million acres. Environmentally sensitive areas and their applicable stipulations include Rivers Area (Lease Stipulation K-1), Deep Water Lakes (Lease Stipulation K-2), Teshekpuk Lake (Lease Stipulation K-3), Goose Molting Area (Lease Stipulation K-4), TLCHA (Lease Stipulation K-5), Coastal Area (Lease Stipulation K-6), Colville River Special Area (Lease Stipulation K-7), Pik Dunes (Lease Stipulation K-8), Caribou Movement Corridor Area (see Lease Stipulation K-9), Southern Caribou Calving Area (see Lease Stipulation K-10), and Lease Tracts Area (see Lease Stipulation K-11).

## MANAGEMENT CONSIDERATIONS

The Final Amended IAP/EIS fulfills the 2002 recommendation of the President's National Energy Policy that directs the Secretary of the Interior to "consider additional environmentally responsible oil and gas development based on sound science and the best available technology, through further lease sales in the National Petroleum Reserve-Alaska." In a 1981 amendment to the NPRPA, 42 U.S.C. 6508, Congress directed the BLM to undertake oil and gas leasing in National Petroleum Reserve-Alaska. This plan helps to meet the total energy needs of the nation as directed by the NPRPA by making 95 percent of the Planning Area available for leasing.

Federal law, including the NPRPA, the FLPMA, the Alaska National Interest Lands Conservation Act (ANILCA), NEPA, Clean Air Act, Clean Water Act, National Historic Preservation Act and the Wild and Scenic Rivers Act, requires the BLM to protect soil, water, air, vegetation, wildlife, archaeological and paleontological resources, and subsistence uses. These resources are protected through prohibitions, restrictions, and stipulations (on oil and gas and other activities) that will minimize environmental impacts. To mitigate site-specific impacts, other protective measures may be required as a condition of approval of the Application for Permit to Drill.

Maximum protection of important surface resources is provided in Special Areas designated by the Secretary through a combination of prohibitions, restrictions, and stipulations restricting oil and gas facilities and other activities that might adversely impact wildlife habitat and subsistence use areas.

### **Subsistence Advisory Panel and Other Protections**

Section 810 of the ANILCA mandates special consideration for subsistence resources and uses and is summarized in the ANILCA Section 810 Summary Section of this ROD (see next Section). Subsistence concerns were also identified early in the planning process as a major management consideration. As part of the agreement for the 1998 Northeast IAP/EIS, the BLM agreed to institute a Subsistence Advisory Panel, whose purpose is to advise both industry and the agency on potential conflicts between proposed development activities and subsistence activities. That panel was convened as part of the 1998 ROD and has proved invaluable in dealing with subsistence-related issues in the Northeast National Petroleum Reserve-Alaska. The BLM recently expanded the responsibilities of the Subsistence Advisory Panel to include the Northwest National Petroleum Reserve-Alaska.

Under this ROD several lease stipulations and ROPs provide additional consideration of subsistence users. Required Operating Procedure E-1 ensures subsistence hunter access to traditional hunting areas, Required Operating Procedure E-7 establishes minimum pipeline heights to ensure free movement of caribou and hunters, Required Operating Procedure H-1 and H-2 provide guidelines for consultation with subsistence users, and Required Operating Procedure I-1 requires that the employees of developers receive orientation training that includes information about the local subsistence-based culture. Lease stipulation K-4 requires that the results of a BLM sponsored study focused on disturbance of molting brant and other molting geese be implemented prior to any facility construction in the GMA. And lease stipulation K-5 requires that industry conduct a study or use the results of recent studies focused specifically on the Teshekpuk Lake Caribou Herd prior to any development activities in the TLCHA.

### **North Slope Borough Regulatory Authority**

The BLM recognizes the NSB local authority regarding environmental regulation of potential impacts to surface resources. And, as a local government, the NSB has reasonable environmental permitting authority. BLM acknowledges that this authority applies to oil and gas lessees.

## Endangered Species Consultation

### Spectacled and Steller's Eiders

Section 7(a)(2) of the Endangered Species Act (ESA) requires Federal agencies to consult with the U.S. Fish and Wildlife Service (Service;USFWS) and National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries), as appropriate, to ensure that their actions do not jeopardize the continued existence of species listed as threatened or endangered under ESA, or destroy or adversely modify their critical habitat. A Biological Assessment (BA) was completed by the BLM and is included in the Final IAP/EIS. This assessment determined that the actions in the Final Amended IAP/EIS may have an affect on the threatened spectacled and Steller's eiders. Although a small amount of habitat may be disturbed, or modified by the reasonably foreseeable development scenario, the Planning Area has no designated critical habitat.

The USFWS issued their Biological Opinion (BO) on January 12, 2005. The BO concluded that leasing, exploration, and the reasonably foreseeable development scenario described in the BA is unlikely to jeopardize the continued existence of the species, or result in the destruction or adverse modification of designated critical habitat. The BLM has adopted the following Reasonable and Prudent Measures, and Terms and Conditions described in the Biological Opinion.

### Reasonable and Prudent Measures (RPM)

The Service believes that the following RPM are necessary and appropriate to minimize take of Steller's and spectacled eiders:

1. To minimize the likelihood that migrating spectacled and Steller's eiders will strike drill rigs, towers, and associated infrastructure within the Northeast Planning Area, BLM, appropriate cooperating agencies and the Service will cooperatively develop a lighting/marketing protocol intended to reduce radiation of light outward from structures and to increase the visibility of structures to migrating eiders.
2. To avoid and reduce temporary impacts to productivity resulting from disturbance within 200 meters of occupied spectacled nests, from June 1 through August 15, ground level activity (by vehicle or on foot) within 200 meters of occupied spectacled eider nests will be restricted to existing thoroughfares. Construction of permanent/temporary facilities, placement of fill, alteration of habitat, and introduction of high noise levels within 200 meters of occupied spectacled eider nests is prohibited. The Service does not intend this RPM to be interpreted as a potential restriction on aircraft flights to areas of existing gravel fill.
3. One or more BLM compliance specialists will monitor industry compliance with stipulations, ROPs, and enforceable elements of assumptions listed in Appendix 4 of the BO at sites of oil and gas industry activity.

## Terms and Conditions

In order to be exempt from the prohibitions of Section 9 of the Act, BLM must comply with the following terms and conditions, which implement the RPM, described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

1. To minimize the likelihood that migrating spectacled eiders will strike structures associated with drilling activities, BLM, cooperating agencies and Service will cooperatively develop a lighting/operating protocol to be used on all drill rigs and associated production infrastructure. The Service and BLM will work together to identify when and where the protocol should be applied. Any protocol developed will be in compliance with Federal Aviation Administration (FAA) regulations. The lighting protocol shall ensure that radiation of light outward from all drill rigs and associated infrastructure will be minimized. This will be achieved by shading and/or light fixture placement to direct light inward and downward to living and work surfaces while minimizing light radiating upward and outward. Crane booms and/or drill rigs will be lowered any time there is no construction or drilling activity slated to occur for 30 days. This restriction applies only when spectacled and Steller's eiders may be present (15 May to 30 September).
2. Temporary impacts to spectacled eider productivity due to disturbance and direct habitat impacts must be minimized by ensuring protection of females with nests. Ground-level activity (by vehicle or on foot) within 200 meters of occupied spectacled eider nests, from June 1 through August 15, will be restricted to existing thoroughfares. This includes "working" gravel on existing fill (pads and roads). Construction of permanent facilities, placement of fill, alteration of habitat, and introduction of high noise levels within 200 meters of occupied spectacled eider nests will be prohibited. In instances where summer support/construction activity must occur off existing thoroughfares, Service-approved nest surveys must be conducted during mid-June of each year in which activities take place between June 1 and August 15. The BLM and cooperating agencies will also work with the Service to schedule oil spill response training in riverine, marine and inter-tidal areas that occurs within 200 meters of shore, outside sensitive nesting/brood-rearing periods or conduct nest surveys. The protocol and timing of nest surveys for spectacled eiders will be determined in cooperation with the Service, and must be approved by the Service. Surveys should be supervised by biologists who have previous experience with spectacled eider nest surveys.
3. One or more BLM compliance specialists will monitor industry compliance with stipulations, ROPs and enforceable elements of assumptions listed in Appendix 4 of the BO at sites of oil and gas related activity. The BLM will provide the Service with a copy of the monitoring plan. Stipulations in special need of compliance monitoring include D-2 and K-1, 2, 3, 6 and 8. ROPs in need of compliance monitoring include A-1 through 7, E-9 through 12 and 14, and F-1. All acts of noncompliance or nonconformance to the ROPs, stipulations and enforceable elements of assumptions mentioned above will be reported in writing to the Field Supervisor, U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office, 101 12<sup>th</sup> Ave., Fairbanks, AK 99701. In the event that noncompliance/nonconformance issues arise, BLM and the Service will cooperatively develop a strategy to eliminate the problem.

The Service believes that no more than 104 spectacled eiders and 9 Steller's eider will be incidentally taken during the life of the proposed action. The RPM, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measure provided. The Federal action agency must provide, without unreasonable delay, an explanation of the causes of the take and review with the Service the need for possible modification of the reasonable and prudent measure. If Steller's and/or spectacled eiders are encountered injured or killed, please contact the Fairbanks Fish and Wildlife Field Office, Endangered Species Branch, Fairbanks, Alaska at (907) 456-0499 for instruction on the handling and

disposal of the injured or dead bird. (see Appendix D of the Final Amended IAP/EIS for a complete description of the Final Biological Opinion).

### **Bowhead Whale**

The BLM conducted informal consultation pursuant to Section 7 of the ESA for the bowhead whale, which resulted in a determination by BLM and NOAA Fisheries of no effect. (see Appendix D of the Final Amended IAP/EIS for a complete description of NOAA's determination).

## **Wetlands and Floodplains Findings Summary**

Oil and gas leasing occurs in phases, therefore, additional approvals and permits must be obtained from the BLM (and other regulatory agencies) before any construction activity takes place. These approvals and permits would require additional NEPA reviews and further evaluation of wetlands and floodplains impacts. Therefore, Executive Orders 11988 and 11990 are not specifically applicable to the approval of this Plan. However, because future activities are contemplated under this plan that could impact wetlands and floodplains, the BLM has chosen to complete the impact analysis and make the findings contemplated by the Executive Orders as part of this Decision.

These findings are based on a comprehensive impact analysis done in compliance with Executive Orders 11988 and 11990, Protection of Wetlands and Floodplains (see Final Amended IAP/EIS Sections 4.3.6, 4.4.6, 4.5.6, 4.6.6, 4.7.7.6, 4.8.6, 4.9.6, 4.10.6, 4.11.4.6, and 4.12.3.6; Wetlands and Floodplains).

### **Wetlands (Executive Order 11990)**

Executive Order 11990 concerning the protection of wetlands requires that the BLM consider factors relevant to the proposal's effect on the survival and quality of the wetlands. Factors to be considered include the following:

1. Public health, safety, and welfare; including water supply, quality, recharge and discharge, pollution; flood and storm hazards; and sediment and erosion;
2. Maintenance of natural systems; including conservation and long-term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and,
3. Other uses of wetlands in the public interest, including recreation, scientific, and cultural uses.

In furtherance of the NEPA of 1969 (42 U.S.C. 4331(b)(3)) to improve and coordinate Federal plans, functions, programs and resources so that the nation may attain the widest range of beneficial uses of the environment without degradation and risk to health or safety, the agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetland unless the head of the agency finds:

1. There is no practicable alternative to such construction, and
2. The proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this finding the head of the agency may take into account economic, environmental and other pertinent factors.

The following discussion summarizes the evaluation of impacts and findings to wetlands as presented in the Final Amended IAP/EIS in the Preferred Alternative (D) and applicable to the Decision presented in this ROD. Specific protective mitigations developed to avoid or lessen impacts to wetlands are also presented.

The Planning Area consists of approximately 4.6 million acres, of which 4.37 million acres may be classified as wetlands. The long-term effects of exploration and development activities, both direct and indirect in

nature, on wetland vegetation (2,670 acres), soils (2,395 acres), and water resources and water quality (2,395 acres), are expected to be insignificant (negligible to minimal) in this vast area, and will be mitigated to the greatest extent practicable. The combined effect of exploration and development for multiple sales will also be unlikely to significantly impact any plant species or community, cause significant soil loss, or result in other than short-term and localized loss of water resources or water quality. Therefore, no significant impacts are expected that will affect public health, safety, and welfare through changes in the supply, quality, recharge or discharge and pollution of water, or, flood and storm hazards or sedimentation and erosion. No impacts will occur that will result in long-term changes in the natural ecosystem, or, prevent normal uses of wetlands by the public for recreational, scientific or cultural purposes.

The BLM has sought to avoid and minimize impacts to wetlands caused by new construction by designing facilities with the smallest footprint possible. Total avoidance of wetlands is impossible because approximately 95 percent of the Planning Area can be classified as wetlands and it will not be possible to carry out the objectives of this plan without affecting any wetlands. However, all practicable mitigation consistent with the plan's objectives has been incorporated into this ROD (please see mitigations presented after this discussion). The Final Decision imposes NSO restrictions on areas within the Planning Area, and defines lease stipulations and ROPs for setbacks, restrictions (including seasonal restrictions), and guidance for all aspects of oil and gas operations. Additional site-specific prohibitions and restrictions will be provided at the permitting stages for all proposed projects, before any new construction is authorized to protect important natural resources including water quality, vegetation, and wetlands.

Mitigations developed to protect the Planning Area and to provide protection for the function and values of wetlands are included for the following categories of activities:

- Waste Prevention Handling, Disposal, Spills, and Public Safety
- Water Use for Permitted Activities
- Winter Overland Moves and Seismic Work
- Oil and Gas Exploratory Drilling
- Facility Design and Construction
- Use of Aircraft for Permitted Activities
- Oilfield Abandonment
- Subsistence Consultation for Permitted Activities
- Orientation Programs Associated with Permitted Activities
- Endangered Species Act Section 7 Consultation Process
- Area-Specific Lease Stipulations (K) covering: Rivers; Deep Water Lakes; Teshekpuk Lake; Goose Molting Area; TLCHA; Coastal Areas; Colville River Special Area; Pik Dunes; Caribou Movement Corridor Areas; Southern Caribou Calving Areas; and GMA Lease Tracts Area.

