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Appendix A: Standard Oil and Gas Lease Terms, Oil and Gas Lease Stipulations, and Required Operating Procedures

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Appendix A: Standard Oil and Gas Lease Terms, Oil and Gas Lease Stipulations, and Required Operating Procedures

A. Introduction

The Alaska Statewide Land Health Standards (AK LHS) were developed by the BLM Resource Advisory Council and signed by the State Director on March 2, 2004 (I.M. AK 2004-023). These offer guidance in achieving plan objectives, meeting the standards, and fulfilling the fundamentals of land health. Guidelines are applied in accordance with the capabilities of the resource in consultation, cooperation, and coordination with permittees or lessees, public land users, and the interested public. Guidelines enable managers to adjust management on public lands to meet current and anticipated climatic and biological conditions, while considering cultural and local economic needs. The general guidelines under the AK LHS were used to develop the objectives in the following sections.

There are many Federal, State, and local laws, regulations and permitting requirements that must be met before activities may occur. Some requirements would be placed directly on the applicant. Others would be required of Federal agencies prior to granting authorizations. In developing these stipulations and required operating procedures (ROP), BLM has tried not to include requirements that already exist in the form of regulation or law. Laws or regulations may require other Federal, State, and local permits (e.g., Clean Water Act Section 404) for a project to proceed. Specific State permits are 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 BLM could include permit conditions that are more stringent than those presented below.

An oil and gas lease does not in itself authorize any on-the-ground activity. Seismic operations, drilling, ice road construction, pipeline construction, etc. require additional land use authorizations. Any applicant requesting such authorization will have to address the required operating procedures either before submitting the application or as part of the application proposal. Requirements that are met prior to submission of the application, as well as procedures, practices, and design features that are an integral part of a proposal, do not need to be stipulated in a permit or lease. Because ROPs will be identified in the Record of Decision (ROD) as operational requirements, not as lease stipulations, their applicability goes beyond the oil and gas lease to any permitted activity where the requirement is relevant.

1. Standard Oil and Gas Lease Terms

*This section was moved from section 3 to section 1 with minor wording changes in the first paragraph and deletion of the second original paragraph.

The Standard Lease Terms are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, October 1992 or later addition (BLM 1992). Form 3100-11 is standard nationwide and is applied to every lease issued under the Mineral Leasing Act by the BLM. The Standard Lease Terms provide the lessee the right to use the leased land as needed to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands. The Standard Lease Terms also require that operations be conducted in a manner that minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users. Federal environmental protection laws such as the Clean Water Act, Endangered Species Act, and Historic Preservation Act will be applied to all lands and operations and are included in the Standard Lease Terms. If threatened or endangered species; objects of historic, cultural, or scientific value; or substantial unanticipated environmental effects are encountered during construction, all work affecting the resource will stop, and the land management agency will be contacted.

2. Oil and Gas Leasing Stipulations

Stipulations are specific to oil and gas exploration, development, and production and are included in a lease offer in addition to the standard lease terms. They constitute significant restrictions on the conduct of operations under a lease. For example, a stipulation that does not allow permanent facilities within one-fourth mile of a bird nest could result in a well being located far enough from the (lessee's) optimum site to prevent an oil reservoir from being fully developed. Such restrictions must be attached to the lease. As part of a lease contract, lease stipulations are specific to the lease. All oil and gas activity permits subsequently issued to a lessee would include, as a condition of approval, lease stipulations appropriate to the activity under review.

The following stipulations were adapted from oil and gas leasing stipulations developed for the National Petroleum Reserve-Alaska (NPR-A). For example, a NPR-A stipulation designed to protect caribou from the Teshekpuk Lake Herd was modified to fit the parameters of the Western Arctic Caribou Herd within the planning area. Additional stipulations were developed by an interdisciplinary team of BLM resource specialists. Some stipulations were changed based on public or internal comment on the Draft RMP/EIS.

The Authorized Officer (AO) may add additional conditions of approval to a specific proposal if determined necessary through further NEPA analysis and as developed through consultation with other Federal and State regulatory and resource agencies. Laws or regulations may require other Federal, State, and local government permits for an oil and gas project to proceed. Specific State permits are required when the State has authority, under federal or State law or regulation, to enforce the provisions in question. Specific permits issued by Federal agencies other than BLM may include permit conditions that are more stringent than those included in this appendix.

Compliance with stipulations is monitored by the AO or their representative. Non-compliance is documented in an Incident of Non-Compliance. Based on the nature of the non-compliance, a time-frame may be established to correct the problem. If it is not corrected, the AO has the discretion on penalties, dependant upon the nature of the problem. Non-compliance can result in monetary fines or operation shut-down.

Surface stipulations could be excepted, modified, or waived by the AO (refer to 43 CFR 3101.1-4). An *exception* exempts the holder of the land use authorization document from the stipulation on a one-time basis. A *modification* changes the language or provisions of a surface stipulation, either temporarily or for the term of the lease. A *waiver* permanently exempts the surface stipulation. A stipulation included in an oil and gas lease shall be subject to modification or waiver only if the AO determines that the factors leading to its inclusion in the lease have changed sufficiently to make the protection provided by the stipulation no longer justified or if proposed operations would not cause unacceptable impacts. If the AO has determined, prior to lease issuance, that the stipulation involves an issue of major concern to the public, modification or waiver shall be subject to public review for at least a 30-day period. In such cases, the stipulation shall indicate that public review is required before modification or waiver. If subsequent to lease issuance the AO determines that a modification or waiver of a lease stipulation is substantial, the modification or waiver shall be subject to public review for at least a 30-day period.

The environmental analysis document prepared for oil and gas development (e.g., Applications for Permit to Drill [APDs] or sundry notices) would address proposals to exempt, modify, or waive a surface stipulation. To exempt, modify, or waive a stipulation, the environmental analysis document would need to show that: 1) the circumstances or relative resource values in the area had changed following issuance of the lease; or 2) less restrictive requirements could be developed to protect the resource of concern; or 3) operations could be conducted without causing unacceptable impacts; or 4) the resource value of concern does not occur within the lease area.

3. Required Operating Procedures

*This section is moved from Section 1 to Section 3 and reworded, has additional text added, and deletes several blocks of text.

Required operating procedures (ROP) are requirements that BLM will impose as necessary, to achieve stated resource management objectives. ROPs are common to all action alternatives and will be considered for all permitted activities including FLPMA leases and permits, Special Recreation Permits, oil and gas operations, coal exploration, mining Plans of Operation, and Right-of-Way authorizations. ROPs are considered during the site-specific analysis that occurs during activity level planning and if adopted, will be applied as conditions of approval to land use authorizations and permits. ROPs are not selected as a condition of the permitted activities if the applicant has included them as part of the proposal or has identified an alternative, such as adoption of best management practice (BMP) to meet stated resource management objectives. Applicants are encouraged to consider alternative methods, best management practices, and/or design features that BLM can consider during the permitting process. If an applicant does not include alternatives for agency consideration, the ROPs identified below will be used when considering approval of a proposed activity.

ROPs have been developed to ensure that the AK LHS are met in carrying out permitted activities and management practices. These ROPs were based on the best information available during development of the RMP/EIS. As the interdisciplinary team of BLM resource specialists evaluated potential required operating procedures, they reviewed guidelines developed by the USFWS or other Federal agencies. They also considered ROPs from the

Northwest National Petroleum Reserve-Alaska Integrated Activity Plan/EIS. ROPs were adapted and modified to fit the situation in the planning area. Finally, some of the ROPs were modified based on public and internal comment on the Draft RMP/EIS. ROPs will continue to evolve as better resource information is gained and/or changes in technology become available. ROPs may be modified as appropriate during the NEPA and permitting process to fit site specific conditions.

The AO or his/her representative is responsible for seeing that the permittee complies with the conditions of the permit. Non-compliance will be documented and a notice will be sent to the permittee, along with corrective actions and a time frame in which the actions are to be completed.

B. Required Operating Procedures

1. Soils

a) Objective Soils-1

Minimize soil erosion by stabilizing disturbed areas as soon as possible. Where permitted operations result in surface disturbance, return land to its pre-disturbance condition to the extent possible.

Required Operating Procedures

ROP Soils-1a All topsoil will be saved in a separate area from overburden for future use.

ROP Soils-1b All overburden will be stockpiled and saved for respreading over tailings.

ROP Soils-1c All overburden piles will be shaped and stabilized to prevent erosion.

ROP Soils-1d Final shape of respread tailing and overburden will approximate the shape of the surrounding terrain.

ROP Soils-1e Disturbed stream banks will be recontoured, revegetated, or other protective measures will be taken to prevent soil erosion into adjacent waters.

ROP Soils 1-f Roads, well pads, and other disturbed areas will be recontoured and revegetated as per an approved reclamation plan or Plan of Operations. Revegetation will occur through seeding of native seed or by providing for soil conditions that allow the site to re-vegetate naturally, whichever provides the most effective means of reestablishing ground cover and minimizing erosion. The final land surface will be scarified to provide seed traps and erosion control.

ROP Soils 1-g Surface disturbing proposals involving construction on slopes greater than 25% will include an approved erosion control strategy, topsoil segregation/restoration plan, be properly surveyed and designed by a certified engineer and approved by the BLM prior to construction and maintenance**.**
**This was previously oil and gas leasing stip 8.*

b) Objective Soils-2

Engineer, construct, and maintain roads and trails in a manner that minimizes the effect on landscape hydrology; concentration of overland water flow, subsurface water flows; minimizes erosion, and minimizes sediment transport.

Required Operating Procedures

ROP Soils-2a Roadways will be ditched on uphill side and culverts or low water crossings installed at suitable intervals. Spacing of drainage devices and water bars will be dependent on road gradient and soil erodibility.

ROP Soils-2b Roads will be designed for minimal disruption of natural drainage patterns.

ROP Soils-2c Roads will be designed to avoid areas with unstable or fragile soils.

ROP Soils-2d Water bars will be placed across reclaimed roads. Spacing will be dependent on road gradient and soil erodibility as shown in the following table.

Table A-1. Recommended Water Bar Spacing

Water Bar Spacing (in feet)			
Gradients (%)	**Erosion Class**		
	High	**Moderate**	**Low**
3-5	200	300	400
6-10	150	200	300
11-15	100	150	200
16-20	75	100	150
21-35	50	75	100
36+	50	50	50

Spacing is determined by slope distance and is the maximum allowed for the grade.

2. Vegetation

a) Objective Veg-1

Treatments to alter the vegetative composition of a site, such as prescribed burning, seeding, or planting will be based on the potential of the site and will: retain or promote infiltration, permeability, and soil moisture storage; contribute to nutrient cycling and energy flow; protect water quality; help prevent the introduction and spread of noxious weeds; contribute to the diversity of plant communities, and plant community composition and structure; and support the conservation of threatened and endangered species, other special status species, and species of local importance.

Required Operating Procedures

ROP Veg-1a Vegetation treatments will be designed to achieve desired conditions clearly described in individual burn, project, or activity plans. Desired conditions will be based on the ecological capability of a given site and will be expressed as cover types or seral stages within cover types, based on management objectives.

ROP Veg-1b Vegetation treatments will be designed to prevent introduction of noxious and invasive weeds. Project, burn, or activity plans will contain a segment on known occurrence of noxious weeds within planned treatment area and strategy for post-burn monitoring or treatment.

ROP Veg-1c Seeding and planting non-native vegetation may be used in those cases where native species are not available in sufficient quantities; where native species are incapable of maintaining or achieving the objective; or where non-native species are essential to the functional integrity of the site, with specific approval from the AO.

ROP Veg-1d In order to eliminate, minimize, or limit the spread of noxious and invasive weeds, only certified feed and mulch (hay cubes, hay pellets, straw, etc,) will be permitted on BLM lands.

ROP Veg-1e Operators must prevent and control noxious and invasive weed infestations. Noxious weeds in Alaska are listed under Alaska Statute 11 AAC 34.020 or other statewide lists that may be developed in the future.

b) Objective Veg-2

Minimize disturbance to vegetative resources from permitted activities.

Required Operating Procedures

ROP Veg-2a Where feasible, existing roads and trails will be utilized.

ROP Veg-2b Bull-dozing of tundra mat and vegetation is prohibited unless there is no feasible alternative (e.g. lode mining), as approved by the AO. If trenching is required, use equipment that minimizes trench width. Clearing of drifted snow is allowed to the extent that the tundra mat is not disturbed.

ROP Veg-2c Location of winter trails will be designed to minimize breakage or compaction of vegetation.

ROP Veg-2d The location of winter ice roads will 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.

ROP Veg-2e Whenever possible, overland moves that are a part of permitted operations will occur when frost and snow cover is sufficient to minimize soil disturbance and compaction. The exact dates will be determined by the AO.

ROP Veg-2f When ground operations are required in snow-free months, routes that utilize naturally hardened sites will be selected to avoid the need for trail braiding. The permittee will work with the AO on specifying vehicle types and methods to minimize vegetation and soil disturbance, such as use of air or water craft, utilizing existing roads or trails, or use of low ground pressure vehicles.

ROP Veg-2g Permanent oil and gas facilities will be designed and located to minimize the development footprint.

ROP Veg-2h Off-highway Vehicle use associated with permitted activities will comply with OHV designations in the area. The use of OHVs associated with permitted activities will be allowed under appropriate stipulations as approved by the AO.

ROP Veg-2i Permitted livestock grazing will be conducted in a manner that maintains long term productivity of vegetation. Animals will not be picketed in riparian areas. In areas of low grass production, operators will pack in weed-free hay or concentrated feed.

ROP Veg-2j Require Special Recreation Permit holders, reindeer herders, dog mushers, and other BLM permit holders to use certified weed-free products on BLM lands.

3. Water, Riparian, and Wetlands

a) Objective Water-1

Manage human use to achieve and maintain water quality standards and avoid waste management problems and water quality impacts.

Required Operating Procedures

ROP Water-1a Projects will be designed to protect water quality and comply with Federal and State water quality standards.

ROP Water-1b Management practices will include public education and construction of toilet facilities where appropriate.

b) Objective Water-2

Land management practices will be directed to avoid or minimize adverse impacts upon the hydrological, habitat, subsistence, and recreational values of public wetlands.

Required Operating Procedures

ROP Water-2a Activities in wetlands will comply with Federal and State permit requirements for alteration of wetlands.

ROP Water-2b Utilize winter access whenever possible and avoid road or trail construction in wetlands.

ROP Water-2c In snow-free months, if wetlands cannot be avoided, low ground pressure vehicles will be used wherever possible.

c) Objective Water-3

Minimize disturbance to riparian areas and facilitate rehabilitation of riparian areas.

Required Operating Procedures

ROP Water-3a Streams must be diverted around mining operations using an appropriately sized bypass channel.

ROP Water-3b All process water and ground water seeping into the operating area must be diverted into the settling pond system for treatment prior to re-entering the natural water system.

ROP Water-3c Settling ponds will be cleaned out and maintained at appropriate intervals to comply with water quality standards. Fine sediment captured in the settling ponds will be protected from washout and left in a stable condition at the end of each mining season to prevent unnecessary or undue degradation to the environment during periods of non-operation.

ROP Water-3d Riparian areas between the mined ore deposit and the watercourse will be maintained in order to serve as a buffer strip between mining operations and watercourses: to protect integrity of stream banks, provide water temperature control, and for filtration of sediment from surface run-off. All roads, bunkhouses, offices, equipment storage, and maintenance facilities should be sited in upland areas. Overburden should be placed on the uplands or on the upland side of the mine pit. This is not intended to preclude activities which by nature must occur within riparian areas, such as placer mining.

ROP Water-3e Streams that have been altered by channeling, diversion, or damming will be restored to a condition that will allow for proper functioning of the riparian zone and stream channels. Active streams will be returned to the natural water course or a new channel will be created at its lowest energy state (valley bottom) that approximates the old natural channel in shape, gradient, and meander frequency using a stable channel design. The new channel will be designed consistent with the capabilities of the reclaimed site.

ROP Water-3f Riparian vegetation, if removed during operations, will be re-established.

ROP Water-3g The value of prime riparian habitat will be considered for protection and mitigation during development of any mineral resources that may impact riparian resources.

d) Objective Water-4

To the extent feasible and prudent, channeling, diversion, or damming that will alter the natural hydrological conditions and have a significant adverse impact upon riparian habitat will be avoided.

Required Operating Procedures

ROP Water-4a All permitted operations will be conducted in such a manner as not to block any stream, or drainage system and to comply with State (Alaska Dept. of Environmental Conservation) and Federal (Environmental Protection Agency) water quality standards. This is not intended to preclude activities which by nature must occur within riparian areas, such as hydropower dams or placer mining.

ROP Water-4b New road construction within floodplains will be avoided. Where necessary, roads will cross riparian areas perpendicular to the main channel.

e) Objective Water-5

Provide for maintenance of proper functioning condition in riparian areas and protection of water quality by minimizing impacts of other permitted activities and vegetation treatments.

Required Operating Procedures

ROP Water-5a Structural and vegetative treatment in riparian and wetland areas will be compatible with the capability of the site, including the system's hydrologic regime, and will contribute to maintenance or restoration of proper functioning condition.

ROP Water-5b Refueling of equipment will not be conducted in riparian areas or within 500 feet of the active floodplain of any fish-bearing waterbody or within 100 feet from non-fish bearing waterbodies. The AO may allow storage and operations at areas closer than the stated distance if properly designed to account for local hydrologic conditions. Spill cleanup equipment will be available at all permitted sites.

ROP Water-5c Crossing of waterway courses will be made using a low-angle (perpendicular) approach. Snow and ice bridges will be removed, breached, or slotted before spring break-up. Ramps and bridges will be substantially free of soil and debris.

ROP Water-5d New structures will be located away from riparian or wetland areas if they conflict with achieving or maintaining riparian or wetland function. Existing structures will be used in a way that does not conflict with riparian or wetland functions or be relocated or modified when incompatible.

ROP Water-5e The design and location of permanent oil and gas facilities within 500 feet of fish-bearing waterbodies or within 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.
**This was previously oil and gas leasing stip 2.*

e) Objective Water-6

Preserve sufficient water quantity to support beneficial uses.

Required Operating Procedures

ROP Water-6a Projects requiring withdrawal of water will be designed to maintain sufficient quantities of surface water, and contributing groundwater, to support fish and wildlife and other beneficial uses.

4. Special Status Species

a) Objective Special Status Species-1

Fish, wildlife, sensitive plants, and habitat will be managed to ensure compliance with the Endangered Species Act (ESA) and to ensure progress towards recovery of listed threatened or endangered species.

Required Operating Procedures

ROP SS-1a The planning area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status. BLM may recommend modifications to proposals to further its policy of avoiding BLM-approved activity that will contribute to a need to list such a species. BLM may either require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed, threatened, or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. 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 ESA as amended, 16 U.S.C. 1531 et seq., including completion of any required procedure for conference or consultation.

ROP SS-1b Within the breeding range of Spectacled eiders, habitat in the project area will be assessed to determine if eiders are likely to use the area for nesting or brood rearing. The following activities will be prohibited within 650 feet (200 meters) of spectacled eider nest sites. 1) Ground level activity (by foot or vehicle) from May 20 through August 1, 2) Construction of permanent facilities, placement of fill, or alteration of habitat, and 3) Introduction of high noise levels within 200 meters of nest sites (from activities at potentially greater distances), May 20 through August 1. These may include but are not limited to: airports, blasting, and compressor stations.

ROP SS-1c Within the breeding range of Kittlitz's murrelet, habitat in the project area will be assessed to determine if murrelet's are likely to use the area for nesting. If nests are found, minimize ground-level disturbance and activity within identified areas of suitable habitat during June–August.

ROP SS-1d Where practical, use will be redirected, as necessary, to protect Federal and State listed and candidate Threatened and Endangered species habitat, to enhance indigenous animal population, and to otherwise maintain public land health through avoidance of sensitive habitat.

ROP SS-1e Where populations or individual sensitive status plant species are located, take measures to protect these populations or individuals through site-specific buffers or management prescriptions.

b) Objective Special Status Species-2

Minimize the take of species listed under the ESA and minimize the disturbance of other species of interest from direct or indirect interaction with large mining facilities or oil and gas development.

Required Operating Procedures

ROP SS-2a In accordance with the guidance below, before the approval of facility construction, aerial surveys of breeding pairs of the following species shall be conducted within any area proposed for development within the breeding range of these species.

Spectacled and/or Steller's Eiders
(a) Surveys will be conducted by the lessee for at least three years before authorization of construction, if such construction is within the FWS North Slope Eider survey area, and at least one year outside that area. Results of aerial surveys and habitat mapping may require additional ground nest surveys. Spectacled and/or Steller's eider surveys will 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 will consult with the FWS 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 will 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 from striking above-ground utility lines (power and communication), such lines will either be buried in access roads, or suspended on vertical support members, to the extend practical. Support wires associated with communication towers, radio antennas, and other similar facilities, will be clearly marked along their entire length to improve visibility for low flying birds. Such markings will be jointly developed through consultation with FWS.

Yellow-billed Loon
a) Aerial surveys will be conducted by before authorization of construction of facilities proposed for development that are within 1 mile of a lake 25 acres or larger in size. These surveys along shorelines of large lakes will 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 would be prohibited within buffers.

c) Objective Special Status Species-3

Use ecological mapping as a tool to assess wildlife habitat before development of permanent facilities associated with oil and gas, coal, coal-bed methane or other large mineral developments, to conserve important habitat types, including wetlands, during development.

Required Operating Procedures

ROP SS-3a An ecological land classification map of the development area will 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 analyses of development alternatives. The map will be prepared in time to plan one season of ground-based wildlife surveys, if deemed necessary by the AO, before approval of exact facility location and facility construction.

d) Objective Special Status Species-4

Protect, maintain, and preserve aquatic ecosystems within lakes with known resident and genetically isolated Arctic char in the Kigluaik Mountains (Map 3-14). This ROP would apply under Alternative D only.

Required Operating Procedures

ROP SS-4a All ore processing (mill sites, tailings piles, containment ponds, etc.) must occur outside of watersheds that drain into these lakes.

ROP SS-4b All surface water discharge and drainage from mining operations must be re-directed outside of watersheds that drain into these lakes.

ROP SS-4c All chemicals including fuels will be stored outside of watersheds that drain into these lakes.

ROP SS-4d A person, claimant, operator, applicant or other proponent proposing to use or develop the lands, waters or resources within watersheds that drain into these lakes must demonstrate to the satisfaction of the AO that such use or development will not modify the lakes or their watersheds in such a way that it results in adversely: altering the hydrological, chemical, physical or biological integrity of the lakes; or impacting or diminishing the habitat quantity and quality of the aquatic and riparian ecosystems and watershed functions so that fish populations of the lakes are reduced below their natural potential.

5. *Fish and Wildlife*

a) Objective Fish and Wildlife-1

Avoid human-caused increases in populations of predators of ground nesting birds.

Required Operating Procedures

ROP FW-1a The best available technology will be used to prevent permanent facilities from providing nesting, denning, or shelter sites for ravens, raptors, and foxes in areas where ground nesting populations are sensitive to increased predation.

b) Objective Fish and Wildlife-2

Maintain and protect fish and wildlife habitat on public lands and provide for the habitat needs of fish and wildlife resources necessary to maintain or enhance such populations.

Required Operating Procedures

ROP FW-2a No road crossings will be permitted in crucial spawning habitat, unless no feasible alternative exists and it can be demonstrated that no adverse effects will occur. State designated stream crossings will be used whenever possible.

ROP FW-2b Vehicular travel up and down streambeds, except by boat, is prohibited during the open water season (May-September).

ROP FW-2c Rivers and streams will be crossed at shallow riffles from point bar to point bar whenever possible.

ROP FW-2d Avoid stream crossings. When a stream must be crossed, the crossing will be as close to possible to a 90-degree angle to the stream. Stream crossings will be made at stable sections in the stream channel.

ROP FW-2e Stream and marsh crossings will be designed and constructed to ensure free passage of fish, maintain natural drainage, and minimal 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.

ROP FW-2f All water intakes will be screened and designed to prevent fish intake.

ROP FW-2g Drilling is prohibited in fish-bearing rivers and streams, as determined by the active floodplain, and fish-bearing lakes, except where the lessee can demonstrate on a site-specific basis that impacts would be minimal or it is determined that there is no feasible or prudent alternative.

c) Objective Fish and Wildlife-3

Avoid heavy concentration of activities in sensitive fish, wildlife, and plant habitats.

Required Operating Procedures

ROP FW-3a Within the WAH caribou calving and insect relief areas (Map 3-12), mineral exploration activities will not be authorized from May 20-August 15 unless the AO determines that caribou no longer occupy the specific area of the proposed operations. This seasonal restriction can also be modified based on actual caribou occupancy of area.

ROP FW-3b Whenever possible, operations that require vegetation removal will avoid the migratory bird-nesting period of May 1 to July 15 (Area specific dates: May 20-July 20 for Seward Pen; June 1-July 31 for Northern region; and May 1-July 15 for interior). If no feasible alternatives exist, assessment will be conducted to determine bird species present, significance of potential impacts, and possible mitigation measures (FWS Advisory: Recommended Time Periods for Avoiding Vegetation Clearing in Alaska to Protect Migratory Birds. September 2005.).

ROP FW-3c Within defined WAH caribou calving areas, the following uses will not be permitted during peak calving (May 20-June 20): 1) surface disturbing activities; 2) FLPMA leases or permits that exceed 14 days of activity; and 3) mining exploration. Aircraft associated with permitted activities will maintain an altitude of at least 2,000 feet above ground level (AGL) (except for takeoffs and landings), unless doing so would endanger human life or violate safe flying practices. This ROP would not apply to Alternative B.

ROP FW-3d Within defined WAH insect relief areas, aircraft associated with permitted activities will maintain an altitude of at least 2,000 feet AGL (except for takeoffs and landings) from June 20-August 15, unless doing so would endanger human life or violate safe flying practices.

ROP FW-3e Exploration and prospecting activities for solid leasable minerals, locatable minerals, and salable minerals will be prohibited between October 31 and April 1 in caribou wintering habitat in the Nulato Hills ACEC unless the operator, applicant, or permittee can demonstrate to the satisfaction of the AO that the activity can be conducted in a manner that will not result in undue disturbance to wintering caribou. This ROP would apply under Alternative D only.

d) Objective Fish and Wildlife-4

Minimize disruption of wildlife movement and subsistence use.

Required Operating Procedures

ROP FW-4a Bridges and culverts will be designed to avoid altering the direction and velocity of stream flow or interfering with migrating, rearing, or spawning activities of fish and wildlife. Bridges and culverts should span the entire non-vegetated stream channel.

ROP FW-4b Pipelines and roads will be designed to allow the free movement of wildlife and the safe, unimpeded passage of the public while participating in traditional subsistence activities. Listed below are the currently accepted design practices: 1) Above ground pipelines will be elevated a minimum of seven feet as measured from the ground to the bottom of the pipeline at vertical support members; 2) 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 conferring with Federal, State, and local government regulatory and resource agencies as appropriate, based on agency legal authority and jurisdictional responsibility; and 3) A minimum distance of 500 feet between pipelines and roads will be maintained when feasible.

e) Objective Fish and Wildlife-5

Minimize the potential for disease transmission from livestock to wildlife.

Required Operating Procedures

ROP FW-5a The use of domestic goats, alpacas, llamas, and other similar species as pack animals in conjunction with permitted activities will not be allowed.

f) Objective Fish and Wildlife-6

Minimize the potential for electrocution of raptors.

Required Operating Procedures

ROP FW-6a Power lines will be constructed in accordance with standards outlined in "Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006" (APLIC 2006). The holder will assume the burden and expense of proving that pole designs not shown in the above publication are "raptor safe." Such proof will be provided by a raptor expert approved by the AO. BLM reserves the right to require modifications or additions to all power line structures, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions will be made by the holder without liability or expense to the United States.

g) Objective Fish and Wildlife-7

Protect, maintain, and preserve the condition and ecological function of the aquatic and riparian zones of streams that determine the ability of these habitats to:

1. provide clean water for community use;
2. produce fish and wildlife on a sustained basis to support cultural, economic, subsistence, and recreational needs; and
3. maintain the hydrological and morphological stability of streams to prevent un-natural flooding, habitat degradation, and water quality impairment.

Required Operating Procedures

ROP FW-7a This ROP applies to the Kivalina River, Ungalik River, Shaktoolik River, Inglutalik River, Koyuk River including the East Fork, Tubutulik River, Kuzitrin River, Agiapuk River, Pah River, and Noatak River. This ROP would apply under Alternative D only.

Any proposal to use or develop the lands, waters, or resources within 300 feet of the banks of active stream channels must demonstrate to the satisfaction of the AO that such use or development:

1. will not adversely alter the condition and ecological function of aquatic and riparian systems by impacting water quality, stream flow, velocity, ground water hydrology, channel connectivity, channel form, material recruitment, substrate composition, energy (food) flow, and riparian function;
2. will not diminish the quality and diversity of habitats needed to sustain the production of fish and wildlife populations at their natural potential; or
3. is outside the flood-prone width of these rivers.

6. Subsistence

a) Objective Subsistence-1

Prevent unreasonable conflicts between subsistence use and permitted activities on BLM managed lands.

Required Operating Procedures

ROP Sub-1a BLM will consider using the following actions to eliminate, minimize, or limit the effects of permitted activities on subsistence use; 1) BLM may recommend modifications to proposed activity to further its policy of effective subsistence management, 2) Permittees will be required to provide information to potentially affected subsistence communities regarding the timing, siting, and scope of the proposed activity, and 3) Permittees will be required to consult with potentially affected subsistence communities to receive input regarding way to minimize impacts to subsistence, and the permittee will be required to provide documentation of their consultation efforts to the BLM.

Also see *FW-4b.*

7. Cultural and Paleontological

a) Objective Cultural and Paleontological-1

Management practices will consider protection and conservation of known cultural resources, including historical sites and prehistoric sites.

Required Operating Procedures

ROP C-1a For permitted activities, cultural resource protection and conservation will be consistent with 1) Sections 106, 110, and 101d of the Historic Preservation Act, 2) procedures under BLM's 1997 Programmatic Agreement for Section 106 compliance, and 3) the BLM's 1998 implementing Protocol in Alaska between BLM and the Alaska State Historic Preservation Officer.

ROP C-1b If necessary, mitigation measures will be implemented according to a mitigation plan approved by the AO. Mitigation plans will be reviewed as part of Section 106 consultation for National Register eligible or listed properties. The extent and nature of recommended mitigation will be commensurate with the significance of the cultural resource involved and the anticipated extent of the damage. Reasonable costs for mitigation will be borne by the land use applicant. Mitigation must be cost effective and realistic.

b) Objective Cultural and Paleontological-2

Avoid damage to significant paleontological resources where possible, and mitigate unavoidable damage.