This plan, including broad and site specific mitigations provides substantial protections against impacts to wetlands. The plan as a whole has been found to have minimal to negligible impacts on the function and values that are provided by these wetland resources. In addition to all the practicable mitigation included in the plan based on the site-specific analysis of impacts to resources from a reasonable exploration and development scenario presented in the Final Amended IAP/EIS and this ROD, wetlands will receive further consideration before any actual ground activities are approved. This will be done through subsequent NEPA reviews and analysis, which will be performed before any permits or approvals are issued. At that time, all practicable alternatives and additional mitigation to minimize harm to wetlands will also be considered in accordance with Executive Order 11990.

**Floodplains (Executive Order 11988)**

Executive Order 11988 concerning the protection of Floodplains requires an agency to provide leadership and to take action to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities. As required by Executive Order 11988, the agency has a responsibility to:

1. Evaluate the potential effects of any actions that may take place in a floodplain;
2. Ensure that its planning programs and budget requests reflect consideration of flood hazards and floodplain management; and
3. Prescribe procedures to implement the policies and requirements of Executive Order 11988

Additional requirements are as follows:

1. Before taking an action, each agency shall determine whether the proposed action will occur in a floodplain and the evaluation required will be included in any statement prepared under Section 102(2)(C) of the NEPA (42 U.S.C. 4332(2)(C)).
2. If an agency has determined to, or proposes to, conduct, support, or allow an action to be located in a floodplain, the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains. If the head of the agency finds that the only practicable alternative consistent with the law and with the policy presented in this Order requires siting in a floodplain, the agency shall, prior to taking action,
  - a. design or modify its action in order to minimize potential harm to or within the floodplain, consistent with regulations, and
  - b. prepare documentation explaining why the action is proposed to be located in the floodplain.

The following discussion summarizes the evaluation and findings of impacts to floodplains (and wetlands) as presented in the Final Amended IAP/EIS for the Preferred Alternative (D) and applicable to the Decision presented in this ROD. Specific protective mitigations developed to avoid or lessen impacts to floodplains (and wetlands) are also presented.

The Planning Area consists of approximately 4.6 million acres of which 4.37 million acres may be classified as wetlands, which includes associated floodplains. The long-term effects of exploration and development activities, both direct and cumulative in nature, on these floodplains are expected to be insignificant (negligible to minimal) in this vast area, and will be mitigated to the greatest extent practicable. The combined effect of exploration and development for multiple sales will also be unlikely to significantly impact any plant species or community, cause significant soil loss, or result in other than short-term and localized loss of water resources or water quality. Therefore, no significant impacts are expected that will affect public health, safety, and welfare through changes in the supply, quality, recharge or discharge and pollution of water, or, flood and storm hazards or sedimentation and erosion. No impacts will occur that will result in long-term changes in the natural ecosystem.

The BLM has sought to avoid and minimize impacts to floodplains and wetlands caused by new construction by designing facilities with the smallest footprint possible. Total avoidance of wetlands and floodplains is impossible because approximately 95 percent of the Planning Area can be classified as wetlands, of which floodplains will remain a large part of that classification. Floodplains in the Planning Area are very extensive because the Planning Area is so flat and, the final Preferred Alternative will likely require the location of some structures within floodplains. However, all practicable mitigation has been incorporated into this ROD (please see mitigations presented after this discussion). The Final Amended IAP/EIS Preferred Alternative (D) imposes NSO restrictions on areas within the Planning Area, and defines stipulations and ROPs for setbacks, restrictions (including seasonal restrictions), and guidance for all aspects of oil and gas operations. Additional

site-specific prohibitions and restrictions will be provided at the permitting stages, before any new construction is authorized to protect important natural resources including water quality, vegetation, wetlands, and floodplains.

Mitigations developed to protect the Planning Area and that provide protection for the function and values of floodplains are included for the following categories of activities:

- Waste Prevention Handling, Disposal, Spills, and Public Safety
- Water Use for Permitted Activities
- Winter Overland Moves and Seismic Work
- Oil and Gas Exploratory Drilling
- Facility Design and Construction
- Use of Aircraft for Permitted Activities
- Oilfield Abandonment
- Subsistence Consultation for Permitted Activities
- Orientation Programs Associated with Permitted Activities
- Endangered Species Act Section 7 Consultation Process
- Area-Specific Lease Stipulations (K) covering: Rivers; Deep Water Lakes; Teshekpuk Lake; Goose Molting Area; TLCHA; Coastal Areas; Colville River Special Area; Pik Dunes; Caribou Movement Corridor Areas; Southern Caribou Calving Areas; and GMA Lease Tracts Area.

This plan, including broad and site specific mitigations provides substantial protections against impacts to floodplains. The plan as a whole has been found to have minimal to negligible impacts on the function and values that are provided by these resources. In addition to all the practicable mitigation included in the plan, floodplains (and wetlands) will receive further consideration before any ground activities are approved. This will be done through subsequent NEPA reviews and analysis, which will be conducted before any construction or operation permits or approvals are issued. Compliance with the Executive Order 11988 will be undertaken at these subsequent stages through consideration of all practicable alternatives and additional mitigation in order to assure that all possible protection is provided for the floodplains (and wetlands) functions and values.

### **Coastal Zone Consistency Determination**

The BLM has notified the Alaska State Department of Natural Resources (ADNR) that the Final Amended IAP/EIS and this ROD will be the NEPA foundation for at least one oil and gas lease sale and requested that the State complete the Coastal Zone Management Act consultation process on the ROD. The ADNR has indicated by letter that the plan is too general as a basis for a State consistency determination on leasing at this time and the agency prefers to consult with BLM and provide its coastal zone consistency determination when a lease sale is proposed. The BLM plans to hold a lease sale in October, 2005. A Coastal Zone Consistency Determination will be sent to the State of Alaska for its review. The State's response is expected timely for the lease sale.

### **Research and Monitoring Team Research Status and Current Initiatives**

The National Petroleum Reserve-Alaska Research and Monitoring Team (RMT) was formed as directed by the 1998 Record of Decision for the 1998 Northeast National Petroleum Reserve-Alaska Final IAP/EIS. The RMT is currently providing advice to the AO as a subcommittee of BLM-Alaska's Resource Advisory Council. It is assumed that the NSSI will eventually include the role and responsibilities of the RMT within its structure. Once that is accomplished, the RMT may be discontinued as a separate entity. If the NSSI does not succeed in this capacity, the RMT will continue to exist and function as an advisory committee to the AO on matters specific to the Petroleum Reserve.

In April, 2004, the RMT, as an advisory committee to the AO, was tasked with developing a monitoring plan for the Petroleum Reserve. The purpose is to implement studies to assess the impacts of oil and gas

exploration and development on various surface resources of the Petroleum Reserve, evaluate existing mitigation and suggest ways to further mitigate and/or improve mitigation of any impacts. Development of that monitoring plan continues, and at present the RMT has decided that the monitoring plan will address 10 general issues, as described below:

- Caribou populations and harvest – effects of ice roads and all permanent facilities, and disturbance effects from vehicle and aircraft traffic, seismic exploration, and drilling activities; potential displacement resulting in altered forage quality; and potential effects on rates of reproduction and survival
- Molting geese – reduced survival from habitat changes or disturbance factors (aircraft, vehicles, pedestrians, etc.)
- Potential degradation of fisheries – barriers to fish movements from infrastructure and roadways (including ice roads), and changes in water quality due to water withdrawals or run-off
- Change in access to subsistence resources – altered distribution or abundance of subsistence resources and physical or perceptual barriers to subsistence users
- Alteration of predator/prey relationships – increased predator populations resulting from human developments and activities, and any resulting adverse impacts on prey species
- Impacts to local cultural systems – any changes to the sharing network which may result from altered subsistence activities
- Populations of cliff-nesting raptor species – effects of disturbance and habitat loss
- Effects on migrating bowhead whales in autumn – deflection of migrations from barging and seismic exploration on marine waters
- Populations of threatened eider species – effects of collision and oil spill related mortality, increased predator density, habitat loss, and disturbance
- Environmental contaminants – oil or hazardous chemical spills, water effluent and air emissions, resulting in contaminants in water, sediments, invertebrates, plants, fish, birds and mammals

### **Maximum Protection of Special Areas**

Section 104 (b) of the NPRPA authorized the Secretary of the Interior to designate special areas certain areas containing significant subsistence, recreational, fish and wildlife, or historical or scenic values where all activities, including oil and gas exploration and development, shall be conducted in a way that will provide maximum protection to the natural and cultural resources present.

The CRSA was designated primarily to protect the peregrine falcon, which at one time was an endangered species and is still subject to intense monitoring studies to insure that its population numbers continue to grow. Through a combination of setbacks, timing restrictions, air flight restrictions and guidance that are present in the stipulations and ROPs, this plan will provide maximum protection to the peregrine and its habitat. Required Operating Procedure E-7 identifies operating procedures that are designed specifically to protect falcons. Deferring leasing within the CRSA until the Colville River Management plan is completed will enable the agency to take into account information obtained during the river planning process about important resources and uses in the CRSA, thereby informing the agency as to whether additional mitigation may be necessary prior to leasing in the area. Thus, deferring leasing in the CRSA until the river management plan is completed will facilitate maximum protection of important surface values in the CRSA in accordance with the NPRPA.

The TLSA was established to protect important nesting, staging and molting habitat for a large number of waterfowl including ducks, geese, swans, and particularly brant. The TLSA also provides important habitat for caribou. Setbacks from designated water bodies and other restrictions contained in ROPs E-10, E-11, E-12, and site specific lease stipulations K-1, K-2, K-3, K-4, K-5, K-6, K-7, K-9, K-10, and K-11 all provide maximum protection to waterfowl in general and to Steller's and spectacled eiders, in particular (which are threatened species). Consultation requirements included in ROPs H-1 and H-2 and specific lease stipulations K-5, K-6, K-7, K-9, K-10, and K-11 will provide maximum protection to caribou, areas of important

subsistence use and users. In addition, deferring leasing of Teshekpuk Lake within the special area will also provide maximum protection of surface values in the TLSA, in accordance with the requirements of the NPRPA.

### **Unnecessary and Undue Degradation**

The BLM is required by FLPMA to avoid undue or unnecessary degradation in managing the public lands. The lease stipulations and ROPs establish many setbacks and restrictions and establishes guidance whose purpose is to ensure that the activities associated with the plan comply with this requirement. In addition, the BLM is deferring leasing of Teshekpuk Lake which is a particularly sensitive area and is deferring leasing in the CRSAs, another sensitive area, until a river management plan is completed. Previous discussions in the Final Amended IAP/EIS and this document provide specific information of the many protections that will be provided for the natural and cultural resources of the Planning Area. The analysis of impacts in the Final Amended IAP/EIS indicates that levels of impacts from oil and gas activities on the various resources are very low. Because the final plan adopted in this ROD modifies the Preferred Alternative in the Final Amended IAP/EIS by providing additional mitigation, the level of impacts from oil and gas activities on surface resources from the Final Amended IAP/EIS will be even less. The plan will also avoid unnecessary and undue degradation to resources in or dependent on the Planning Area.



## ANILCA: SECTION 810 SUMMARY

The Alaska National Interest Lands Conservation Act (ANILCA) §810(a) requires that a subsistence evaluation be completed on the final plan for the Northeast National Petroleum Reserve – Alaska. ANILCA also requires that this evaluation include findings on three specific issues:

1. The effect of such use, occupancy, or disposition on subsistence uses and needs;
2. The availability of other lands for the purpose sought to be achieved; and
3. Other alternatives that reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes (16 U.S.C. §3120).

The following discussion summarizes the ANILCA §810 evaluation for the Final Decision in this ROD. The summary is based on the detailed ANILCA §810 analysis in Appendix B of the Final Amended IAP/EIS for the final Preferred Alternative (D). The analysis and conclusions presented in the detailed ANILCA §810 evaluation in the Final Amended IAP/EIS also apply to the final plan in the ROD, as the final plan is the same as the final Preferred Alternative in the Final Amended IAP/EIS with only minor modifications, all of which mitigate impacts to surface resources, including subsistence resources. As a result, the impacts of the final plan on subsistence resources will be no more than, and likely, even less than those analyzed for the Preferred Alternative in the Final Amended IAP/EIS.

- a. *Without the Cumulative Case:* The effects of the plan adopted in this ROD fall below the “may significantly restrict” threshold, which is the test for a positive finding under ANILCA §810. Adequate stipulations and ROPs have been incorporated into the plan, including specific procedures for subsistence consultation with directly affected subsistence communities. The impacts to subsistence resources and uses for this alternative are minimal. This finding applies to villages in and near the Planning Area (Anaktuvuk Pass, Atqasuk, Barrow, and Nuiqsut).
- b. *With the Cumulative Case:* The effects of the cumulative case, presented in Appendix B of the Final Amended IAP/EIS, exceed the “may significantly restrict” threshold, and thus a positive ANILCA §810 determination must be made. Although the effects of the activities proposed under the plan adopted in this ROD fall below the threshold, adding them to those of the cumulative case results in a level of effects that “may significantly restrict” subsistence uses, with the potential to affect Anaktuvuk Pass, Atqasuk, Barrow, and Nuiqsut.