Required Operating Procedures

ROP C-2a For all actions, the BLM will evaluate the impacts of proposed actions to known resources and avoid damage to already-identified significant paleontological resources by avoidance.

ROP C-2b If avoidance is not possible, the applicant will perform scientific examination of the to-be-impacted significant resources followed by appropriate mitigation. This may include the professional collection and analysis of significant specimens by scientists.

8. Visual Resource Management

a) Objective Visual Resource Management-1

Manage permitted activities to meet Visual Resource Management Class Objectives described below.

Class I: Natural ecological changes and very limited management activity are allowed. The level of change to the characteristic landscape should be very low and must not attract attention.
Class II: The level of change to the characteristic landscape should be low. Management activities may be seen, but should not dominate the view of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
Class III: The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the

casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
Class IV: The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Required Operating Procedures

ROP VRM-1a To the extent practicable, all permanent facilities will be located away from roadsides, rivers, or trails, thereby using distance to reduce the facility's visual impact.

ROP VRM-1b Access roads and permanent facilities will be designed to meet the visual resource objective using such methods as minimizing vegetation clearing, and using landforms to screen roads and facilities.

ROP VRM-1c Permanent facilities will be designed to be screened behind trees or landforms if feasible so they will blend with the natural surroundings.

ROP VRM-1d The modification or disturbance of landforms and vegetative cover will be minimized.

ROP VRM-1e Permanent facilities will be designed so their shapes, sizes, and colors harmonize with the scale and character of the surrounding landscape.

ROP VRM-1f In open, exposed landscapes, development will be located in the opposite direction from the primary scenic views, if feasible.

9. Fire Management

a) Objective Fire Management-1

Reduce impacts to water quality, riparian habitat, vegetation, soils, and fish habitat from fire suppression activities.

Required Operating Procedures

ROP FM-1a Permitees and casual users will be held financially responsible for any actions or activity that results in a wildland fire. Costs associated with wildland fires include but are not limited to damage to natural or cultural resources and costs associated with any suppression action taken on the fire.

ROP FM-1b The Federal government will not be held responsible for protection of permitees' structures or their personal property. It is the responsibility of permitees and leasees to mitigate and minimize risk to their personal property and structures from wildland fire, if allowed by their permit.

ROP FM-1c Gas powered equipment will be equipped with manufacturer approved and functional spark arrestors.

ROP FM-1d To avoid the potential impacts to aquatic life the use of fire retardant is prohibited except when necessary to protect:

Human life
Permanent year-around residences
National Historic land marks
Structures on or eligible for the National Register of Historic Places
Government Facilities, and
Other designated sites or structures or if necessary to protect high value resources on adjacent lands under other than BLM administration or ownership

Even if one of the above listed resources is being threatened, water will be used instead of fire retardant whenever possible or appropriate. The use of fire suppressant foams is prohibited.

ROP FM-1e Use of tracked or off-road vehicles in fire suppression or management activities will be conducted in a manner that does not cause erosion, damage to riparian areas, degradation of water quality or fish habitat, or contribution to stream channel sedimentation.

ROP FM-1f Use of heavy equipment and other motorized vehicles off road requires approval of AO or designee.

ROP FM-1g Rehabilitate areas burned by fires as needed, guided by the fire specific rehabilitation plan provided by the Field Office to the suppression agency.

ROP FM-1h Helicopters used for any activity during snow free conditions, which requires landing in wildland fuels, should have the exhaust/cooling system located high on the fuselage. Helicopters, which have exhaust/cooling systems that are located low on the fuselage and expels the exhaust straight back or downward, should only be landed in areas with no fuel such as areas of bare soil, gravel bars, or other areas of low combustability.

10. Forestry

a) Objective Forest-1

Forest resources will be managed to ensure biodiversity, long-term productivity, and a wide spectrum of multiple uses, including scenic values, recreation, fish and wildlife habitat, watershed protection, and where feasible, harvest of forest products.

Required Operating Procedures

ROP Forest-1a Timber sales will rely to the extent possible, on natural regeneration through proper site preparation.

ROP Forest-1b Timber sales will include buffers to prevent disturbance of fish habitat and possible sedimentation into streams. Buffer widths will be dependant on harvest method, season of harvest, equipment used, slope, vegetation, and soil type. Winter operations will be encouraged in order to minimize impacts to riparian areas.

11. Mineral Materials

a) Objective Mineral Materials-1

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

Required Operating Procedures

ROP MM-1a When responding to a request for a material sale or identifying a source for materials on public lands, the highest priority will be given to using existing upland material sources that meet suitability and economic needs. Using material from wetlands, lakes, and active or inactive floodplains will be avoided unless no feasible public upland alternative exists. Sales or permits for in-stream gravel extraction will not be permitted in known fish spawning reaches of the active river or stream channel.

ROP MM-1b Avoid habitats critical to local fish or wildlife populations (i.e. Fish spawning and over wintering, calving areas, raptor nesting sites).

ROP MM-1c Avoid key geomorphic features such as the beach barrier dune, river cut banks and associated riparian zones, root zones of spits, tombolos and barrier islands, springs, active channels of small, single channel rivers, and wetlands.

ROP MM-1d When possible, avoid vegetated habitats. If mining in vegetated areas, all overburden, vegetative slash, and debris will be saved for use during site reclamation to facilitate vegetative recovery. This material will be piled or broadcast so that it will not be washed away.

ROP MM-1e When scraping gravel in active or inactive floodplains, maintain buffers that will constrain active channels to their original locations and configurations.

b) Objective Mineral Materials-2

Consider the technical character of the preferred site and available alternate site(s).

ROP MM-2a The site can provide mineral material meeting the technical and volumetric requirements of the project and still maintain space for any required buffers.

ROP MM-2b Amount of site preparation and rehabilitation required will be considered to minimize the following: haul distance, vegetation and overburden removal, river training structures bank and other erosion protection devices, length of access route, crossing of active drainage or channels and wet working conditions in the pit.

12. Mining Law Administration

BLM is to manage public lands consistent with the intent of the mining laws, primarily the Mining Law of 1872 as amended, and the Federal Land Policy and Management Act of 1976.

a) Objective Mining Law Administration-1

Prevent unnecessary or undue degradation of the environment and its natural resources from mining operations and prevent unauthorized occupancy on mining claims. To accomplish this, BLM relies on its authorities under 43 CFR 3809 (Surface Management) and 43 CFR 3715 (Use and Occupancy under the Mining Laws). Consistent with the intent of these regulations, the following Required Operating Procedures provide additional guidance on the management of activities related to mining on BLM administered public lands.

Required Operating Procedures

ROP MLA-1a Existing access routes will be used where possible. Alternatives to and/or upgrading of existing access will be planned in consultation with the AO.

ROP MLA-1b All tailings, dumps, mining improvements, deleterious materials and substances, solid waste including scrap steel derelict mining machinery and parts will be disposed of to prevent unnecessary or undue degradation in accordance with applicable Federal and State Laws and in consultation with the AO.

ROP MLA-1c Hazardous substances used for exploration or mining will be contained and backhauled for disposal at a proper facility for that material. Used petroleum products may be converted onsite or contained and backhauled for proper disposal. The storage of fuels and petroleum products will be in a location approved by the AO in accordance with permit requirements of the State of Alaska Department of Environmental Conservation.

ROP MLA-1d Sanitation efforts including the disposal of gray water and kitchen wastes will be approved by the AO in accordance with the State of Alaska Department of Environmental Conservation General Mine Permit or plan specifically developed in consultation with that Agency.

ROP MLA-1e Water quality of both surface and underground waters will be regulated by terms and conditions of The U.S. Environmental Protection Agency's National Pollution Discharge Elimination Permit (NPDES). Note that in the future, implementation of the NPDES program regulating water quality of both surface and ground waters may

be regulated by 18 AAC, Chapter 70 (Alaska Water Quality Standards) and 18 AAC, Chapter 83 for surface waters.

13. Hazardous Materials and Waste Management

a) Objective Hazardous Materials and Waste Management-1

Protect the health and safety of permittees, lessees, and the general public by avoiding the disposal of solid waste and garbage near areas of human activity.

Required Operating Procedures

ROP Hazmat-1a Areas of operation will be left clean of all debris.

b) Objective Hazardous Materials and Waste Management-2

Minimize impacts on the environment from non-hazardous waste generation.

Required Operating Procedures

ROP Hazmat-2a All feasible precautions will be taken to avoid attracting wildlife to food and garbage.

ROP Hazmat-2b Current requirements prohibit the burial of garbage. All putrescible waste will be incinerated, backhauled, or composted in a manner approved by the AO. All unburnable solid waste will be backhauled and disposed of in an approved waste-disposal facility in accordance with U.S. Environmental Protection Agency (EPA) and Alaska Department of Environmental Conservation (ADEC) regulations and procedures.

ROP Hazmat-2c No disposal of domestic wastewater is allowed into bodies of fresh, estuarine, and marine water, including wetlands, unless authorized by the National Pollution Discharge Elimination System (NPDES) or State permit.

ROP Hazmat-2d Wastewater must be managed in accordance with Title 18 Alaska Administrative Code, Chapter 72, (18 AAC 72) Wastewater Disposal. Wastewater is defined as Human Waste (sewage), and Gray Water (water which has been used for personal hygiene, washing clothing or equipment, or sanitizing cooking and eating materials). If the standards for Pit Privies found at 18 AAC 72.030 cannot be met, all wastewater must be collected and transported to a state approved disposal facility. Upon closure of the campsite the Pit Privy must be completely back-filled with the surface area covered and re-graded to approximate original appearance.

ROP Hazmat-2e Pit privies will be located a minimum of at least 100 feet from the high-water mark of streams, rivers, or lakes. Pit privies will be sprinkled with lime and

then backfilled with a minimum of two feet of over-material when the pit has reached capacity or the operation is terminated. All Pit privies must comply with ADEC Standards.

ROP Hazmat-2f For oil and gas operations, all pumpable solid, liquid, and sludge waste will be disposed by injection in accordance with EPA, ADEC, and the Alaska Oil and Gas Conservation Commission regulations and procedures. The AO may permit alternate disposal if the lessee demonstrates that subsurface disposal is not feasible or prudent and the alternative method will not result in adverse environmental effects.

ROP Hazmat-2g For oil and gas operations, produced water will be disposed of into injection wells as approved by the Alaska Oil and Gas Conservation Commission (AOGCC) under EPA regulations and the Underground Injection Control (UIC) program. 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.

c) Objective Hazardous Materials and Waste Management-3

Minimize the impacts to fish, wildlife, and the environment, from hazardous materials, oil spills, and other chemical spills.

Required Operating Procedures

ROP Hazmat-3a For oil and gas operations and mining Plans of Operation, a Hazardous Materials Emergency Contingency Plan will be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. The plan will 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. The plan will 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 and State contacts.

ROP Hazmat-3b The applicant will provide BLM a disclosure of the components in any hydraulic fracturing materials to be used, the volume and depths at which such materials are expected to be used, and the volume capacity of the vessels to be used to store such materials.

ROP Hazmat-3c For oil and gas operations and mining Plans of Operation, the operator will maintain Material Safety Data Sheet (MSDS) information on all hazardous substances used by the operator.

ROP Hazmat-3d Before initiating any oil and gas or related activity or operation, including field research/surveys and/or seismic operations, lessees/permittees will develop a comprehensive spill prevention and response contingency plan per 40 CFR 112 .

ROP Hazmat-3e For oil and gas operations, mining operations, and other leases and permits, sufficient oil-spill cleanup materials (absorbents, containment devices, etc.) will

be stored at all fueling points and vehicle-maintenance areas and will be carried by field crews on all overland moves, seismic work trains, and similar overland moves by heavy equipment.

ROP Hazmat-3f Fuel and other petroleum products will be stored at a location approved by the AO and within an impermeable lined and diked area capable of containing 110 percent of the stored volume or within approved alternate storage containers.

ROP Hazmat-3g Fuel storage will not occur closer than 100 feet from any river, lake, stream, or wetland unless approved by the AO.

ROP Hazmat-3h Liner material will be compatible with the stored product and capable of remaining impermeable during typical weather extremes expected throughout the storage period.

ROP Hazmat-3i Fuel and other petroleum products and hazardous materials will be stored in containers designed to hold that product. All fuel containers, including barrels and propane tanks, shall be marked with the responsible party's name, product type, and year filled and purchased.

ROP Hazmat-3j Hazardous materials/toxic substances, as defined by EPA (i.e., used oils/petroleum products, batteries), will be handled and disposed of in accordance with EPA and ADEC guidelines.

ROP Hazmat-3k All fuel spills will be cleaned up immediately, taking precedence over all other matters, except the health and safety of personnel. Spills will be cleaned up utilizing absorbent pads or other ADEC approved methods.

ROP Hazmat-3l Notice of any reportable spill (as required by 40 CFR 300.125 and 18 AAC 75.300) will be given to the AO as soon as possible, but no later than 24 hours after occurrence and such other Federal and State officials as are required by law to be given such notice including ADEC at (907) 478-9300.

ROP Hazmat-3m Surface discharge of reserve-pit fluids and produced water is prohibited unless authorized by applicable NPDES, ADEC, and Borough permits and is approved by the AO.

C. Oil and Gas Leasing Stipulations

Table A-2. Oil and Gas Leasing Stipulations

Objective	Stipulation	Areas Where Stipulations Apply	Exception, Modification, Waiver
Protect fish-bearing rivers, streams and lakes from blowouts, and minimize alteration of riparian habitat.	**Stip-1:** Drilling is prohibited in rivers and streams, as determined by the active floodplain, and fish-bearing lakes.	Fish bearing rivers, streams, and lakes	**Exception:** AO may grant exception if lessee can demonstrate that impacts would be minimal or there is no feasible or prudent alternative Modification: None Waiver: None
Protect, maintain, and preserve the condition and ecological function of the aquatic and riparian zones	**Stip-2:** The design and location of temporary or permanent oil and gas facilities within 300 feet of the following rivers will be prohibited: Kivalina, Ungalik, Shaktoolik, Inglutalik, Koyuk including the East Fork, Tubutulik, Kuzitrin, Agiapuk, Pah, and Noatak River.	Areas open to oil and gas leasing	**Exception:** The AO may grant an exception on a case-by-case basis if the lessee can demonstrate that impacts to fish, water quality, and aquatic and riparian habitats are minimal, or there is no feasible or prudent alternative. Modification: None Waiver: None.

Objective	Stipulation	Areas Where Stipulations Apply	Exception, Modification, Waiver
Protect threatened, endangered, or other special status species and their habitats.	**Stip-3:** The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened or endangered species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed TES species or result in the destruction or adverse modification of a designated or proposed critical habitat.	All BLM-managed lands	Exception: None. Modification: None. Waiver: None.
Ensure the final disposition of the land meets the current and future needs of the public.	**Stip-4:** Upon abandonment or expiration of the lease, all oil- and gas-related facilities will be removed and sites rehabilitated to as near the original condition as practicable, subject to the review of the AO.	Areas open to oil and gas leasing	**Exception:** The AO determines that it is in the best interest of the public to retain some or all facilities. Modification: None. Waiver: None

Objective	Stipulation	Areas Where Stipulations Apply	Exception, Modification, Waiver
Minimize surface impacts from exploratory drilling.	**Stip-5:** Exploratory drilling will be limited to temporary facilities such as ice pads, ice roads, ice airstrips, temporary platforms, etc.	Areas open to oil and gas leasing	**Exception:** The lessee demonstrates that construction of permanent facilities such as gravel airstrips, storage pads, and connecting roads is environmentally preferable or that exploring from temporary facilities is not practical or economically feasible. Modification: None. Waiver: None
Minimize disturbance to calving caribou.	**Stip-6:** No exploration or development activities May 20-June 20. Production activities may occur (no workover rigs). This stipulation would not apply under Alternative B.	Western Arctic caribou calving area (Map 3-12)	**Exception:** AO may grant exception if review indicates that calving caribou no longer occupy site-specific area. **Modification:** Season may be extended based on actual occupancy of the area. Monitoring provided by ADF&G aerial counts. **Waiver:** This stipulation may be waived if caribou migratory patterns change and the areas are no longer used for calving.

Objective	Stipulation	Areas Where Stipulations Apply	Exception, Modification, Waiver
Minimize disturbance to caribou during the insect season.	**Stip-7:** No exploration activities May 20-August 15. Construction of production facilities and production activities may occur (no workover rigs). This stipulation would not apply under Alternative B.	Western Arctic caribou crucial insect relief area (Map 3-12)	**Exception:** AO may grant exception if review indicates that caribou no longer occupy site-specific area. Exceptions may be granted for work-over rigs on a case-by-case basis depending on duration of activity and actual caribou occupancy of area. **Modification:** Season may be shortened or extended based on actual occupancy of the area. Monitoring provided by ADF&G aerial counts. **Waiver:** This stipulation may be waived if caribou migratory patterns change and the areas are no longer used for insect relief. Exceptions may be granted for work-over rigs on a case-by-case basis depending on duration of activity and actual caribou occupancy of area.
Minimize impact on the human environment.	**Stip-8:** The operator will construct drill pads at least 500 feet and compressor stations at least 1,500 feet from occupied structures.	Areas open to oil and gas leasing	**Exception:** The AO may grant an exception if the operator obtains the consent of the owner of the structure. Modification: None. Waivers: None.

D. Standard Lease Terms for Oil and Gas (BLM Form 3100-11)

Section 1. Rentals

Rentals shall be paid to proper office of lessor in advance of each lease year. Annual rental rates per acre or fraction thereof are:
(a) Noncompetitive lease, $1.50 for the first 5 years; thereafter $2.00;
(b) Competitive lease, $1.50, for the first 5 years; thereafter $2.00;
(c) Other, see attachment,

or as specified in regulations at the time this lease is issued.

If this lease or a portion thereof is committed to an approved cooperative or unit plan which includes a well capable of producing leased resources and the plan contains a provision for allocation of production, royalties shall be paid on the production allocated to this lease. However, annual rentals shall continue to be due at the rate specified in (a), (b), or (c) for those lands not within a participating area.

Failure to pay annual rental, if due, on or before the anniversary date of this lease (or next official working day if office is closed) shall automatically terminate this lease by operation of law. Rentals may be waived, reduced, or suspended by the Secretary upon a sufficient showing by lessee.

Section 2. Royalties

Royalties shall be paid to proper office of lessor. Royalties shall be computed in accordance with regulations on production removed or sold. Royalty rates are:
(a) Noncompetitive lease, 12 ½ percent;
(b) Competitive lease, 12 ½ percent;
(c) Other, see attachment; or
as specified in regulations at the time this lease is issued.

Lessor reserves the right to specify whether royalty is to be paid in value or in kind, and the right to establish reasonable minimum values on products after giving lessee notice and an opportunity to be heard. When paid in value, royalties shall be due and payable on the last day of the month following the month in which production occurred. When paid in kind, production shall be delivered, unless otherwise agreed to by lessor, in merchantable condition on the premises where produced without cost to lessor. Lessee shall not be required to hold such production in storage beyond the last day of the month following the month in which production occurred, nor shall lessee be held liable for loss or destruction of royalty oil or other products in storage from causes beyond the reasonable control of lessee.

Minimum royalty in lieu of rental of not less than the rental which otherwise would be required for that lease year shall be payable at the end of each lease year beginning on

or after a discovery in paying quantities. This minimum royalty may be waived, suspended, or reduced, and the above royalty rates may be reduced, for all or portions of this lease if the Secretary determines that such action is necessary to encourage the greatest ultimate recovery of the leased resources, or is otherwise justified.

An interest charge shall be assessed on late royalty payments or underpayments in accordance with the Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA) (30 U.S.C. 1701). Lessee shall be liable for royalty payments on oil and gas lost or wasted from a lease site when such loss or waste is due to negligence on the part of the operator, or due to the failure to comply with any rule, regulation, order, or citation issued under FOGRMA or the leasing authority.

Section 3. Bonds

A bond shall be filed and maintained for lease operations as required under regulations.

Section 4. Diligence, rate of development, unitization, and drainage

Lessee shall exercise reasonable diligence in developing and producing, and shall prevent unnecessary damage to, loss of, or waste of leased resources. Lessor reserves right to specify rates of development and production in the public interest and to require lessee to subscribe to a cooperative or unit plan, within 30 days of notice, if seemed necessary for proper development and operation of area, field, or pool embracing these leased lands. Lessee shall drill and produce wells necessary to protect leased lands from drainage or pay compensatory royalty for drainage in amount determined by lessor.

Section 5. Documents, evidence, and inspection

Lessee shall file with proper office of lessor, not later than 30 days after effective date thereof, any contract or evidence of other arrangement for sale or disposal of production. At such times and in such form as lessor may prescribe, lessee shall furnish detailed statements showing amounts and quality of all products removed and sold, proceeds therefrom, and amount used for production purposes or unavoidably lost. Lessee may be required to provide plats and schematic diagrams showing development work and improvements and reports with respect to parties in interest, expenditures, and depreciation costs. In the form prescribed by lessor, lessee shall keep a daily drilling record, a log, information on well surveys and tests, and a record of subsurface investigations and furnish copies to lessor when required. Lessee shall keep open at all reasonable times for inspection by any authorized officer of lessor, the leased premises and all wells, improvements, machinery, and fixtures thereon, and all books, accounts, maps, and records relative to operations, surveys, or investigations on or in the leased lands. Lessee shall maintain copies of all contracts, sales agreements, accounting records, and documentation such as billings, invoices, or similar documentation that supports costs claimed as manufacturing, preparation, and/or transportation costs. All such records shall be maintained in lessee's accounting offices for future audit by lessor. Lessee shall maintain required records for six years after they are generated or, if an audit or investigation is underway, until released of the obligation to maintain such records by lessor.

During existence of this lease, information obtained under this section shall be closed to inspection by the public in accordance with the Freedom of Information Act (5 U.S.C. 552).

Section 6. Conduct of operations

Lessee shall conduct operations in a manner that minimizes adverse impacts to the land, air, and water, to cultural, biological, visual, and other resources, and to other land uses or users. Lessee shall take reasonable measures deemed necessary by lessor to accomplish the intent of this section. To the extent consistent with lease rights granted, such measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. Lessor reserves the right to continue existing uses and to authorize future uses upon or in the leased lands, including the approval of easements or rights-of-way. Such uses shall be conditioned so as to prevent unnecessary or unreasonable interference with rights of lessee.

Prior to disturbing the surface of the leased lands, lessee shall contact lessor to be apprised of procedures to be followed and modifications or reclamation measures that may be necessary. Areas to be disturbed may require inventories or special studies to determine the extent of impacts to other resources. Lessee may be required to complete minor inventories or short term special studies under guidelines provided by lessor. If in the conduct of operations, threatened or endangered species, objects of historic or scientific interest, or substantial unanticipated environmental effects are observed, lessee shall immediately contact lessor. Lessee shall cease any operations that would result in the destruction of such species or objects.

Section 7. Mining operations

To the extent that impacts from mining operations would be substantially different or greater than those associated with normal drilling operations, lessor reserves the right to deny approval of such operations.

Section 8. Extraction of helium

Lessor reserves the option of extracting or having extracted helium from gas production in a manner specified and by means provided by lessor at no expense or loss to lessee or owner of the gas. Lessee shall include in any contract of sale of gas the provisions of this section.

Section 9. Damages to property

Lessee shall pay lessor for damage to lessor's improvements, and shall save and hold lessor harmless from all claims for damage or harm to persons or property as a result of lease operations.

Section 10. Protection of diverse interests and equal opportunity

Lessee shall: pay when due all taxes legally assessed and levied under laws of the State or the United States; accord all employees complete freedom of purchase; pay all wages

at least twice each month in lawful money of the United States; maintain a safe working environment in accordance with standard industry practices; and take measures necessary to protect the health and safety of the public.

Lessor reserves the right to ensure that production is sold at reasonable prices; and to prevent monopoly. If lessee operates a pipeline, or owns controlling interest in a pipeline or a company operating a pipeline, which may be operated accessible to oil derived from these leased lands, lessee shall comply with section 28 of the Mineral Leasing Act of 1920.

Lessee shall comply with Executive Order No. 11246 of September 24, 1965, as amended, and regulations and relevant orders of the Secretary of Labor issued pursuant thereto. Neither lessee, nor lessee's subcontractors shall maintain segregated facilities.

Section 11. Transfer of lease interests and relinquishment of lease

As required by regulations, lessee shall file with lessor any assignment or other transfer of an interest in this lease. Lessee may relinquish this lease or any legal subdivision by filing in the proper office a written relinquishment, which shall be effective as of the date of filing, subject to the continued obligation of the lessee and surety to pay all accrued rentals and royalties.

Section 12. Delivery of premises

At such time as all or portions of this lease are returned to lessor, lessee shall place affected wells in condition for suspension or abandonment, reclaim the land as specified by lessor and, within a reasonable period of time, remove equipment and improvements not deemed necessary by lessor for preservation of producible wells.

Section 13. Proceedings in case of default

If lessee fails to comply with any provisions of this lease, and the noncompliance continues for 30 days after written notice thereof, this lease shall be subject to cancellation unless or until the leasehold contains a well capable of production of oil or gas in paying quantities, or the lease is committed to an approved cooperative or unit plan or communitization agreement which contains a well capable of production of unitized substances in paying quantities. This provision shall not be construed to prevent the exercise by lessor of any other legal and equitable remedy, including waiver of the default. Any such remedy or waiver shall not prevent later cancellation for the same default occurring at any other time. Lessee shall be subject to applicable provisions and penalties of FOGRMA (30 U.S.C. 1701).

Section 14. Heirs and successors-in-interest

Each obligation of this lease shall extend to and be binding upon, and every benefit hereof shall inure to the heirs, executors, administrators, successors, beneficiaries, or assignees of the respective parties hereto.

Appendix B: Area of Critical Environmental Concern (ACEC) Comparison Tables

Table B-1. Kigluaik ACEC and Mount Osborn ACEC–Alternative Comparison Table. B-3
Table B-2. Western Arctic Caribou Herd Calving and Insect Relief Habitat ACEC–Alternative Comparison Table B-6
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Table B-4. Kuzitrin River ACEC—Alternative Comparison Table B-11
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Table B-6. Shaktoolik, Ungalik, and Inglutalik Watershed ACECs–Alternative Comparison Table B-15

Table B-1. Kigluaik ACEC and Mount Osborn ACEC–Alternative Comparison Table

Management Actions	Alternatives				
	A: No Action	**B: Resource Development**	**C: Resource Conservation**	**D: Preferred Interim Management**	**D: Preferred Long-term Management**
Decision	No ACEC designation	No ACEC designation	Designate Kigluaik Mountains as an ACEC (Map 2-20) (382,000 acres)* Under this alternative, the larger Kigluaik Mountains area would be designated.	Under this alternative, only the smaller Mount Osborn Area would be designated as an ACEC, and then only after conveyances are completed.	If sizable contiguous blocks of land remain in BLM ownership after conveyance, designate Mount Osborn as an ACEC (Map 2-21) (82,000 acres)*
Off-highway Vehicle Use (OHV)	No designation	Limited designation. Winter: cross-country use allowed with no weight limit; Summer: cross-country use allowed with maximum 2,000 lbs GVWR	Limited designation. Winter: cross-country use allowed with maximum 2,000 lb GVWR; Summer: Limited to designated trails. Additional limitations such as seasonal closures may be developed through activity plan.	Limited designation. Manage OHV use consistent with the State's Generally Allowable Uses (limits OHVs to vehicles under 1,500 lbs curb weight and staying on existing trails when possible).	Limited designation. Develop an OHV management plan which may implement limitations such as designated trails or seasonal closures.
Recreation Management	Manage for dispersed recreational use. Consider SRPs on a case-by-case basis	Same as Alternative A	May limit # SRPs or #VUD and may require permits for transporters if conflicts occur.	Do not limit # SRPs or #VUD; do not require transporters to obtain permits.	May implement limits on #SRPs or VUD, or implement additional permitting requirments through activity plan.

Management Actions	Alternatives				
	A: No Action	B: Resource Development	C: Resource Conservation	D: Preferred Interim Management	D: Preferred Long-term Management
Fluid Mineral Leasing	Mostly closed due to (d)(1) withdrawals and segregation for State and Native-selections.	Revoke withdrawals and open to leasing subject to Leasing Stipulations and applicable ROPs.	Closed	Closed by segregations for State- and Native-selections.	Same as Alternative B
Solid Mineral Exploration	Open	Open subject to ROPs except SS-4 would not apply.	Closed	Same as Alternative B	Same as Alternative B except ROP SS-4 would apply.
Locatable Minerals	Mostly closed due to (d)(1) withdrawals and segregation for State and Native-selections.	Revoke (d)(1) withdrawals and open to mineral entry and location subject to ROPs except SS-4 would not apply.	Closed. Retain (d)(1) withdrawal until such time as a new withdrawal from mineral entry and location is completed for the area.	Closed by segregations for State- and Native-selections.	Same as Alternative B except ROP SS-4 would apply.
Mineral Material Sales	Open	Open subject to ROPS	Closed	Same as Alternative B	Same as Alternative B
FLPMA and R&PP Leases	Considered on case-by-case basis except where prohibited by PLO.	Same as Alternative A	Not allowed	Same as Alternative A	Same as Alternative A
Rights-of-way	Considered on case-by-case basis.	Same as Alternative A	ROW avoidance area; limit communication site ROW to existing sites.	Consider on a case-by-case basis.	Same as Alternative D-Interim Management

Management Actions	Alternatives				
	A: No Action	B: Resource Development	C: Resource Conservation	D: Preferred Interim Management	D: Preferred Long-term Management
Disposal Actions	Segregated due to selections or withdrawn under various PLOs; not currently identified as available for disposal.	Segregated due to selections; retain after selections lift.	Same as Alternative B	Segregated due to selections.	Retain
Grazing	Open. Consider on case-by-case basis.	Same as Alternative A	Closed	Open-reindeer grazing only	Same as Alternative D-Interim Management
VRM	No VRM designations	Mount Osborn VRM class II; remainder is VRM class III	Mostly VRM class II; small area VRM class III	Same as Alternative B	Same as Alternative B

*Under Alternative C, the entire Kigluaik Mountain Range would be considered for ACEC designation. Under Alternative D, only the Mount Osborn area would be considered for designation as an ACEC. Final acreage is dependant upon results of conveyance.

Table B-2. Western Arctic Caribou Herd Calving and Insect Relief Habitat ACEC–Alternative Comparison Table

Management Actions	Alternatives				
	A: No Action	**B: Resource Development**	**C: Resource Conservation**	**D: Preferred Interim Management**	**D: Preferred Long-term Management**
Decision	No ACEC designation	No ACEC designation	Designate calving and critical insect relief habitat for the Western Arctic Caribou Herd as an ACEC (Map 2-20) (2,893,000 acres*)	Designate approx. 868,000 acres of unencumbered BLM lands in the calving and critical insect relief habitat for the Western Arctic Caribou Herd as an ACEC. No ACEC designation on State- or Native-selected lands.	Following adjudication of all selected lands, adjust ACEC boundaries to incorporate additional unencumbered BLM lands, into the ACEC (Map 2-21) (1,529,000 acres*)
Off-highway Vehicle Use (OHV)	No designation	Limited designation. Winter: cross-country use allowed with no weight limit; Summer: cross-country use allowed with maximum 2,000 lbs GVWR	Limited designation. Winter: cross-country use allowed with maximum 2,000 lb GVWR; Summer: Limited to designated trails. Additional limitations such as seasonal closures may be developed through activity plan.	Limited designation: On selected lands, manage OHVs consistent with the State's Generally Allowable Uses; On unencumbered BLM lands cross-country use allowed with 2,000 lb GVWR yearlong.	Limited designation: cross-country use allowed with 2,000 lb GVWR yearlong. Additional OHV limits may be developed through activity plans based upon resource values and management objectives. Limitations may included designated trails, seasonal restrictions or closures, or GVWR limits.
Recreation Management	Manage for dispersed recreational use. Consider SRP applications on case-by-case basis	Same as Alternative A	Same as Alternative A	Same as Alternative A	Same as Alternative A

Management Actions	Alternatives				
	A: No Action	**B: Resource Development**	**C: Resource Conservation**	**D: Preferred Interim Management**	**D: Preferred Long-term Management**
Fluid Mineral Leasing	Closed due to (d)(1) withdrawals and segregation for State and Native-selections.	Revoke withdrawals and open to mineral leasing subject to standard stipulations and ROPs. Oil and gas leasing stipulations #6 and #7 would not apply.	Closed	Open to leasing subject to special stipulations and all ROPs; 300' NSO setback on Kivalina River; Develop habitat management plan before leasing.	Same as Alternative D-Interim Management
Solid Mineral Exploration	Open	Open subject to ROPs.	Closed	Same as Alternative B	Same as Alternative B
Locatable Minerals	Closed due to (d)(1) withdrawals and segregation for State and Native-selections.	Revoke (d)(1) withdrawals and open to mineral entry and location subject to ROPs except FW-3c and FW-7a would not apply.	Closed. Withdraw from mineral entry and location.	Same as Alternative B except all ROPS would apply; ROP-7a would apply to the Kivalina River. In addition, a mining plan of operations would be required.	Same as Alternative D-Interim Management
Mineral Material Sales	Open	Open subject to ROPS	Open subject to ROPs. Sale of mineral materials from riverbed, ocean beach/lagoon, and lakeshore will not be permitted.	Same as Alternative B	Same as Alternative B
FLPMA and R&PP Leases	Considered on case-by-case basis except where prohibited by PLO.	Same as Alternative A	Not allowed	Same as Alternative A	Same as Alternative A

Management Actions	Alternatives				
	A: No Action	**B: Resource Development**	**C: Resource Conservation**	**D: Preferred Interim Management**	**D: Preferred Long-term Management**
Rights-of-Way	Considered on case-by-case basis.	Same as Alternative A; plus designate the Red Dog-Kuchiak Mine ROW Corridor.	Designate as ROW avoidance area; consider ROW on case-by-case basis.	Same as Alternative A. Plus develop measures to minimize impacts to caribou movements from ROW	Same as Alternative D-Interim Management
Disposal Actions	Segregated or withdrawn under (d)(1); not identified as available for disposal.	Segregated due to selections; retain after selections lift.	Same as Alternative B	Segregated due to selections	Retain
Grazing	Open. Consider on case-by-case basis.	Same as Alternative A	Closed	Same as Alternative C	Same as Alternative C
VRM	No VRM designations	VRM Class IV	Mixture of VRM class II and class III	Mostly VRM class IV; VRM class II and III near Kivalina River.	Same as Alternative D-Interim Management
Wildlife Management	Consider impacts to wildlife habitat on project specific basis and develop appropriate mitigation measures	Same as Alternative A	Develop habitat management plan to mitigate impacts to caribou habitat from resource uses.	Same as Alternative C	Same as Alternative C

* Final acreage is dependent upon results of conveyance and will be considerably less than indicated in this table.

Table B-3. McCarthy's Marsh ACEC–Alternative Comparison Table

Management Actions	Alternatives			
	A: No Action	**B: Resource Development**	**C: Resource Conservation**	**D: Preferred**
Decision	No ACEC designation	No ACEC designation	Designate McCarthy's Marsh as an ACEC (Map 2-20) (131,000 acres*)	No ACEC designation
Off-highway Vehicle Use (OHV)	No designation	Limited designation. Winter: cross-country use allowed with no weight limit; Summer: cross-country use allowed with maximum 2,000 lbs GVWR	Limited designation. Winter: cross-country use allowed with maximum 2,000 lbs GVWR; Summer: Limited to designated trails. Additional limitations such as seasonal closures may be developed through ACEC plan.	Limited designation: On selected lands, manage OHVs consistent with the State's Generally Allowable Uses; On unencumbered BLM lands cross-country use allowed with 2,000 lb GVWR yearlong.
Recreation Management	Manage for dispersed recreational use. Consider SRPs on a case-by-case basis.	Manage as semi-primitive motorized and for dispersed recreational use. Consider SRPs on case-by-case basis.	Manage for dispersed recreational use; limit # VUD associated with SRPs; require permit for transporters; No facility development.	Same as Alternative B
Fluid Mineral Leasing	Currently closed under a combination of (d)(1) withdrawal and segregation for State and Native- selections.	Revoke withdrawals and open to mineral leasing subject to standard stipulations and ROPs. 300' NSO setback on Fish River.	Closed	Open to leasing subject to special stipulations and ROPs.
Solid Mineral Exploration	Open	Open subject to applicable ROPs	Closed	Same as Alternative B
Locatable Minerals	Currently closed under a combination of (d)(1) withdrawal and segregation for State and Native- selections.	Revoke (d)(1) withdrawals and open to mineral entry and location subject to applicable ROPs.	Closed	Same as Alternative B
Mineral Material Sales	Open	Open subject to ROPs	Closed	Same as Alternative B

Management Actions	Alternatives			
	A: No Action	**B: Resource Development**	**C: Resource Conservation**	**D: Preferred**
FLPMA and R&PP Leases	Considered on case-by-case basis except where prohibited by PLO	Same as Alternative A	Do not allow	Same as Alternative A
Rights-of-Way	Considered on case-by-case basis.	Same as Alternative A	Designate as ROW avoidance area; consider ROW on case-by-case basis.	Same as Alternative A
Disposal Actions	Segregated or withdrawn; not identified as available for disposal	Segregated due to selections; retain after selections lift	Same as Alternative B	Same as Alternative B
Grazing	Open. Consider on case-by-case basis.	Same as Alternative A	closed	closed
Fire	Manage per approved fire management plan	Develop fire management objectives through activity plan to protect lichen habitat.	Same as Alternative B	Same as Alternative B
VRM	No VRM designation	VRM class IV	VRM class II	VRM class III and IV

*Final acreage may be less depending on results of conveyance.

Table B-4. Kuzitrin River ACEC—Alternative Comparison Table

Management Actions	Alternatives			
	A: No Action	**B: Resource Development**	**C: Resource Conservation**	**D: Preferred**
Decision	No ACEC designation	No ACEC designation	Designate Kuzitrin River as an ACEC (Map 2-20) (141,000 acres*)	No ACEC designation
Off-highway Vehicle Use (OHV)	No designation	Limited designation. Winter: cross-country use allowed with no weight limit; Summer: cross-country use allowed with maximum 2,000 lbs GVWR	Limited designation. Winter: cross-country use allowed with maximum 2,000 lbs GVWR; Summer: Limited to designated trails. Additional limitations such as seasonal closures may be developed through ACEC plan.	Limited designation: On selected lands, manage OHVs consistent with the State's Generally Allowable Uses; On unencumbered BLM lands cross-country use allowed with 2,000 lbs GVWR yearlong.
Recreation Management	Manage for dispersed recreational use. Consider SRPs on a case-by-case basis.	Manage as semi-primitive motorized and for dispersed recreational use. Consider SRPs on case-by-case basis.	Manage as semi-primitive motorized and for dispersed recreational use. Limit # VUD associated with SRPs and require permit for transporters; No facility development.	Same as Alternative B
Fluid Mineral Leasing	Currently closed under a combination of (d)(1) withdrawal and segregation for State and Native-selections.	Revoke withdrawals and open to mineral leasing subject to standard stipulations and ROPs; 300' NSO setback on Kuzitrin River.	Closed	Open to leasing subject to special stipulations; 300' NSO setback on the Kuzitrin River.
Solid Mineral Exploration	Open	Open subject to applicable ROPs. ROP FW-7a would not apply.	Closed	Same as Alternative B, except ROP FW-7a would apply.
Locatable Minerals	Currently closed under a combination of d(1) withdrawal and segregation for State and Native-selections.	Revoke (d)(1) withdrawals and open to mineral entry and location subject to applicable ROPs. ROP FW-7a would not apply.	Closed	Same as Alternative B except ROP FW-7a would apply.

Management Actions	Alternatives			
	A: No Action	**B: Resource Development**	**C: Resource Conservation**	**D: Preferred**
Mineral Material Sales	Open	Open subject to ROPs	Same as Alternative B	Same as Alternative B
FLPMA and R&PP Leases	Considered on case-by-case basis except where prohibited by PLO	Same as Alternative A	Do not allow	Same as Alternative A
Rights-of-Way	Considered on case-by-case basis.	Same as Alternative A	Designate as ROW avoidance area; consider ROW on case-by-case basis.	Same as Alternative A
Disposal Actions	Segregated or withdrawn; not identified as available for disposal	Segregated due to selections; retain after selections lift	Same as Alternative B	Same as Alternative B
Grazing	Open. Consider on case-by-case basis.	Same as Alternative A	closed	closed
VRM	No VRM designation	VRM class IV	VRM class II	VRM class III

*Final acreage may be less depending on results of conveyance.

Table B-5. Nulato Hills ACEC–Alternative Comparison Table

Management Actions	Alternatives			
	A: No Action	B: Resource Development	C: Resource Conservation	D: Preferred
Decision	No ACEC designation	No ACEC designation	Designate Nulato Hills as an ACEC (Map 2-20) (2,044,000 acres)*	Designate N. Nulato hills as ACEC (Map 2-21) (1,080,000 acres)*
Off-highway Vehicle Use (OHV)	No designation	Limited designation. Winter: cross-country use allowed with no weight limit; Summer: cross-country use allowed with maximum 2,000 lbs GVWR	Limited designation. Winter: cross-country use allowed with maximum 2,000 lbs GVWR; Summer: Limited to designated trails. Additional limitations such as seasonal closures may be developed through ACEC plan.	Limited designation: On selected lands, manage OHVs consistent with the State's Generally Allowable Uses; On unencumbered BLM lands cross-country use allowed with 2,000 lbs GVWR yearlong. Additional OHV limitations may be developed through ACEC plan.
Recreation Management	Manage for dispersed recreational use. Consider SRPs on a case-by-case basis.	Manage as semi-primitive motorized and for dispersed recreational use. Consider SRPs on case-by-case basis.	Manage for dispersed recreational use; limit # VUD associated with SRPs; require permit for transporters; No facility development.	Manage as semi-primitive motorized ROS class and consistent with ROS table for the Extensive Recreation Management Area (Table 2-13)
Fluid Leasable Minerals	Northern part mostly closed due to (d)(1) withdrawal and segregation for State and Native- selections; Southern part mostly open except for segregation of State-selected lands.	Revoke withdrawals; open to mineral leasing subject to standard stipulations and ROPs; 300' NSO setback on Ungalik, Inglutalik, and Shaktoolik Rivers.	Closed	Open to leasing subject to special stipulations. Develop habitat management plan before leasing.
Solid Mineral Exploration	Open	Open subject to ROPs except FW-3e would not apply.	Closed	Open subject to ROPs. FW-3e would apply.

Management Actions	Alternatives			
	A: No Action	B: Resource Development	C: Resource Conservation	D: Preferred
Locatable Minerals	Mostly open to locatable mineral entry and location; portions segregated due to State-selections.	Open subject to ROPs	Closed. Withdraw from mineral entry and location.	Open subject to ROPs and mining plan. Area specific ROP FW-3e would apply.
Mineral Material Sales	Open	Open subject to ROPS	Open subject to ROPs. Sale of mineral materials from riverbed, ocean beach/lagoon, and lakeshore will not be permitted.	Same as Alternative B
FLPMA and R&PP Leases	Considered on case-by-case basis except where prohibited by PLO.	Same as Alternative A	Do not allow	Same as Alternative A
Rights-of-Way	Considered on case-by-case basis.	Same as Alternative A	Designate as ROW avoidance area; consider ROW on case-by-case basis.	Same as Alternative C
Disposal Actions	Portions are segregated due to State-selection; Not identified as available for disposal.	Portions are segregated due to State-selection; retain after selections lift.	Same as Alternative B	Same as Alternative B
Grazing	Open to grazing; applications considered on a case-by-case basis	Open	Closed	Portion within existing grazing allotments would remain open: remainder closed.
VRM	No VRM designation	VRM Class IV	VRM Class II	VRM Class IV
Wildlife Management	Buckland Valley Habitat Management Plan applies.	Same as Alternative A	Develop management plan for ACEC to mitigate impacts to caribou habitat from resource uses and address fire management in lichen habitats	Same as Alternative C

*Boundary of ACEC varies between Alternatives. Under Alternative C, this ACEC includes the Ungalik, Inglutalik, and Shaktoolik watersheds. Final acreage will vary depending on results of conveyance.

Table B-6. Shaktoolik, Ungalik, and Inglutalik Watershed ACECs–Alternative Comparison Table

Management Actions	Alternatives			
	A: No Action	B: Resource Development	C: Resource Conservation	D: Preferred
Decision	No ACEC designation	No ACEC designation	These watersheds would be included in the Nulato Hills ACEC	Designate Shaktoolik (234,000 acres), Inglutalik (466,000 acres), and Ungalik (264,000 acres) watersheds as ACECs* (Map 2-21)
Off-highway Vehicle Use (OHV)	No designation	Limited designation. Winter: cross-country use allowed with no weight limit; Summer: cross-country use allowed with maximum 2,000 lbs GVWR	Limited designation. Winter: cross-country use allowed with maximum 2,000 lbs GVWR; Summer: Limited to designated trails. Additional limitations such as seasonal closures may be developed through ACEC plan.	Limited designation: On selected lands, manage OHVs consistent with the State's Generally Allowable Uses; On unencumbered BLM lands cross-country use allowed with 2,000 lbs GVWR yearlong. Additional OHV limitations may be developed through ACEC plan.
Special Recreation Use Permits	Issue SRP case-by-case	Manage as semi-primitive motorized and for dispersed recreational use. Consider SRPs on case-by-case basis.	Manage for dispersed recreational use; limit # VUD associated with SRPs; require permit for transporters; No facility development.	Same as Alternative B
Fluid Leasable Minerals	Mostly open; some segregated due to State-selection	Open subject to ROPs and oil and gas leasing stipulations. Except ROP FW-7a would not apply.	Closed	Open subject to special stipulations; all ROPs and oil and gas leasing stipulations would apply; 300' NSO setback on all three rivers
Solid Leasables	Open	Open subject to ROPs, except ROP FW-7a would not apply.	Closed	Same Alternative B, except ROP FW-7a would apply within 300 feet of all three rivers.

Management Actions	Alternatives			
	A: No Action	B: Resource Development	C: Resource Conservation	D: Preferred
Locatable Minerals	Mostly open; some segregated due to State-selection.	Open subject to ROPs except ROP FW-7a would not apply.	Closed. Withdraw from mineral entry and location.	Open subject to ROPs and mining plan; ROP FW-7a would apply on all three rivers.
Mineral Material Sales	Open	Open subject to ROPs	Open subject to ROPs. Sale of federally administered mineral materials from riverbed, ocean beach/lagoon, and lakeshore will not be permitted.	Same as Alternative B
FLPMA and R&PP Leases	Considered on case-by-case basis except where prohibited by PLO	Same as Alternative A	Do not allow	Same as Alternative A
Rights-of-Way	Considered on case-by-case basis.	Same as Alternative A	Designate as ROW avoidance area; consider ROW on case-by-case basis.	Same as Alternative A
Disposal Actions	Portions are segregated due to State-selection; Not identified as available for disposal.	Portions are segregated due to State-selection; retain after selections lifted.	Same as Alternative B	Same as Alternative B
Grazing	Open to grazing; applications considered on a case-by-case basis	Open	Closed	Portion within existing grazing allotments would remain open: remainder closed
VRM	No VRM designations	VRM Class IV	VRM Class II	VRM Class II along Ungalik River; Class III remainder.

*Final acreage will change depending on results of conveyance.

Appendix C: Special Recreation Management Area (SRMA) Comparison Tables

Table C-1. Salmon Lake-Kigluaik SRMA-Alternative Comparison Table..... C-3
Table C-2. Squirrel River SRMA-Alternative Comparison Table..... C-5

Table C-1. Salmon Lake-Kigluaik SRMA-Alternative Comparison Table

Management Actions	Alternative			
	A: No Action	**B: Resource Development**	**C: Resource Conservation**	**D: Preferred**
Decision	No SRMA designation	No SRMA designation	Area designated as SRMA as shown on Map 2-14 (244,000 acres)	Area designated as SRMA as shown on Map 2-15 (244,000 acres)
Off-highway Vehicle Use (OHV)	No designation	Limited designation. Winter: cross-country use allowed with no weight limit; Summer: cross-country use allowed with maximum 2,000 lbs GVWR.	Limited designation. Winter: cross-country use allowed with maximum 2,000 lbs GVWR; Summer: Limited to designated trails. Additional limitations such as seasonal closures may be developed through ACEC management plan (SRMA is within the Kigluiak ACEC).	Limited designation. Interim management: manage OHV use consistent with the State's Generally Allowable Uses. If substantial lands remain in BLM ownership after conveyances are completed develop an OHV management plan. This plan may implement additional limitations such as designated trails or seasonal closures.
Recreation Management	Manage for dispersed recreational use. No set limits on # of special recreation use permits (SRPs); consider applications on case-by-case basis.	Same as Alternative A. There would be no set limits on the # SRPs; applications would be considered on a case-by-case basis. No major actions would be taken to enhance recreational opportunities.	Salmon Lake Campground: manage as roaded natural; Existing facilities may be enhanced. Kigluaik Mountains: manage as semi-primitive motorized; facilitites allowed to enhance visitor use and safety but may be limited in some areas; may implement limits on #VUD and other activities through activity plan; helicopter and fixed-wing aircraft use allowed unless user conflicts require mitigation.	Salmon Lake Campground: manage as roaded natural; Existing facilities may be enhanced. Kigluiak Mountains: Same as Alternative C except; no limits would be set on #VUD.

Management Actions	Alternative			
	A: No Action	B: Resource Development	C: Resource Conservation	D: Preferred
Fluid Mineral Leasing	Mostly closed due to (d)(1) withdrawals and segregation for State and Native-selections.	Revoke withdrawals and open to leasing subject to Standard Stipulations and ROPs.	Closed	Same as Alternative B.
Solid Mineral Exploration	Open	Open subject to ROPs	Closed	Same as Alternative B
Locatable Minerals	Mostly closed due to (d)(1) withdrawals and segregation for State and Native selections.	Revoke (d)(1) withdrawals and open to mineral entry and location subject to ROPs.	Closed. Withdraw from mineral entry and location (SRMA is within the Kigluaik ACEC).	Same as Alternative B
Mineral Material Sales	Open	Open subject to ROPS	Closed.	Same as Alternative B
FLPMA and R&PP Leases	Considered on case-by-case basis except where prohibited by PLO.	Same as Alternative A	Not allowed	Same as Alternative A
Rights-of-Way (ROW)	Considered on case-by-case basis.	Same as Alternative A	ROW avoidance area; limit communication site ROW to existing sites.	Same as Alternative A
Disposal Actions	Segregated due to selections or withdrawn under various PLOs; not currently identified as available for disposal.	Segregated due to selections; retain after selections lift.	Same as Alternative B	Same as Alternative B except parcels along the road system may be considered for disposal.
Grazing	Open. Considered on case-by-case basis.	Same as Alternative A	Closed	Open-reindeer grazing only
VRM	No VRM designations	Mount Osborn RNA is VRM class II; remainder of SRMA is VRM class III	VRM class II	Same as Alternative B

*Final acreage will depend on results of conveyance.

Table C-2. Squirrel River SRMA-Alternative Comparison Table

Management Actions	Alternative			
	A: No Action	**B: Resource Development**	**C: Conservation**	**D: Preferred**
Decision	No SRMA designation	Area designated as SRMA as shown on Map 2-13 (720,000 acres)*	Area designated as SRMA as shown on Map 2-14 (720,000 acres)*	Area designated as SRMA as shown on Map 2-14 (720,000 acres)*
Off-highway Vehicle Use (OHV)	No designation	Limited designation. Winter: cross-country use allowed with no weight limit; Summer: cross-country use allowed with maximum 2000 lbs GVWR.	Limited designation. Winter: cross-country use allowed with maximum 2000 lb GVWR; Summer: Limited to designated trails.	Limited designation. Yearlong: cross-country use allowed with maximum 2000 lb GVWR; Additional limitations such as designated trails or seasonal closures may be implemented through activity plan.
Recreation Management	Manage for dispersed recreational use. No set limits on # of special recreation use permits (SRPs); consider applications on case-by-case basis.	Manage as semi-primitive motorized; Limit # commercial guides to 10; Aug 1-Sept 30: limit # VUD associated with guides to 1,400; No limits on VUD remainder of year.	Manage as semi-primitive motorized; Limit # commercial guides to 6; Aug 1- Sept 30 limit total # VUD to 2,000 and require all visitors to obtain permit; Require air taxi's to obtain permit and limit # to 5 per year.	Manage as semi-primitive motorized; Interim management manage for 2004-05 use levels of commercial guiding; Develop recreation area management plan within 3 years to address issues; Plan may include such things as: additional permitting requirements, limiting # commercial operators and # VUD, and implementing additional limits on OHV use.
Fluid Mineral Leasing	About 70% closed due to PLO 5179 and other (d)(1) withdrawals; Also, partially segregated due to State- and Native-selections.	Revoke withdrawals and open to leasing subject to Standard Stipulations.	Area within PLO 5179 closed; 300' no surface occupancy setbacks on rivers; remainder open subject to standard stipulations (Map 2-7).	Open subject to special stipulations (Map 2-8).

Management Actions	Alternative			
	A: No Action	**B: Resource Development**	**C: Conservation**	**D: Preferred**
Solid Mineral Exploration	Open	Open subject to ROPS	Area within PLO 5179 and 300' setbacks on rivers closed; remainder open (Map 2-10).	Same as Alternative B
Locatable Minerals	About 70% closed due to PLO 5179 and other (d)(1) withdrawals; Also, partially segregated due to State and Nativeselections.	Revoke withdrawals and open to mineral entry and location subject to ROPs.	Closed. Withdraw from mineral entry and location.	Same as Alternative B
Mineral Material Sales	Open	Open subject to ROPS	Open subject to ROPs. Sale of mineral materials except from upland source will not be permitted.	Same as Alternative B
FLPMA and R&PP Leases	Considered on case-by-case basis except where prohibited by PLO.	Same as Alternative A	Same as Alternative A	Same as Alternative A
Rights-of-Way (ROW)	Considered on case-by-case basis.	Same as Alternative A	300' NSO setback on rivers is ROW avoidance area.	Same as Alternative A
Disposal Actions	Portions are segregated due to selections or withdrawn under various PLOs; not currently identified as available for disposal.	Segregated due to selections; retain after selections lift.	Same as Alternative B	Same as Alternative B
Grazing	Open. Considered on case-by-case basis.	Same as Alternative A	Closed	Closed
VRM	No VRM designations	Mostly VRM class III; VRM class II along the river corridor	Mostly VRM class II; some VRM class III	Same as Alternative B

*Final acreage will depend on results of conveyance.

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Appendix D: ANILCA Section 810 Analysis of Subsistence Impacts

On January 30, 2004, the Bureau of Land Management (BLM) issued a Notice of Intent in the Federal Register to prepare a Resource Management Plan (RMP) and associated Environmental Impact Statement (EIS) for public lands administered by the Fairbanks District Office. As defined by the Federal Land Policy and Management Act of 1976 (FLPMA), as amended, "public lands" are those federally-owned lands and interests in lands (such as federally-owned mineral estate) that are administered by the Secretary of the Interior through the BLM. In this case, public lands also include lands selected, but not yet conveyed, to the State of Alaska and Native corporations and villages.

Current management of these lands is guided by the Northwest Management Framework Plan (MFP) (BLM 1982). Since approval of the MFP in 1982, new regulations and policies have created additional considerations that affect the management of public lands. In addition, new issues and concerns have arisen over the past 20 years. Consequently, some of the decisions in the MFP are no longer valid or have been superseded by requirements that did not exist when the MFP was prepared. Through the completion of an RMP/EIS, the BLM proposes to provide a comprehensive land use plan that will guide management of the public lands and interests administered by the Fairbanks District Office and the Anchorage Field Office.

Chapter III: Affected Environment and Chapter IV: Environmental Consequences of the Kobuk-Seward Peninsula Resource Management Plan provide a detailed description of both the affected environment of the Planning area and the potential adverse effects of the various alternatives to subsistence. This appendix uses the detailed information presented in the Proposed RMP/Final EIS to evaluate the potential impacts to subsistence pursuant to Section 810(a) of the Alaska National Interest Land Conservation Act (ANILCA).

A. Subsistence Evaluation Factors

Section 810(a) of the ANILCA requires that an evaluation of subsistence uses and needs be completed for any federal determination to "withdraw, reserve, lease, or otherwise permit the use, occupancy or disposition of public lands." As such, an evaluation of potential impacts to subsistence under the ANILCA Sec. 810(a) must be completed for the Proposed RMP/Final EIS. ANILCA requires that this evaluation include findings on three specific issues:

- The effect of use, occupancy, or disposition on subsistence uses and needs;
- The availability of other lands for the purpose sought to be achieved; and
- Other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes (16 USC Sec. 3120).

The evaluation and findings required by the ANILCA Sec. 810 are set out for each of the four alternatives considered in the Proposed RMP/Final EIS.

A finding that the proposed action may significantly restrict subsistence uses imposes additional requirements, including provisions for notices to the State of Alaska and appropriate regional and

local subsistence committees, a hearing in the vicinity of the area involved, and the making of the following determinations, as required by Section 810(a)(3):

- Such a significant restriction of subsistence uses is necessary, and consistent with sound management principles for the utilization of the public lands;
- The proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of use, occupancy, or other disposition; and
- Reasonable steps will be taken to minimize adverse effects upon subsistence uses and resources resulting from such actions.

To determine if a significant restriction of subsistence uses and needs may result from any one of the alternatives discussed in the Proposed RMP/Final EIS, including their cumulative effects, the following three factors in particular are considered:

- The reduction in the availability of subsistence resources caused by a decline in the population or amount of harvestable resources;
- Reductions in the availability of resources used for subsistence purposes caused by alteration of their normal locations and distribution patterns; and
- Limitations on access to subsistence resources, including from increased competition for the resources.

A significant restriction to subsistence may occur in at least two instances: 1) when an action substantially reduces populations or their availability to subsistence users, and 2) when an action substantially limits access by subsistence users to resources. Chapter III: Affected Environment of the Proposed RMP/Final EIS provides information on areas and resources important for subsistence use, and the degree of dependence of affected villages on different subsistence populations. Chapter IV: Environmental Consequences provides much of the data on levels of reductions and limitations under each alternative, which was used to determine whether the action would cause a significant restriction to subsistence. The information contained in the Proposed RMP/Final EIS is the primary data used in this analysis.

A subsistence evaluation and findings under ANILCA Sec. 810 must also include a Cumulative Impacts analysis. The following section begins with evaluations and findings for each of the four alternatives discussed in the Proposed RMP/Final EIS. Finally, the cumulative case, as discussed in Chapter IV: Environmental Consequences of the Proposed RMP/Final EIS is evaluated. This approach helps the reader to separate the subsistence restrictions that would potentially be caused by activities proposed under the four alternatives from those that would potentially be caused by past, present, and future activities that could occur, or have already occurred, in the surrounding area.

When analyzing the effects of the four alternatives, particular attention is paid to those communities who have the potential to be most directly impacted by the proposed actions. These communities are located within or adjacent to the Kobuk-Seward Peninsula planning area. The cumulative case expands the analysis to include lands outside, but near the planning area, including indirect effects to communities located in other areas of the state, to assess any impacts to subsistence that may result because of negative effects to migratory subsistence species.

In addition to ANILCA, Environmental Justice, as defined in Executive Order 12898, also calls for an analysis of the effects of federal actions on minority populations with regard to subsistence. Specifically, Environmental Justice is:

> The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Section 4-4 of Executive Order 12898, regarding the Subsistence Consumption of Fish and Wildlife, requires federal agencies to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence, and to communicate to the public any risks associated with the consumption patterns from activities that they are proposing. To this end, the description of subsistence use as presented in Chapter III: Affected Environment, as well as the subsistence analyses of the alternatives located in Chapter IV: Environmental Consequences of the Resource Management Plan, have been reviewed and found to comply with Environmental Justice requirements.

B. ANILCA Sec. 810(a) Evaluations and Findings for All Alternatives

The following evaluations are based on information relating to the environmental and subsistence consequences of alternatives A through D of the Proposed RMP/Final EIS and the cumulative impacts analysis as presented in Chapter IV: Environmental Consequences. The oil and gas lease stipulations and required operating procedures discussed in Appendix A of the Proposed RMP/Final EIS are also considered for the alternatives to which they apply. The evaluations and findings focus on potential impacts to the subsistence resources themselves, as well as access to resources, and economic and cultural issues that relate to subsistence use.

1. Evaluation and Finding for Alternative A

Selection of Alternative A would result in continued management of the Kobuk-Seward Peninsula planning area as specified in the 1982 Northwest Management Framework Plan. Valid decisions contained in the Northwest MFP would be implemented if not already completed. Direction contained in existing laws, regulation and policy would also continue to be implemented, sometimes superseding provisions in the Northwest MFP. The current levels, methods and mix of multiple use management of public land in the planning area would continue, and resource values would receive attention at present levels. In general, most activities would be analyzed on a case-by-case basis and few uses would be limited or excluded as long as they were consistent with State and Federal laws. Fire would be managed consistent with the Alaska Land Use Plan Amendment for Wildland Fire and Fuels Management (BLM 2004b, 2005c).

a) Evaluation of the Effect of Use, Occupancy, or Disposition on Subsistence Uses and Needs

Under Alternative A, the primary impacts to subsistence would be associated with proposed inventory and monitoring efforts for a variety of resources, as well as the continuation of the current management of Recreation and Off-Highway Vehicle (OHV) use in the planning area as described within the 1982 Northwest Management Framework Plan.