The ANILCA §810(a) provides that no “withdrawal, reservation, lease, permit, or other use, occupancy or disposition of the public lands which would significantly restrict subsistence uses shall be effected” until the Federal agency gives the required notice and holds a hearing in accordance with §810(a)(1) and (2), and makes the three determinations required by §810(a)(3)(A), (B), and (C). The BLM has found in this subsistence evaluation that all the alternatives considered in the Final Amended IAP/EIS (including the No Action Alternative), when considered together with all the past, present, and reasonably foreseeable future cumulative effects discussed in the Final Amended IAP/EIS, may significantly restrict subsistence uses. Therefore, the BLM undertook the notice and hearing procedures required by ANILCA §810(a)(1) and (2), as described above, and now must make the three determinations required by §810(a)(3)(A), (B), and (C). 16 U.S.C. §3120(a)(3)(A), (B), and (C).

The BLM has determined that the final plan meets the following requirements (16 U.S.C. §3120(a)(3)(A), (B), and (C)) for Federal actions that may result in a significant restriction on subsistence uses:

1. *The significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands.*

The BLM has prepared this Final Amended IAP/EIS in accordance with the President's Energy Policy and the responsibility to manage the National Petroleum Reserve – Alaska under the authority of two laws passed in 1976—The Naval Petroleum Reserves Production Act (NPRPA) and the Federal Land Policy and Management Act (FLPMA). The President's Energy Policy directs the Secretary of the Interior to “consider additional environmentally responsible oil and gas development, based on sound science and the best available technology.” The NPRPA authorizes and directs the Secretary of the Interior to undertake an “expeditious program of competitive leasing of oil and gas “in the National Petroleum Reserve – Alaska (42 U.S.C. § 6508(a). At the same time, the statute also requires that all oil and gas activities “undertaken pursuant to this section shall include or provide for such conditions, restrictions, and prohibitions as the Secretary deems necessary or appropriate to mitigate reasonably foreseeable and significantly adverse effects on the surface resources” of the National Petroleum Reserve-Alaska and that maximum protection be provided for significant surface values, including environmental, fish and wildlife, historical, scenic and subsistence values (42 U.S.C. § 6504 and 6508).

It was in furtherance of these objectives, together with other management guidance found in the NPRPA, FLPMA, NEPA, and ANILCA that this Amended IAP/EIS was undertaken. After considering a broad range of alternatives, a final plan was developed that serves to make available additional lands for environmentally responsible oil and gas exploration and development, through further lease sales in the National Petroleum Reserve-Alaska, while minimizing impacts to important subsistence resources and subsistence-use areas. The resulting final plan considers the necessity for economically feasible development while providing effective protections to minimize any impacts on subsistence resources and uses. Under the final plan, the performance-based lease stipulations and ROPs which accompany the final plan serve as the primary mitigation to be used to reduce the impact of the proposed activity on subsistence resources.

The BLM has considered and balanced a variety of factors with regard to the proposed activity on public lands, including, most prominently, the comments received during the public meetings and hearings which stressed the importance of protecting essential caribou movement/migration corridors, located to the east of Teshekpuk Lake. Although the potentially significant restriction on subsistence uses could be lessened somewhat if the No Action Alternative were adopted and no additional land were made available for leasing, this will not satisfy the management and policy objectives for which the Amended IAP/EIS was undertaken, such as the recommendations of the President's Energy Policy and the need to meet the Nation's increasing energy needs. Moreover, even if the agency were to adopt the No Action alternative, the cumulative impacts will still reach the may-significantly-restrict threshold under ANILCA Section 810.

The BLM has determined that the restriction that may occur under the final plan (a restriction which has been found to be very minimal when considered alone and only significant when considered together with all the possible impacts of the cumulative case) is necessary and consistent with sound management principles for the use of these public lands and for BLM to fulfill the management goals for the Planning Area as guided by the statutory directives in the NPRPA, FLPMA and other applicable laws.

2. *The proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition.*

The BLM has determined that the final Plan and ROD involves the minimal amount of public lands necessary to accomplish the purposes for which the Amended IAP/EIS was undertaken – which is to consider making additional lands available for leasing to comport with the National Energy Policy and meet the Nation's rising energy needs.

Given the management and policy objectives previously described and the statutory directives of the NPRPA and FLPMA, the agency considered a number of factors in identifying whether to make additional lands

available for leasing, and if so, which lands. In particular, the location of areas with high potential for oil and gas resources, the location and amount of land necessary for an economically feasible leasing program, the importance of surface resources and uses and measures to reduce the possibility of a significant restriction on subsistence uses. The alternative selected strikes a balance between these varied considerations, by balancing the interest in making sufficient lands available to achieve an economically feasible leasing program with mitigation and restricting development activities on lands that are most important for subsistence resources.

The final plan allows additional leasing in less-sensitive areas west of Teshekpuk Lake, and creates seven new large lease tracts north of the lake for the purpose of limiting the number of acres available for surface occupancy in areas with sensitive resources. In addition, Teshekpuk Lake is deferred from leasing. The BLM has determined that the final plan makes available for leasing the minimum amount of public lands necessary to achieve a successful leasing program while precluding or restricting oil and gas activities in the areas most important for subsistence resources and uses.

3. *Reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.*

During the NEPA scoping process for the Northeast IAP/EIS plan amendment, BLM identified subsistence as one of the major issues to be addressed. In order to assure that the best and most up-to-date and reliable information was available, a subsistence specialist (Stephen Braund and Associates) was contracted to conduct the analysis of impacts to subsistence, which included consideration of access, harvests, and traditional use patterns. This information, the results of meetings in the villages of the North Slope, meetings with the National Petroleum Reserve-Alaska Subsistence Advisory Panel and consultation with tribal and local governments was used to craft the draft IAP/EIS Preferred Alternative B. Subsequently, the BLM took into consideration comments from villages and individuals of the North Slope during the ANILCA Subsistence Hearings. As a result of this information, modifications to the Preferred Alternative B in the Draft Amended IAP/EIS were made resulting in the Preferred Alternative D presented in the Final Amended IAP/EIS. The final plan presented in this ROD contains minor modifications to the final Preferred Alternative D based on comments from the public on the Final Amended IAP/EIS.

The final plan presented in the ROD, including detailed lease stipulations and ROPs contain significant restrictions and requirements, setbacks and prohibitions to minimize impacts to important subsistence users and resources. Consultation and coordination with North Slope communities, and Native Village representatives will continue to provide a valuable avenue for the exchange of information and oversight. Key components of mitigation in the final plan include:

- Lease Stipulation K-4 prohibits permanent facilities (except pipelines) on 242,000 acres within the GMA north of Teshekpuk Lake – No Exceptions will be allowed.
- Lease Stipulation K-9 prohibits permanent oil and gas facilities in primary caribou travel corridors east and northwest of Teshekpuk Lake.
- Lease stipulation K-10 prohibits permanent oil and gas facilities in areas south and southeast of Teshekpuk Lake that are important for caribou calving and insect relief.
- ROPs H-1 and H-2 will require additional consultation/notification efforts by lessees/land-users to potentially affected communities.
- BLM Alaska, in conjunction with appropriate Federal, State, NSB, and NSSI representatives, will develop a research study of the effects of disturbance on molting geese (specifically brant), which utilize the lakes north of Teshekpuk Lake.
- The area north of Teshekpuk Lake (the majority of the GMA) is delineated into seven large lease tracts for the purpose of minimizing surface impacts through limiting disturbance within each tract to a maximum of 300 acres.
- Although pipelines will be allowed, the placement of a pipeline(s) in areas identified as important for wildlife movement or use within the TLCHA will be determined in a workshop.

Based on these mitigation and the other prohibitions, restrictions, requirements and limitations to surface resources in the performance-based lease stipulations and ROPs, the BLM has determined that the final plan presented in this ROD includes all reasonable steps to minimize adverse impacts on subsistence uses and resources.

## MITIGATION AND MONITORING

Lease stipulations and Required Operating Procedures (ROPs) designed to protect the resources and uses of the Planning Area are provided in Appendix B. The lease stipulations and ROPs were developed based on a site-specific NEPA analysis of the environmental impacts (including direct, indirect and cumulative impacts) on specific resources located in the Planning Area from reasonably foreseeable exploration and development projections developed for each of the alternatives considered. The lease stipulations and ROPs for the final plan include restrictions and guidelines on waste and spill prevention, handling, and disposal; overland moves and seismic surveys; oil and gas exploratory drilling, facility design, construction and field abandonment; ground and air transportation; and other activities. The list also contains additional special lease stipulations to protect subsistence resources and activities and traditional land use sites. Additional protective measures may be developed as part of NEPA evaluations for subsequent permit authorizations, including exploration and development plans, and of any subsequent oil and gas lease sales. It has been determined that all practical means to avoid or minimize environmental harm as disclosed in the Final Amended IAP/EIS and the final plan in this ROD have been adopted.

Monitoring will be undertaken on an ongoing basis to determine the status of the various resources in the Planning Area and to ensure compliance with, and enforcement of: plan decisions; lease stipulations; ROPs; land use authorizations; and, to determine whether additional mitigation may be necessary. Monitoring activities will include the following:

- Monitoring the movements, distribution and range use of caribou in areas proposed for development-Lease Stipulation K-5[a]
- Monitoring caribou movements in areas with permanent roads-Lease Stipulation K-5[e]
- Monitoring to adequately determine consequences of development on molting Brant-Lease Stipulation K-4[h]
- Monitoring fish-bearing waters when projects impact fish-bearing and non fish-bearing water bodies to ensure free passage of fish and water quality-Lease stipulation E-3
- Monitoring oil and gas exploration, development and production effects on subsistence-ROP H-1 and H-2
- Conducting cultural and paleontological surveys in areas where ground-disturbing activities will take place -ROP E-13
- Monitoring bear activity near development and production sites-ROP A-8
- Conducting aerial surveys of Steller's and spectacled eiders and yellow-billed loons, in areas of facility construction-ROP E-11



## PUBLIC INVOLVEMENT

Public and government agencies provided valuable comments throughout the planning process. Public outreach is described in Chapter 5 of the Final Amended IAP/EIS.

### Scoping

The BLM published in the Federal Register a Notice of Intent (NOI) to Plan, and a Call for Nominations and Comments (Call), on June 23, 2003. The NOI and Call asked the public to help the BLM identify issues and resources relevant to planning and potential oil and gas leasing. The BLM also asked oil companies to identify their areas of interest within the Planning Area. The NOI and Call stated that the period during which comments would be taken on the proposal would be from June 23 through September 30, 2003. On September 15, 2003, the BLM published a Notice of Extension that extended the period for accepting scoping comments until October 31, 2003. Comments on the proposal could be submitted in writing to the BLM Project Manager or via an interactive website (<http://nenpra.ensr.com>).

Public notices announcing the scoping period were placed in newspapers in, or near, locations where public meetings were held. These newspapers included the Anchorage Daily News (October 5 and 7, 2003), the Fairbanks Daily News Miner (October 5 and 8, 2003), and the Arctic Sounder (October 9, 16, and 23, 2003).

Six public scoping meetings were held throughout Alaska between October 7 and November 13, 2003. Meetings (and dates) were as follows: Anchorage (October 7); Fairbanks (October 8); Nuiqsut (October 15); Barrow (October 16); Anaktuvuk Pass (October 28); and, Atqasuk (November 13). The scoping meetings were conducted in an open-house style. Informational displays were set up, and a formal presentation was given, to provide the public with additional information on program goals and objectives. The formal presentation was followed by a public comment session. Written and oral comments were accepted at these meetings, and a court reporter prepared a transcript of the oral comments. A translator was also provided for the public meetings in Atqasuk, Anaktuvuk Pass, Barrow, and Nuiqsut.

### Agency and Organization Meetings

The BLM conducted a two-day workshop in Anchorage, on December 3-4, 2003, to describe and develop lease stipulations for use in the Northeast National Petroleum Reserve – Alaska. Attendees included representatives from Federal, State, and local agencies, the NSB, Arctic Slope Regional Corporation, and representatives from the village of Nuiqsut. In addition, the BLM has consulted with numerous Federal, State, and local agencies and organizations throughout the entire amendment process.

Informal public meetings were also held in 2004 in Nuiqsut (January 19) and Barrow (January 26) to describe the development of the proposed action and associated mitigation.

### Government-to-Government Consultation

Federally recognized tribes have a unique legal and political relationship with the government of the United States, as defined by the U.S. Constitution, treaties, statutes, court decisions, and executive orders. These definitive authorities also serve as the basis for the Federal government's obligation to acknowledge the status of federally recognized Tribes in Alaska.

The BLM consults with federally recognized tribes, consistent with the Presidential Executive Memorandum dated April 29, 1994, on Government-to-Government Relations with Native American Tribal Governments; Executive Order 13175 dated November 6, 2000, on Consultation and Coordination with Indian Tribal Governments; and the January 18, 2001, Department of the Interior – Alaska Policy on Government-to-Government Relations with Alaska Native Tribes. The BLM formally consults with federally recognized tribes

in Alaska before taking action or undertaking activities that will have a substantial, direct effect on federally recognized tribes, or their assets, rights, services, or programs. To this end, formal Government-to-Government consultation with the following federally recognized traditional governments was initiated by written correspondence on August 27, 2003, prior to scoping for the amendment:

- Native Village of Anaktuvuk Pass
- Native Village of Atqasuk
- Native Village of Barrow
- Native Village of Nuiqsut
- Iñupiat Community of the Arctic Slope

The letter sent to all of the tribal governments described the objectives of the proposed action, and invited the tribes to call if they had questions or wanted to set up individual meetings with the AO of the BLM Northern Field Office. The letter also invited the tribal councils to attend the scoping meeting scheduled for their community. All tribal governments were called approximately two weeks after the letters were sent, in order to solicit questions or potential concerns, and to make sure that the information in the letter was received and understood.

In addition, the BLM participated in a number of meetings with federally recognized tribes and State and local governments in which the topic of the amendment was on the agenda. These meetings, which are listed below, include BLM Subsistence Advisory Panel Meetings, where each panel member is a representative of either a tribal or local government, or meetings with the NSB and the local communities of Nuiqsut and Barrow.