Extensive research projects, such as those conducted for inventory and monitoring purposes, have the potential to affect subsistence species and use in the planning area. Specifically, the following activities associated with data collection could displace subsistence resources from traditional harvest areas for the duration of the activity: temporary or long-term camps and associated facilities; the use of aircraft, especially helicopters, for aerial surveys; and the use of boats or ATVs. This activity is expected to be temporary and localized, and not affect any fish or wildlife at the population level. However, the most frequent complaint voiced by subsistence users on the North Slope of Alaska concerns the large amount of aerial disturbance to animals that occurs each field season in conjunction with scientific studies (BLM NPR-A Subsistence Advisory Panel 2002). At the same time, many of the proposed inventory and monitoring efforts would serve to benefit subsistence resources by providing valuable baseline information that would be used to maintain or improve habitat as well as wildlife and fish populations. Similarly, because every action in the planning area would be evaluated on a case-by-case basis under Alternative A, each research project could have BLM-imposed required operating procedures in order to minimize impacts to subsistence use.

Under Alternative A, the greatest impact to subsistence would likely result from continuing the current management standard of OHV and recreational use in the planning area. At present, both commercial and non-commercial recreational use on BLM lands in the planning area is relatively minor. However, there are a few heavily used areas where these activities compete directly with subsistence use, namely in the Squirrel River corridor and in the area around the community of Koyuk on Norton Bay. During scoping, residents from these areas expressed concern over the large number of sport hunters and guiding operations that not only compete with the subsistence users for resources, primarily moose, but also degrade the habitat due to the associated concentration of OHV use in a relatively short amount of time (BLM 2004c). Subsistence hunters from Kiana and Kotzebue maintain that the increase in air traffic and the presence of sport hunters in the Squirrel River area during the hunting season has resulted in the displacement of migrating caribou eastward, away from the traditional use areas for those communities and Noorvik. Under the current management plan, there is little that the BLM can do to limit the amount and type of use in these areas.

According to ADF&G, the amount reasonably necessary for subsistence uses of moose in Game Management Unit 23 is between 325-400 moose annually (Dau 2002a, 2004a), a number that is considered relatively low, in part, due to the large number of Western Arctic Caribou Herd (WACH) animals that are harvested annually. Should the WACH experience a rapid decline, subsistence hunter reliance on moose would increase throughout the planning area.

b) Evaluation of the Availability of Other Lands for the Purpose Sought to be Achieved

The purpose sought to be achieved under Alternative A would be to continue the current management of BLM-managed lands in the planning area under the 1982 Northwest Management Framework Plan. Lands managed by other federal agencies in the planning area are managed under National Park Service or Fish and Wildlife Service planning documents. Other BLM lands in the State either already have land use planning documents in place, or are being addressed by separate planning processes. State and Native corporation lands cannot be considered in a BLM plan, and under BLM policy other BLM lands outside of Alaska are not considered under ANILCA.

c) Evaluation of Other Alternatives that Would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives (A, B, and C) that are presented and analyzed in Chapters II and IV of the main body of the Proposed RMP/Final EIS. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives that were considered but not analyzed in detail are also discussed in Chapter II.

d) Finding

Alternative A may significantly restrict subsistence use and needs in the Squirrel River area. The impacts to subsistence users of moose by increased competition in this heavily used area, as well as the associated displacement of resources and OHV issues discussed above meet the threshold of “may significantly restrict subsistence use.” This finding applies to the communities of Kiana, Kotzebue, Noorvik and possibly Ambler.

2. Evaluation and Finding for Alternative B

Alternative B lays the groundwork for active management to facilitate resource development on BLM lands in the planning area. In this alternative, constraints to protect resource values or habitat would be implemented in very specific geographic areas rather than across the planning area. All ANCSA (d)(1) withdrawals would be revoked on lands retained in long-term Federal ownership, increasing the potential for mineral exploration and development. Seasonal stipulations for oil and gas leasing in caribou habitat would not apply under this alternative (Appendix A). Travel and trail restrictions would be minimized. One Special Recreation Management Area would be identified in the Squirrel River to focus management on recreational use. In other areas recreation management would focus on dispersed recreation and management of permits. Management of State- and Native-selected lands would be mostly custodial.

a) Evaluation of the Effect of Use, Occupancy, or Disposition on Subsistence Uses and Needs

Under Alternative B, the primary potential impacts to subsistence would be associated with the proposed management of the Livestock Grazing and Leasable Minerals programs. Impacts to subsistence could also result from mineral exploration and development under the Locatable Minerals program, as well as from proposed inventory and monitoring efforts under a variety of resource programs (see Evaluation of the Effect of Use, Occupancy, or Disposition on Subsistence Uses and Needs beginning on page D-6). However, unlike Alternative A, inventory and monitoring efforts under Alternative B would be guided by a standard set of Required Operating Procedures that serve to protect habitat and resources from potential impacts as a result of permitted activity within the planning area (see Appendix A).

Alternative B has the greatest potential for impacts to subsistence resources from grazing because of the potential impacts to the Western Arctic Caribou Herd (WACH), which is the primary source of large land-mammal protein for most communities in the planning area. Under this alternative the entire planning area would be open to reindeer grazing, which could result in a reduction of grazing habitat for the WACH. However, it is unlikely that new reindeer grazing operations would be established outside of the Seward Peninsula during the life of the plan, due to the documented difficulties of managing a reindeer herd in the presence of caribou (Koskey 2003).

Under Alternative B, oil and gas leasing would be allowed on all BLM lands, except for within “no surface occupancy” zones established along the Pah, Shaktoolik, Ungalik, Inglutalik, Tubutulik, Kuzitrin, and Fish rivers, and along the west bank of the Noatak River. Oil and gas leasing can result in three associated activities: seismic exploration, exploratory drilling, and development. Under Alternative B, no seasonal restrictions would be imposed on oil and gas activity, however, oil and gas exploration would only be allowed to occur during the winter months under specific conditions (see Chapter II).

Subsistence activities that occur during the winter season, and therefore could be affected by seismic exploration or exploratory drilling include: furbearer trapping and hunting, fishing, and hunting of large mammals such as caribou, moose, and muskox. Recent testimony by subsistence hunters in the National Petroleum Reserve-Alaska, where seismic activity is a common yearly occurrence, has indicated that seismic exploration does interfere with overland travel by snowmobile (Brower 2002). Specifically, the deep ruts left in the snow by seismic vehicles create difficult terrain to traverse, and result in excessive wear-and-tear on both snowmobiles and the sleds that are pulled behind them. Replacement or repair of these tools that are used for subsistence harvesting is costly. However, despite the hindrance and annoyance, seismic exploration does not create a substantial barrier between communities and subsistence resources. Additionally, seismic exploration or exploratory drilling are only expected to result in the temporary displacement of subsistence resources and will not effect on the population as a whole.

Impacts from oil and gas development and associated infrastructure are greater than for exploration, given the permanent and year-round nature of operations. If a development were to occur in the calving area of the WACH, or if infrastructure was constructed in such a way as to impede movement of the herd to important insect-relief habitat, then there would be significant impacts to this important subsistence resource. However, for the purposes of this planning effort, it is expected that one oil and gas developmental facility would be constructed in the northern portion of the planning area under Alternative B, outside of the WACH calving area. Other subsistence

species that could be affected by oil and gas include moose, brown bear and muskox; however, impacts to these species as a result of Alternative B are considered negligible (See Wildlife, Alternative B, Impacts to Wildlife from Leasable Minerals discussion in Chapter IV). Although specific parameters concerning the projected development are not discussed, associated roads, pipelines, and docking facilities all serve to potentially displace animals until which time they become acclimated to the infrastructure. Additionally, roads, docks, and even remote airstrips constructed to aid production may serve as potential inroads for nonlocal hunters, increasing the amount of competition to resources in the area. Adequate stipulations and ROPs concerning the use of infrastructure by nonlocals would serve to minimize this type of impact.

Impacts to subsistence uses and wildlife from other potential industries, such as Locatable Minerals (hard-rock or placer mining), Mineral Materials (gravel pits), and Forest Products (timber sales) are expected to be minor given the anticipated levels of these activities. Under Alternative B, the Squirrel River would be designated as a Special Recreation Management Area (726,000 acres) and conflicts between users would be addressed by limiting the number of guides and outfitters allowed to operate in the area, and the number visitor use days. In this way, Alternative B has less impact than Alternative A with regard to subsistence use in this heavily-utilized area (see discussion under Alternative A).

b) Evaluation of the Availability of Other Lands for the Purpose Sought to be Achieved

The purpose sought to be achieved under Alternative B would be to manage BLM lands in the planning area in order to optimize resource development, with little or no restraints on commercial activity. Lands managed by other federal agencies in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents, and wide-scale development of these lands is limited or disallowed by the mission and goals of these federal lands as conservation system units. Other BLM lands in the State, such as the National Petroleum Reserve Alaska, are managed primarily to allow for oil and gas development under specific planning documents. Additional BLM lands are managed by current planning documents that allow a mixture of development and conservation following the BLM multiple-use mission, or are currently being evaluated through the planning process. State and Native Corporation lands cannot be considered in a BLM plan, and under BLM policy other BLM lands outside of Alaska are not considered under ANILCA.

c) Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

Alternatives that would reduce or eliminate the use of public lands needed for subsistence uses include the three action alternatives that are presented and analyzed in Chapters II and IV of the Proposed RMP/Final EIS. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives that were considered but not analyzed in detail are also discussed in Chapter II.

d) Finding

Alternative B would not significantly restrict subsistence use by communities in or near the planning area given the management parameters outlined in Chapter II of Proposed RMP/Final EIS and including the Stipulations and ROPs found in Appendix A. Should the amount of oil and gas exploration or anticipated area of potential development expand, then this finding may need to be revised to take into account unmitigatable impacts to the WACH, and, therefore, to subsistence use.

3. Evaluation and Findings for Alternative C

Alternative C emphasizes active measures to protect and enhance resource values. Production of minerals and services would be more constrained than in Alternatives B or D and in some areas, uses would be excluded to protect sensitive resources. Areas of Critical Environmental Concern (ACEC) and Special Recreation Management Areas (SRMA) are identified, and specific measures proposed to protect or enhance values within these areas. Several rivers are recommended suitable for designation under the Wild and Scenic River Act. Additional limitations on Off Highway Vehicles are proposed to protect habitat, soil and vegetation resources. Most ANCSA (d)(1) withdrawals are revoked but some would be replaced with new withdrawals in order to protect or maintain resource values. Standard Oil and Gas Lease Terms, Oil and Gas Lease Stipulations, and Required Operating Procedures would be implemented to protect resource values, should oil and gas leasing or activity occur. Several areas of caribou and salmon habitat would be unavailable for mineral entry and leasing. This alternative treats lands selected by the State and by Native or village corporations as if it were to be retained in long-term Federal ownership.

a) Evaluation of the Effect of Use, Occupancy, or Disposition on Subsistence Uses and Needs

The analysis of the effects of Alternative C on subsistence uses finds little impact as a result of management actions or designations within the planning area. In fact, many of the proposed actions serve to positively impact subsistence use in that management would emphasize habitat and resource protection. While development activity could occur under this alternative, areas of crucial habitat would be protected by special designation, and by the stipulations and ROPs as presented in Appendix A. Actions such as the creation of new SRMAs, ACECs, and/or the designation of rivers under the Wild and Scenic Rivers Act, do not limit or impose any restriction on subsistence use.

b) Evaluation of the Availability of Other Lands for the Purpose Sought to be Achieved

The purpose sought to be achieved under Alternative C would be to manage BLM lands in the planning area in order to optimize conservation. Lands managed by other federal agencies in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents, and are considered conservation system units. Other BLM lands in the State either already have land use planning documents in place that specify the amounts and types of activities that can or can not occur, or are currently being evaluated by separate planning processes. State

and Native Corporation lands cannot be considered in a BLM plan, and under BLM policy other BLM lands outside of Alaska are not considered under ANILCA.

c) Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

Alternatives that would reduce or eliminate the use of public lands needed for subsistence uses include the three action alternatives that are presented and analyzed in Chapters II and IV of the Proposed RMP/Final EIS. These alternatives were created to represent a wide-range of potential activities that could occur on BLM Lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives that were considered but not analyzed in detail are also discussed in Chapter II.

d) Finding

Alternative C would not significantly restrict subsistence use by communities in the planning area. Most impacts to subsistence resources would be beneficial, and any impacts by way of the limited amount of development allowed to occur under this alternative would be minimized by Standard Oil and Gas Lease Terms, Oil and Gas Lease Stipulations, and Required Operating Procedures.

4. Evaluation and Finding for the Proposed Resource Management Plan (Alternative D)

The Proposed RMP (Alternative D) emphasizes a balanced level of protection, use, and enhancement of resources and services. Constraints to protect resources would be implemented, but would be less restrictive than under Alternative C. This alternative would designate six ACECs, and two SRMAs. No rivers would be recommended as suitable for designation under the Wild and Scenic River Act. This alternative would revoke all remaining ANCSA (d)(1) withdrawals, leaving the planning area open to mineral entry and location. Standard Oil and Gas lease terms, Oil and Gas lease stipulations and Required Operating Procedures would be implemented to protect resource values, should oil and gas leasing or activity occur. This alternative includes additional leasing stipulations and required operating procedures that provide additional protection to caribou and salmon habitats. This alternative describes interim and long-term management strategies for lands selected by the State, or Native regional or village corporations.

Under the proposed RMP (Alternative D), goals have been identified for every program managed by the BLM, and various strategies have been identified and described to guide the BLM in achieving these goals, including inventory and monitoring, management actions, and land use requirements. This updated framework alone is an improvement over the former Northwest Management Framework Plan, which was completed in 1982, and, therefore, does not reflect the issues and management concerns that are currently present in the Planning Area. The Proposed RMP represents the mix and variety of actions that the BLM believes best resolves the identified issues and management concerns in consideration of all values and programs, and is thus considered the BLM's Preferred Alternative and Proposed RMP.

a) Evaluation of the Effect of Use, Occupancy, or Disposition on Subsistence Uses and Needs

The Proposed RMP (Alternative D), much like the draft action alternatives, finds little impact to subsistence use as a result of management actions. All lands within the planning area would be available for oil and gas leasing and impacts similar to those discussed under Alternative B could occur. However, protective measures in the form of Standard Oil and Gas Lease Terms, Oil and Gas Lease Stipulations, and Required Operating Procedures (see Appendix A), including the seasonal restriction of activity, as well as the creation of special areas and ACECs, serve to protect wildlife and habitat from undue stress, thereby reducing potential impacts to subsistence use from a reduction in the amount of available resources. No reduction in or interference to access by subsistence users is anticipated under the Proposed RMP.

Under the Proposed RMP (Alternative D), 726,000 acres of the highly utilized Squirrel River would be managed as a Special Recreation Management Area, and a Recreation Area Management Plan (RAMP) would be developed with substantial local involvement to address recreational use, taking into consideration current use levels, safety, resource impacts, operator tolerance, and quality of recreational experience. Until which time the RAMP would be completed, outfitters and guides would be managed at the 2004/2005 use level, and air taxis and transporters would be required to obtain land use permits to operate on BLM lands. While impacts to subsistence users from competition for resources may still occur along the Squirrel River, the new permit system will allow the BLM to manage and respond to impacts from this type of use. As a result, impacts to subsistence users should be lessened. Once the RAMP is in place, it is envisioned that improved management of both casual and commercial recreation would result in reduced impacts to wildlife and their habitat, and thus, to subsistence.

The primary impact to fish (all species) as a result of the Proposed RMP (Alternative D) is the potential for permitted activities to increase sedimentation and siltation in fish-bearing streams. Direct threats to fish from sediment include changes to physical habitat, subsequent decreased reproductive success, and loss of rearing habitat (see Chapter IV section (B)(3)(a)). The primary activities that can lead to increased erosion and subsequent sedimentation are: recreation, gravel and mineral mining, and fire management. Most of the potential impacts from these activities would be mitigated by the Required Operating Procedures, Stipulations, and Lease Terms found in Appendix A, including ROPs for: Soils, Vegetation, Water, Fish and Wildlife, Minerals Materials, and Mining Law Administration. A 300’ setback along streams is considered less protective of fish habitat than a closure to mineral entry and leasing. However, according to the analysis in Chapter IV, impacts to fish as a result of the Proposed RMP would be negligible, and would not result in a population-level decline or a reduction in habitat.

The primary impact to wildlife, especially large mammals (e.g., caribou, moose, musk oxen), as a result of Proposed RMP is the temporary displacement and disturbance of animals from areas of permitted activity, including oil and gas exploration in the northeastern portion of the Planning Area, and mineral entry. These impacts are minimized by the Required Operating Procedures, Stipulations, and Lease Terms found in Appendix A, especially those ROPs that require seasonal restrictions on activity in special areas during key periods, such as the core calving area or insect relief area of the Western Arctic Caribou Herd. In addition, the designation of six ACECs (Area’s of Critical Environmental Concern) provides additional protection of key habitat for wildlife resources. The Proposed RMP is not anticipated to result in population-level declines to wildlife in the Planning Area.

b) Evaluation of the Availability of Other Lands for the Purpose Sought to be Achieved

The purpose sought to be achieved under the Proposed RMP (Alternative D) is to manage BLM lands in the planning area following the BLM mission of multiple use, while at the same time protecting crucial habitat and enhancing natural resource values. Lands managed by other federal agencies in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents, and are considered conservation system units. Other BLM lands in the State either already have land use planning documents in place that specify the amounts and types of activities that can or can not occur, or are currently being evaluated by separate planning processes. State and Native Corporation Lands cannot be considered in a BLM plan, and under BLM policy other BLM lands outside of Alaska are not considered under ANILCA.

c) Evaluation of Other Alternatives That Would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

Alternatives that would reduce or eliminate the use of public lands needed for subsistence uses include the draft alternatives that were presented and analyzed in Chapters II and IV of the Draft Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM Lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives that were considered but not analyzed in detail are also discussed in Chapter II of the Proposed RMP/Final EIS.

d) Finding

The Proposed RMP (Alternative D) would not significantly restrict subsistence use by communities in the planning area, as impacts to subsistence resources would be negligible, and any impacts by way of the limited amount of development allowed to occur under this alternative would be minimized by the Standard Oil and Gas Lease Terms, Oil and Gas Lease Stipulations, and Required Operating Procedures found in Appendix A. Any identified impacts to subsistence species are expected to be localized and temporary, and are not envisioned to impact resources at the population level. No impacts to access by subsistence users are expected to occur.

In the Squirrel River, competition for subsistence resources, primarily moose, occurs due to the large number of nonlocal hunters, especially those using the services of a hunting guide or transporter. Under the Proposed RMP (Alternative D) guides would be limited to the number in operation during the 2004/2005 season, and transporters or air taxis would be required to obtain a BLM permit to utilize BLM lands. According to ADF&G, the number of nonresident and nonlocal hunters in Game Management Unit 23 has and continues to increase, due to a decline in trophy animals and an increase in hunting restrictions in other units (Dau 2004a). Currently, moose harvest levels are adequate given the abundance of caribou from the WACH, and the preference for caribou by subsistence users. However, if the WACH was impacted to the extent that herd numbers

plummeted and harvest numbers declined, then subsistence users would require more moose to offset this shortage. By requiring air taxis and transporters to obtain BLM permits, and over the long-term, developing a recreation area management plan, the BLM will be better able to respond to subsistence users needs by managing the number of hunters using those services in the Squirrel River SMRA.

C. Evaluation and Finding for the Cumulative Case

The goal of the cumulative analysis is to evaluate the incremental impact of the current action in conjunction with all past, present, and reasonably foreseeable future actions in or near the planning area. The cumulative analysis considers in greatest detail activities that are more certain to happen, and activities that were identified as being of great concern during scoping. Actions included in the cumulative analysis include, but are not limited to, the following:

- The Rock Creek Project, located on the Seward Peninsula includes two project components: the Rock Creek Mine/Mill Complex about 6 miles north of Nome and the Big Hurrah Mine located 42 miles east of Nome in the Solomon River watershed. The Rock Creek Mill complex will consist of an open pit gold mine, two rock dumps, a gold recovery plant, and tailings storage facility. Expected mine life is about five years. The Big Hurrah component consists of a smaller open pit gold mine and several stockpiles. Mine life is estimated to be four years. These developments are taking place on private lands (Alaska Gold Company 2006).
- The Nome Road System includes approximately 200 miles of gravel road originating in Nome. The Nome-Teller Highway runs northwest from Nome to the village of Teller; the Council Highway runs east and north to the seasonal community of Council; the Taylor Highway runs north of Nome to the Kougarok River.
- The Northwest Alaska Transportation Plan (ADOT&PF 2004) outlines the possibility of the development of a Yukon River Highway. If this entire route were constructed, it would create road access from the Elliot Highway west of Fairbanks through the southern edge of the planning area to Nome. The highest priority segments of the Yukon River Highway are located east of the planning area and it is highly unlikely that Highway segments within the planning area would be completed during the life of this plan.
- Other road projects in the Northwest Alaska Transportation Plan include inter-village roads within the region, without a connection to the statewide road system. Inter-village roads would provide greater access to boat launch sites, permanent barge operations, and gravel sources, and improve community connections. Recommended road projects within the planning area include (ADOT&PF 2004): 29 miles of road in the Point Hope area; 18 miles of road in the Northwest Arctic Borough; and 135 miles of road in the Seward Peninsula region.
- As of 2004 the Red Dog Mine reports approximately 1,800 impacted acres. Exploration of mineralization in areas adjacent to Red Dog Mine is ongoing. A 52 mile haul road connects the mine to the Delong Mountain Terminal. This is the only industrial road in the region.
- The De Long Mountain Terminal is an existing facility located at Portsite, north of Kivalina used to receive, store and load ore concentrate from Red Dog Mine. There are plans to upgrade this facility. If the project is approved and funding available, construction could potentially occur 2009-11. The tentatively recommended plan includes construction of an approximately 18,500-foot-long, 53-foot-deep dredged channel leading to a 1,450-foot-long trestle, carrying a roadway and enclosed concentrate conveyor from shore to a deep-draft

dock. In addition, the dock has the capability to offload ocean going fuel tankers, with the fuel being stored in the existing fuel tank farm. The fuel would then be used for operations of Red Dog Mine and Portsite, and would be transshipped through the existing lightering barge dock to coastal and riverine fuel barges to serve numerous villages in northwestern arctic Alaska.

- Improvements to Portsite could result in additional development in the Northwest Arctic Borough or North Slope Borough. Those considered reasonably foreseeable include: expansion of Noatak airport; fuel transfer to communities; road system from De Long Mountain Terminal System to communities; and Kivalina relocation; and natural gas exploration near Red Dog Mine (U.S. Army Corps of Engineers 2005).
- There currently are 25 producing oil fields on the North Slope, with Prudhoe Bay, Kuparuk River, Alpine field, Northstar, Point McIntyre, and Milne Point being the most productive.
- Within the National Petroleum Reserve-Alaska, nearly 15,000 miles of seismic survey was completed and interpreted between 1974 and 1982. Seismic work was discontinued after1982 and did not resume until 1994 after the discovery of the Alpine Field. The total line-miles of seismic data acquired are not known but include at least 2,615 line-miles (BLM 2005h).
- It is assumed for analysis purposes that all oil that is accessible under the Northwest NPR-A ROD will be produced. This approach suggests more development and production than was analyzed in the Northwest NPR-A IAP/EIS (BLM 2003b) and likely greatly overstates the level of development that would occur. To develop the approximately 4,100 MMbbls of oil that is accessible within Northwest NPR-A, BLM anticipates the following amount of development: as many as 94 exploration wells, 71 delineation wells, 6 central production pads (540 acres), 300 satellite pads (300 acres), three staging bases, six pump stations, 300 miles of gravel road, 300 miles of gathering lines, and 295 miles of sales pipelines would be constructed (BLM in prep.). This scenario, assumes a peak oil production of 83 MMbbl per year
- In the Northeast NPR-A planning area the following exploration and development is assumed for analysis purposes (based on Alternative C): 250 miles of 2-D seismic survey lines, 10, 560 miles of 3-D seismic survey lines, 120 oil exploration wells, 90 oil delineation wells, seven central processing facilities, 32 gravel production pads, seven gravel runways, 320 miles of in-field roads, 320 miles of gathering lines, 182 miles of sales oil pipelines, seven pump stations, four staging bases, and 16 gravel pits. An estimated 7,781 acres of short-term disturbance and 4,649 acres of long-term disturbance would result from this development (BLM in prep).
- The Alpine field, which began producing on the Colville River Delta in 2000, is the closest that oil field infrastructure has come to the planning area (approximately 300 miles to the east). The Alpine oil field encompasses approximately 890,000 acres of federal, state, and private lands near the eastern edge of the National Petroleum Reserve-Alaska. Oil is transported through a 34-mile pipeline to the Kuparuk River Unit. Ice roads and bridges provide access during the winter; otherwise there are no overland routes to this isolated field. The existing footprint of the Alpine oil field infrastructure, excluding the pipeline to the Kuparuk River Unit, is approximately 170 acres (BLM 2005h). The field currently includes four production pads, with plans for an additional three.
- State and Native entitlements will be met during the life of the plan. Up to 7 million acres within the planning area may be conveyed out of Federal ownership.
- Land conveyed to the State will fall under management prescribed in the Northwest Area Plan for State Lands (ADNR 1989) or other future plans developed by the State. Under the current State planning document, most state land, will be kept in public ownership and

managed for multiple-use. Most state land will be open to mineral entry and coal leasing. All state land will be available for oil and gas leasing.

- Approximately 285,000 acres of State land within the Northwest Arctic Borough (NAB) would be conveyed to the Borough. Most of this land will be acquired in the Kobuk, Candle, Wulik, and Squirrel watersheds. Once conveyed, this land would be managed consistent with the Northwest Arctic Borough's Comprehensive Plan and Title 9 of the NAB Municipal Code. Title 9 NAB provides for a wide variety of activities.
- The North Slope Borough has selected approximately 26,000 acres of State land within the planning area: approximately 5,000 acres on barrier islands in the north and 21,000 acres about 40 miles southeast of Point Hope. However, the North Slope Borough may meet their entitlement (89,000 acres) in other areas of the Borough, outside of the planning area.
- Land conveyed to native corporations would fall under management prescribed by the Native Corporation. Title to the mineral estate under these lands is conveyed to regional Native Corporations and may be available for development in the future.
- The Minerals Management Service (MMS) has produced a hypothetical development scenario as part of the Chukchi Lease Sale 193 Draft EIS (MMS 2006). The scenario assumes an abrupt increase in the level of activity compared to the past. The Chukchi Sea is viewed as one of the most petroleum-rich offshore provinces in the country, with a mean recoverable oil resource of 12 billion barrels (Bbbl). The actual size and location of future oil and gas developments in the Chukchi Sea are uncertain. However, for purposes of analysis, the MMS estimated that one oil field containing 1 billion barrels (Bbbl) would be developed as a result of Sale 193. The scenario for new petroleum development in the Chukchi Sea took into account existing infrastructure on the North Slope because it is likely that future projects in northern Alaska will be tied into these facilities. Under this scenario, production from the Chukchi lease sale area could begin in 2020 with peak oil production rate from the first offshore field assumed to be approximately 225,000 bbl per day. Leasing to production would take approximately 15 years. The total life-cycle of the offshore project could last 30-40 years with 25 years of oil production.
- Approximately, 100,000 line miles of 2-D seismic data has been collected to date in the Chukchi Sea. Exploration will continue including 3-D seismic surveys which would take place during the open water season (May-September). Survey times average 20 to 30 days to cover a 200 sq-mi area. The 3-D surveys could begin before the November 2007 lease sale. Up to 4 surveys could take place annually. During seismic surveys, the vessels are largely self-contained and helicopter support flights average one per day (MMS 2006).
- If a commercial discovery is made in the Chukchi Sea as a result of Lease Sale 193, a new shorebase would be constructed. Heavy equipment and materials would be moved to the coastal site using barges, aircraft, and winter ice roads. Transportation activities would be more frequent during the construction phase (three years), beginning about 3 years after the discovery. The overall level of transportation in and out of the shorebase would drop significantly after construction is completed. During production operations aircraft would generally be smaller with less frequent flights (2 per day). Ice road traffic would be intermittent (MMS 2006).
- There is no infrastructure in NPR-A at the present time, so a new large-diameter gathering line would have to be constructed from the Chukchi coast to the Prudhoe Bay area (MMS 2006). The pipeline and communication lines would be constructed on elevated vertical supports during the winter to connect with the western extent of the TAPS pipeline infrastructure (about 300 miles). Pump stations would be needed at about 100-mi intervals and where possible would be co-located with oil field facilities. The size and location of the overland pipeline would be influenced by future discoveries and development in the NPR-A, but it is assumed that it would be oriented west-east in the shortest corridor to TAPs.

a) Evaluation of the Effect of Such Use, Occupancy, or Disposition on Subsistence Uses and Needs

According to the wildlife analysis in Chapter IV of the Proposed RMP/Final EIS, the combination of ongoing oil and gas development occurring on the North Slope on both State and Federal lands, future oil and gas development projected for the National Petroleum Reserve-Alaska, oil and gas development in the northern quarter of the planning area, and possible solid mineral exploration and development in the same region, could have cumulative impacts on caribou from the WACH. In addition, the privatization of State or Native Corporation lands could lead to additional development. Depending on the location of development, these impacts could include: short or long-term disturbance to caribou calving habitat, insect relief habitat, and migratory routes; disruption of caribou movements; stress and disturbance impacts to caribou during all seasons of the year; and possible reductions in herd productivity. If significant activity occurred within the calving grounds or crucial insect relief habitat, these impacts could be significant.

Development of regional roads within the planning area would have the potential to negatively affect wildlife, and thus affect subsistence uses. These impacts would include habitat fragmentation, increased access into wildlife habitats, increased disturbance impacts, increased potential for mortality (road kills) and possible alteration of behavior or movement patterns of wildlife. Small roads that connect communities within the planning area may aid subsistence users in accessing their traditional harvest areas. However they may also concentrate hunting efforts along the road corridor, thus depleting resources from the area, and potentially altering harvest from currently-used traditional harvest areas. Increased competition for subsistence resource would likely result if smaller communities were linked to the existing road system within the State, as non-resident hunters would be able to access the area with little effort. This may also result in an increase in tourist traffic and recreational use of the area, resulting in additional impacts to wildlife. However, the construction of major road projects within the life of the plan would be dependant upon social and economical conditions and it is not clear which, if any, of these projects would be completed during the life of the plan. Because regional road construction in the planning area is so uncertain and the level of development projected through this plan so minimal, no cumulative impacts to subsistence species are anticipated

Currently, sea mammals comprise a significant portion of the annual harvest by most communities within the planning area. Due to the migratory nature of sea mammals within the area, should improvement be made at Portsite, sea mammal harvesting could be affected for the duration of the activity. This would lead to an increase in dependence on large land mammals such as caribou and moose. Should simultaneous activity take place that would reduce the amount of land mammals, especially the WACH, then a subsistence crisis would ensue for most communities within the planning area.

b) Evaluation of the Availability of Other Lands for the Purpose Sought to be Achieved

The Cumulative Case, as presented in the Proposed RMP/Final EIS, contains information on reasonably foreseeable activities that could have an effect on the management decisions being

analyzed as part of the RMP. The purpose of the Cumulative Case is to present known ongoing activity by all entities on all lands near or within the planning area, as well as those activities that have been proposed for the future and are likely to occur. The Cumulative Case is not an implementable alternative that specifies land uses and management, and is instead a discussion of impacts that could affect the management decisions contained within Alternatives A through D of the Proposed RMP/Final EIS. As such, no other lands are evaluated under the Cumulative Case.

c) Evaluation of Other Alternatives that would Reduce or Eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes

Alternatives that would reduce or eliminate the use of public lands needed for subsistence uses include the three action alternatives that are presented and analyzed in Chapters II and IV of the Proposed RMP/Final EIS, as well as Alternative A. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives that were considered but not analyzed in detail are also discussed in Chapter II.

d) Finding

The cumulative case, as presented in this analysis, may result in a reasonably foreseeable and significant restriction of subsistence use for most communities within the planning area, if significant activity occurred within the calving grounds or crucial insect relief habitat of the WACH. Currently, the WACH is a primary subsistence resource for 30 communities in Northern and Northwestern Alaska, with approximately 15,000 animals harvested yearly (Dau 2003b). As discussed above, increasing oil and gas exploration and development activity, as well as the potential for major road projects within the Planning Area, could both be detrimental to the WACH. In addition, should impacts to sea mammals occur due to improvements and increased traffic to Portsite, then a corresponding increase in land mammal and fish harvest would occur. The potential increase in harvest, as well as the possible negative effects to the WACH, contribute to the finding of “may significantly restrict subsistence use.”

D. Notice and Hearings

ANILCA Sec. 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 ANILCA Sec. 810(a)(1) and (2). The BLM provided notice in the Federal Register that it had made positive findings pursuant to ANILCA Sec. 810 that Alternative A and the cumulative case presented in the Draft Resource Management Plan/EIS met the “may significantly restrict” threshold. As a result, public hearings were held in the potentially affected communities of Ambler, Buckland, Kiana, Kivalina, Kotzebue, Koyuk, Nome, Noorvik, Point Hope, and Shaktoolik. Notice of these hearings was provided by direct mailings and through the local media, including the Nome Nugget newspaper and KOTZ, the local Kotzebue radio station, with coverage to many villages in Northwest Alaska. The determinations presented below are based on the results of the Hearings

held after the release of the draft RMP/EIS. An additional Hearing will be held in Kotzebue in conjunction with the release of the Proposed Resource Management Plan and Final EIS. Should new testimony result in changes to the Proposed RMP, this testimony will be included in the determinations accompanying the ANILCA 810 evaluation summary contained within the Record of Decision.

E. Subsistence Determinations Under ANILCA Sec. 810(a)(3)(A), (B), and (C)

ANILCA Sec. 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 the ANILCA Sec. 810(a)(1) and (2), and makes the three determinations required by the ANILCA Sec. 810(a)(3)(A), (B), and (C). The three determinations that must be made are: 1) that such a significant restriction of subsistence use is necessary, consistent with sound management principles for the utilization of the public lands; 2) that the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other such disposition; and 3) that reasonable steps will be taken to minimize adverse impacts to subsistence uses and resources resulting from such actions [16 U.S.C. Sec. 3120(a)(3)(A), (B), and (C)].

The BLM has found in this subsistence evaluation that the cumulative case considered in the Proposed Resource Management Plan and Final EIS may significantly restrict subsistence uses. Therefore, BLM undertook the notice and hearing procedures required by ANILCA § 810 (a)(1) and (2) in conjunction with release of the Proposed RMP/Final EIS in order to solicit public comment from potentially affected subsistence users.

The determinations below satisfy the requirements of ANILCA § 810(a)(3)(A), (B), and (C).

a. Significant Restriction of Subsistence Use is Necessary, Consistent with Sound Management Principles for the Utilization of Public Lands.

On January 30, 2004, the Bureau of Land Management (BLM) issued a Notice of Intent in the Federal Register to prepare a Resource Management Plan (RMP) and associated Environmental Impact Statement (EIS) for lands administered by the Northern Field Office (now known as the Fairbanks District Office). As defined by the Federal Land Policy and Management Act (FLPMA) of 1976, as amended, public lands are those federally-owned lands and interests in lands (e.g., federally-owned mineral estate) that are administered by the Secretary of the Interior, specifically through the BLM. This includes lands selected, but not yet conveyed, to the State of Alaska and Native Corporations and villages.

The approved RMP will meet BLM statutory requirements for a land use plan as mandated by Section 202 of FLPMA, which specifies the need for comprehensive land use plans consistent with multiple-use and sustained yield objectives. The EIS will fulfill requirements of the National Environmental Policy Act (NEPA) of 1969, as amended, to disclose and address environmental impacts of proposed major Federal actions through a process that includes public participation and cooperation with other agencies.

After considering a broad range of alternatives, a proposed action was developed that serves to fulfill the multiple-use mission of the BLM. Through the completion of this RMP/EIS, the BLM proposes to provide a comprehensive land use plan that will guide management of the public lands and interests administered by the Fairbanks District Office and the Anchorage Field Office. Most site-specific decisions and management actions, such as designation of specific trails, will occur through subsequent implementation plans.

Current management of these lands is guided by the Northwest Management Framework Plan (MFP) (BLM 1982). The MFP was amended in 2005 to be consistent with the National Fire Plan (BLM 2004b, 2005c). Since approval of the MFP in 1982, new regulations and policies have created additional considerations that affect the management of public lands. In addition, new issues and concerns have arisen over the past 20 years. Consequently, some of the decisions in the MFP are no longer valid or have been superseded by requirements that did not exist when the MFP was prepared. These new issues and changes in management policy drive the need for an inclusive, comprehensive plan that provides clear direction to both the BLM and the public.

The BLM has determined that the significant restriction that may occur under the Proposed Action, when considered together with all the possible impacts of the cumulative case, is necessary, 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 FLPMA and other applicable laws.

B. 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 Proposed RMP involves the minimal amount of public lands necessary to accomplish the purposes of the proposed action—which is the creation of an inclusive, comprehensive plan that provides clear direction to both the BLM and the public on how BLM lands and resources in the Kobuk-Seward Peninsula Planning Area should be managed. The Proposed RMP is only applicable to BLM lands within the Planning Area.

C. Reasonable Steps will be taken to Minimize Adverse Impacts upon Subsistence Uses and Resources Resulting from such Actions.

When BLM began its NEPA scoping process for the Kobuk-Seward Peninsula RMP, it internally identified subsistence use as one of the major issues to be addressed. The results of public scoping meetings in communities throughout the planning area, consultation with tribal governments, and numerous meetings and correspondence with local governments, were all used to craft the Proposed RMP. In addition, the BLM took into consideration comments from villages and individuals during the ANILCA Section 810 Subsistence Hearings. This information resulted in protections and management parameters that are beneficial to subsistence use, and are included as part of the Proposed RMP. These include:

- Additional interim management actions added to the Squirrel River Special Recreation Management Area, including: limiting the number of guide permit to the 2004/2005 level; and requiring air taxis and transporters to obtain a BLM permit to conduct activity on BLM lands.
- The creation of a Recreation Opportunity Spectrum for the Extensive Recreation Management Area (ERMA) which provides management controls on commercial use of the majority of the Planning Area.
- The establishment of Required Operating Procedures (see Appendix A) for all permitted activities within the Planning Area, including: ROP Sub-1a, which requires permittees to provide information to, and consult with affected subsistence communities in order to minimize impacts to subsistence use; and several ROPs that are beneficial to Fish and Wildlife species and habitat.
- The establishment of six Areas of Critical Environmental Concern, which serve to protect important habitat and resources, and two Special Recreation Management Areas, which were created in response to users of the areas, including subsistence users.
- The adoption of Oil and Gas Lease Stipulations that serve to protect subsistence habitat and resources from oil and activity and development by stipulating the acceptable parameters under which oil and gas exploration and development can be conducted on BLM lands.

Given these steps, the BLM has determined that the Proposed RMP includes all reasonable steps to minimize adverse impacts on subsistence uses and resources that may result from the proposed action.

Appendix E:

BLM Alaska
Structure Protection Policy
February 2007

BLM Alaska
Structure Protection Policy
February 2007

The following policy and procedures are meant to serve as guidance to the Alaska Fire Service (AFS) and the Alaska Division of Forestry (DOF), as appropriate, concerning cabin/structure protection priorities in relation to wildland fire monitoring and suppression activities on lands managed by the Bureau of Land Management in Alaska. Item 2 lists the protection priorities on BLM managed lands. This policy recognizes that availability of resources may preclude protection of some sites indicated for protection during portions of the fire season.

1. The safety of the public and fire suppression personnel will remain the first priority when fire suppression/protection decisions are made.

2. The Bureau of Land Management (BLM) will provide protection of structures on Bureau lands using the following criteria:
   a) Regardless of the value of the cabin/structure, the protection and safety of human life will take precedence. This means that high value cabin/structures may not be protected if suppression puts human life at risk. Conversely, low value cabin/structures may be protected to ensure public safety.
   b) It is necessary to preserve structures to save human life due to an imminent threat of the structure(s) being burned over.
   c) If the structure has been evaluated and is on or has been determined to be eligible for the National Register of Historic Places.
   d) If the structure has not been evaluated for eligibility to the National Register of Historic Places, the Evaluating Structures for Historic Value process (attached below) will be initiated.
   e) Public funds have been expended in the construction and/or maintenance of the structure. These federal facilities should receive protection commensurate with their monetary or resource management value as established by the Field Office Manager.

3. Field Offices will initiate the actions to reduce hazardous fuels adjacent to federal facilities, structures that have been identified for protection.

4. The policy for unauthorized structures will be consistent with policy items 1-3 above.

5. Decisions made pursuant to this policy will be recorded on the fire map atlas. Keeping the fire maps current is a joint responsibility of the field office specialist, field office fire personnel, and the AFS/DOF fire management officers. Changes in fire maps should be initiated as part of the annual fire plan. Part of the annual review will be to re-evaluate any fire operations that included cabin/structure protection actions in the preceding year.

Evaluating Structures for Historic Value

The Normal Situation

The current fire map atlas or an equivalent source will be kept updated with current information, including protection standards for structures based in part on an assessment of their historic value. Part of this historic assessment will be a determination of eligibility arrived in consultation with the State Historic Preservation Officer in exactly the same fashion as we do for other activities.

Sites will be designated for full protection unless they have been determined to be not eligible for the National Register.

In a Wildfire Situation

In a wildfire situation, it may be necessary to try to determine appropriate levels of protection for structures whose eligibility to the National Register has not been determined, or it may be necessary to provide priorities among structures designated for full or critical protection. In those cases, the following process will be followed. All decisions that are based on this process will be documented and submitted to the Field Office Manager.

1. A qualified cultural resource specialist is available.

   1.0 If at all possible[1], a qualified cultural resource specialist will evaluate structures to determine if they appear to have sufficient historic value to warrant protection. The specialist will also try to assign relative value to multiple structures so that resources can be concentrated on the most important sites.

   1.1 If time and circumstances allow, the cultural resource specialist will arrive at determinations of historic value only after an on-site visit to the structures involved.

   1.2 If circumstances do not allow for an on-site visit by a cultural resource specialist, the determination will be made by the cultural resource specialist on the basis of the best available information.

      1.2a If AFS/DOF personnel can get to the site, they should try to obtain the following information for use by the cultural resource specialist:

         - photograph(s) – digital or Polaroid images
         - number of structures
         - conditions of structures (collapsed, standing, ruin)
         - construction materials (logs, plywood, sheet metal)
         - associated features (bottle/can dumps, equipment)

[1] If the home Field Office cultural resource specialist is not available, attempts will be made to contact a cultural resource specialist from another Field Office or the State Office to provide assistance.

1.2b Use of a standard data gathering form, which would be available for fire personnel, is encouraged. This would greatly facilitate determinations of the historic value of structures and sites.

1.3 Once information has been gathered regarding structures involved in a wildfire situation, protection status and protection priorities will be made after communication with the State Historic Preservation Office (SHPO) if time and circumstances allow. Use of current technology may assist in this communication. (For example, digital images might be gathered and posted on a web page or transmitted via e-mail.)

1.3a If circumstances do not allow for communication with the SHPO, a determination of historic value will be made by the cultural resource specialist.

2. A qualified cultural resource specialist is not available.

2.0 Historic evaluations will be made by the Field Office fire personnel.[2]

2.1 Training will be provided to the Field Office fire personnel to allow him/her to better make these evaluations. The details and extent of this training will be worked out by the FMO and the field archaeologists

3. If the Field Office Manager or their acting cannot be contacted

3.0 If no other options are available, evaluations should be made by AFS/DOF personnel on site. The following is meant to provide some guidance in making these evaluations.

3.1 An older structure is probably more important than a younger one. Several characteristics of structures can be used to estimate relative age, such as the state of collapse; construction materials (logs vs. plywood); vegetation re-growth around the structure; and associated artifacts (wagon vs. *1934 Dodge*)

3.2 A settlement, meaning a site with multiple dwelling structures, is probably more *important* than a single structure.

3.3 A site with a single dwelling structure and associated outbuildings, such as barns, sheds, outhouses or caches, is more important than an isolated structure.

3.4 A site with associated non-structural features, such as can or bottle dumps is probably more important than one without.

[2] If the home Field Office fire personnel are not available, attempts will be made to contact the Field Office Manager or their acting.

Appendix F

Master Memorandum of Understanding Between ADF&G and BLM

MASTER MEMORANDUM OF UNDERSTANDING

BETWEEN

THE ALASKA DEPARTMENT OF FISH AND GAME
Juneau, Alaska

AND

THE U.S. BUREAU OF LAND MANAGEMENT

DEPARTMENT OF THE INTERIOR

Anchorage, Alaska

This Master Memorandum of Understanding between the State of Alaska, Department of Fish and Game, hereinafter referred to as the Department, and the U.S. Department of the Interior, Bureau of Land Management, hereinafter referred to as the Bureau, reflects the general policy guidelines within which the two agencies agree to operate.

WHEREAS, the Department, under the Constitution, laws, and regulations of the State of Alaska, is responsible for the management, protection, maintenance, enhancement, rehabilitation, and extension of the fish and wildlife resources of the State on the sustained yield principle, subject to preferences among beneficial uses; and

WHEREAS, the Bureau, by authority of the Constitution, Laws of Congress, executive orders, and regulations of the U.S. Department of Interior has a mandated responsibility for the management of Bureau lands, and the conservation of fish and wildlife resources on these lands; and

WHEREAS, the Department and the Bureau share a mutual concern for fish and wildlife conservation, management, and protection programs and desire to develop and maintain a cooperative relationship which will be in the best interests of both parties, the concerned fish and wildlife resources and their habitats, and produce the greatest public benefit; and

WHEREAS, it has been recognized in the Alaska National Interest Lands Conservation Act (ANILCA) and subsequent implementing Federal regulations that the resources and uses of Bureau lands in Alaska are substantially different than those of similar lands in other states; and

WHEREAS, the U.S. Congress and the Alaska Legislature have enacted laws to protect and provide the opportunity for continued subsistence use of Alaska's fish and wildlife resources by rural residents; and

WHEREAS, the Department and the Bureau recognize the increasing need to coordinate resource planning, policy development, and program implementation;

NOW, THEREFORE, the parties hereto do hereby agree as follows:

THE DEPARTMENT OF FISH AND GAME AGREES:

1. To recognize the Bureau as the Federal agency responsible for multiple-use management of Bureau lands including wildlife habitat in accordance with the Federal Land Policy and Management Act, ANILCA, and other applicable law.

2. To regulate and manage use of fish and wildlife populations on Bureau lands in such a way as to maintain or improve the quality of fish and wildlife habitat and its productivity.

3. To consult with the Bureau in a timely manner and comply with applicable Federal laws and regulations before embarking on enhancement or construction activities on or which would affect Bureau lands.

4. To act as the primary agency responsible for management of all uses of fish and wildlife on State and Bureau lands, pursuant to applicable State and Federal laws.

5. To notify the Bureau of any animal damage control activities on Bureau lands; and to obtain Bureau approval for the use of pesticides, herbicides, or other toxic chemical agents in the course of animal damage control.

6. To provide all maintenance on facilities, structures, or other construction owned by the Department on Bureau lands; and to hold the Bureau harmless for liability claims resulting from these constructions, facilities, and/or structures.

THE BUREAU OF LAND MANAGEMENT AGREES:

1. To recognize the Department as the primary agency responsible for management of use and conservation of fish and wildlife resources on Bureau lands.

2. To recognize the right of the Department to enter onto Bureau lands at any time to conduct routine management activities which do not involve construction, disturbance to the land, or alterations of ecosystems.

3. To recognize the Department as the primary agency responsible for policy development and management direction relating to uses of fish and wildlife resources on State and Bureau lands, pursuant to applicable State and Federal laws.

4. To incorporate the Department's fish and wildlife management objectives and guidelines in Bureau land use plans unless such

provisions are not consistent with multiple use management principles established by FLPMA, ANILCA, and applicable Federal law.

5. To adopt the State's regulations to the maximum extent allowed by Federal law when developing new or modifying existing Federal regulations governing or affecting the taking of fish and wildlife on Bureau lands in Alaska.

6. To notify the Department of any portion of the Department's fish and wildlife management objectives, guidelines, or State regulations that the Bureau determines to be incompatible with the purposes for which Bureau lands are managed.

7. To manage Bureau lands so as to conserve and enhance fish and wildlife populations.

8. To inform the Department of proposed development activities on Bureau lands which may affect fish and wildlife resources, subsistence and other uses, and to provide or require appropriate mitigation where feasible.

9. To permit, under appropriate agreement or authorization, the erection and maintenance of facilities or structures needed to further fish and wildlife management activities of the Department on Bureau lands, provided their intended use is not in conflict with Bureau policy and land-use plans.

10. To recognize that the taking of fish and wildlife by hunting, trapping, or fishing on Bureau lands in Alaska is authorized in accordance with applicable State and Federal law unless State regulations are found to be incompatible with Bureau regulations.

THE DEPARTMENT OF FISH AND GAME AND BUREAU OF LAND MANAGEMENT MUTUALLY AGREE:

1. To coordinate planning for management of fish and wildlife resources on Bureau lands and adjacent lands having common fish and wildlife resources so that conflicts arising from differing legal mandates, objectives, and policies either do not arise or are minimized.

2. To cooperate in planning, enhancement, or development activities on Bureau lands which require permits, environmental assessments, compatibility assessments, or similar regulatory documents by responding in a timely manner with requirements, time tables, and any other necessary input.

3. To consult with each other when developing or implementing policy, legislation, and regulations which affect the attainment of wildlife resource management goals and objectives of the other agency.

4. To cooperate in the management of fish and wildlife resources and habitat (including planning, regulation, enforcement, protection, restoration, research, inventories, and habitat enhancement) on Bureau lands and adjacent lands having common fish and wildlife resources consistent with the species and habitat management plans and objectives of both agencies.

5. To develop specific plans for cooperative development and joint management of habitat areas determined to be essential to the continued productivity or existence of fish and wildlife populations.

6. To consult with the Department prior to entering into any cooperative land management agreements which could affect fish and wildlife resources.

7. To cooperate in the development of fire management plans which may include establishment of priorities for the control of wildfires, or use of prescribed fires.

8. To make facilities, equipment and assistance mutually available on request for use in fish and wildlife work and habitat improvement consistent with Bureau and Department requirements.

9. Neither to make nor sanction any introduction or transplant of any fish or wildlife species on or affecting Bureau lands without first consulting with the other party and complying with applicable Federal and State laws and regulations.

10. To provide to each other upon request fish and wildlife data including subsistence and other uses, information, and recommendations for consideration in the formulation of policies, plans and management programs regarding fish and wildlife resources.

11. To cooperate in the preparation of announcements and publications and the dissemination of fish and wildlife information; any material obtained from cooperative studies may be published or reproduced with credit given to the agencies or organizations responsible for its acquisition or development. Any news release relating specifically to cooperative programs will be made only by mutual consent of the agencies.

12. To cooperate and coordinate in the issuance of permits to persons, industry, or government agencies for activities affecting designated anadromous fish streams on Bureau lands, in accordance with Alaska Statute 16.05.870 and to cooperate in the formulation of comments and recommendations on permits issued by other governmental agencies in accordance with the Fish and Wildlife Coordination Act, Clean Water Act and other applicable laws.

13. To resolve, at field office levels, all disagreements pertaining to the cooperative work of the two agencies which arise in the field and to refer all matters of disagreement that cannot be resolved at equivalent field levels to the State Director and to the Commissioner for resolution before either agency expresses its position in public.

14. To meet annually at the Director/Commissioner level and discuss matters relating to the management of fish and wildlife resources and their habitats on, or affected by, respective programs; to provide for other meetings at various administrative levels for discussion of law enforcement, educational programs, cooperative studies, research, fish and wildlife surveys, habitat development, hunting, fishing, trapping seasons, and such other matters as may be relevant to fish and wildlife populations and their habitats.

15. To develop such supplemental memoranda of understanding and cooperative agreements between the Bureau and the Department as may be required to implement the policies contained herein.

16. That this Master Memorandum is subject to the laws of the State of Alaska and the United States. Nothing herein is intended to conflict with current directives, laws or regulations of the signatory agencies. If conflicts arise or can be foreseen, this Memorandum will be amended or a new Memorandum of Understanding will be developed.

17. That this Master Memorandum of Understanding is subject to the availability of appropriated State and Federal funds.

18. That this Master Memorandum of Understanding establishes procedural guidelines by which the parties shall cooperate, but does not create legally enforceable obligations or rights.

19. That this Master Memorandum of Understanding supersedes all previous Master Memoranda of Understanding between the Bureau and Department and all supplements and amendments thereto.

20. That this Master Memorandum of Understanding shall become effective when signed by the Commissioner of the Alaska Department of Fish and Game and the State Director of the Bureau of Land Management and shall continue in force until terminated by either party by providing notice in writing 120 days in advance of the intended date of termination.

21. That amendments to this Master Memorandum of Understanding may be proposed by either party and shall become effective upon approval by both parties.

STATE OF ALASKA

Department of Fish and Game

By Don W. Collinsworth

Don W. Collinsworth

Commissioner

Date 6-28-83

U.S. DEPARTMENT OF THE INTERIOR

Bureau of Land Management

By

Curtis V. McVee

Director

Date 8/3/83

Supplement to the
MASTER MEMORANDUM OF UNDERSTANDING
between
THE ALASKA DEPARTMENT OF FISH AND GAME
AND
THE BUREAU OF LAND MANAGEMENT
U.S. DEPARTMENT OF THE INTERIOR, ALASKA

SIKES ACT IMPLEMENTATION

This supplemental memorandum of understanding is pursuant to the Master Memorandum of Understanding between the Alaska Department of Fish and Game (ADF&G) and the Bureau of Land Management (BLM), Alaska, dated AUG 3 1983. Public Law 93-452, of October 18, 1974, 16 U.S.C. 670a et seq., commonly referred to as the Sikes Act, provides the broad authority to: 1) Plan and carry out fish and wildlife conservation and habitat rehabilitation programs on Bureau lands consistent with overall land use plans; 2) Protect significant habitat for threatened and endangered species; and 3) Enforce regulations to control off road vehicle (ORV) traffic or other public use of lands subject to conservation and rehabilitation programs conducted under the Act.

The Act in no way diminishes the authority of the State of Alaska to manage resident fish and wildlife populations.

It is the purpose and intent of this supplement to provide a working relationship and procedure for implementation of the Sikes Act on Bureau lands in Alaska between ADF&G and BLM.

Terms used in this supplement are defined as follows:

1) Conservation and rehabilitation program - Includes programs necessary to protect, conserve, and enhance wildlife resources to the maximum extent practicable on Bureau lands consistent with any overall land-use and management plans for the lands involved.

2) Habitat Management Plan (HMP) - BLM's intensive, detailed action plan for wildlife management on a specific geographic area of biological interest on Bureau lands. The HMP is a cooperative plan with the State Wildlife agency and is based on current public input. The HMP shall be the implementing document for the Sikes Act.

3) Bureau Lands - These are public lands under the jurisdiction of the Bureau of Land Management.

THEREFORE, BE IT RESOLVED THAT FOR THE PURPOSE OF IMPLEMENTING P.L. 93-452, ADF&G and BLM mutually agree to the following:

1) HMPs will be implemented for areas where land-use plans have been prepared, unless otherwise authorized by the State Director, BLM.

2) HMPs will be based on priorities within Alaska, as mutually selected by the Commissioner, ADF&G, and the State Director, BLM. Guidelines for establishing HMP priorities shall be based on the following:

   a) The basic resource values which may be enhanced and benefits produced by implementation of active management programs and/or regulations.

   b) The identification, through the BLM or ADF&G planning systems, of areas having a need for intensive wildlife management.

   c) The potential for wildlife habitat to be altered by land use activities such as energy and industrial development, urban expansion, road construction, and ORV traffic.

   d) The need to protect important and/or critical fish and wildlife habitat such as salmon spawning areas, moose winter range, or the habitats of endangered or threatened species.

3) Protection will be afforded to those fish and wildlife species designated as threatened or endangered by the Alaska Department of Fish and Game or by the Secretary of the Interior pursuant to Section 4 of the Endangered Species Act of 1973.

4) HMPs will specify fish and wildlife habitat improvements or modifications needed.

5) Rehabilitation of Bureau lands will be undertaken where necessary to support HMP recommendations and consistent with the availability of funds for that purpose.

6) Hunting, fishing, and trapping of resident fish and wildlife on HMP areas will be in accordance with applicable laws and regulations of the State of Alaska.

7) It is herein recognized that the Secretary of the Interior has the authority to promulgate regulations to control the public use of Bureau lands consistent with the HMP, including, but not limited to ORV use. BLM and ADF&G will coordinate federal land use and state hunting, fishing and trapping regulations during Sikes HMP development.

8) Funds authorized and appropriated for HMP implementation on Bureau lands in Alaska shall include, but not be limited to all activities associated with scientific resource management, such as the following: protection, research, census, law enforcement, habitat management, propagation, live trapping, transplantation, and regulated taking. Funds may be allocated for hiring of personnel, contractual services, physical habitat improvement projects, and grants to colleges. It shall be the joint responsibility of the Commissioner, ADF&G, and the State Director, BLM, to define areas and projects for priority funding under the Sikes Act. It shall be the responsibility of the State Director, BLM to secure funding through BLM's program funding procedures. Final disbursement of Sikes Act Funds shall be made through the State Director, BLM, after consultation with the Commissioner, ADF&G.

9) Plans and programs initiated on Bureau lands under the Sikes Act in Alaska shall not conflict with comprehensive plans required of the State under any Federal or State Acts.

10) BLM and ADF&G will discuss the following Sikes Act items during the course of their annual coordination meeting:

    a) A progress report on the current status of HMP implementation.

    b) The review of wildlife values produced under the existing conservation and rehabilitation programs.

c) The priorities for HMP implementation.

d) The program and budget recommendations for the upcoming and succeeding fiscal years.

This supplement shall become effective on the date when last signed and shall remain in force until terminated by mutual agreement, by amendment or abolishment of the Act by Congress, or by either party upon thirty days notice in writing to the other party of its intention to terminate upon a date indicated.

STATE OF ALASKA
Department of Fish and Game

By Don W. Collinsworth
Don W. Collinsworth
Commissioner

Date 6-28-83

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

By Curtis V. McVee
Curtis V. McVee
State Director

Date 8/3/83

Appendix G

Generally Allowed Uses on State Land

Fact sheet:

GENERALLY ALLOWED USES ON STATE LAND

Alaska Department of
Natural Resources

Division of Mining, Land and Water • April 2004

As provided in 11 AAC 96.020, the following **uses and activities are generally allowed on state land** managed by the Alaska Division of Mining, Land and Water that is not in any special management category or status as listed in 11 AAC 96.014[1]. Uses listed as "Generally allowed" do not require a permit from the Division of Mining, Land and Water. Note that this list does not apply to state parks, nor to land owned or managed by other state agencies such as the University of Alaska, Alaska Mental Health Trust, Department of Transportation and Public Facilities, or the Alaska Railroad. Before beginning an activity on state land, the user should check to be sure it is generally allowed in that particular area.

TRAVEL ACROSS STATE LAND:

Hiking, backpacking, skiing, climbing, and other foot travel; bicycling; traveling by horse or dogsled or with pack animals.

Using a highway vehicle with a curb weight of up to 10,000 pounds, including a four-wheel-drive vehicle and a pickup truck, **or using a recreational-type vehicle** off-road or all-terrain vehicle with a curb weight of up to 1,500 pounds, including a snowmobile and four-wheeler, on or off an established road easement, if use off the road easement does not cause or contribute to water quality degradation, alteration of drainage systems, significant rutting, ground disturbance, or thermal erosion. An authorization is required from the Office of Habitat Management and Permitting for any motorized travel in fish bearing streams. (Curb weight means the weight of a vehicle with a full tank of fuel and all fluids topped off, but with no one sitting inside or on the vehicle and no cargo loaded. Most highway rated sport utility vehicles are within the weight limit as are most ATVs, including a basic Argo.)

Landing an aircraft (such as a single-engine airplane or a helicopter), or using watercraft (such as a boat, jet-ski, raft, or canoe), without damaging the land, including shoreland, tideland, and submerged land.

Driving livestock, including any number of reindeer or up to 100 horses$_1$ cattle, or other domesticated animals.

ACCESS IMPROVEMENTS ON STATE LAND:

Brushing or **cutting a trail** less than five feet wide using only hand-held tools such as a chainsaw (making a trail does not create a property right or interest in the trail).