- Native Village of Nuiqsut Tribal Council, October 15, 2003 in Nuiqsut, Alaska
- Subsistence Advisory Panel, November 3, 2003 in Atqasuk, Alaska
- Native Village of Atqasuk, November 4, 2003 in Atqasuk, Alaska
- Native Village of Nuiqsut Tribal Council, Kuukpik Subsistence Oversight Panel, and the City of Nuiqsut, December 3-4, 2003 in Anchorage, Alaska
- Subsistence Advisory Panel, December 11, 2003 in Barrow, Alaska
- Kuukpik Subsistence Oversight Panel, January 19, 2004 in Nuiqsut, Alaska
- Native Village of Nuiqsut Tribal Council, January 20, 2004 in Nuiqsut, Alaska
- NSB, City of Barrow, and Native Village of Barrow, January 26, 2004 in Barrow, Alaska
- Subsistence Advisory Panel, March 16, 2004 in Nuiqsut, Alaska
- Kuukpik Subsistence Oversight Panel, March 18, 2004 in Nuiqsut, Alaska
- Subsistence Advisory Panel, June 10, 2004 in Barrow, Alaska
- Subsistence Advisory Panel, November 9, 2004 in Nuiqsut, Alaska

Comments and issues brought forward through consultation with Native tribal governments focused primarily on the following topics: 1) the purpose and need for amending the 1998 Northeast IAP/EIS; 2) protection of subsistence resources; 3) anticipated levels of oil and gas and related activities (including seismic exploration) as a result of leasing new areas; 4) development of roads to villages and bridges across rivers and streams; 5) retaining the lease stipulations as they currently exist in the 1998 Northeast IAP/EIS ROD; 6) use of traditional knowledge in making decisions; and 7) local employment opportunities.

During consultation, tribal leaders made a few specific recommendations. These recommendations included making lease stipulations and ROPs more restrictive; protecting subsistence use areas and resources; limiting restrictions on access to subsistence areas near oil developments; making core calving areas and insect-relief areas for the Teshekpuk Lake caribou herd unavailable for leasing; protecting the primary migration routes of the Teshekpuk Lake caribou herd (which are located between the eastern shore of Teshekpuk Lake and the coast and the area adjacent to the northwest corner of the GMA); protecting goose molting areas; restricting shipping traffic in areas used by bowhead whales; protecting cabins and camps; seeking ways to increase employment opportunities with oil companies on the North Slope; and adequately addressing the health and

social impacts of oil and gas leasing on the residents of the North Slope. All comments and recommendations were received verbally during meetings with individual tribal councils.

### **Public Review and Comment on the Draft Amended IAP/EIS**

The Notice of Availability (NOA) of the Draft Amendment to the Northeast National Petroleum Reserve-Alaska Integrated Activity Plan/Environmental Impact Statement (Draft Amended IAP/EIS) and the Announcement of Public ANILCA Subsistence-Related Hearings Schedule was published in the Federal Register on June 9, 2004. The public comment period was originally scheduled from June 9, 2004, through August 8, 2004. However, the comment period was extended through August 23, 2004 in response to public request for more time to review the Draft Amended IAP/EIS. Public notices announcing the comment period were placed in newspapers with circulation in, or near, locations where public meetings were held. These newspapers included the Arctic Sounder (August 8 and 15, and October 28, 2004) and Tundra Drums (August 12 and November 11, 2004). Public service announcements were broadcasted on radio station KBRW from July 27 through August 17, and during late October through November 2004. In addition, notices were posted at public gathering places in Nuiqsut, Barrow, Anaktuvuk Pass, and Atqasuk, all located on the North Slope of Alaska, and Bethel, Alaska, located on the Yukon Delta. Information on the Draft Amended IAP/EIS was also posted on the interactive website (<http://nenpra.ensr.com>). The public was able to access the website to download a copy of the Draft Amended IAP/EIS and provide their comments and attachments. Comments and attachments posted to the website were incorporated into a database for analysis by the core planning team.

Public and ANILCA §810 subsistence hearings were held in the following venues on the following dates:

<b><u>LOCATION</u></b>	<b><u>Dates of ANILCA Subsistence Hearings</u></b>
Anchorage, AK	June 28, 2004
Fairbanks, AK	June 29, 2004
Washington D.C.	July 1, 2004
Anaktuvuk Pass, AK (North Slope)	August 3 and November 9, 2004
Nuiqsut, AK (North Slope)	August 9 and December 1, 2004
Atqasuk, AK (North Slope)	August 10 and November 4, 2004
Barrow, AK (North Slope)	August 12 and November 5, 2004
Bethel, AK (Yukon-Kuskokwim Delta)	August 17 and November 11, 2004

At these hearings the BLM provided an overview of the alternatives and recorded public comments and subsistence testimony. Over 215,000 comments were received on the Draft Amended IAP/EIS. Comments included handwritten letters, electronic and computer generated comments (with and without attachments), and facsimiles. Also, comments and attachments posted to the project website, and comments were provided at the public hearings. A summary of comments received and specific comments and responses are presented in Volume II, Chapter 6, of the Final Amended IAP/EIS. All substantive comment letters regarding the Draft Amended IAP/EIS are reproduced on a CD located in the back pocket of Volume I of the Final Amended IAP/EIS.

### **Development of the Preferred Alternative in the Final Amended IAP/EIS**

After completion of the public and ANILCA §810 subsistence hearings and closure of the official comment period, the core planning team, resource staff, and BLM management met to review comments and alternative proposals and to develop the BLM's final Preferred Alternative. Several alternative proposals were received. These included: proposals to close or open additional areas to leasing and development; place greater or lesser restrictions on the types of activities allowed under lease stipulations and ROPs; and combine elements of two or more alternatives (e.g., select Alternative A, but replace the 1998 stipulations with lease stipulations and ROPs developed for Alternative B).

During the comment period on the Draft Amended IAP/EIS the USFWS submitted an alternative proposal that would leave approximately 296,000 acres northeast of Teshekpuk Lake, the area with high oil resource potential in the Planning Area, unavailable to oil and gas leasing and reinstate the No Surface Activity requirement (1998 ROD) for approximately 240,000 acres south of Tehshekpuk Lake. A No Surface Activity requirement restricts both exploration and development of oil and gas activities. In addition, the USFWS requested that the 79 prescriptive lease stipulations from the 1998 ROD be maintained instead of adopting a performance-based approach to mitigating impacts. The FWS recommendation proposed to make 83,000 additional acres unavailable for leasing than under Alternative B (Preferred Alternative B in Draft Amended IAP/EIS; 213,000 acres unavailable for leasing; Appendix C, Map 3). The USFWS maintained that their proposal would provide additional protection for molting brant and other wildlife.

An alternative proposal was also submitted by ConocoPhillips Alaska, Inc. (CPAI). Their proposal would allow for oil and gas leasing, exploration, and development within portions of the area closed to leasing under Alternative B. CPAI maintained that their proposal would provide adequate protection for caribou and molting geese while providing additional lands for oil and gas development in the high potential area of the Planning Area.

The BLM took these proposals and numerous other public comments into consideration when reviewing the alternatives developed for the Draft Amended IAP/EIS. Based on these comments, the BLM developed a final Preferred Alternative D for the Final Amended IAP/EIS. Alternative D would allow for oil and gas development in some areas unavailable for leasing under Alternative B (Appendix C, Map 2-4) while still providing protection for geese, caribou, subsistence, and other resources found in the areas adjacent to Teshekpuk Lake.

### **Final Amended IAP/EIS Comments**

The BLM received approximately 500 comments from the public following the Notice of Availability (January 28, 2005) of the Final Amended IAP/EIS. Many of the comments objected to the contents of BLM's Preferred Alternative as presented in the Final Amended IAP/EIS and restated arguments that were made by various organizations and individuals during the comment period on the Draft Amended IAP/EIS. The majority of the comments did not contain any recommendations for technical improvements of the document. However, BLM considered all of the comments received, including those from the NSB, the Kuukpik Corporation representing the City of Nuiqsut, and the Ducks Unlimited Pacific Region, which all contained various recommendations to the Final Amended IAP/EIS Preferred Alternative D. These and other comments were taken into account by BLM in developing the final plan, which contains clarifications and minor modifications to the Preferred Alternative D in the Final Amended IAP/EIS. All of the modifications made in the final plan and ROD provide additional mitigation of the impacts of oil and gas activities on surface resources, thereby increasing the protection provided for important surface values in the Planning Area, including Special Areas.

The Modifications are described in Appendix A – Modifications and Clarifications.

# APPENDIX A

## MODIFICATIONS AND CLARIFICATIONS

The following describes clarifications and minor modifications that BLM has made to the “Preferred Alternative (Alternative D)” presented in the Final Amended IAP/EIS for adoption as the Secretary’s Decision. These clarifications/modifications are in response to comments as identified. (Additional modifications that have been made to correct sentence structure, grammatical errors, etc. are not included below.)

### TERMS/DEFINITIONS

#### **Buffer**

The term “buffer” as referred to in the final plan presented in this ROD has been clarified to mean a zone extending outward/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. This definition was requested by the USFWS.

#### **Development Activities**

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

#### **Field**

The term “field” as referred to in the final plan presented in this ROD has been clarified 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.

#### **In-Field Roads**

The term “in-field roads” has been clarified in the final plan presented in this ROD to describe 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. This clarification of “in-field roads” is in response to a request for clarification by the NSB.

#### **Permanent Oil and Gas Facilities**

The meaning of the term “permanent oil and gas facilities” has been clarified in the final plan presented in this ROD to 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; and material sites such as sand and gravel. The clarification of this term is in response to a request from the NSB Mayor’s office to include material sites in the definition of “permanent facilities.” This definition does not include over-summering ice pads for exploration purposes.

### **Permitting/Authorization and Exception Processes**

The permitting /authorization and exception processes, specifically those associated with permanent facility construction associated with development, is modified to include a requirement that the Subsistence Advisory Panel (SAP), the Research and Monitoring Team (RMT), and/or its NSSI descendants, and affected North Slope Community members be given the necessary time to review (up to 45 days) and comment/and or recommend alternate standards prior to granting an exception. This is in response to a request from the NSB Mayor's office, the Kuukpik Corporation representing the City of Nuiqsut, and the USFWS.

### **Temporary Platform**

The term "temporary platform" has been clarified as 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.

## **GENERAL LEASE STIPULATIONS AND REQUIRED OPERATING PROCEDURES (ROPS)**

The following general lease stipulations and ROPs have been modified to increase protections of sensitive wildlife and subsistence resources, clarify their intent, or to delete confusing language. (See Appendix B for a complete description of the Preferred Alternative lease stipulations and ROPs.)

### **Winter Overland Moves and Seismic Work**

#### **C-2 Required Operating Procedure**

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

C-2 f. has been added to protect foraging raptors and important habitat within the CRSA and replace the Requirement/Standard for Activities in Lease Stipulation K-7.

"C-2 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 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 ½ mile away from known raptor nesting sites, unless authorized by the AO."

### **Oil and Gas Exploration Drilling**

#### **D-1 Lease Stipulation**

**Objective:** Protect fish-bearing rivers, streams, and lakes from blowouts and minimize alteration of riparian habitat.

D-1 has been modified to remove language that allows exploration in rivers, streams and fish-bearing lakes if there is "no feasible or prudent alternative" available. This modification increases the intended protection of the objective. This is in response to a request from the NSB.

**D-2 Lease Stipulation**

**Objective:** Minimize surface impacts from exploratory drilling.

D-2 has been modified to increase protections by removing language that considers the construction of permanent facilities i.e. gravel airstrips, storage pads, and connecting roads if, environmentally preferable. D-2 will consider a proposal to use a previously constructed road or pad if it is environmentally preferable. This is in response to comments from the NSB.

**Facility Design and Construction****E-1 Required Operating Procedure**

**Objective:** Protect subsistence use and access to traditional subsistence hunting and fishing areas and minimize the impact of oil and gas activities on air, land, water, fish and wildlife resources.

E-1 has been modified to remove language that would have “allowed intercommunity or other permanent roads constructed with public funds for general transportation purposes.” This modification further reduces the risk of potential impacts to subsistence resources and subsistence activities associated with widely used road systems. This is in response to a request from the NSB.

**E-7 c. Required Operating Procedure**

**Objective:** Minimize disruption of caribou movement and subsistence use.

E-7 c. has been modified to clarify that it applies to the distance between above ground pipelines and roads and removes the term “when feasible.” Where it is not feasible to separate pipelines and roads, alternative pipeline routes, designs and possible burial within the road will be considered by the AO. This modification will increase protection for caribou movement and subsistence use. This is in response to a request from the NSB.

**E-9 Required Operating Procedure**

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

E-9 has been modified to include language to prohibit the feeding of wildlife which will help to reduce the population of predators on ground nesting birds. This modification will be cross-referenced in ROP I-1 Orientation Programs Associated with Permitted Activities. This is in response to a request from the NSB.

**E-11 Required Operating Procedures**

**Objective:** Minimize the take of species listed under the Endangered Species Act and minimize the disturbance of other species of interest from direct or indirect interaction with oil and gas facilities.

Under Special Conditions in Yellow-billed Loon Habitat, section b, language has been modified to reflect that development may prohibited within buffers. This increases the protection to yellow-billed loons by avoiding activities in yellow-billed loon habitat around lakes regardless of the season unless no other option exists. This modification is in response to a request of the USFWS.

**Use of Aircraft for Permitted Activities****F-1 b and c. Required Operating Procedures**

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

**F-1 b.** has been modified to include a requirement that the AO consult directly with the Alaska Department of Fish and Game in annually defining caribou winter ranges. This modification will decrease impacts to

traditional subsistence activities, local communities and the wildlife. This modification responds to comments from the NSB and the City of Nuiqsut.

**F-1 c.** has been modified to include a requirement for an aircraft use plan to be submitted 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. This modification is intended to decrease impacts from aircraft use to traditional subsistence activities, local communities and the wildlife specifically related to aircraft use. This modification responds to comments from the NSB, the City of Nuiqsut, the USFWS, and environmental groups.