Anchoring a mooring buoy in a lake, river, or marine waters, or placing a **float, dock, boat haulout, floating breakwater, or boathouse** in a lake, river, or in marine waters, for the personal, noncommercial use of the upland owner, if the use does not interfere with public access or another public use, and if the improvement is placed within the projected sidelines of the contiguous upland owner's parcel or otherwise has the consent of the affected upland owner. A float or dock means an open structure without walls or roof that is designed and used for access to and from the water rather than for storage, residential use, or other purposes. A boat haulout means either a rail system (at ground level or elevated with pilings) or a line attached from the uplands to an anchor or mooring buoy. A floating breakwater means a structure, such as a log bundle, designed to dissipate wave or swell action. A boathouse means a structure designed and used to protect a boat from the weather rather than for other storage, residential use or other purposes.

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[1] These special use areas are listed in 11 AAC 96.014 and on the last page of this fact sheet. Maps of the areas are available online at: www.dnr.state.ak.us/mlw/sua/

REMOVING OR USING STATE RESOURCES:

Hunting, fishing, or trapping, or placement of a crab pot, shrimp pot, herring pound or fishwheel, that complies with applicable state and federal statutes and regulations on the taking of fish and game.

Harvesting a small number of **wild plants**, **mushrooms, berries, and other plant material** for personal, noncommercial use. The cutting of trees is not a generally allowed use except as it relates to brushing or cutting a trail as provided above.

Using dead and down wood for a cooking or warming fire, unless the department has closed the area to fires during the fire season.

Grazing no more than five domesticated animals.

Recreational gold panning; hard-rock mineral prospecting or mining using light portable field equipment, such as a hand-operated pick, shovel, pan, earth auger, or a backpack power drill or auger; or **suction dredging** using a suction dredge with a nozzle intake of six inches or less, powered by an engine of 18 horsepower or less, and pumping no more than 30,000 gallons of water per day. An authorization is required from the Office of Habitat Management and Permitting prior to dredging in fish bearing streams.

OTHER IMPROVEMENTS AND STRUCTURES ON STATE LAND:

Setting up and using a camp for personal, noncommercial recreational purposes, or for any non-recreational purpose (such as a support camp during mineral exploration), for no more than 14 days at one site, using a tent platform or other temporary structure that can readily be dismantled and removed, or a floathouse that can readily be moved. Moving the entire camp at least two miles starts a new 14-day period. Cabins or other permanent improvements are not allowed, even if they are on skids or another non-permanent foundation. The camp must be removed immediately if the department determines that it interferes with public access or other public uses or interests.

Brushing or cutting a survey line less than five feet wide using only hand-held tools (such as a chainsaw), or **setting a survey marker** (setting a survey monument—a permanent, official marker—requires written survey instructions issued by the Division of Mining, Land and Water under 11 AAC 53).

Placing a residential **sewer outfall** into marine waters from a contiguous privately owned upland parcel, with the consent of the affected parcel owners, if the outfall is within the projected sidelines of the contiguous upland parcel and is buried to the extent possible or, where it crosses bedrock, is secured and covered with rocks to prevent damage. Any placement of a sewer outfall line must comply with state and federal statutes and regulations applicable to residential sewer outfalls.

Placing riprap or other suitable bank stabilization material to prevent erosion of a contiguous privately owned upland parcel if no more than one cubic yard of material per running foot is placed onto state shoreland and the project is otherwise within the scope of the U.S. Army Corps of Engineers nationwide permit on bank stabilization.

MISCELLANEOUS USES OF STATE LAND:

An event or assembly of 50 people or less, including events sponsored by non-profit organizations or a commercial event.

Entry for **commercial recreation** purposes **on a day-use basis** with no overnight camps or unoccupied facilities that remain overnight, as long as the use has been registered as required by 11 AAC 96.018.

Recreational or other use not listed above may occur on state land as long as that use

* is not a commercial recreational camp or facility, (whether occupied or unoccupied) that remains overnight;
* does not involve explosives or explosive devices (except firearms);
* is not prospecting or mining using hydraulic equipment methods;

* does not include drilling in excess of 300 feet deep (including exploratory drilling or stratigraphic test wells on state land not under oil or gas lease);
* is not for geophysical exploration for minerals subject to lease or an oil and gas exploration license;
* does not cause or contribute to significant disturbance of vegetation, drainage, or soil stability;
* does not interfere with public access or other public uses or interests; and
* does not continue for more than 14 consecutive days at any site. Moving the use to another site at least two miles away starts a new 14-day period.

Check for special conditions and exceptions!

All activities on state land must be conducted in a responsible manner that will minimize or prevent disturbance to land and water resources, and must comply with all applicable federal, state, and local laws and regulations. **By acting under the authority of this list, the user agrees to the conditions set out in 11 AAC 96.025** (a copy of these conditions are attached to this fact sheet). A person who violates these conditions is subject to any action available to the department for enforcement and remedies, including civil action for forcible entry and detainer, ejectment, trespass, damanges, and associated costs, or arrest and prosecution for criminal trespass in the second degree. The department may seek damages available under a civil action, including restoration damages, compensatory damanges, and treble damages under AS 09.45.730 or AS 09.45.735 for violations involving injuring or removing trees or shrubs, gathering technical data, or taking mineral resources. (11 AAC 96.145)

Remember that this list does not apply to state parks or Alaska Mental Health Trust lands. In addition, some other areas managed by the Division of Mining, Land and Water are not subject to the full list of generally allowed uses. Exceptions may occur because of special conditions in a state land use plan or management plan for example, a management plan may reduce the number of days that people can camp at a specific site), or by a "special use land" designation (for instance, a special use land designation for the North Slope requires a permit for off-road vehicle use). Special Use Areas are listed in 11 AAC 96.014; more information is available on the department's website at www.dnr.state.ak.us/mlw/sua/ .

Also, be aware that this list does not exempt users from the permit requirements of other state, federal, or local agencies. For example, the Office of Habitat Management and Permitting may require a permit for a stream crossing or a permit might be required by the Department of Fish and Game if the use will take place in a state game refuge.

Finally, this list does not authorize a use if another person has already acquired an exclusive property right for that use. For instance, it does not give people permission to graze livestock on someone else's state grazing lease, to build a trail on a private right-of-way that the Division of Mining, Land and Water has granted to another person, or to pan for gold on somebody else's state mining location.

Department staff can help users determine the land status of state-owned land and whether it is subject to any special exceptions or to private property rights.

For additional information, contact the Department of Natural Resources:

PUBLIC INFORMATION CENTER 550 W. 7th Avenue, Suite 1260 Anchorage, AK 99501-3557 (907) 269-8400 TDD: (907) 269-8411	DIVISION OF MINING, LAND & WATER PUBLIC INFORMATION OFFICE 400 Willoughby Ave., Suite 400 Juneau, AK 99801-1700(907) 465-3400 TDD: (907) 465-3888	PUBLIC INFORMATION CENTER 3700 Airport Way Fairbanks, AK 99709-4699 (907) 451-2705 TDD: (907) 451-2770

CONDITIONS FOR GENERALLY ALLOWED USES
(11 AAC 96.025[2])

A generally allowed use listed in 11 AAC 96.020 is subject to the following conditions:

(1) activities employing wheeled or tracked vehicles must be conducted in a manner that minimizes surface damage;

(2) vehicles must use existing roads and trails whenever possible;

(3) activities must be conducted in a manner that minimizes
   (A) disturbance of vegetation, soil stability, or drainage systems;
   (B) changing the character of, polluting, or introducing silt and sediment into streams, lakes, ponds, water holes, seeps, and marshes; and
   (C) disturbance of fish and wildlife resources;

(4) cuts, fills, and other activities causing a disturbance listed in (3)(A)–(C) must be repaired immediately, and corrective action must be undertaken as may be required by the department;

(5) trails and campsites must be kept clean; garbage and foreign debris must be removed; combustibles may be burned on site unless the department has closed the area to fires during the fire season;

(6) survey monuments, witness corners, reference monuments, mining location posts, homestead entry corner posts, and bearing trees must be protected against destruction, obliteration, and damage; any damaged or obliterated markers must be reestablished as required by the department under AS 34.65.020 and AS 34.65.040;

(7) every reasonable effort must be made to prevent, control, and suppress any fire in the operating area; uncontrolled fires must be immediately reported;

(8) holes, pits, and excavations must be repaired as soon as possible; holes, pits, and excavations necessary to verify discovery on prospecting sites, mining claims, or mining leasehold locations may be left open but must be maintained in a manner that protects public safety;

(9) on lands subject to a mineral or land estate property interest, entry by a person other than the holder of a property interest, or the holder's authorized representative, must be made in a manner that prevents unnecessary or unreasonable interference with the rights of the holder of the property interest.

List of Special Use Land Designations Excluded from Generally Allowed Uses

- Alyeska Ski Resort
- Baranof Lake Trail
- Caribou Hills
- Exit Glacier Road
- Glacier/Winner Creek
- Hatcher Pass Special Use Area
- Indian Cove
- Kamishak Special Use Area
- Kenai Fjords Coastline
- Kenai River Special Management Area Proposed Additions
- Lake Clark Coastline
- Lower Goodnews River
- Lower Talarik Creek
- Marmot Island Special Use Area
- Nenana River Gorge and McKinley Village Subd.
- North Slope Area
- Nushagak
- Poker Flat North
- Poker Flat South
- Resurrection Bay
- Thompson Pass
- Togiak National Wildlife Refuge

[2] Register 164, January 2003

Appendix H: Crucial Fish Habitats or Key Streams Within the Kobuk-Seward Peninsula Planning Area

A. Introduction H-3
B. Criteria for Defining Crucial Fish Habitat on or Adjacent to BLM Administered Lands H-3
C. Rivers H-4

Appendix H: Crucial Fish Habitats or Key Streams Within the Kobuk-Seward Peninsula Planning Area

A. Introduction

Ten rivers within the planning area are subject to Required Operating Procedure FW-7a (Map H-1). The objective of this required operating procedure is to: Protect, maintain, and preserve the condition and ecological function of the aquatic and riparian zones of streams that determine the ability of these habitats to:

1. Provide clean water for community use;
2. Produce fish and wildlife on a sustained basis to support cultural, economic, subsistence, and recreational needs; and
3. Maintain the hydrological and morphological stability of streams to prevent un-natural flooding, habitat degradation, and water quality impairment.

This appendix provides the criteria and rational for selecting the ten key rivers subject to Required Operating Procedure FW-7a.

B. Criteria for Defining Crucial Fish Habitat on or Adjacent to BLM Administered Lands

The following criteria were used to determine which rivers within the planning area should be considered crucial fish habitat subject to ROP FW-7a.

1. Essential Fish Habitat as defined by 50 CFR Part 600;

2. Waterbodies identified under Alaska Department of Natural Resources Anadromous Waters Catalog. Alaska Statute 41.14.870(a) requires the Alaska Department of Natural Resources (ADNR) Office of Habitat Management & Permitting (OHMP) to "specify the various rivers, lakes and streams or parts of them" of the state that are important to the spawning, rearing or migration of anadromous fishes. The Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes and its associated atlas (the Catalog and Atlas or AWC, respectively) are the media used to accomplish this specification and are adopted as regulation under 11 AAC 195.010.

3. Habitat listed and/or recognized as a high priority by the BLM;

a. Habitat necessary to sustain a population deemed important for its role in providing subsistence, commercial, and recreation opportunities;

b. Habitat necessary to sustain a population deemed important to the economy of the region and local area in which the fishery is located;

4. Habitat necessary to sustain keystone species (see definition below);

Habitat necessary to prevent a species from declining to the level that it is under status review by the FWS/NMFS; or 2) whose numbers are declining so rapidly that Federal listing may become necessary; or 3) with typically small and widely dispersed populations; or 4) those inhabiting ecological refugia or other specialized or unique habitats. Significant production of anadromous and/or resident fish is present or has been documented.

Definitions

Bankfull Elevation: This height (or stage) is delineated by the elevation of incipient flooding at the high annual flow achieved every year or other year, and, is indicated by deposits of sand or silt at the active scour mark, break in stream slope, perennial vegetation limit, rock discoloration, and root hair exposure.

Active Stream Channel: Bankfull elevation.

Keystone species: A Keystone species is one which has a disproportionate effect on its environment relative to its abundance. Such an organism plays a role in its ecosystem is analogous to the role of a keystone in an arch. While the keystone feels the least pressure of any of the stones in an arch, the arch still collapses without it. Similarly, an ecosystem may experience a dramatic shift if a keystone species is removed, even though that species was a small part of the ecosystem by measures of biomass or productivity.

Maximum Bankfull Depth (Dbkf): The maximum depth measured at bankfull discharge.

Width Flood-prone area (Wfpa): An area bordering a stream that will be covered by stream at a flood stage of twice the maximum bankfull depth (2*Dbkf); flood-prone width equals twice the maximum bankfull depth.

C. Rivers

Using the criteria listed in the previous section, the following ten rivers are considered crucial fish habitat subject to ROP FW-7a (Map H-1). There are at least 10 other rivers/streams within the planning area listed as Essential Fish Habitat that are not considered here. Dropped from consideration on this list are the: Buckland River, Pick River, Kukpowruk, River, Ipewik River, Nilik River, and Kikliovilik Creek (Upper Selawik River).

Kivalina River

Essential Fish Habitat (EFH) anadromous waters catalog #331-00-10044. The Kivalina River contains Chinook, coho, sockeye, chum, and pink salmon, and Dolly Varden. These are all

anadromous fish species which use the river for spawning, rearing, and migratory habitat; therefore this river is characterized as Essential Fish Habitat by the National Marine Fisheries Service (NMFS). The river also contains broad whitefish, and possibly least ciscoes, which are harvested for subsistence by residents of the village of Kivaliana. Stream resident Arctic grayling occur in the river as well.

Dolly Varden are probably the most important fish resource for subsistence needs. There are two separate and distinct run of dollies in the river that range from 20,000 to 40,000 fish. The summer run peaks approximately August 1 and uses spawning habitat in the middle reaches of the river. The fall run peaks around September 10. Fall run fish spawn in the upper reaches of the river. The Dolly Varden stocks which inhabit the Kivalina River are considered “world class” with high catch rates and are capable of producing fish that exceed 25 pounds. The neighboring Wulik River holds the State Record for sport-caught Dolly Varden (27 lbs), and it is believed both drainages may hold larger fish.

In addition to its importance as fish habitat, and probably more importantly from the resource utilization perspective, the river is the source of fresh water for some residents of the village village who feel their water supply in the village is tainted by toxic effluent produced naturally by the Wulik River, and as a result of surface disturbance produced by the Red Dog zinc mine.

Ungalik River, **Shaktoolik River, Inglutalik River**

EFH anadromous waters catalog #333-40-10700, 333-50-10100, and 333-40-10350. These three rivers compose the bulk of the Nulato Hills drainage in eastern Norton Sound. They are listed in the State of Alaska’s anadromous waters catalog as important for the spawning, rearing, and migration of Chinook, coho, chum, and pink salmon, and therefore are considered Essential Fish Habitat. These rivers contribute salmon and other fish for subsistence harvest by the villages of Koyuk and Shaktoolik and contribute fish to the commercial fisheries in Shaktoolik and Elim. Of particular importance is the overwintering rearing habitat for Chinook and coho fry contained in the numerous ox-bow lakes, back-water sloughs, and beaver ponds interspersed throughout the floodplains.

In addition to the salmon present in these rivers, Dolly Varden, arctic char, and arctic grayling are present. Recreational fishing opportunities are "world class." These rivers are mostly undisturbed. One exception is the lower reach of the Ungalik River which has been historically mined off and on for decades. This previously mined area no longer includes any BLM-managed Public Lands.

Koyuk River, including the East Fork

EFH anadromous waters catalog #333-40-10200. The Koyuk River contains Chinook, coho, chum, and pink salmon, and is therefore listed by NMFS as Essential Fish Habitat. This river is the primary source of subsistence fisheries resources for the village of Koyuk. Besides the salmon, sheefish, Dolly Varden, and whitefish are utilized as subsistence resources, and provide for outstanding sportfishing opportunities. Uniquely, recent genetic analysis of chum salmon in this river has shown that they are more closely related to Kotzebue Sound fish than Norton Sound fish. At some point approximately 10,000 years ago, this river drained to the north, which means this drainage may act as an important genetic reservoir for the regionally important chum salmon stocks.

Tubutulik River

EFH anadromous waters catalog #333-30-10650. This river is listed as Essential Fish Habitat and contains Chinook, coho, chum, and pink salmon, as well as Dolly Varden. Besides the anadromous fish, stream resident arctic char and arctic grayling contribute to the subsistence harvest for the nearby village of Moses Point. But with no village located at the mouth of this river, the stocks present have had the opportunity to thrive naturally, and provide ‘world class’ sport fishing. Hot springs in the upper watershed also make this drainage unique. Chinook produced in this watershed no doubt contribute to the commercial harvest that intermittently occurs at the village of Elim.

Kuzitrin River

EFH anadromous waters catalog #332-00-10230.The Kuzitrin River drains into the eastern Imuruk Basin and is classified as Essential Fish Habitat because it produces Chinook, coho, chum, pink, and sockeye salmon, as well as Dolly varden. This river supports the subsistence harvest of fish for Teller, Brevig Mission, and Nome residents. The river is valued for it’s large population of northern pike, and contains large Dolly Varden and arctic char. Recreational fishing is popular since this river is road accessible from Nome. The upper drainage has lakes that may contain genetically unique resident arctic char, similar to those found in the Kigluaik Mountains.

Agiapuk River

EFH anadromous waters catalog #332-00-10230. The Agiapuk River is classified as Essential Fish Habitat as it supports Chinook, chum, pink, and coho salmon. Dolly Varden, whitefish and arctic grayling are present also. A unique run of Fall chum spawns in a major tributary, the American River. These chum are very large compared to other Norton Sound stocks, and current genetic analysis is underway which it is believed will show these fish are more closely related to Kotzebue Sound fish. This would indicate that, similar to the Koyuk River, this drainage previously flowed north instead of south, and therefore the Fall chum are genetically distinct and act as a gene refugia for chum stocks in the area. The strength of the coho run has been subject to debate over the years, but both chum and coho are present in late August to early September, providing a last chance for subsistence fishers from Teller, Brevig Mission, and Nome to harvest salmon if nearby summer runs of salmon have been low.

Pah River

EFH anadromous waters catalog #331-00-10490-2370. The Pah River, an upper Kobuk River tributary, is near the suspected limit of chum salmon habitat, and as such is Esential Fish Habitat. The extent of chum spawning on BLM-managed lands is unknown. The river also contains sheefish and northern pike. These fish are utilized as a subsistence resource by the villages of Kobuk and Shungnak, and the chum and sheefish contribute to commercial fisheries in Kotzebue Sound. The Pah River holds not only the state record for a sport-caught sheefish, but the world record as well, for a 53 pound sheefish caught in 1986. The Pah River flats also provide important habitat for waterfowl. The Pah River flats contain numerous Northern pike which thrive on the many waterfowl hatched and reared in this area during the spring and summer.

Noatak River

EFH anadromous waters catalog #331-00-10290. The Noatak River is a major drainage in Northwestern Alaska. It has a vibrant population of chum salmon which contributes well over half of the commercial harvest in Kotzebue Sound. Sheefish produced in the Noatak River are also harvested in a Kotzebue Sound commercial fishery. The villages of Noatak and Kotzebue utilize the fish resources in subsistence fisheries. The Noatak supports lesser numbers of Chinook, sockeye, and pink salmon and therefore is considered Essential Fish Habitat by NMFS.

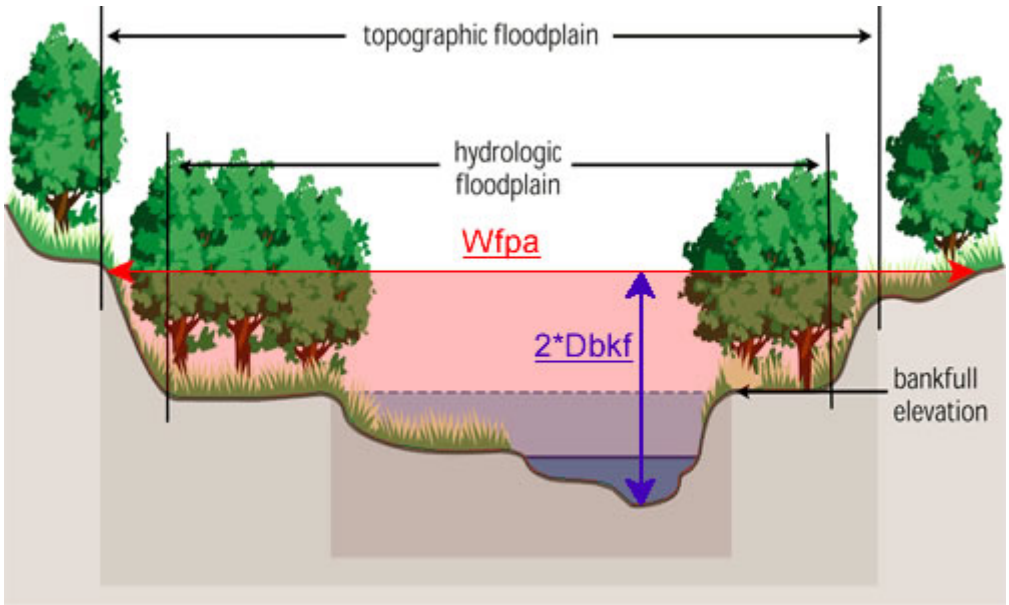

Figure H-1. Flood-Prone Area (Federal Interagency Stream Restoration Working Group. 1998. Stream Corridor Restoration: Principles, Processes, and Practices. By the Federal Interagency Stream Restoration Working Group (15 Federal agencies of the US gov't). GPO Item No. 0120-A; SuDocs No. A 57.6/2:EN 3/PT.653. ISBN-0-934213-59-3.)

INSERT MAP H-1: Key Rivers

Appendix I:

Recreation and Visitor Services Market Analysis for the Kobuk-Seward Peninsula Planning Area

A. Introduction I-3
B. Salmon Lake/Kigluaik SRMA (Alternatives C and D) I-4
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Appendix I:

Recreation and Visitor Services Market Analysis for the Kobuk-Seward Peninsula Planning Area

A. Introduction

In accordance with Appendix C of the Land Use Planning Handbook (H-1601-1) BLM used an expanded recreation framework to shift from activity based planning to a benefits based planning when developing the Kobuk-Seward Peninsula RMP. Activity based planning focused on providing for recreational activities rather than focusing on the customer's desire for satisfying experiences and the benefits gained by people who have positive recreational experiences. This market analysis was used to develop Recreation Opportunity Spectrum Classes as described in Tables 2-12 and 2-13, Chapter II, section (B)(2)(d) "Recreation Management."

Under existing management, Alternative A, there are no designated Special Recreation Management Areas (SRMA) and the entire planning area is essentially managed as an Extensive Recreation Management Area (ERMA). Under all alternatives, the majority of the planning area will be managed as the ERMA. Alternative C identifies nine areas, largely along remote river drainages, within the ERMA where the focus will be on managing recreation to avoid conflicts between subsistence and sport hunting.

The Squirrel River is identified as a Special Recreation Management Area in Alternatives B, C, and D. The Salmon Lake-Kigluaik Mountain area is identified as a SRMA in both Alternatives C and D. The Squirrel River is a popular destination for non-local moose and caribou hunters. Subsistence users have expressed concern that heavy recreational use in the Squirrel River is affecting wildlife populations and opportunities for subsistence. The Kigluaik Mountains are a highly scenic area north of Nome with outstanding opportunity for recreational use. Salmon Lake is the only BLM campground within the planning area.

BLM has identified the primary market strategy, market demand, and appropriate recreation management zones (RMZ) for each area. Management objectives were drafted for each area by alternative. Activity, experience, and benefit outcomes, setting prescriptions and implementing actions were identified for each recreation management zone. There are three possible market strategies: undeveloped recreation-tourism market, destination tourism market and community recreation-tourism market.

B. Salmon Lake/Kigluaik SRMA (Alternatives C and D)

The Salmon Lake/Kigluaik SRMA is located on the Seward Peninsula about 40 miles north of Nome, AK. It has road access to both the eastern and western boundaries. Two RMZ were identified within the SRMA: Salmon Lake and Kigluaik Mountains.

Table I-1. Salmon Lake Campground Recreation Management Zone (8 acres)

Primary Market Strategy	Market
Community Based	Residents of Nome and Visitors to the area

Salmon Lake Campground Recreation Management Zone

NICHE		
The Salmon Lake Campground is the only developed campground with road access in the planning area. Primarily used by local residences, although there is increasing interest by non-resident visitors.		
MANAGEMENT OBJECTIVE		
Provide developed recreation opportunities for "Roaded Natural" areas, primarily for family oriented activities. Improve diversity of the local economy and promote greater stewardship of public lands.		
Activities	**Experiences**	**Benefits**
• Developed camping • Fishing • Boating • Hiking	• Family and social gatherings • enjoy nature • physical rest • escape pressures	**Personal:** Improved mental well-being, stress relief, improved outdoor skills, and stronger ties to family and friends **Community/Social:** Greater family bonding **Environmental:** Promotes greater community ownership/stewardship of land and increase awareness of natural landscapes **Economic:** Improves local economy/tax revenue/local tourism

PRESCRIBED SETTING CHARACTER		
Physical	**Social**	**Administrative**
Remoteness: Campground is located about 40 miles from the nearest community and does not have amenities such as power, communications, and stores nearby. **Naturalness:** Naturally appearing landscape except for existing gravel roads and campground facilities. **Facilities:** designated camping units with table, fire ring, tent pad; primitive sanitation (outhouse), trash containers, site markers/signs, information and interpretation displays, boat ramp, primitive road access	**Contacts:** visitors should expect casual social contacts between other campers and area users of 0-12 persons per day. **Group Size:** family groups or maximum group sizes of 8 persons per campsite **Evidence of Use:** Visitors will notice user made trails to the lake, use of highway vehicles, and possible conflicting activities (motorized vs. non-motorized uses).	**Mechanized Use:** Mechanized equipment will be used to maintain the campground and roads **Management Controls:** Informational signing and BLM field presence will be used to promote user compliance. **Visitor Services:** Minimal on-site visitor services will be provided by BLM. Brochures will be distributed locally.

IMPLEMENTATION FRAMEWORK / ACTIONS	
Administrative	Develop supplemental guidance (Rules and Regulations)
Management	Develop on-site information displays. Develop carrying capacity.
Marketing	Local marketing to community and visitors. Develop brochure.
Monitoring	Develop self-registration station to collect use data, traffic counters, BLM field presence. Campground hosts may be considered.

Table I-2. Kigluaik Recreation Management Zone (244,000 acres)

Primary Market Strategy	Market
Community Based	Residents of Nome and Visitors to the area

Kigluaik Recreation Management Zone

NICHE		
Provides dispersed recreation opportunities in a remote setting. Area is accessible by road to local community and road travelers for recreational and traditional activities such as subsistence. It offers a broad spectrum of recreation opportunities and has the highest mountains in the planning area.		
MANAGEMENT OBJECTIVES		
Provide for a wide variety of dispersed recreation opportunities for "Semi-primitive Motorized" activities in a remote setting, while protecting primitive characteristics and values. Improve the diversity of the local economy and promote greater stewardship of public lands.		
Activities	**Experiences**	**Benefits**
undeveloped dispersed recreation: • camping • hunting • fishing • OHV use • Hiking • Bird watching • subsistence activities • wildlife viewing • scenery viewing	• Experience natural landscape • Enjoy risk-taking adventures • Develop skills and abilities • Solitude and remote independence • Escape family	**Personal:** Improved mental well-being, stress relieve, improved outdoors skills, stronger ties to family/friends, personal challenges **Community/Social:** Greater family bonding, enhanced lifestyle **Environmental:** Promote greater community ownership/stewardship of land, increase awareness of natural landscapes, greater retention of distinctive natural landscape features **Economic:** Improves local economy/tax revenue/local tourism

PRESCRIBED SETTING CHARACTER		
Physical	**Social**	**Administrative**
Remoteness: Area is located about 40 miles from the nearest community and does not have amenities such as power, communications, and stores nearby. **Naturalness:** Naturally appearing landscape except for existing gravel roads and features. **Facilities:** Gravel road access along eastern and western boundaries	**Contacts:** Visitors will have rare encounters with other users once away from the road system. **Group Size:** Usually small group sizes of 3-5 persons **Evidence of Use:** Visitors will notice some user made trails into the area	**Mechanized Use:** Mechanized equipment will be used to monitor visitor use and maintain trails. **Management Controls:** Informational signing and BLM field presence will be used to promote user compliance. **Visitor Services:** Minimal on-site visitor services will be provided by BLM. Brochures will be distributed locally.

IMPLEMENTATION FRAMEWORK / ACTIONS	
Administrative	Develop supplemental guidance (trail or recreational maps).
Management	Develop trailhead information, displays and kiosks.
Marketing	Local marketing to community and visitors. Develop area brochure.
Monitoring	Develop trailhead self-registration station to collect use data, trail encounters. BLM field presence.

C. Squirrel River SRMA (Alternatives B, C and D)

The Squirrel River SRMA is located northwest of Kotzebue, Alaska. It includes a large block of BLM lands surrounded by other federal and private lands. There are inholdings of State land. The SRMA encompasses the Squirrel River watershed. This area receives relatively high use for big game hunting in the fall. The entire SRMA falls within one Recreation Management Zone. The following tables summarize the information for the Squirrel River by Alternative.

Table I-3. Squirrel River SRMA – Alternative B (726,000 acres)

Primary Market Strategy	Market
Undeveloped- a remote block of BLM land with affordable access.	Primarily non-local commercial and sport hunters from urban Alaska and out-of-state/country.

Squirrel River SRMA – Alternative B

NICHE

The Squirrel River provides wide range of primitive recreation experiences in a remote setting. It has easy and affordable access from nearby communities. The area is surrounded by privately owned Native Corporation, National Park Service (NPS) and Fish and Wildlife Service land (FWS). Private lands may be closed to use by non-share holders. BLM's multiple-use mandate provides increased recreational opportunities compared NPS and FWS land.

MANAGEMENT OBJECTIVES

Provide for a wide variety of dispersed recreational opportunities in a "Semi-primitive Motorized" setting. Improve diversity of the local and regional economy. Allow for increased use levels of recreational use over the current level. Commercial guides would be limited. No limitations on non-commercial hunting would be implemented (charter flights with sport hunters).