## **Oilfield Abandonment**

### **G-1 Lease Stipulation**

**Objective:** Ensure the final disposition of the land meets the current and future needs of the public.

**G-1** has been modified to require the AO to consider the potential impacts to molting geese and associated habitat when entertaining the retention of oil and gas related facilities upon abandonment or expiration of the lease – if those leases are within the GMA. The modification increases the protection to molting geese and habitat within the GMA. This modification responds to comments from the NSB.

## **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.

**H-1** has been modified to include a prohibition of operational activities within a minimum distance of 1 mile (without alternate agreement between the operator and the cabin/campsite users/owners) around cabins and campsites identified by the NSB's official inventory. This will decrease potential impacts to subsistence activities associated with cabins and campsites. This modification responds to comments from the NSB and the U. S. Environmental Protection Agency.

### **H-2 Required Operating Procedure**

**Objective:** Prevent unreasonable conflicts between subsistence activities and geophysical (seismic) exploration.

**H-2** has been modified to increase the protection of cabins and campsites from seismic activity by increasing the minimum distance between seismic activities and cabins/campsites from 1200 feet to 1 mile. The cabins/campsites are as identified by the NSB's official inventory. Exceptions to this minimum distance will be permitted through agreements with the cabin/campsite owners/users. This will increase the protection of identified cabins and campsites and will further support the objective of this ROP. This modification responds to comments from the NSB.

## Orientation Programs Associated with Permitted Activities

### I-1 Required Operating Procedure

**Objective:** Minimize cultural and resource conflicts.

I-1 has been modified to include a provision to provide personnel a copy of 43 CFR 3163 regarding Non-Compliance Assessment and Penalties as “I-1 j.” under the Standard Requirement (Appendix B). This modification responds to comments from the NSB in conjunction with a request to include prohibiting feeding wildlife under ROP E-9.

## SITE SPECIFIC LEASE STIPULATIONS

The following site specific lease stipulations have been modified to: clarify their intent and/or increase the surface area the mitigation applies to; expand the consultation requirements of the mitigation; and, include study requirements prior to construction of permanent facilities.

### K-2 Lease Stipulation-Deep Water Lakes

**Objective:** Minimize the disruption of natural flow patterns and changes to water quality; the disruption of natural functions resulting from the loss or change to vegetative and physical characteristics of deep water lakes; the loss of spawning, rearing or over wintering habitat for fish; the loss of cultural and paleontological resources; impacts to subsistence cabin and campsites; and the disruption of subsistence activities.

K-2 has been modified to ensure that on a case-by-case basis in consultation with Federal, State and NSB regulatory and resource agencies, (as appropriate based on agency legal authority and jurisdictional responsibility), essential pipelines, road crossings, and other permanent facilities may be considered through the permitting process in these areas where the lessee can demonstrate on a site-specific basis that impacts will be minimal and if it is determined that there is no feasible or prudent alternative. This is in response to comments from the NSB.

### K-4 Lease Stipulation – Goose Molting Area (GMA)

**Objective:** Minimize disturbance to molting geese and loss of goose molting habitat in and around lakes in the Goose Molting Area.

The General Requirement/Standard for K-4 has been modified to expand the No Surface Activity Restriction from 217,000 acres to 242,000 acres (Map 1). Only “in-field roads” as part of oil and gas operations within a field will be allowed. Prior to the permitting of a pipeline in the GMA, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to Federal, State, and NSB representatives. All of these modifications will increase protection for molting geese and other wildlife that utilize the GMA during the summer season. These modifications and increased protective measures are in response to comments from the NSB, Duck’s Unlimited Pacific Region, USFWS, the City of Nuiqsut, and environmental groups.

Additional modifications to the requirement standards during the development phase include:

- Lessee is required to submit with the development proposal a vehicle use plan that considers strategies and mitigation to minimize ground traffic from June 15 through August 20 to the extent practicable. These measures include convoying, limiting trips, different vehicle types, etc. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the AO if resulting disturbance is determined to be unacceptable.

- The lessee shall submit with the development proposal an aircraft use plan that considers mitigation to restrict aircraft use during the June 15 to August 20 time period. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the AO if resulting disturbance is determined to be unacceptable. Note: This site-specific lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of this lease stipulation. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.
- Aircraft use restrictions may include 1) limiting flights to two round-trips/week, and 2) limiting flights to flight corridors established by the BLM after discussions with appropriate Federal, State, and NSB regulatory and resource agencies.
- Any permit for development issued under this IAP/EIS will include a requirement for the lessee to conduct monitoring studies necessary to adequately determine consequences of development and any need for change to mitigations. Monitoring studies will be site- and development-specific within a set of over-arching guidelines developed by the BLM in conjunction with appropriate Federal, State, NSB, and NSSI representatives. The study(s) will include the construction period and will continue for a minimum of 3 years after construction has been completed and production has begun. The monitoring studies will evaluate the effectiveness of the K-4 Lease Stipulation requirements in meeting the objective of K-4 and determine if any changes to the lease stipulation or any project specific mitigation(s) are necessary. If changes are determined to be necessary, the BLM, with the lessee and/or their representative, will conduct an assessment of the feasibility of altering development operation (e.g. reduced human activity, visibility barriers, noise abatement). Any changes determined necessary will be implemented prior to authorization of any new construction.

All of the above modifications and additional requirements will increase the protection of molting geese from potential impacts from oil and gas activities in the GMA. These changes are in response to comments from the NSB, Duck's Unlimited Pacific Region, the City of Nuiqsut, and the USFWS.

#### **K-5 Lease Stipulation-Teshekpuk Lake Caribou Habitat Area (TLCHA)**

**Objective:** Minimize disturbance and impacts to caribou, or alteration of caribou movements through portions of the TLCHA that are essential for all season use, including calving and rearing, insect-relief, and migration.

K-5 has been modified to include a requirement for determining pipeline placement. Prior to the permitting of a pipeline in the TLCHA, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife (specifically the Teshekpuk Lake Caribou Herd) and subsistence resources. The workshop participants will include but will not be limited to Federal, State, and NSB representatives. All of these modifications will increase protection for caribou and other wildlife that utilize the TLCHA during all seasons. These modifications are in response to comments from the NSB, and the City of Nuiqsut.

Additional modifications to the requirement standards during the development phase include:

- The lessee shall design and implement a study of caribou movement unless an acceptable study(s) “specific to the Teshekpuk Lake Caribou Herd (TLCH)” has been completed within the last 10 years. The study shall include a minimum of four years of current data on the TLCH movements and the study design shall be approved by the AO in consultation with the appropriate Federal, State, and NSB wildlife and resource agencies. The lessee shall also prepare a report of the study results.

- The lessee is required to submit with the development proposal a vehicle use plan that includes mitigation to minimize impacts to caribou movement from May 20 (or earlier if caribou are present) through August 20. Mitigation should include stopping traffic, evacuation of road segments, etc. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the AO if resulting disturbance is determined to be unacceptable.
- The lessee shall submit with the development proposal an aircraft use plan that considers mitigation to minimize impacts to caribou from aircraft use from May 20 through August 20. Mitigation consideration should include limiting trips to one per day, using aircraft smaller than a Twin Otter, alternate aircraft use, etc. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the AO if resulting disturbance is determined to be unacceptable. Note: This site-specific lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of this lease stipulation. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.
- Major construction activities using heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended within TLCHA from May 20 through August 20, unless approved by the AO in consultation with the appropriate Federal, State, and NSB regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb caribou during calving and insect-relief periods. If caribou arrive on the calving grounds prior to May 20, major construction activities will be suspended. As part of the development proposal the lessee shall submit a “stop work” plan that considers how shut downs will occur and any other mitigation related to early caribou arrival. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.

The above modifications and additional requirements will increase the protection of caribou and other wildlife utilizing the region from potential impacts from oil and gas activities. These changes are in response to comments from the NSB, and the City of Nuiqsut.

#### **K-7 Lease Stipulation – Colville River Special Area (CRSA)**

**Objective:** Prevent or minimize the loss of raptor foraging habitat (also see Lease Stipulation K-1; Rivers Area).

The Requirement Standard for Activities has been clarified and moved to ROP C-2 f. such that the scope of application applies to all activities, not just activities authorized through a leasing instrument.

The CRSA will be deferred from leasing until the completion of the Colville River Management Plan.

These additional modifications and area deferral are intended to further protect the CRSA from all land use activities including those impacts from oil and gas activities.

#### **K-9 Lease Stipulation – Caribou Movement Corridors**

**Objective:** Minimize disturbance and impacts to caribou, or alteration of caribou movements (that are essential for all season use, including calving and rearing, insect-relief, and migration) in the 1) area extending from the eastern shore of Teshekpuk Lake to approximately 6 miles eastward towards the Kogru Inlet and 2) the area adjacent to the northwest corner of Teshekpuk Lake.

The NSO area has been expanded to include approximately 9700 acres Northwest of Teshekpuk Lake for additional protection of migrating caribou. Also, the NSO acreage in-between Teshekpuk Lake and the Kogru Inlet has been increased to approximately 45,000 acres and extends from the east shore of Teshekpuk Lake to the west shore of the Kogru Inlet (Map 1). If necessary, a pipeline will be considered after a workshop is

convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include, but will not be limited to, Federal, State, and NSB representatives. These changes and additions provide additional protection for caribou as they move north of Teshekpuk Lake through these narrow “bottleneck” corridors. These changes are in response to comments from the NSB and the State of Alaska Fish and Game Department.

#### **K-10 Lease Stipulation – Southern Caribou Calving Areas**

**Objective:** Minimize disturbance and impacts to caribou, or alteration of caribou movements (that are essential for all season use, including calving and post calving, and insect-relief) in the area south/southeast of Teshekpuk Lake.

K-10 the NSO area has been expanded by 45,000 acres to 233,000 acres and now includes an area southwest of Teshekpuk Lake to provide more protection for essential all season use by caribou, which is in support of the above stated objective (Map 1). Also, an area along the southeastern shoreline of Teshekpuk Lake has been included in the southeastern acreage of the NSO restriction (Map 1) to provide additional protection for caribou that utilize the area. These changes are in response to the NSB, the State of Alaska Fish and Game Department, the USFWS, and the City of Nuiqsut.

#### **K-11 Lease Stipulation – GMA Lease Tracts A-G**

**Objective:** To protect key surface resources and subsistence resources/activities resulting from permanent oil and gas development and associated activities.

The requirement standard has been modified to qualify pipeline permitting. A pipeline will be considered after a workshop is convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to Federal, State, and NSB representatives.

The NSO restriction within lease tracts A, F, and G (Maps 1 and 1A) has been expanded to provide additional protection for molting geese and caribou migration north of Teshekpuk Lake. The changes are as follows:

- A. Total Acreage: 59,134  
17,745 acres = NSO for Permanent Oil and Gas facilities (excluding pipelines).  
41,389 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.5 % of total acreage) within the 41,389 acres available for surface occupancy.

- F. Total Acreage: 56,506:  
41,116 acres = NSO for Permanent Oil and Gas facilities, excluding pipelines.  
4,898 acres = Restricted area open to development subject to the results of 3 year study requirement to determine appropriate placement of permanent facility(s) (Map 1A in Appendix C.)  
10,491 acres = Area open to development subject to site specific and general lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.5 % of total acreage) within the 41,389 acres available for surface occupancy.

- G. Total Acreage: 56,796:  
37,305 acres = NSO for Permanent Oil and Gas facilities excluding pipelines.  
334 acres = Restricted area open to development subject to the results of 3 year study requirement to determine appropriate placement of permanent facility(s) (Map 1A in Appendix C.)  
19,157 acres = Area open to development subject to site-specific and general lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.5 % of total acreage) within the 19,491 acres available for surface occupancy (restricted or non-restricted).

All of these modifications and clarifications will provide increased protection for molting geese within these specific lease tracts. Current data from the USFWS identifies the lakes that are within these particular lease tracts as having the highest use by molting geese during summer months. These modifications are in response to the Duck's Unlimited Pacific Region.

### **Lease Sale Deferral**

#### **Deferred Leasing in the Colville River Special Area (CRSA)**

The plan has been modified to include a deferral of oil and gas leasing in the CRSA until the Colville River Management Plan is completed. Although the CRSA will remain available for leasing, lands in the CRSA will not be offered for lease in a lease sale until the river management plan has been completed. This action responds to a request by BLM's Resource Advisory Council, and affects an additional 719,550 acres of the CRSA located in the Planning Area.



## APPENDIX B

# STIPULATIONS AND REQUIRED OPERATING PROCEDURES

As discussed in Chapter 1 (Introduction) of the Final Amended IAP/EIS, a set of performance-based lease stipulations and ROPs were developed to protect natural and cultural resources in the Northwest National Petroleum Reserve-Alaska. Similar developed for this amendment, will result in a more consistent set of protective measures for both the Northwest and Northeast Planning Areas of the National Petroleum Reserve–Alaska. This mitigation will provide BLM greater flexibility to adapt management decisions to changing and uncertain environmental conditions on the ground. This mitigation differs from the prescriptive-based lease stipulations developed for the 1998 Northeast IAP/EIS (and which also apply to the No Action Alternative), in that they:

- Do not include actions that already exist in the form of regulation or law; and
- Provide the BLM and other land users, including industry, greater adaptability in protecting surface resources by emphasizing the intent or objective of the mitigation. This principle is often referred to as “Outcome-based Planning or Adaptive Management Concepts.” These principles will help the BLM make decisions effectively by utilizing a rigorous combination of management, research, and monitoring so that credible information is gained and management activities can be modified, over time, based on continuous experience.

These performance-based lease stipulations and ROPs were developed to allow the BLM and industry greater adaptability to mitigate impacts when more information specific to individual projects becomes available. They are based on knowledge of the resources in the Planning Area and industry practices, and are consistent with existing policies and laws. The BLM developed these mitigations measures through the Final Amended IAP/EIS process and has eliminated the redundancy of requirements that already exist in the form of regulation or law.

The lease stipulations and ROPs are requirements, procedures, management practices, or design features that the BLM, through the ROD, could adopt 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 lease stipulations and ROPs either before submitting the application (e.g., for subsistence consultation, brant surveys) or as part of the application proposal (e.g., for a proposal stating that garbage will not be buried, or that pipelines and roads will be separated by 500 feet or more). Requirements that are met prior to submission of the application, and 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 mitigating ROPs will be identified in the ROD as operational requirements, and not as general lease stipulations, their applicability goes beyond the oil and gas lease to any permitted activity where the requirement is relevant.

The AO may add additional site-specific restrictions as deemed 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 Section 404) for an oil and gas project to proceed. Specific State permits may be required when the State has primary authority, under Federal or State law or regulation, to enforce the provision in question. Specific permits issued by Federal agencies other than the BLM could include permit conditions that are more stringent than those presented below.

## Definitions

The following definitions in the context of this document, apply to general 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 percent 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 AO in the State of Alaska for leasing, surface use, and permitting are 1) State Director, 2) Manager of the Northern Field Office in Fairbanks, and 3) Deputy State Director, Division of Energy and Solid Minerals.

**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 either inform them of potential actions and/or to seek input on noted topics. This includes informal contacts, and written, electronic, and/or verbal communication.

**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.

**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.

**No Surface Occupancy:** No permanent oil and gas facilities will be allowed. Pipeline placement and construction will be the subject of a workshop prior to permitting.

**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. 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.

**Compliance with Required Operating Procedures:** 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 ½ mile of occupied grizzly bear dens.

**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 (See Map 1).

**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.

## The Permitting/Authorization and Exception Processes

### *Permitting/Authorization Process*

The Required Operating Procedures identified in the following sections will not be attached as conditions of an oil and gas lease. The oil and gas lease is a binding agreement between BLM and the lessee that does not authorize subsequent surface disturbing activity. All surface disturbing activities such as exploratory drilling, road/pipeline construction, seismic acquisition, and overland moves require additional authorization(s) issued subsequent to leasing. This authorization or permitting process which includes permits, leases, and rights-of-way, is a multi-step process as follows:

- Pre-application consultation – The BLM meets and consults with the potential applicant and other affected parties prior to submission of any written application(s). At the time of the pre-application consultation, the applicant is informed of the BLM procedures and operating requirements, including any other Federal, State, or local permit requirements, so that any inadequacies and deficiencies in the verbal proposal can be addressed with the submittal of the application. Also, at this time, the BLM, the applicant and other affected parties may visit the proposed site to identify unknown issues.
- Applications associated with permanent facility construction relative to development, require that the Subsistence Advisory Panel (SAP), the Research and Monitoring Team (RMT), and/or its NSSI descendants, and affected North Slope Community members be given the necessary time to review and comment/and or recommend alternate standards prior to granting and exception.
- Review of Written Application for Completeness – Based on an initial review of the written application, additional information may be requested or application may be rejected.
- Evaluation of Application – An Interdisciplinary Team (ID) reviews the proposal to:
  - 1) Determine if the proposal complies with the outcome Objectives of the Lease stipulations and Required Operating Procedures; this may be accomplished by adhering to the recommended requirements/standards or by the use of new techniques/practices that meet the objectives.
  - 2) Based on additional analysis (e.g., NEPA EA or EIS), new mitigations may be identified based on site- and project-specific information including any new issues identified throughout this process.
  - 3) Identify appropriate levels of monitoring to determine the effectiveness of the mitigations.
- Issue authorization with appropriate terms and conditions of approval identified or attached.

### *Exception Process*

The permitting process in conjunction with the greater flexibility afforded by the proposed performance-based lease stipulations and ROPs that are focused on resource management outcome/objectives, should result in the need for few, if any, exceptions. BLM anticipates however, there will remain a need to consider exceptions and/or modifications on a case-by-case basis. The following guidelines will be used for considering and granting exceptions to the proposed lease stipulations or ROPs.

In the event that an exception to a lease stipulation or ROP is requested, and before an exception may be granted, the lessee/permittee shall demonstrate to the satisfaction of the AO that:

1. a) implementation of the lease stipulation or ROP is technically not feasible, or  
b) implementation of the lease stipulation or ROP is economically prohibitive, or  
c) there is an environmentally preferable alternative available, and
2. 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, results of scientific research, etc.) to allow for a thorough review and evaluation of the proposal.

Before the consideration or granting of an exception to a 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 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.

Exceptions associated with permanent facility construction associated with development, require that the SAP, the RMT, and/or its NSSI descendants, and affected North Slope Community members be given the necessary time to review (up to 45 days) and comment/and or recommend alternate standards prior to granting and exception.

The BLM may initiate an exception to a ROP when information (technical reports, new/revised procedures, results of scientific research, etc.) becomes available that demonstrates the alternative proposal satisfies the objective of the 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.

## **Lease Stipulations and Required Operating Procedures**

### **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.

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 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 U.S. Environmental Protection Agency (USEPA) 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, 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 (AOGCC) regulations and

- procedures. On-pad temporary mud 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 the National Pollution Discharge Eliminations 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 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 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/permitees 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 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 over packs, capable of containing 110 percent of the stored volume. Storage of liquid chemicals and other hazardous materials within 500 feet of the active floodplain of any fish bearing waterbody and 100 feet from non-fish bearing waterbodies is prohibited. Also see ROP A-5.
- 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 [Alaska Administrative Code] 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 flood plain of any fish-bearing water body and 100 feet 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.

Requirement/Standard: 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 requirements:

- 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 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: Oil and gas lessees and their contractors and subcontractors will, as a part 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.

**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. 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 lake size, water volume, and depth, and fish population and species diversification. Water withdrawal requirements specify:

- a. Lakes that are  $\geq 7$  ft 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 ft. Lakes that are between 5 and 7 ft with sensitive fish: water available for withdrawal will be calculated on a case-by-case basis.
- b. Lakes that are  $\geq 5$  ft 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 ft.
- c. Any lake with no fish present, regardless of depth: Water available for withdrawal is up to 100% 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 percent or 30 percent 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.

**C. Winter Overland Moves and Seismic Work**

The following lease stipulations and ROPs apply to overland moves, seismic work, and any similar cross-country 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  $\frac{1}{2}$  mile of occupied grizzly bear dens identified by the ADFG unless alternative mitigation are approved by the AO in consultation with the ADFG.
- 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 USFWS and/or NOAA Fisheries Service, 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 is 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 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 ½ mile away from known raptor nesting sites, unless authorized by the AO.

#### *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 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.

## D. Oil and Gas Exploratory Drilling

### *D-1 Lease Stipulation*

Objectives: Protect fish-bearing rivers, streams, and lakes from blowouts and minimize alteration of riparian habitat.

Requirement/Standard: Exploratory drilling is prohibited in rivers and streams, as determined by the active floodplain, and fish-bearing lakes.

### *D-2 Lease Stipulation*

Objective: Minimize surface impacts from exploratory drilling.

Requirement/Standard: Exploratory drilling shall be limited to temporary facilities such as ice pads, ice roads, ice airstrips, and temporary platforms, unless a proposal is to use a previously constructed road or pad and it is environmentally preferable.

## E. Facility Design and Construction

### *E-1 Required Operating Procedure*

Objective: Protect subsistence use and access to traditional subsistence hunting and fishing areas and minimize the impact of oil and gas activities on air, land, water, fish and wildlife resources.

Requirement/Standard: All roads must be designed, constructed, maintained, and operated to create minimal environmental impacts and to protect subsistence use and access to traditional subsistence hunting and fishing areas. Subject to approval by the AO, the construction, operation, and maintenance of oil field roads is the responsibility of the lessee unless the construction, operation, and maintenance of roads are assumed by the appropriate governing entity.

### *E-2 Lease Stipulation*

Objective: Protect fish-bearing water bodies, water quality, and aquatic habitats.

Requirement/Standard: The design and location of permanent oil and gas facilities within 500 feet of fish-bearing or 100 feet of non-fish-bearing waterbodies will only be approved on a case-by-case basis if the lessee can demonstrate that impacts to fish, water quality, and aquatic and riparian habitats are minimal. Note: Also refer to Area-Specific Lease Stipulations and ROPs for Rivers Area (Lease Stipulation K-1) and Deep Water Lakes (Lease Stipulation K-2).

### *E-3 Lease Stipulation*

Objective: Maintain free passage of marine and anadromous fish and protect subsistence use and access to traditional subsistence hunting and fishing.

Requirement/Standard: Causeways and docks are prohibited in river mouths or deltas. Artificial gravel islands and bottom-founded structures are prohibited in river mouths or active stream channels on river deltas. Causeways, docks, artificial islands, and bottom-founded structures shall be designed to ensure free passage of marine and anadromous fish and to prevent significant changes to nearshore oceanographic circulation patterns and water quality characteristics. A monitoring program may be required to address the objectives of water quality and free passage of fish.

### *E-4 Required Operating Procedure*

Objective: Minimize the potential for pipeline leaks, the resulting environmental damage and industrial accidents.

Requirement/Standard: All pipelines shall be designed, constructed, and operated under an AO-approved Quality Assurance/Quality Control plan that is specific to the product transported.

### *E-5 Required Operating Procedure*

Objective: Minimize impacts of the development footprint.

Requirement/Standard: Facilities shall be designed and located to minimize the development footprint to the maximum extent practicable considering environmental, economic, and social impacts. Note: Where aircraft

traffic is a concern, consideration shall be given to balancing gravel pad size and available supply storage capacity with potential reductions in the use of aircraft to support oil and gas operations.

*E-6 Required Operating Procedure*

Objective: Reduce the potential for ice-jam flooding, impacts to wetlands and floodplains, erosion, alteration of natural drainage patterns, and restriction of fish passage.

Requirement/Standard: Stream and marsh crossings shall be designed and constructed to ensure free passage of fish, maintain natural drainage, and minimize adverse effects to natural stream flow. Note: Bridges, rather than culverts, are the preferred method for crossing rivers. When necessary, culverts can be constructed on smaller streams, if they are large enough to avoid restricting fish passage or adversely affecting natural stream flow.

*E-7 Required Operating Procedure*

Objective: Minimize disruption of caribou movement and subsistence use.

Requirement/Standard: Pipelines and roads shall be designed to allow the free movement of caribou and the safe, unimpeded passage of the public while participating in traditional subsistence activities. Listed below are the accepted design practices:

- a. Above ground pipelines shall be elevated a minimum of 7 feet as measured from the ground to the bottom of the pipeline at vertical support members.
- b. In areas where facilities or terrain may funnel caribou movement, ramps over pipelines, buried pipelines, or pipelines buried under roads may be required by the AO after consultation with Federal, State, and NSB regulatory and resource agencies (as appropriate, based on agency legal authority and jurisdictional responsibility).
- c. A minimum distance of 500 feet between roads and above ground pipelines should be maintained. Separating roads from pipelines may not be feasible within narrow land corridors between lakes and where pipelines and roads converge on a drill pad. Where it is not feasible to separate pipelines and roads, alternative pipeline routes, designs and possible burial within the road will be considered by the AO.

*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 the 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/Standards:

- a. Lessee shall utilize best available technology to prevent facilities from providing nesting, denning, or shelter sites for ravens, raptors, gulls 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 non-compliance 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: 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 feet in height shall be illuminated as outlined above.

*E-11 Required Operating Procedure*

Objective: Minimize the take of species listed under the Endangered Species Act and minimize the disturbance of other species of interest from direct or indirect interaction with oil and gas facilities.

Requirement/Standard: In accordance with the guidance below, before the approval of facility construction, aerial surveys of the following species shall be conducted within any area proposed for development.

Special Conditions in Spectacled and/or Steller's Eiders Habitats:

- a. Surveys shall be conducted by the lessee for at least 3 years before authorization of construction, if such construction is within the USFWS North Slope eider survey area, and at least 1 year for construction proposed outside that area. Results of aerial surveys and habitat mapping may require additional ground nest surveys. Spectacled and/or Steller's eider surveys shall be conducted following accepted BLM-protocol during the second week of June.
- b. If spectacled and/or Steller's eiders are determined to be present within the proposed development area, the applicant shall consult with the USFWS and BLM in the design and placement of roads and facilities in order to minimize impacts to nesting and brood-rearing eiders and their preferred habitats. Such consultation shall address timing restrictions and other temporary mitigating measures, construction of permanent facilities, placement of fill, alteration of eider habitat, aircraft operations, and introduction of high noise levels.
- c. To reduce the possibility of spectacled and/or Steller's eiders striking above ground utility lines (power and communication), such lines shall either be buried in access roads, or suspended on vertical support members, to the extent practicable. Support wires associated with communication towers, radio antennas, and other similar facilities, shall be clearly marked along their entire length to improve visibility for low flying birds. Such markings shall be jointly developed through consultation with the USFWS. Overhead power and/or communication lines for oil and gas activities will be limited to the following circumstances.
  1. Overhead power or communication lines may be allowed when located entirely within the boundaries of a facility pad;
  2. Overhead power or communication lines may be allowed when engineering constraints at the specific location make it infeasible to bury or connect them to a vertical support member, or
  3. Overhead power or communication lines may be allowed should human safety be compromised by other methods. (Note: This requirement standard will be Planning Area wide.)

Special Conditions in Yellow-billed Loon Habitats:

- a. Aerial surveys shall be conducted by the lessee for at least 3 years before authorization of construction of facilities proposed for development which are within 1 mile of a lake 25 acres or larger in size. These surveys along shorelines of large lakes shall be conducted following accepted BLM protocol during nesting in late June and during brood rearing in late August.
- b. Should yellow-billed loons be present, the design and location of facilities must be such that disturbance is minimized. The default, standard mitigation is a 1-mile buffer around all recorded nest sites and a minimum 1,625-foot buffer around the remainder of the shoreline. Development will generally be prohibited within buffers unless no other option exists.

*E-12 Required Operating Procedure*

Objective: Use ecological mapping as a tool to assess wildlife habitat before development of permanent facilities to conserve important habitat types during development.