Activities	Experiences	Benefits
Undeveloped dispersed recreation for casual and commercial activities: • River floating • Camping • Hunting • Fishing • OHV use (including snow mobiles) • Hiking • Bird watching Subsistence activities wildlife viewing • Scenery viewing • Trapping	**Visitor:** Develop skills and abilities, talking to others about equipment, experience, and access natural landscapes, and enjoy challenges with reduced risk. **Community:** Under this alternative, local community residents may feel displaced and experience greater competition for space and resources.	**Personal:** Improved mental well-being, stress relief, improved outdoors skills, stronger ties to family/friends, personal challenges, risk reduction (provided by guides and outfitters). **Community/Social:** Greater conflict with outsider attitudes toward community, greater sense of resignation among local residents toward continued growth and development, increased personal disregard for other visitors **Environmental:** Maintain distinctive recreational setting character **Economic:** Improves local economy, tax revenue, and local tourism

PRESCRIBED SETTING CHARACTER

Physical	Social	Administrative
Remoteness: Area is located approximately 20 miles from Kiana (the nearest community) and does not have amenities such as power, communications, and stores nearby. There is no road access. **Naturalness:** Naturally appearing landscape and features. **Facilities:** No facilities are present other than primitive campsites and unimproved airstrips.	**Contacts:** Visitors can expect some social contacts between other area users. Number of contacts would increase during sport hunting season compared to other times of year. **Group Size:** Small group sizes of 3-5 persons **Evidence of Use:** Users will notice evidence of aircraft over flights and landings, user made trails, use of OHVs, and occupied campsites. Users may notice increased competition.	**Mechanized Use:** Aircraft will be used to monitor visitor use and to access the area. **Management Controls:** Information will be provided to commercial air taxis and guides and BLM field presence will be used to promote user compliance. **Visitor Services:** Minimal on-site visitor services may be provided by BLM. Distribute brochures to increase recreational use.

IMPLEMENTATION FRAMEWORK / ACTIONS

Administrative	Process commercial permits on demand.
Management	Promote casual and recreational use. Authorize commercial recreational use on a case-by-case basis, develop method to allocate commercial permits and visitor use days for each permit.
Marketing	Provide area information to visitors and commercial operators through field offices, brochure, website, etc.
Monitoring	Collect use data from permitted activities. BLM field presence during sport hunting season.

Table I-4. Squirrel River SRMA – Alternative C (726,000 acres)

Primary Market Strategy	Market
Community	Primarily subsistence users and local residents.

Squirrel River SRMA – Alternative C

NICHE		
Provide a range of primitive recreation experiences in a remote setting, with easy and affordable access from nearby communities. This area supports important subsistence species during critical breeding and migration periods. Local residents can be assured of subsistence harvest opportunity on a continuing basis.		
MANAGEMENT OBJECTIVES		
Increase hunting and harvest opportunities for subsistence users by reducing access and potential disturbance to wildlife and their habitat during critical breeding and migration periods. At the same time, provide for limited, high-quality recreational opportunities such as guided, big game trophy hunts that do not significantly impact subsistence use. Reduce recreational use levels to less than the current level.		
Activities	**Experiences**	**Benefits**
Undeveloped dispersed recreation for casual and commercial activities: • Subsistence harvest • River floating • Camping • Hunting • Fishing • Snowmobile use • Hiking • Bird watching • Wildlife viewing • Scenery viewing • Trapping	**Visitor:** Develop skills and abilities; talking to others about equipment; experience and access natural landscapes; enjoy challenges with reduced risk. **Community (residents):** Sense of place; avoiding having outsiders make me feel alienated from my own community; observing visitors treating our community with respect; knowing that things are not going to change too much.	**Personal:** Improved mental well-being, stress relieve, improved outdoors skills, stronger ties to family/friends, personal challenges, and risk reduction (provided by guides and outfitters). **Community/Social:** Greater family bonding, enhanced lifestyle, greater community involvement in recreation and other land use decisions. **Environmental:** Reduced wildlife harassment, greater protection of fish and wildlife habitat from public use impacts, sustainability of community's cultural heritage, and improved respect for privately owned lands. **Economic:** Improves local subsistence economy

PRESCRIBED SETTING CHARACTER		
Physical	**Social**	**Administrative**
Remoteness: Area is located approximately 20 miles from Kiana (the nearest community) and does not have amenities such as power, communications, and stores nearby. There is no road access. **Naturalness:** Naturally appearing landscape and features. **Facilities:** No facilities are present other than primitive campsites and unimproved airstrips.	**Contacts:** Users can expect some occasional social contacts with other area users. **Group Size:** Small group sizes of 3-5 persons **Evidence of Use:** Users will notice evidence of aircraft over flights and landings, user made trails, and occupied campsites.	**Mechanized Use:** Aircraft will be used to monitor visitor use and access the area. **Management Controls:** Information will be provided to commercial air taxis and guides to educate users; BLM field presence will be used to promote user compliance. **Visitor Services:** No on-site visitor services will be provided by BLM. Distribute brochures to increase recreational use.

IMPLEMENTATION FRAMEWORK / ACTIONS	
Administrative	Develop supplemental guidance and special recreation management plan.
Management	Limit commercial and casual recreational use during the sport hunting season through permits issued by BLM. Maximum visitor use days from August 1- September 30 is 2,000, split between commercial guide operators (840) and 1,160 to recreational and local users. Limit number of camps to one/10 river miles in river corridor and 3/township in upland areas, require air taxi operators to obtain permit, limit number of air taxi operators to 5, limit commercial guiding permits to 6, and close to OHV use May 15-Oct 31.
Marketing	Provide educational information to locals, visitors and commercial operators.
Monitoring	BLM staff issues permit out of Kotzebue Field Station or Fairbanks District Office. Collect use data from air taxi operators, guides, and other permitted users. BLM field presence and law enforcement increased during sport hunting season.

Table 1-5. Squirrel River SRMA – Alternative D (726,000 acres)

Primary Market Strategy	Market
Undeveloped - remote block of BLM land with affordable access	Primarily non-local commercial and sport hunters from urban Alaska and out-of-state/country. Also local transporters, guides, and subsistence users

Squirrel River SRMA – Alternative D

NICHE

The Squirrel River SRMA provides wide range of primitive recreation experiences in a remote setting. It has easy and affordable to access from nearby communities. Increased hunting and harvest opportunities. The area is surrounded by privately owned Native Corporation, National Park Service (NPS), and Fish and Wildlife Service (FWS) land. Private lands may be closed to use by non-share holders. BLM's multiple-use mandate provides increased recreational opportunities compared NPS and FWS land.

MANAGEMENT OBJECTIVES

Provide for a wide variety of dispersed recreational opportunities in a "Semi-primitive Motorized" setting. Improve diversity of the local economy and promote greater stewardship of public lands. Slightly reduce commercial recreational use levels and better manage commercial use. Develop Recreation Area Management Plan to reduce conflicts.

Activities	Experiences	Benefits
Undeveloped dispersed recreation for casual and commercial activities: • River floating • Camping • Hunting • Fishing • OHV use • Snowmobile use • Hiking • Bird watching • Wildlife viewing • Scenery viewing • Trapping • Subsistence	**Visitor:** Develop skills and abilities; talking to others about equipment; experience and access natural landscapes; enjoy challenges with reduced risk. **Community (residents):** Sense of place; avoiding having outsiders make me feel alienated from my own community; observing visitors treating our community with respect; knowing that things are not going to change too much.	**Personal:** Improved mental well-being, stress relief, improved outdoors skills, stronger ties to family/friends, personal challenges, and risk reduction (provided by guides and outfitters). **Community/Social:** Greater family bonding, enhanced lifestyle, greater community involvement in recreation and other land use decisions. **Environmental:** Promotes greater community ownership/stewardship of public lands, increase awareness of natural landscapes, greater retention of distinctive natural landscape features, greater protection of fish and wildlife habitat, sustainability of community's cultural heritage, and improved respect for privately owned lands. **Economic:** Improves local economy, tax revenue, and local tourism.

PRESCRIBED SETTING CHARACTER

Physical	Social	Administrative
Remoteness: Area is located approximately 20 miles from Kiana (the nearest community) and does not have amenities such as power, communications, and stores nearby. There is no road access. **Naturalness:** Naturally appearing landscape and features. **Facilities:** No facilities are present other than primitive campsites and unimproved airstrips.	**Contacts:** Users can expect some occasional social contacts with other area users. **Group Size:** Small group sizes of 3-5 persons **Evidence of Use:** Visitors may notice evidence of aircraft over flights and landings, user made trails near the river and campsites, use of OHV, possible conflicting activities (subsistence vs. commercial use).	**Mechanized Use:** Aircraft will be used to monitor visitor use and access the area. **Management Controls:** Information will be provided to commercial air taxis and guides to educate users; BLM field presence will be used to promote user compliance. **Visitor Services:** No on-site visitor services will be provided by BLM. Distribute brochures locally.

IMPLEMENTATION FRAMEWORK / ACTIONS

Administrative	Develop special recreation area management plan.
Management	**Interim:** Limit number of guiding permits issued to 2004 level; require air taxi's and transporters to obtain permits. **Long-Term:** Develop appropriate controls of both commercial and casual recreational use through Recreation Area Management Plan developed with substantial public involvement.
Marketing	Provide educational information to community, visitors, and commercial operators. Develop brochures. Further marketing strategies developed through Recreation Area Management Plan.
Monitoring	Collect use data from air taxi operators, guides, and other permitted users. BLM field presence and law enforcement increased during sport hunting season. Develop additional needed monitoring through Recreation Area Management Plan.

D. Extensive Recreation Management Area

The remainder of the planning area outside of any identified special recreation management areas would be an extensive recreation management area (ERMA). Under Alternative A the entire planning area would be an ERMA (11.9 million acres). Under Alternative B the ERMA would apply to the entire planning area except the Squirrel River and would encompass 11.2 million acres. Under alternatives C and D, the ERMA would include all BLM managed lands excluding the Squirrel River and Salmon Lake/Kigluaik special recreation management areas and encompass approximately 10.9 million acres. Under Alternative D, a Recreation Opportunity Spectrum (Table 2-13) “ROS Classifications for the ERMA” would apply.

Table I-6. Extensive Recreation Management Area (Alternatives B, C, and D)

Primary Market Strategy	Market
Undeveloped - dispersed recreation in primitive motorized environment	Local residents and visitors to the planning area primarily seeking challenging outdoor experiences.

Extensive Recreation Management Area

NICHE		
Provides primitive recreation experiences in a remote setting.		
MANAGEMENT OBJECTIVES		
Provide dispersed recreation opportunities for "Semi-primitive Motorized" areas, primarily remote activities. Maintain diversity of the local economy and promote greater stewardship of public lands.		
Activities	**Experiences**	**Benefits**
Undeveloped dispersed recreation for casual and commercial activities: • River floating • Camping • Hunting • Fishing • OHV use • Snowmobile use • Hiking • Bird watching • Wildlife viewing • Scenery viewing • Trapping • Subsistence • Competitive events (e.g. Iditarod Sled Dog Race and Iron Man Snowmobile race)	• Experience natural landscape • Enjoy risk-taking adventures • Develop skills and abilities • Solitude and remote independence • Escape family	**Personal:** improve mental well-being, relieve stress, and improve outdoor skills, stronger ties to family/friends, greater self-reliance, and greater sense of responsibility for my own quality of life. **Community/Social:** Greater family bonding, greater household awareness, and appreciation of cultural heritage, heightened sense of satisfaction with our community. **Environmental:** Promotes greater community ownership/stewardship of public lands; increase awareness of natural landscapes. **Economic:** Improves local economy, tax revenue, and local tourism; increase local job opportunities, greater diversification of local job offerings, greater fiscal capacity to maintain essential infrastructure and services.
PRESCRIBED SETTING CHARACTER		
Physical	**Social**	**Administrative**
Remoteness: Most of area is very remote and accessible only by air or by snowmobile in the winter **Naturalness:** Naturally appearing landscape and features with few signs of man's presence. **Facilities:** No facilities are present other than a few shelter cabins and scattered unimproved airstrips.	**Contacts:** Visitors should expect few encounters with other area users. **Group Size:** Small, family-kinship oriented groups and small groups of guided or independent visitors. **Evidence of Use:** Visitors will notice some presence of man including OHV and snowmobile trails, remote campsites, and dispersed air traffic.	**Mechanized Use:** BLM will use snowmobiles, boats, aircraft, and ATVs to monitor use. **Management Controls:** BLM field presence will be used to promote user compliance **Visitor Services:** Distribute user information at BLM Nome and Kotzebue Field stations and Field Offices in Anchorage and Fairbanks.

IMPLEMENTATION FRAMEWORK / ACTIONS	
Administrative	Case-by-case review of activities that require permits (commercial, competitive, and group activities)
Management	Custodial management with case-by-case review of activities that require a permit.
Marketing	Minimal local marketing to communities and visitors, Information available by request from BLM Nome and Kotzebue Field stations and field offices in Anchorage and Fairbanks.
Monitoring	Collect use data from permitted users. BLM field presence.

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APPENDIX J: RESPONSE TO COMMENTS

A. Introduction

On May 5, 2006, a notice was published in the Federal Register announcing the availability of the Kobuk-Seward Peninsula Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) (Federal Register 2006a). This notice initiated the beginning of a 90-day public comment period. Comments were accepted at any point during the 90-day period and could be submitted via email, U.S. Mail, in-person, fax, or through spoken testimony. In accordance with the Alaska National Interest Land Conservation Act (ANILCA), the BLM hosted twelve public meetings and subsistence hearings to gather testimony on the Draft RMP/EIS and to answer questions. The comment period was later extended until September 15, 2006 resulting in a 132-day comment period. For a more complete description of the public involvement efforts see Chapter V.

Approximately 4,000 comments received on the Draft RMP/EIS during the public comment period. Of these total comments, approximately 3,830 were submitted as two form letters.

This appendix contains three sections:

1. Content Analysis Process,
2. Summary of Comments by Topic, and
3. Responses to Individual Comments.

It is the third section, Responses to Individual Comments, that comprises the bulk of this appendix. It contains the actual text or transcription of all substantive comments received during the comment period with the BLM responses to each comment. The responses include how the comments were considered and addressed in development of the alternatives, analysis of effects, and overall development of the Proposed RMP/Final EIS.

B. Content Analysis Process

A standardized content analysis process was conducted to analyze the public comments on the Draft RMP/EIS. The word “comment” is used in two ways in this appendix: each letter, email, fax, or testimony that was submitted in response to the comment period is considered a “comment,” while at the same time each one of those letters, emails, faxes, or testimonies was parsed to extract individual “comments” or specific themes or issues that could be grouped according to the categories described later in this document. Each comment was read by at least two members of the planning team to ensure that all substantive comments were identified and coded to the appropriate subject category.

Non-substantive and substantive comments are defined in the BLM's Land Use Planning Handbook: "Nonsubstantive comments are those that include opinions, assertions, and unsubstantiated claims. Substantive comments are those that reveal new information, missing information, or flawed analysis that would substantially change conclusions" (BLM 2005o: 23-24). The BLM's National Environmental Policy Act (NEPA) Handbook further clarifies that "[c]omments which express personal preferences or opinions on the proposal do not require a response. They are summarized whenever possible and brought to the attention of the manager responsible for preparing the EIS. Although personal preferences and opinions may influence the final selection of the agency's preferred action, they generally will not affect the analysis" (BLM 1988b: V-12). The planning team also adhered to the Council on Environmental Quality's regulations implementing NEPA at 40 CFR 1503.4 (a) to determine which comments would be included with responses in the last section of this appendix beginning in Section D.

Once identified, each substantive comment was entered into a database to allow sorting based on topic. Comments are listed by general topic: Resources, Resource Uses, Special Designations, Social and Economic, and Process and General. They are further broken down into subcategories under these general categories as shown in Table 1. These general topics follow the same outline as the Draft RMP/EIS, with additional categories for comments on the RMP/EIS process and general comments not falling under a particular category. These substantive comments and the responses to them comprise the bulk of this appendix. Comments are included verbatim either as they were submitted in letters or email, or as they were recorded at public meetings or hearings.

Many of the comments expressed personal opinions or preferences, had little relevance to the adequacy or accuracy of the Draft RMP/EIS, or represented commentary regarding resource management without any direct connection to the document being reviewed. These comments did not provide specific information to assist the planning team in making a change to the preferred alternative, did not suggest other alternatives, or did not take issue with methods used in the Draft RMP/EIS. Where these comments expressed personal preferences or opinions, but did not require a response per BLM direction (BLM 1988b: V-12), they may be summarized below under the section, Summary of Comments by Topic. Otherwise, non-substantive comments are not addressed further in this document. Examples of non-substantive comments not further addressed include:

"No hunting or killing of wolves, bears or any other species should be allowed."
"I support Alternative C."
"We do not support designation of any further areas as Wild or Scenic rivers."
"I strongly oppose drilling, mining, and any other type of exploration n the NANA region."
"Alternative D (the BLM's preferred alternative) shows me that the BLM cares much more for maintaining the corporate timber industry wealth, than it does the Western Arctic Caribou Herd."

Form letters were analyzed in the same manner as all other comments. Each form letter was analyzed for substantive comments and coded and entered into the database, with the number of signatures on each form letter or the number of each form letter received noted. For example, if we received a form letter from 317 individuals, the letter itself was coded once and any substantive comments noted in this appendix, but only one response was prepared for each substantive comment.

C. Summary of Comments by Topic

This section provides a narrative summary of public comments, organized consistent with organization of Chapters II, III, and IV of the Draft RMP/EIS.

Table J-1. Summary of Substantive Comments Received by Category

Subject or Resource	Number of Substantive Comments	Percent of Substantive Comments	
Resources			
Soil, water, and air quality	4	0.6	1.7
Vegetation	7	1.1	
Fisheries	17	2.7	17.5
Caribou	58	9.2	
Other Wildlife	35	5.5	
Fire Management	3	0.5	1.9
Cultural Resources	3	0.5	
Visual Resource Management	1	0.2	
Wilderness	5	0.8	
Resource Uses			
Forestry	2	0.3	1.4
Livestock Grazing	7	1.1	
Leasable Minerals	28	4.4	10.3
Locatable and Salable Minerals	23	3.6	
General Minerals	14	2.2	
Recreation - Squirrel River	45	7.1	15.7
Recreation - Kigluaik Mountain	6	1.0	
General Recreation	37	5.9	
Travel Management	11	1.8	
Renewable Energy	4	0.6	6.5
Lands	27	4.3	
ANCSA (d)(1) withdrawals	10	1.6	
Special Designations			
ACEC/RNA	46	7.3	12.5
General Special Designations	4	0.6	
Wild and Scenic Rivers	29	4.6	
Social and Economic			
Social and Economic	11	1.8	9.7
Hazardous Materials	6	1.0	
Environmental Justice	1	0.2	
Subsistence	43	6.8	
Process and General			
Process	13	2.1	9.2
Public Outreach	23	3.6	
NEPA Adequacy	22	3.3	
General	25	4.1	13.5
Maps	6	1.0	
Climate change	21	3.3	
ROPs and Stips	20	3.2	
Editorial Changes	13	2.1	
TOTAL	**630**	**100**	

1. Resources

a) Soil, Water, and Air

The comments on soil, water and air resources focused on adding some additional discussion and information to the EIS on permafrost, groundwater, and climate. Two additional comments referred to compliance with the Clean Water Act and the potential for impacts to the Pilgrim–Kuzitrin–Kougarok river system from mining activities on BLM land.

b) Vegetation

The seven substantive comments on vegetation covered a variety of topics, including comments pertaining to monitoring vegetation in caribou habitat and obtaining more data on vegetation communities in the planning area. One comment emphasized protection of wetlands. The most common theme was the importance of lichen-rich plant communities for caribou and the need for BLM to recognize the worth of these habitats and manage them appropriately.

c) Fish and Wildlife

About 17% of the comments focused on fish and wildlife. More than half of these comments were about caribou. In general, wildlife comments were supportive of adopting Alternative C as the preferred alternative. There was strong support for closing caribou habitats to mineral entry and/or providing additional protective measures to wildlife habitats, particularly for caribou and moose. One comment recommended opening areas to mineral entry and noted that the EIS over emphasizes impacts to wildlife from mining. Other comments stated that the EIS did not sufficiently analyze impacts to wildlife from mining.

Comments were supportive of BLM working with the Alaska Department of Fish and Game (ADF&G), noting that BLM should manage habitat to support population management objectives developed by ADF&G and assist in population monitoring and inventory. One person recommended that RMP consider introduction of Dall sheep and marmot in the Kigluaik and Bendeleben Mountains. Many comments also recommended that BLM continue to consult and coordinate with the Western Arctic Caribou Working Group.

Comments on caribou focused on protection of habitats important to the Western Arctic Caribou Herd. Most of the comments were supportive of additional protection of caribou habitats by the use of measures such as closure to mineral entry, development of required operating procedures (ROPs) and stipulations, designation of ACECs, no surface occupancy areas, designation of right-of-way avoidance or exclusion areas, and fire management to protect lichen habitats. Many comments expressed concern about protection of caribou migration routes and the avoidance of disruptive activities, such as an excessive number of hunters, in these areas during migration.

Many comments noted that moose populations on the Seward Peninsula are currently very low and riparian habitat should be protected to assist in recovery or maintenance of moose populations. Several noted that a 300-foot setback is not sufficient to protect riparian habitat on the Seward Peninsula.

Fisheries comments included concern about protecting the Kigluaik Arctic char, impacts of mining on fish, and the 300-foot setbacks proposed on many rivers. Comments were supportive of setbacks and closures of important fish habitat to mineral entry. Although some noted that a 300-foot setback was not adequate to protect fish and riparian habitat.

d) Special Status Species

Comments on special status animals focused on spectacled and Steller's eiders, Kittlitz's murrelet, polar bear, and walrus. Most of the comments regarding eiders had to do with complying with the Endangered Species Act or the need for further analysis of these species in the EIS. Comments on the murrelet noted the need to take the necessary management action to prevent future federal listing of the species. Comments on polar bear and walrus were in regard too compliance with the Marine Mammal Protection Act and the possible need for additional information and analysis in the EIS.

e) Fire Management and Ecology

One of the comments was editorial. The other two concerned managing fire to protect lichen rich habitats for caribou.

f) Cultural and Paleontological Resources

Only three substantive comments were received on cultural resources. There were no comments on Paleontological resources. These comments concerned: avoiding and mitigating impacts to cultural resources, the potential impacts from activity on BLM land to adjacent cemetery and historic sites, and BLM's responsibility to consult with Tribes under Executive Order 13175.

g) Visual Resource Management (VRM)

BLM received only one substantive comment on VRM. The comment stated that a VRM class II designation would hinder or possibly preclude the development of mineral resources in these areas and encouraged BLM to remove all VRM class I and II areas from the RMP/EIS.

h) Wilderness

Five substantive comments on wilderness were received, all questioning the lack of wilderness inventory and consideration in the Draft RMP/EIS. One also questioned the legality of the Secretary's directive regarding wilderness inventory and consideration in land use planning in Alaska.

2. *Resource Uses*

a) Forest Products

The two substantive comments were received on forest products. One opposed any commercial logging in the planning area. The second provided additional data on the presence of spruce bark beetle killed trees.

b) Livestock Grazing

BLM received seven substantive comments on livestock grazing. Two comments recommended that BLM continue its current management for reindeer grazing operations. The same organization was opposed to closing any areas to reindeer grazing. Three comments supported a program of limited reindeer grazing, the closure of two allotments to grazing, and the reduction of conflicts between reindeer grazing and caribou management. One comment noted that the impacts of grazing from reindeer are miniscule compared to the impacts from tens of thousands of caribou and that concern about overgrazing should be from caribou, not reindeer.

c) Minerals

About 10% of the substantive comments received concerned minerals management. These were broken down among locatable minerals, leasable minerals, mineral materials, and general mineral related comments. Forty-three percent of these comments were editorial or recommended additional information or clarification in the EIS. Several of the comments referred to the assumptions for analysis and reasonably foreseeable future actions. Three comments questioned BLM's characterization of the presence and availability of minerals in the planning area. Another questioned the price per barrel used to predict oil development under the cumulative impact analysis.

One comment encouraged BLM to continue its efforts to conduct modern geophysical, geochemical and water surveys along with geologic mapping, and mineral and energy resource studies. Another recommended that BLM not allow mineral material sales in riverbeds. Two comments recommended development of additional ROPs for restoration and more oil and gas leasing stipulations.

Another major subject of mineral comments was general concern about impacts to the environment from mining. These included concern about impacts from oil spills, construction of new roads, impacts on caribou, restoration requirements, and clean up of past mining activity. The bulk of the remaining comments focused on either closing or opening BLM areas to mineral entry and either lifting or maintaining the ANCSA (d)(1) withdrawals. The majority of these comments favored closing BLM-managed land to mineral entry. However, a few supported lifting of the withdrawals.

d) Recreation Management and Travel Management

Approximately 16% of the total substantive comments received concerned recreation and travel management, including management of off-highway vehicles (OHV). Forty-seven percent of these pertained to the Squirrel River and six percent specifically addressed the Kigluaik Mountains. Thirty-four percent of the recreation/travel management comments were about general recreation issues or were not area specific. Twelve percent of the comments were about travel management, most of these addressed OHVs. These comments are broken down by the following subcategories: Squirrel River, Kigluaik Mountains, General Recreation, and Travel Management/OHV.

Squirrel River

Approximately 7% of the total comments pertained to the Squirrel River. Comments on the Squirrel River focused primarily on management of recreational use in the area, particularly hunting related recreation, impacts on caribou migration, and regulation of OHVs. Several comments supported identifying the Squirrel River as a special recreation management area (SRMA) and developing a Recreation Area Management Plan (RAMP). One comment opposed designating the area as an SRMA. At least three stated that the proposed time-frame for developing the RAMP was too long. Several recommended extensive coordination with the State and local government agencies, other federal agencies, advisory boards, etc. during development of a RAMP. Eight comments noted that interim management measures to be implemented during development of the RAMP were not sufficient. Three comments recommended expanding the size of the Squirrel River special recreation management area. Fourteen comments supported putting limits on recreational use in the Squirrel River. Some focused only on commercial users while others recommended limitations on the total number of visitors. A few recommended that only the number of non-local people be limited. One noted the potential for increased recreational use and conflict in the upper Kobuk River area if restrictions are implemented in the Squirrel River. Seven comments focused on the impact of recreational use on caribou migration. Four comments recommended some limitations on OHV use in this area, particularly during the snow-free season. The need for additional law enforcement and safety issues were cited by several. One comment recommended closing the area to mining. Another cited the need to address access for mining in the RAMP.

Kigluaik Mountains

Several comments (one percent of the total) were supportive of managing the Kigluaik Mountains for recreational use or as a special recreation management area (SRMA), and one comment recommended designation as an Area of Critical Environmental Concern. Another comment noted that the Draft RMP/EIS failed to provide sufficient rational to warrant designation as either a Research Natural Area or as a SRMA, particularly in light of the mineral values found in the area. Four comments recommended limiting OHV use, particularly by four wheelers during the summer. Two felt that classifying the Kigluaik Mountains as a semi-primitive motorized area was not appropriate for the area. Another comment recommended implementation of a monitoring and permitting system for helicopter and fixed-wing tourism in the area. Three comments opposed any development in the area.

General Recreation

General comments on recreation were similar to those on the Squirrel River. Sixteen comments related to better managing recreational use in the Extensive Recreation Management Area. Comments included recommendations to put some sort of limitations on the level of commercial recreational use (12), avoiding putting limitations on subsistence users (two), giving the Field Manager the authority to deny special recreation use permits that would negatively affect wildlife or subsistence (two), and putting limits on the number of allowable visitor use days (one). One comment opposed putting any limits on the individual recreational user and stressed that BLM consider other management options besides limiting use. Two noted the need for additional law enforcement. One comment opposed designation of an Extensive Recreation Management Area. Another recommended several additional special recreation management areas. Two comments related to recreational cabins: BLM should make it easier to get authorization for recreational cabins; BLM should not allow recreational cabins. Other concerns included potential impacts of recreation on caribou migration, improved coordination with other agencies and advisory committees, clarification of the impact analysis in the EIS, and the potential for guided fishing to conflict with subsistence in the future.

Travel Management (Off-Highway Vehicles)

Five comments (2% of the total) supported some type of limitation on OHV use in the planning area, especially during the snow-free months. Two specifically recommended limitations on the use of ARGOs or other vehicles with more than four wheels and one recommended limiting the number of bush planes. Two comments mentioned impacts from OHVs and the need to address these impacts in the EIS. Three comments were editorial or requested clarification. Two comments recommended revision or improvement of the analysis of impacts from OHV.

e) Renewable Energy

BLM received four substantive comments on renewable energy. One of the comments voiced in a form letter with 317 signatures recommended reducing dependence on finite sources of energy like coal, gas and oil, and moving toward a cleaner, renewable energy sources. Another noted that we should reduce the need for gas and oil through conservation efforts, rather than drilling for more. Two comments noted that the Draft RMP/EIS did not provide an adequate discussion of the potential for renewable energy within the planning area, including the possibility of wind turbines.

f) Lands and Realty Actions

BLM received thirty-seven substantive comments related to lands and realty covering a wide variety of topics. In table M-1, these are broken down between Lands and ANCSA withdrawals. In the following discussion, they are consolidated into the following broad topics: rights-of-way/transportation corridors/easements, Land Disposal and Acquisition, and ANCSA withdrawals.

Rights-of-way, Transportation Corridors, and Easements

Two comments recommended establishment of right-of-way (ROW) avoidance or exclusion areas to protect caribou. Others concerned potential impacts to caribou migration from linear ROW such as roads. Two recommended that the RMP provide broad latitude for approval of ROW and transportation routes to facilitate future development opportunities. One comment recommended additional consideration of transportation corridors. Four comments addressed 17(b) easements. One was editorial, two made recommendations on how easements should be managed and the last one was in opposition to any additional easements.

Land Disposal and Acquisition

Several comments opposed making any BLM lands available for sale. One comment opposed acquisition of any land in the planning area. Two comments concerned trapping cabins. One recommended allowing trapping cabins in special management areas or administratively designated areas. Another requested that BLM modify discussions and decisions relative to trapping cabins to be more consistent with the State. Two comments recommended proactive management of State- and Native-selected lands in the RMP/EIS. One comment noted that management decisions for the Nulato Hills should be consistent with those in the Central Yukon RMP. Several comments referred to ongoing activities outside the planning process. Such as Native Allotments (two), conveyance of land to the State and Native Corporations (one), and RS 2477 rights-of-ways (one).

ANCSA (d)(1) withdrawals

Ten comments were related to ANCSA (d)(1) withdrawals. Three recommend keeping the withdrawals in place, while three others recommended lifting all the withdrawals. One additional comment noted that BLM should not continue with the proposal to lift all the withdrawals without replacing them with adequate protections and accounting for the effects on subsistence. Two comments concerned BLM's ability to handle the additional workload that would accompany such a change in mineral management policy. One comment requested that the Final RMP/EIS include an explanation of the steps required to lift the withdrawals.