Requirement/Standard: An ecological land classification map of the development area shall be developed before approval of facility construction. The map will integrate geomorphology, surface form, and vegetation at a scale, level of resolution, and level of positional accuracy adequate for detailed analysis of development alternatives. The map shall be prepared in time to plan one season of ground-based wildlife surveys, if deemed necessary by the AO, before approval of the exact facility location and facility construction.

*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 any and all surface disturbing 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 feet 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 endangers 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 endangers human life or violates 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. An aircraft use plan must be submitted as part of an oil and gas exploration or development proposal. The aircraft use 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. The plan shall also include a proposal for monitoring 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 the resulting disturbance is determined to be unacceptable.

- e. Aircraft used for permitted activities shall maintain an altitude of at least 2,000 feet AGL (except for takeoffs and landings) over the TLCHA (Map 2-2) from May 20 through August 20, unless doing so endangers human life or violates safe flying practices. Aircraft use (including fixed wing and helicopter) by oil and gas lessees in the Goose Molting Area (Map 2-2) should be minimized from May 20 through August 20, unless doing so endangers human life or violates safe flying practices. Also see Lease Stipulation K-4.

## G. Oilfield Abandonment

### *G-1 Lease Stipulation*

Objective: Ensure the final disposition of the land meets the current and future needs of the public.

Requirement/Standard: Upon abandonment or expiration of the lease, all oil and gas-related facilities shall be removed and sites rehabilitated to as near the original condition as practicable, subject to the review of the AO. The AO may determine that it is in the best interest of the public to retain some or all facilities. Within the Goose Molting Area, the AO, when determining if it is in the best interest of the public to retain a facility, will consider the impacts of retention to molting geese and goose molting habitat.

## H. Subsistence Consultation for Permitted Activities

“Consultation” may take place by in-person meetings, teleconference, videoconference, and exchange of written documents, electronic mail, or other means appropriate to the circumstances. Consultation does not include public meetings that are primarily for the purpose of information distribution, unless it is explained at the beginning of the meeting that there is an open dialogue, and that comments, concerns, or other information are being actively solicited.

### *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: Operational activities will be prohibited within a minimum distance of 1 mile around cabins and campsites (as identified by the NSB’s official inventory) without alternate agreement between the operator and the cabin/campsite users/owners. Lessee/permittee shall consult directly with affected users/communities using the following guidelines:

- a. Before submitting an application to the BLM, the applicant shall consult with directly affected subsistence users/communities, the NSB, and the National Petroleum Reserve-Alaska 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 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(s) 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.

#### *H-2 Required Operating Procedures*

Objective: Prevent unreasonable conflicts between subsistence activities and geophysical (seismic) exploration.

Requirement/Standard: In addition to the consultation process described in ROP H-1 for permitted activities, before applying for permits to conduct geophysical (seismic) exploration, the applicant shall consult with local communities and residents. For the purpose of this standard, a potentially affected cabin/campsite is defined as any camp or campsite within the boundary of the area subject to proposed geophysical exploration and/or within 1 mile of actual or planned travel routes used to supply the seismic operations while it is in operation.

- Because of the large land area covered by typical geophysical operations and the potential to impact a large number of subsistence users during the exploration season, the permittee/operator will notify in writing all potentially affected long-term cabin and camp users.
- The official recognized list of cabin and campsite users is the NSB's 2001 inventory of cabins and campsites.
- A copy of the notification letter and a list of potentially affected users shall also be provided to the office of the appropriate Native Tribal government.
- The AO will prohibit seismic work within 1 mile of any known, long-term, cabin or campsite unless an alternate agreement between the cabin/campsite owner/user is reached through the consultation process and presented to the AO. (Regardless of the consultation outcome, the AO will prohibit wintertime seismic work within 300 feet of a known long-term cabin or campsite.)

### **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 lease 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 lease stipulations and ROPs and 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 and commercial fishing activities, and any 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. Provides a copy of 43 CFR 3163 regarding Non-Compliance Assessment and Penalties to on-site personnel.

## **J. Endangered Species Act - Section 7 Consultation Process**

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 ground-disturbing 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 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation.

## **Lease Stipulations That Apply in Biologically Sensitive Areas**

In addition to the lease stipulations and ROPs developed to protect surface resources throughout the Planning Area, the BLM has eleven additional lease stipulations in this section that will specifically apply to biologically sensitive areas. Two of these lease stipulations (Rivers Area [Lease Stipulation K-1] and Deep Water Lakes [K-2]) will apply to biologically sensitive rivers and lakes throughout the Planning Area.

The other nine lease stipulations were developed to ensure that the BLM authorized activities comply with the provisions of the NPRPA that require any oil and gas exploration or development within a special area to “be conducted in a manner which will assure the maximum protection of such surface resources to the extent consistent with the requirements of [the] Act for the exploration of the reserve” (42 U.S.C. § 6504[b], 6508). In addition, oil and gas activities must include or provide for “conditions, restrictions, and prohibitions as the Secretary [of the Interior] deems necessary or appropriate to mitigate reasonably foreseeable and significantly adverse effects on the surface resources of the National Petroleum Reserve-Alaska (42 U.S.C. § 6508[1]). Stipulations K-3 through K-8 will ensure that the BLM authorized activities comply with these statutory mandates through this amendment by requiring special protections in the TLSA and CRSA. Specifically, Stipulation K-3 will ensure that exploration and development activities do not conflict with traditional

subsistence users, historic travel routes, or fish and wildlife resources. Lease Stipulation K-4 will minimize disturbance to molting geese and loss of goose molting, eider, and other waterfowl habitat on or near Teshekpuk Lake from oil and gas exploration and development activities. Lease Stipulation K-5 will provide similar types of protection to caribou and their habitats near the lake. Under Lease stipulation K-6, coastal areas within the TLISA will be afforded special protection to minimize alteration of caribou movement within caribou coastal insect-relief areas and to protect other coastal and marine resources. Lease Stipulation K-7 will prohibit permanent oil and gas facilities, except for essential pipeline and road crossings, near the Colville, Kikiakrovak, and Kogosukruk Rivers within the CRSA to protect the rivers' natural features and raptor habitat. Lease Stipulation K-8 will prohibit most surface structures in the Pik Dunes to protect caribou insect-relief habitat and the geologic and scenic uniqueness of the dunes. Lease Stipulation K-9 will protect caribou movement in the areas 1) between Teshekpuk Lake and Kogru Inlet and 2) northwest of Teshekpuk Lake. Lease Stipulation K-10 minimizes disturbance to caribou calving habitat southwest, south, and southeast of Teshekpuk Lake. Lease Stipulation 11 protects key surface resources by limiting surface disturbance within identified lease tracts.

*K-1 Lease Stipulation – Rivers Area*

Objective: Minimize the disruption of natural flow patterns and changes to water quality; the disruption of natural functions resulting from the loss or change to vegetative and physical characteristics of floodplain and riparian areas; the loss of spawning, rearing or over-wintering habitat for fish; the loss of cultural and paleontological resources; the loss of raptor habitat; impacts to subsistence cabins and campsites; the disruption of subsistence activities; and impacts to scenic and other resource values.

Requirement/Standard: Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited in the streambed and adjacent to the rivers listed below at the distances identified. With the exception of the Ikpikpuk River, these setbacks are measured from the bank of the river as determined by the hydrology at the time of application. The standard setback is ½ mile from the bank's highest high water mark and increased to a ¾ mile setback where subsistence cabin and campsites are numerous. Along the Colville River and a portion of the Ikpikpuk a 1-mile setback as measured from the bank's highest high water mark is required to protect important raptor habitat. On a case-by-case basis in consultation with Federal, State, and NSB regulatory and resource agencies (as appropriate, based on agency legal authority and jurisdictional responsibility), essential pipeline(s) and road crossings to the main channel will be permitted (unless noted otherwise) through the setback areas. The above setbacks may not be practical within river deltas. In these situations, permanent facilities shall be designed to withstand a 200-year flood event.

- a. Colville River: a 1-mile setback from the northern bluff (or bank if there is no bluff) Colville River extending the length of that portion of the river located within the Planning Area for the purposes of Raptor Protection. Note: The Planning Area excludes conveyed Native lands along the lower reaches of the Colville River. Development of road crossings intended to support oil and gas activities shall be consolidated with other similar projects and uses to the maximum extent possible. Note: This provision does not apply to intercommunity or other permanent roads constructed with public funds for general transportation purposes. This preserves the opportunity to plan, design, and construct public transportation systems to meet the economic, transportation, and public health and safety needs of the State of Alaska and/or communities within the National Petroleum Reserve – Alaska.
- b. Ikpikpuk River: (those portions of the river within the Northeast Planning Area and east of the river centerline)
  - A ¾-mile setback, as measured from the river centerline east, is required from the mouth of the Ikpikpuk River extending south to northern limit of Section 19, Township 7 North, Range 11 West, U.M. (Umiat Meridian). This is to protect numerous subsistence cabins and campsites.
  - A 1-mile setback, as measured from the river centerline east, is required from the northern boundary of Section 19, Township 7 North, Range 11 West, U.M., extending south to the

northern limit of Section 4, Township 3 North, Range 12 West, U.M. This setback is for the purposes of protecting Raptors.

- c. Miguakiak River: A ½ mile setback, as measured from the bank's highest high water mark is required along its entire length.  
Kikiakrorak and Kogosukruk Rivers: Note: The following discussion refers only to portions of the Kikiakrorak River downstream from the north line of Township 2 North, Range 4 West, U.M. and the Kogosukruk River (including the four tributaries off the southern bank) downstream from the north line of Township 2 North, Range 3 West, U.M. No permanent oil and gas surface facilities, except essential transportation crossings, will be allowed within 1 mile of the top of the bluff (or highest high water mark on the bank if there is no bluff) on either side of the rivers and the four identified tributaries of the Kogosukruk River.
- d. Fish Creek: A 3 mile setback, as measured from the bank's highest high watermark, is required along that portion of the creek extending downstream from the east line of Section 31, Township 11 North, Range 1 East, U.M. and a ½ mile setback, as measured from the bank's highest high water mark, is required along that portion of the creek extending farther upstream. The purpose of this setback is to preclude location of permanent oil and gas surface facilities with the exception of essential transportation crossings.
- e. Judy Creek (in the Planning Area): No permanent oil and gas surface facilities, except essential transportation crossings, will be allowed within ½ mile (from the bank's highest high water mark) of these waterbodies.
- f. Tingmiaksiqvik River (identified as the Ublutuoch River on USGS quadrangle maps): No permanent oil and gas surface facilities, except essential transportation crossings, will be allowed within ½ mile (from the bank's highest high water mark) of this river from the eastern edge of Section 22, Township 8 North, Range 1 East U.M. (the western boundary of the CRSA) downstream to the confluence with Fish Creek.

#### *K-2 Lease Stipulation - Deep Water Lakes*

Objective: Minimize the disruption of natural flow patterns and changes to water quality; the disruption of natural functions resulting from the loss or change to vegetative and physical characteristics of deep water lakes; the loss of spawning, rearing or over wintering habitat for fish; the loss of cultural and paleontological resources; impacts to subsistence cabins and campsites; and the disruption of subsistence activities.

Requirement/Standard: Generally, permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited on the lake or lakebed and within ¼ mile of the ordinary high water mark of any deep lake as determined to be in lake zone III (i.e., depth greater than 13 feet [4 meters]; Mellor 1985). On a case-by-case basis in consultation with Federal, State and NSB regulatory and resource agencies (as appropriate based on agency legal authority and jurisdictional responsibility), essential pipeline(s), road crossings, and other permanent facilities may be considered through the permitting process in these areas where the lessee can demonstrate on a site-specific basis that impacts will be minimal and if it is determined that there is no feasible or prudent alternative.

*K-3 Lease stipulation - Teshekpuk Lake Shoreline*

(Teshekpuk Lake (approximately 211,000 acres) will be deferred from additional oil and gas leasing)

Objective: Minimize the disruption of natural flow patterns and changes to water quality; the disruption of natural functions resulting from the loss or change to vegetative and physical characteristics of this large and regionally significant deep water lake; the loss of cultural and paleontological resources; impacts to subsistence cabins, campsites and associated activities; and to protect fish and wildlife habitat including important insect relief areas.

Requirement/Standard: Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited within ¼ mile of the ordinary high water mark of Teshekpuk Lake – No Exceptions.

*K-4 Lease Stipulation - Goose Molting Area*

Objective: Minimize disturbance to molting geese and loss of goose molting habitat in and around lakes in the Goose Molting Area.

Requirement/Standard (General):

Within the Goose Molting Area no permanent oil and gas facilities, except for pipelines will be allowed on the approximately 242,000 acres illustrated on Map 1. No exceptions will be considered. Prior to the permitting of a pipeline in the Goose Molting Area, a workshop will be convened to determine the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to Federal, State, and NSB representatives. In addition, only “In Field” roads will be authorized as part of oil and gas field development.

Requirement/Standard (Exploration): In the Goose Molting Area exploratory drilling shall be limited to temporary facilities such as ice pads, ice roads, ice airstrips, and temporary platforms, unless the lessee demonstrates that construction of permanent facilities (outside the identified Goose Molting NSO Areas) such as gravel airstrips, storage pads, and connecting roads is environmentally preferable (Also see Lease Stipulation K-11 regarding allowable surface disturbance). In addition, the following standards will be followed for permitted activities:

- a. From June 15 through August 20 exploratory drilling and associated on the ground activities are prohibited. The intent of this rule is to restrict exploration drilling during the period when geese are present.
- b. Water extraction from any lake used by molting geese shall not alter hydrological conditions that could adversely affect identified goose-feeding habitat along lakeshore margins. Considerations will be given to seasonal use by operators (generally in winter) and geese (generally in summer), and recharge to lakes from the spring snowmelt.
- c. Oil and gas exploration activities will avoid alteration (e.g., damage or disturbance of soils, vegetation, or surface hydrology) of critical goose-feeding habitat types along lakeshore margins (grass/sedge/moss), as identified by the AO in consultation with the USFWS.

Requirement/Standard (Development): In the Goose Molting Area, the following standards will be followed for permitted activities:

- a. Within the Goose Molting Area from June 15 through August 20, all off-pad activities and major construction activities using heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended (see also Lease Stipulation K-5-d), unless approved by the AO in consultation with the appropriate Federal, State, and NSB regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb molting geese during the period when geese are present.
- b. Water extraction from any lakes used by molting geese shall not alter hydrological conditions that could adversely affect identified goose-feeding habitat along lakeshore margins. Considerations will be given to seasonal use by operators (generally in winter) and geese (generally in summer), and recharge to lakes from the spring snowmelt.
- c. Oil and gas activities will avoid altering (i.e., damage or disturbance of soils, vegetation, or surface hydrology) critical goose-feeding habitat types along lakeshore margins (grass/sedge/moss).

- d. Permanent oil and gas facilities (including gravel roads, pads, and airstrips, but excluding pipelines) and material sites will be sited outside the identified buffers and NSO areas. Additional limits on development footprint apply; (also see Lease Stipulation K-11.)
- e. Between June 15 and August, 20 within the Goose Molting Area, oil and gas facilities shall incorporate features (e.g., temporary fences, siting/orientation) that screen/shield human activity from view of any Goose Molting Area lake, as identified by the AO in consultation with appropriate Federal, State, and NSB regulatory and resource agencies.
- f. Strategies to minimize ground traffic shall be implemented from June 15 through August 20. These strategies may include limiting trips, use of convoys, different vehicle types, etc. to the extent practicable. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the AO if resulting disturbance is determined to be unacceptable.
- g. Within the Goose Molting Area, between June 15 and August 20, aircraft use (including fixed wing and helicopter) shall be restricted from June 15 through August 20 unless doing so endangers human life or violates safe flying practices. Restrictions may include: 1) limiting flights to two round-trips/week, and 2) limiting flights to corridors established by the BLM after discussions with appropriate Federal, State, and NSB regulatory and resource agencies. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the AO if resulting disturbance is determined to be unacceptable. Note: This site-specific lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of this lease stipulation. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.
- h. Any permit for development issued under this IAP/EIS will include a requirement for the lessee to conduct monitoring studies necessary to adequately determine consequences of development and any need for change to mitigations. Monitoring studies will be site- and development-specific within a set of over-arching guidelines developed by the BLM in conjunction with appropriate Federal, State, NSB, and NSSI representatives. The study(s) will include the construction period and will continue for a minimum of 3 years after construction has been completed and production has begun. The monitoring studies will be a continuation of evaluating the effectiveness of the K-4 Lease Stipulation requirements in meeting the objective of K-4 and determine if any changes to the lease stipulation or any project specific mitigation(s) are necessary. If changes are determined to be necessary, the BLM, with the lessee and/or their representative, will conduct an assessment of the feasibility of altering development operation (e.g. reduced human activity, visibility barriers, noise abatement). Any changes determined necessary will be implemented prior to authorization of any new construction.

*K-5 Lease Stipulation - Teshekpuk Lake Caribou Habitat Area (TLCHA)*

Objective: Minimize disturbance and impacts to caribou, or alteration of caribou movements through portions the TLCHA that are essential for all season use, including calving and rearing, insect-relief, and migration.

Requirement/Standard: In the TLCHA the following standards will be applied to permitted activities:

- a. Before authorization of construction of permanent facilities (outside NSO areas established in other lease stipulations), the lessee shall design and implement and report a study of caribou movement unless an acceptable study(s) specific to the Teshekpuk Lake Caribou Herd (TLCH) has been completed within the last 10 years. The study shall include a minimum of four years of current data on the TLCH movements and the study design shall be approved by the AO in consultation with the appropriate Federal, State, and NSB wildlife and resource agencies. The study should provide information necessary to determine facility (including pipeline) design and location. Lessees may submit individual study proposals or they may combine with other lessees in the area to do a single, joint study for the entire TLCHA. Study data may be gathered

- concurrently with other activities as approved by the AO and in consultation with the appropriate Federal, State, and NSB wildlife and resource agencies. A final report of the study results will be prepared and submitted. Prior to the permitting of a pipeline in the TLCHA, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife (specifically the TLCH) and subsistence resources. The workshop participants will include but will not be limited to Federal, State, and NSB representatives. All of these modifications will increase protection for caribou and other wildlife that utilize the TLCHA during all seasons.
- b. Within the TLCHA, lessees shall orient linear corridors when laying out oil field developments to the extent practicable, to address migration and corralling effects and to avoid loops of road and/or pipeline that connect facilities.
  - c. Ramps over pipelines, buried pipelines, or pipelines buried under the road may be required by the AO, after consultation with appropriate Federal, State, and NSB regulatory and resource agencies, in the TLCHA where pipelines potentially impede caribou movement.
  - d. Major construction activities using heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended within TLCHA from May 20 through August 20, unless approved by the AO in consultation with the appropriate Federal, State, and NSB regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb caribou during calving and insect-relief periods. If caribou arrive on the calving grounds prior to May 20, major construction activities will be suspended. The lessee shall submit with the development proposal a “stop work” plan that considers this and any other mitigation related to caribou early arrival. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.
  - e. The following ground and air traffic restrictions shall apply to permanent oil and gas-related roads in the areas and time periods indicated:
    1. Within the TLCHA, from May 20 through August 20, traffic speed shall not exceed 15 miles per hour when caribou are within ½ mile of the road. Additional strategies may include limiting trips, using convoys, using different vehicle types, etc., to the extent practicable. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the AO if resulting disturbance is determined to be unacceptable.
    2. The lessee or a contractor shall observe caribou movement from May 20 through August 20, or earlier if caribou are present prior to May 20. Based on these observations, traffic will be stopped temporarily to allow a crossing by 10 or more caribou. Sections of road will be evacuated whenever an attempted crossing by a large number of caribou appears to imminent. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the AO if resulting disturbance is determined to be unacceptable.
    3. Major equipment, materials, and supplies to be used at oil and gas work sites in the TLCHA shall be stockpiled prior to or after the period of May 20 through August 20 to minimize road traffic during that period.
    4. Use of aircraft larger than a Twin Otter by authorized users of the Planning Area, including oil and gas lessees, from May 20 through August 20 within the TLCHA, shall be for emergency purposes only. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the AO if resulting disturbance is determined to be unacceptable. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of this lease stipulation. However, flights necessary to gain this information will be restricted to the minimum necessary to collect such data.

5. Fixed-wing aircraft takeoffs and landings by authorized users of the Planning Area shall be limited to an average of one round-trip flight per day from May 20 through June 20, at aircraft facilities within the TLCHAs. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the AO if resulting disturbance is determined to be unacceptable.
6. Aircraft shall maintain a minimum height of 1,000 feet AGL (except for takeoffs and landings) over caribou winter ranges from December 1 through May 1, and 2,000 feet AGL over the TLCHA from May 20 through August 20, unless doing so endangers human life or violates safe flying practices. Caribou wintering ranges will be defined annually by the AO in consultation with the Alaska Department of Fish and Game.

*K-6 Lease Stipulation - Coastal Area*

Objective: Minimize hindrance or alteration of caribou movement within caribou coastal insect-relief areas; to prevent contamination of marine waters; loss of important bird habitat; alteration or disturbance of shoreline marshes; and impacts to subsistence resources activities.

Requirement/Standard: In the Coastal Area, permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines established to support exploration and development activities shall be located at least  $\frac{3}{4}$  mile inland from the coastline to the extent practicable. Where, as a result of technological limitations, economics, logistics, or other factors, a facility must be located within  $\frac{3}{4}$  mile inland of the coastline, the practicality of locating the facility at previously occupied sites such as Camp Lonely, various Husky/USGS drill sites, and Distant Early Warning (DEW)-Line sites, shall be considered. Use of existing sites within  $\frac{3}{4}$  mile of the coastline shall also be acceptable where it is demonstrated that use of such sites will reduce impacts to shorelines or otherwise be environmentally preferable. All lessees/permittees involved in activities in the immediate area must coordinate use of these new or existing sites with all other prospective users. Before conducting open water activities, the lessee shall consult with the Alaska Eskimo Whaling Commission, the Nuiqsut Whaling Association, Barrow Whaling Captains Association, and the NSB to minimize impacts to the fall and spring subsistence whaling activities of the communities of the North Slope.

*K-7 Lease Stipulation - Colville River Special Area (CRSA)*

Objective: Prevent or minimize loss of raptor foraging habitat (also see Lease Stipulation K-1; Rivers Area).

Requirement/Standard for Permanent Facilities: If necessary to construct permanent facilities within the CRSA, all reasonable and practicable efforts shall be made to locate permanent facilities as far from raptor nests as feasible. Within 15 miles of raptor nest sites, significant alteration of high quality foraging habitat shall be prohibited unless the lessee can demonstrate on a site-specific basis that impacts will be minimal or it is determined that there is no feasible or prudent alternative. Of particular concern are ponds, lakes, wetlands, and riparian habitats. Note: On a case-by-case basis, and in consultation with appropriate Federal and State regulatory and resource agencies, essential pipeline and road crossings will be permitted through these areas where no other feasible or prudent options are available.

Requirement/Standard for Activities: Restriction applies to overland moves, seismic work, and any similar use of heavy equipment (other than actual excavations as part of construction) on tundra surfaces.

*K-8 Lease Stipulation- Pik Dunes (identified in Section 2.2.1.8; Pik Dunes)*

Objective: Retain unique qualities of the Pik Dunes, including geologic and scenic uniqueness, insect-relief habitat for caribou, and habitat for several uncommon plant species.

Requirement/Standard: Surface structures, except approximately perpendicular pipeline crossings and ice pads, are prohibited within the Pik Dunes.

*K-9 Lease Stipulation – Caribou Movement Corridors*

Objective: Minimize disturbance and impacts to caribou, or alteration of caribou movements (that are essential for all season use, including calving and rearing, insect-relief, and migration) in the 1.) area extending from

the eastern shore of Teshekpuk Lake eastward to the Kogru Inlet and 2.) the area adjacent to the northwest corner of Teshekpuk Lake.

Requirement/Standard: Within the Caribou Movement Corridors, no permanent oil and gas facilities, except for pipelines, will be allowed on the approximately 54,700 (approximately 45,000 acres east of Teshekpuk Lake, and approximately 9,700 acres northwest of Teshekpuk Lake) illustrated on Map 1. Prior to the permitting of a pipeline in the Caribou Movement Corridors, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to Federal, State, and NSB representatives. Note: In addition to the general lease stipulations and ROPs, site-specific lease stipulations, i.e. K-3, K-4, K-5, and K-11 will also apply.

*K-10 Lease Stipulation – Southern Caribou Calving Areas*

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou movements (that are essential for all season use, including calving and post calving, and insect-relief) in the area south/southeast of Teshekpuk Lake.

Requirement/Standard: Within the Southern Caribou Calving Areas, no permanent oil and gas facilities, excluding pipelines, will be allowed on the approximately 233,000 acres illustrated on Map 1. Note: In addition to the general lease stipulations and ROPs, site specific lease stipulations K-4, K-5, K-6, and K-11 will also apply.

*K-11 Lease Stipulation: GMA Lease Tracts A-G*

Objective: To protect key surface resources and subsistence resources/activities resulting from permanent oil and gas development and associated activities.

Requirement/Standard: Surface disturbance is limited to 300 acres within the following described lease tracts (Map 1); this does not include surface disturbance activities from pipeline construction (No Exceptions). A pipeline will be considered after a workshop is convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to Federal, State, and NSB representatives.

(Acreages are based on GIS calculations and are approximate)

A. Total Acreage: 59,134:

- 17,745 acres = NSO for Permanent Oil and Gas facilities excluding pipelines (the 17,745 acres does not include 5,605 acres of overlap from Coastal NSO).
- 41,389 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.5 % of total acreage) within the 41,389 acres available for surface occupancy.

B. Total Acreage: 49,250:

- 28,347 acres = NSO for Permanent Oil and Gas facilities, excluding pipelines (the 28,347 acres does not include 5,131 acres of overlap from Coastal NSO).
- 20,903 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.6 % of total acreage) within the 20,903 acres available for surface occupancy.

C. Total Acreage: 46,085:

- 27,686 acres = NSO for Permanent Oil and Gas facilities, excluding pipelines (the 27,686 acres does not include 4,772 acres of overlap from Coastal NSO).
- 18,399 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.7 % of total acreage) within the 18,398 acres available for surface occupancy.

D. Total Acreage: 53,297:

- 39,531 acres = NSO for Permanent Oil and Gas facilities excluding pipelines (the 39,531 acres does not include 6,076 acres of overlap from Coastal NSO).
- 13,766 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.5% of total acreage) within the 13,766 acres available for surface occupancy.

E. Total Acreage: 51,388:

- 27,010 acres = NSO for Permanent Oil and Gas facilities, excluding pipelines.
- 24,378 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.6% of total acreage) within the 24,378 acres available for surface occupancy.

F. Total Acreage: 56,505:

- 41,116 acres = NSO for Permanent Oil and Gas facilities, excluding pipelines.
- 4,898 acres = Restricted area open to development subject to the results of 3 year study requirement to determine appropriate placement of permanent facility(s) (Map 1A in Appendix C.)
- 10,491 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.5 % of total acreage) within the 15,389 acres available for surface occupancy (restricted or non-restricted.)

G. Total Acreage: 56,796:

- 37,305 acres = NSO for Permanent Oil and Gas facilities excluding pipelines
- 334 acres = Restricted area open to development subject to the results of 3 year study requirement to determine appropriate placement of permanent facility(s) (Map 1A in Appendix C.)
- 19,157 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total development footprint cannot exceed 300 acres (0.5 % of total acreage) within the 19,491 acres available for surface occupancy (restricted or non-restricted.)

# APPENDIX C

## MAPS