3. Special Designations

About 13% of the comments regarded special designations. Of these, fifty-eight percent related to Areas of Critical Environmental Concern (ACEC) and thirty-six percent to wild and scenic rivers. Comments pertaining to the Mount Osborn Research Natural Area are included under ACECs. The remaining five percent were general comments. This section is further broken down to ACECs, General Special Designations, and Wild and Scenic Rivers.

a) Areas of Critical Environmental Concern (ACEC)

Comments on ACECs were included a wide variety of topics and varied from general recommendations to specific management proposals. One comment was generally in opposition to ACEC designations proposed under Alternative C while others supported these ACECs. Several comments noted that proposed management restrictions in ACECs under the Preferred Alternative are not sufficient to protect the relevant and important values

of the areas. One comment noted that selected lands should be included within ACEC boundaries.

BLM received three comments nominating additional areas as ACECs. These included: seashore sites near Unalakleet, Koyuk, Teller, and Kivalina; the Bendeleben and Darby Mountains; the American and Agiapuk rivers; and the caribou migration corridor near Selawik.

Sixteen comments were specific to the Nulato Hills. Four comments supported designation of this area as an ACEC and five comments recommended that the area be closed to various forms of mineral entry and leasing. Management related comments included development of a fire management plan to protect lichen for caribou, development of an ACEC management plan soon after approval of the Final RMP, that BLM manage the area consistent with the adjacent Central Yukon Planning Area, and that management measures from Alternative C apply to the Preferred Alternative. Two comments noted that the Preferred Alternative does not provide meaningful protection in this ACEC.

BLM received numerous comments on the Western Arctic Caribou Calving and Insect Relief ACEC. Three comments specifically supported designation as an ACEC and six comments recommended that BLM close the area to various forms of mineral entry and leasing. Two comments noted that the Preferred Alternative does not provide meaningful protection in this ACEC.

Specific comments on the Ungalik, Shaktoolik, and Inglutalik ACECs included three comments on each recommending closure of these areas to various forms of mineral entry and leasing. One additional comment on the Ungalik noted that the Final EIS should include more analysis of potential impact from mining on state managed land – such as below ordinary mean high water.

Several comments supported including McCarthy's Marsh (six), the Upper Kuzitrin Rivers (five), and the Kigluaik Mountains (three) as ACECs in the Preferred Alternative. One comment noted that McCarthy's Marsh should be a right-of-way avoidance area while another noted that a semi-primitive motorized designation was not appropriate in the Kigluaik Mountains.

One comment supported designation of Mount Osborn as a Research Natural Area (RNA). Another recommended that the boundary be expanded to include adjacent selected land. One comment recommended closure of this area to mineral entry. The State noted that many lands near Mount Osborn are high priority state selections. They expressed concern that RNA designation may impede access to and development of resources on both federal and state-owned land, and may preclude the State's use of management tools for fish and wildlife such as weirs or radio towers. Given that much of the land in this area is selected one comment recommended that final management decisions apply upon completion of the Final RMP, rather than implementing interim management decisions.

b) General Comments on Special Designations

The general comments included a recommendation for some type of protective designation of the Koyuk River, Inglutalik River, and Ungalik River. Two comments pertained to management of lands adjacent to specially designated areas after land conveyances are

completed, including the recommendation to incorporate adjacent lands remaining in BLM ownership into the specially designated areas. Another comment expressed opposition to any new special designations. The State expressed concern regarding justification and availability for access corridors and mineral development on administratively designated lands.

c) Wild and Scenic Rivers

Many of the comments voiced support for identification of one or more rivers as suitable for designation as wild or scenic. A few comments supported all eleven rivers recommended as suitable under Alternative C of the Draft RMP. Others specifically mentioned one or more rivers to be considered suitable. These included the Agiapuk River (four comments), the Kivalina River (one), the Ungalik (two), Fish River (three), Ipewik River (one) and the Kukpik River (one). Four comments suggested BLM revisit the Preferred Alternative and include one or more rivers as suitable under that alternative. One of these comments was from a form letter with approximately 3,500 signatures. Two comments opposed suitability determinations on any rivers.

Several comments referred to outstandingly remarkable values (ORV) of the rivers. One comment noted that BLM should continue to manage the Squirrel River to preserve its ORVs even though BLM has already made a non-suitable determination and submitted it to Congress. Four comments note that more information needs to be included in the Proposed RMP/Final EIS, describing the ORV of each river and to how these values will be protected. One comment recommended a watershed based management approach for rivers. Several additional comments were editorial. The State recommended that language in Alternative C prohibiting dams be clarified as only applicable to BLM-managed land.

4. Social and Economic

About 10% of the total comments fell into this category. The majority of these comments were on subsistence. This section is further broken down to the following subcategories: Social and Economic, Hazardous Materials, Environmental Justice, and Subsistence.

a) Social and Economic

Eleven substantive comments were received on this topic. One comment related to the economic benefit of the reindeer industry. Another highlighted the social problem in the Squirrel River due to overcrowding and the need for BLM to address this issue. Several comment questioned the economic benefit of resource development to the planning area residents. Concerns included lack of good jobs for locals, lack of involvement of local communities in development of resources, and the short-term benefit of development versus long-term impacts to the environment. Other comments noted the need to promote resource development in order to provide economic opportunities and jobs. A couple of comments questioned economic data and analysis of effects.

b) Hazardous Materials

One percent (six comments) pertained to hazardous materials. One concerned the health effects of prescribed burning. Several recommended clarification of text, tables and maps

regarding the number of sites, the type of contamination at each site, and which are administered by BLM. One questioned the relationship of hazardous material sites with abandoned mine lands and noted that the list of potential effects was overstated relative to the size of the problem.

c) Environmental Justice

The single comment on environmental justice noted that BLM did not adequately evaluate the possible effects of non-local hunters on local communities as part of its mandate to consider environmental justice.

d) Subsistence

Forty-three comments or almost seven percent of the total pertained to subsistence. In addition, many comments under the Fish and Wildlife, and Recreation categories also related to subsistence. The subsistence comments generally expressed concern that BLM continue to provide access for subsistence, eliminate, reduce or mitigate impacts on subsistence users, and place emphasis on management of fish and wildlife for subsistence purposes. Many of these comments mentioned impacts to subsistence from BLM approved activities such as mineral development and recreation. Several recommended that such use or development not be allowed. Several comments also referred to the Section 810 analysis on the Draft RMP/EIS and BLM's compliance with Section 810 of ANILCA.

Many comments noted that subsistence should be a priority in the RMP. One person noted that many Native corporations have developed land use policies for protection of the land for subsistence purposes and when lands were selected by ANCSA corporations subsistence uses were of primary concern. BLM should develop a policy to protect subsistence uses on selected land even though ownership may revert to BLM. A few recommended specific management options in the RMP such as allowing for personal use firewood and house log harvest.

Numerous comments were gathered through spoken and written testimony on the issue of subsistence and the role that it plays in the lives of Alaska Natives and rural Alaska residents. Although many of these comments were not substantive, their content depicts the importance of subsistence in the daily lives of those living in the region. Excerpts representative of these testimonies are included below.

- "I am worried about my grandchildren. You know what [are] they gonna eat? …they can't even go college, no money to go college so there's only two or three that graduate from college. I am proud of them but I am real concerned about subsistence. It's our way of life".
- "I've got a concern saying about the Squirrel River. The Squirrel River area has been used by the Natives ever since I was old enough to remember. That's quite awhile, long, long time ago. I remember the people from here that passed by Kiana and used that area up there…"
- "Hunting and fishing and gathering is our livelihood. And I was born and raised here. I am 67 years old. I hunted Squirrel River area ever since I was old enough to hunt and my Native Mother and her family did that before me. So I consider the Squirrel River our backyard. Our main hunting ground. And these issues are very important to

us. Although we have a different lifestyle now days, we still use our subsistence way of living, our way of hunting."

- "The caribou, seals, fish, whales, ducks, walrus, geese, and berries are the most important things in this area to our family and those who live here. Our lives evolved around their migration habits. We depend on this food to exist here. When one family has an abundance of harvested meat, we share it with our relatives in another local community who have not been so blessed. …It is our way of living…"
- "The lands are very important to my family and I. Even though both of us in the household work, we still depend on our caribou, wildlife. I can't afford $20 for the pork chops, $10 for the chicken (the cheapest kind), $7 for a pack of bacon/sausage, then to include the necessities like fuel oil, propane, electric, water, and phone."
- "BLM should be looking at what's best for the rural residents and their lifestyle, which they depend on thru [through] subsistence on the lands managed by BLM."
- "I do rely on the Western Arctic Caribou herd for my subsistence needs to help me and others get by in the winter months and also subsistence fishing and waterfowl hunting. These are important to me and my family."
- "Caribou is very important to us. We always have it fry, boil, stew meat, or dry meat. It keep[s] us [in] good health and warm, and not "hungry" right away."
- "Sometimes we don't have planes for days and the store runs out of hamburger, milk and meats, the people look in the freezer and find delicious caribou and enjoy a stew or steak, with or without planes. The land is a life and death issue for all the people in Alaska."

5. RMP/EIS Process and General

Approximately 9% of the total comments are on process. This category is further broken down into: Process, Public Outreach, and NEPA Adequacy.

a) Process

General Process
These thirteen comments covered a wide variety of topics. Several comments related to BLM's obligation to consult with the Fish and Wildlife Service under Section 7 of the Endangered Species Act. Another related to consultation with Native corporations on cemetery historic sites that might be affected by actions in the RMP. One requested that BLM follow the same process used in the East Alaska RMP/EIS to describe and highlight changes from the Draft RMP to the final RMP. There were also comments about how the plan would be implemented and the development of activity level plans.

Public Outreach
Twenty-three substantive comments were received on this topic. Several comments concerned public notification, opportunity for public comment and/or requested an extension of the comment period. Six comments concerned Tribal or government-to-government consultation. Many of these pertained to a perceived lack of consultation or deficient consultation. Three comments noted the need to improve BLM's public outreach efforts or questioned how BLM would keep the public informed. Three comments referred to the ANILCA Section 810 process: that hearings were held too early in the comment period; that BLM should develop a revised Draft RMP/EIS and revised Section 810 Analysis; and that Section 810 requires BLM to solicit comments from the Federal Regional Advisory Councils

(RAC). A couple comments related to the exception, modification, and waiver process for ROPs and stipulations: one recommending that a public process be conducted if industry asks BLM for an exception, waiver or modification to the ROPs and oil and gas leasing stipulations: others requesting that BLM consult with the Western Arctic Caribou Herd Working Group if exceptions, waivers, modifications, or proposed development are likely to affect caribou habitat. One comment concerned cooperating agency involvement in the Draft RMP/EIS.

NEPA Adequacy

Twenty-two comments concerned the NEPA adequacy of the analysis in the Draft RMP/EIS, about half of these relating to the analysis of cumulative effects. Comments ranged from a perceived failure to analyze cumulative effects either generally or for specific resources, inadequacy of the cumulative effect analysis, or inadequate consideration of the area of effect and reasonably foreseeable future actions. Areas of concerned included the cumulative effect of global climate change, land conveyance, and future transportation infrastructure. A few comments noted that the Draft RMP/EIS did not provide balanced alternatives, there being too much similarity between Alternatives B and D, and a lack of balance within the Preferred Alternative (D). Seven comments concerned selected lands. The general concern is that the Draft EIS did not adequately consider the impacts of conveyance of land out of Federal ownership. One comment noted that the EIS did not consider the short-term benefits of mineral development versus the long-term effects on natural resources. Other comments noted that the analysis was too general, focused too much on minerals, or was not sufficient for specific resources.

b) General

Approximately 13% of the total comments fall under general. The General category is further broken down into: General, Maps, Climate Change, ROPs and Stipulations, and Editorial.

General Comments

This topic encompasses many comments that did not fit under other categories, ranging from rewording or reorganizing the document for clarification to general concerns about potential impacts to Alaska's wildlife, vegetation, and scenic values. Some people were concerned about impacts to the land from recreation and development while others feared increased or unnecessary regulation. Some comments noted inconsistencies in the document. Others requested the inclusion of additional information. Many of the comments were generally supportive of subsistence and protection of resource values.

Maps

Six comments were on maps. About half of these involved improving the maps by displaying the geographic locations of features mentioned in the text on a map, labeling features on the maps, adding additional data to the legend, or correcting errors. Two comments recommended the addition of new maps, including a map showing caribou migration corridors and a series of maps depicting the relationship of the special management areas and pertinent restrictions by alternative.

Climate Change
Twenty-one comments pertained to global climate change. More than half of these comments felt that the Draft RMP/EIS fails to adequately consider the effects of climate change, either in general or on specific resources such as caribou, spruce woodlands, and soil. People felt that the plan must be flexible to allow management to quickly adapt in respond to impacts from climate change. Several comments generally note that BLM needs to take climate change seriously and/or do something about it. One comment noted that the final RMP/EIS should consider how the proposed actions, alternatives, goals and objectives may contribute to and/or reduce impacts to climate change. Another comment noted that the Final RMP/EIS should consider international circumpolar marine transportation routes as a reasonably foreseeable future activity and evaluate the potential cumulative effects associated with such a scenario.

Required Operating Procedures (ROP) and Stipulations
Twenty substantive comments related to this topic. Several recommended changes to specific ROPs and stipulations, or encouraged the development of strong ROPs to protect caribou and moose habitat, riparian habitat, and fisheries. Some recommended application of area specific stipulations to protect important caribou habitat. Two comments noted need for additional ROPs were to address requirements for the abandonment, removal, and reclamation of mineral exploration and development sites after operations have ceased. Two comments requested that BLM monitor the effectiveness and compliance with ROPs and stipulations. Two noted that BLM should not allow exceptions, modifications, and waivers of the ROPs and stipulations. The State recommended that BLM develop ROPs to protect riparian and fisheries habitat rather than considering mineral withdrawals.

Editorial
Thirteen comments were strictly editorial including: correcting spelling errors, reformatting figures and text to improve readability, grammatical errors, and additions to the list of acronyms.

D. Response to Individual Comments

This section contains responses to specific comments, organized by the major topics used throughout the document. Some general categories were also included, to facilitate topics brought up the content analysis. Comment letters were assigned numbers when they were received and these numbers are used in this section of the document so that reviewers can easily find their comment and how we responded to it. Following the specific responses to comments is an index of comment letter numbers and the name associated with it as a cross reference for reviewers to find their individual comments. The index also shows which page numbers contain comments and responses to comments for each comment letter number that was assigned. Organizations and government entities are listed by the organization or the government agency rather than by the signature to the submission.

TABLE J-2. RESPONSE TO COMMENTS

1. RESOURCES

Letter # - Comment #	Comment	Response
SOIL, WATER AND AIR		
24-2	The Pilgrim–Kuzitrin–Kougarok river systems is currently a rather healthy system and if as I understand correctly some of the areas under Alternative B which would open up [to mineral entry] south of the Bering Land Bridge preserve could affect those water quality resources. There has not been to this current time, any rapidly or severely invasive mineral uses. There is a hard rock mine proposal [Rock Creek]. This area [southern Seward Peninsula] has not seen a mine of that caliber before and there is the potential for that mine and other sorts of mineral or resource impacts that BLM has proposed in some of its alternatives to affect water quality.	BLM shares your concern regarding water quality resources for the Pilgrim–Kuzitrin–Kougarok river system. Likely impacts for various alternative actions are discussed in Chapter IV, section B(1), "Air Quality and Soil and Water Resources." Any proposed development impacts would be considered in accord with the NEPA process. BLM manages the lands and the resource values through the NEPA process, which considers the resource values and allows the development of site-specific mitigation and the assignment of ROPs and stipulations as appropriate for the project. ROPs and stipulations are the minimum guidelines that will be used so resource issues will be mitigated, on a site-specific basis, during the Plan of Operations review and approval. Mineral related activities are required to follow BLM 3809 Regulations as well as Federal and State laws and regulations. There is flexibility built into the ROPs (Appendix A) so that site-specific analysis and subsequent remedial measures will be adapted to the particular proposed project.

Letter # - Comment #	Comment	Response
24-11	BLM did not portray groundwater characteristics for the entire Kobuk-Seward Peninsula other than references to Dorvara et al. such portrayal would be extremely exhaustive and BLM's portrayal that groundwater is lacking because of permafrost simply cannot stand. Benning, J. and D. Yang (2005) indicated that Nome and Barrow rain gauges which incorporate wind shielding resulted in a reported under catch of precipitation. They in turn developed an algorithm for adjusted precipitation. I wish to reference that report and urge BLM to consider its findings and adjust its characterizations about water resources.	We have added an additional groundwater reference (Miller et al. 1999) to the References Section. The reference provides an excellent description of groundwater characteristics for much of Alaska including the Kobuk-Seward Peninsula area. Chapter III, section (B)(5), "Water Resources," has been revised for clarification in the Proposed RMP/Final EIS. The purpose of the discussion of permafrost and groundwater in the Draft RMP/EIS was to inform the reader that permafrost presents unusual groundwater development and withdrawal problems. In general, permafrost inhibits infiltration of precipitation to underlying aquifers and promotes rapid runoff to streams. Although there is a large quantity of water stored in the permafrost, the water cannot be easily obtained and the presence of thick, continuous permafrost greatly limits the usefulness of most shallow aquifers. We agree that the algorithms and procedures employed by Benning and Yang (2005) for adjusting daily precipitation-catch measured by the U.S. National Weather Service (NWS) for wind-induced under-catch, wetting loss, and trace amounts of precipitation are important contributions to more accurate precipitation records for the Kobuk-Seward Peninsula area.
52-18	Pg. 3-5, 2nd full Paragraph: The mean annual temperature ...." How is the mean calculated? Is this a running 10 year, 20 year, or 30 year average? Without better explanation this statistic is not beneficial.	The wording in this paragraph (Chapter III.B.1) has been expanded for clarification: “The mean annual temperature in Alaska has increased about 2.7° F for the period of 1971 to 2000; the temperature increase was determined from the trend of the best-fit linear regression line through the 1971 to 2000 average annual temperatures for all representative Alaska stations (Alaska Climate Research Center, 2006)." In addition, the reference for this information has been updated. It may be of interest to note that “Mean annual-temperature” and “Normal annual-temperature” represent different statistical measures. The mean annual temperature for a particular year is the average temperature for January through December. Normal temperatures, on the other hand, by international agreement, are based on average annual temperature data for three consecutive decades. For example, normal annual temperatures reported by the NWS were calculated from stations with continuous data for the period 1971-2000. The next three-decade (30 year) normal annual temperature will represent the period 1981-2010. Departures from the normal annual temperature for a particular year are typically reported as an increase or decrease of X.X degrees from normal. Normal is the 30 year (three consecutive decades) moving average temperature for a particular climate station or area.

Letter # - Comment #	Comment	Response
78-10	There should be an emphasis on wetland protection, as development has continued to erode the regional wetland quality and extent. This attrition of wetlands through time has been observed in all developed areas of the country and should be a high priority for permitting activities.	BLM has developed a number of Required Operating Procedures (ROPs) that deal specifically with protection of wetlands (Appendix A, section B.3: Water, Riparian, and Wetlands). ROPs are requirements, procedures, management practices, or design features that BLM adopts as operational requirements. These ROPs are applied both to projects BLM provides permits for, and also to projects BLM initiates for research, inventory, or monitoring. Appropriate ROPs apply to all permitted activities, including Federal Land Policy and Management Act (FLPMA) leases and permits, Special Recreation Permits, oil and gas operations, coal exploration, mining Plans of Operation, and Right-of-Way authorizations. The wetlands ROPs apply to situations such as: potential alteration of wetlands, road and trail construction in wetlands, use of low ground pressure vehicles in wetlands, hydrology of wetlands during vegetation treatments, and location of structures within wetlands.
197-11	All standards for Clean Water Act must be adhered to in any activity on rivers and streams.	Development, where allowed, will be subject to the ROPs and stipulations in Appendix A of the Proposed RMP/Final EIS which are the minimum guidelines that will be used to ensure that resource impacts will be mitigated, on a site-specific basis, during the NEPA process associated with the Plan of Operations review and approval. Additionally, commercial activities will be subject to permitting and consultation requirements under the Clean Water Act, and other Federal, State, and Local requirements.
VEGETATION		
58-11	pg 2-8. plans to complete land cover classification in NW Alaska: BLM [should] continue and accelerate its land cover classification and mapping in the northwestern portion of the State. The Point Hope, De Long Mountains and Point Lay quads are very important to caribou during post-calving, insect-relief and summer seasons. Also, in some years, a portion of the herd winters in these areas. Inventory and knowledge of vegetative classification will help identify areas that sustain the herd during the varying seasons of the year.	Vegetation mapping for all of northwest Alaska, including the U.S. Geological Survey topographic map quadrangles mentioned by the commenter exists at a one kilometer resolution. Vegetation mapping at a 30 meter resolution is not available for these three quadrangles. Access to more detailed habitat information will enhance management effectiveness for terrain important to caribou in these areas, including post-calving, insect relief, summer range, and occasional winter range use. The Proposed RMP/Final EIS lists completing land cover classification for these quadrangles in its list of inventory and monitoring projects, Chapter II.B(1)(b)(3)(a), "Inventory and Monitoring". RMP decisions drive project initiation and funding. Completion of this project will depend upon adequate funding and personnel.

Letter # - Comment #	Comment	Response
58-12	Pg 2-8: Vegetation transects [should] be established in calving and summer range areas [of the WACH] to allow trend analysis of quality and abundance of vegetation in these areas.	Due to priority given to monitor WACH winter range and its slow-growing lichen component, BLM has no information on condition and trend of habitat within WACH summer range, including calving grounds and insect relief terrain in the Arctic Foothills of northwest Alaska. One wildlife management decision common to all action alternatives (B, C, and D) of the Proposed RMP/Final EIS is to work cooperatively with the State and other Federal agencies to implement the WACH Strategic Management Plan. One objective of the Strategic Management Plan is to assess and protect important habitats of the WACH. BLM recognizes the need to develop and implement a project proposal to evaluate representative portions of WACH summer range occurring within the planning area. The timeframe to design and implement a study of this nature will be dependent upon adequate funding and personnel.
58-13	Pg. 2-8: BLM [should] continue to recognize and manage lichen-rich plant communities as unique habitats that are highly important to caribou. Lichen-rich areas in the Planning Area should be protected for the future benefit of the caribou herd. These habitats form essential and critical winter range for the herd.	BLM is strongly committed to managing and protecting lichen habitats of all types in recognition of their vital importance to caribou (Chapter II.B.1.b).). The ACECs in the Preferred Alternative of the Proposed RMP/Final EIS recognize caribou and caribou habitat as components of the landscape deserving of special management attention. These ACECs are: Nulato Hills, Western Arctic Caribou Insect Relief Habitat, Ungalik River, Inglutalik River and Shaktoolik River. The Preferred Alternative for these proposed ACECs variously require focused, activity level management plans to guard against adverse impacts of permitted resource development; develop fire management prescriptions for caribou winter range; and some close the ACEC to all forms of livestock grazing.

Letter # - Comment #	Comment	Response
58-14	Pg 2-8: Fire suppression techniques [should] be implemented to protect old growth lichen on caribou winter range within the Planning Area. Recent information shows that caribou do not select (avoid) burned lichen stands for long periods of time (50-100 years) after lichen areas are burned. Loss of old-growth lichen should be avoided.	Based on mapping products from ADF&G and BLM's Alaska Fire Service, approximately 19% of WACH winter range within the planning area has burned since 1950. We know that after 24 and 25 years, at vegetation transects in lichen tussock tundra in the Buckland River valley and McCarthy's Marsh lichen cover in burned areas remains less than 4%, indicating slow recovery rates after fire. At a linear rate of recovery, lichen cover would still be less than 7% at 50 years post-fire. In contrast, lichen cover values at typical, unburned lichen tussock tundra or lichen mat-lowland tundra can be 25-50% or 50-75%, respectively. Recent findings from a study in eastern Alaska showed that caribou from the Nelchina herd strongly selected against burned areas less than 35 years old throughout the winter, and that lichen availability was a large factor influencing habitat selection. What we don't know is where and how much old-growth lichen habitat is available to the WACH. Based on a regional inventory (yet to be conducted) of location and acreage of lichen-rich tundra, woodland, and alpine habitats, fire management goals could be developed to reflect the present size and needs of the WACH and its users. WACH winter range could be managed for long fire return intervals. For example, it may be necessary to suppress fires in old-growth lichen habitat when the threat of very large fires is great, and supply of alternative winter range is limited. Prior to an inventory of this type, on a case-by-case basis, potential very large fires in WACH winter range could be assigned a Full site designation, and fought with a high level of committed resources. Additionally, under Alternatives C and D in the Proposed RMP/ Final EIS, a management plan developed for the Nulato Hills ACEC would address fire management options in lichen habitat of WACH winter range. Similarly, under Alternatives B, C, and D management calls for managing fire to protect old growth lichen stands on the Seward Peninsula. Chapter II.B.1.b)(3).
58-15	Pg 2-8: BLM [should] continue to recognize and manage multi-aged lichen stands for the benefit of caribou within the Planning Area. This management strategy ensures that, through time, lichen stands will mature to old-growth quality and help perpetuate quality caribou range for the herd. Since lichens mature slowly, the view for range quality and their usefulness to the herd should be measured by centuries and not by decades or shorter periods of time.	See response to comment # 58-13. BLM, was designated in 1946 – only 60 years ago. It is hoped that BLM's ability and commitment to manage and protect caribou as well as important caribou habitat will be as strong in 2106 as it is in 2006.

Letter # - Comment #	Comment	Response
64-32	The discussion in the text on broad-scale vegetation classification does not include a citation for development of the various vegetation types found on BLM lands within the plan. We assume the vegetation classes were adapted from The Alaska vegetation classification by Viereck, et al., 1992. If this is the case, please cite the following: Viereck, L., C. Dyrness, A. Batten, and K. Wenzlick, 1992. The Alaska Vegetation Classification. General Technical Report PNW-GTR-286. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, OR.	The one kilometer resolution vegetation classification used was not based on Viereck et al. (1992). As stated in Chapter III.B.6.a) the data used was a statewide vegetation classification developed by M.D. Fleming (1996). It was presented at the Second Circumpolar Arctic Vegetation Mapping Workshop in Arendal, Norway (May 1996). Additionally, this data was used by the U.S. Geological Survey at the EROS Data Center in Anchorage to develop a more widely known land cover map product (USGS 1997) that has been extensively used by the BLM-Alaska Fire Service in their fire fuels reduction program. The Fleming 1996 citation was added to the legend of Map 3-6.
FISH AND WILDLIFE		
FISH		
11-1	Keep lands (Ungalik River) closed to mining as this would affect the fish and animals. Disturbances can and have been instrumental in fish not returning and having abnormalities.	In the Preferred Alternative of the Proposed RMP/Final EIS, the Ungalik River would be open to mineral location and leasing subject to strict required operating procedures outlined in Appendix A.
11-2	Keep lands (Ungalik River) closed to mining as this would affect the fish and animals. Same with caribou, moose and other animals.	Thank you for your comment. See response to comment #11-1.
19-1	[with] mining we've got to be very careful on that because if we just disturb the land there won't be fish in that river or they'll move somewhere else.	BLM will continue to attempt to mitigate any adverse effects to fish habitat (and therefore populations) due to authorized actions on BLM-managed lands.
24-3	Our fish resources are, have been on the decline for a long time and I don't know that any additional impacts of the caliber that's indicated in the Alternatives is warranted.	Salmon production is cyclical and varies according to numerous environmental factors. Salmon returns have been strong to record breaking in Norton Sound the past 3 years after declining through the 1990s. Chum salmon returns are still somewhat lacking, but most likely are determined by ocean conditions.

Letter # - Comment #	Comment	Response
24-12	BLM's portrayal of fish species is largely inadequate. I use each of the listed species for subsistence each year and also use saffron cod and Arctic cod in addition to those listed by BLM. The cod species have a tendency to migrate into large estuaries and I feel their lack of mention in the RMP/EIS should be corrected to reflect that they migrate into onshore estuaries that may be or become managed by BLM.	The Fisheries analysis in the plan is mostly based on fish habitat, because BLM manages fish habitat and is only responsible for fish populations in Federal Conservation Units and non-navigable waters. BLM has no management responsibility in areas where Safron and Arctic Cod "have a tendency to migrate." BLM typically manages upper watersheds within the planning area.
24-14	In consideration that each lake may hold genetically isolated char, it seems a listing with the Endangered Species Act is warranted and it seems peculiar that BLM did not make inferences to listing since each species is very likely sensitive.	BLM has identified the Kigluaik char as a BLM Sensitive Species, meaning that we will treat the fish as though it were a candidate for listing. To list the fish under the Endangered Species Act is the responsibility of the U.S. Fish and Wildlife Service and is outside the scope of this plan. We are currently undertaking project work to determine fish population numbers in the largest of the Kigluaik Lakes. We believe that listing as threatened or endangered is premature until we can determine the population trend. We will continue to work closely with ADF&G, and propose fishing regulation changes to protect the char, if warranted. See response to comment # 65-67.
26-2	I believe you also have relic stocks of arctic char in the headwaters of the Koyuk River just north of Mount Aust for the same reason. And while working for the Park Service, I did some work out there and found one of those relict stocks in the Kuzitrin Lake.	BLM needs to survey these areas to determine the presence of these char. Collection of genetic samples would help determine if the char are unique or belong to the more common Taranets char sub-species grouping.
26-7	I think the Shaktoolik, Ungalik, Inglutalik, and East Fork of the Koyuk all have very rich salmon and fisheries habitat. I can say that from many years of experience surveying those streams for the Fish and Game.	The Nulato Hills contain some of BLM's most productive salmon and fish habitat. BLM will continue to protect this valuable natural resource through implementation of the ROPs, monitoring, and the NEPA process. This area is proposed for designation as an ACEC in the Proposed RMP/Final EIS, Chapter II.B.3.a).
65-55	The draft RMP offers no explanation for how the 300-foot setbacks were determined.	An explanation of how the setbacks were determined was added to Chapter III.B.7.a)(3), "Factors affecting Fish Production."
65-56	BLM [should] adopt more stringent watershed-based stipulations to help maintain riparian habitat.	Thank you for your comment. See response to comment # 78-10.

Letter # - Comment #	Comment	Response
65-67	BLM must work with ADF&G and the State Board of Fisheries to protect Kigluaik arctic char by enacting fishing regulations, if warranted. However, BLM does not specify in the draft RMP as to what regulations may be undertaken to ensure sustainable populations of arctic char.	ADF&G is responsible for managing populations. BLM will work with ADF&G and the Board of Fisheries to protect the habitat for this species. Development of fishing regulations is outside the scope of the RMP.
65-68	[Alternative C] which would expand protections for the Kigluaik Mountains and prohibit disruptive locatable and leasable mineral entry, [is] the best management practice for arctic char populations.	BLM will continue to study the Kigluaik Mountain arctic char in an effort to better protect this valuable natural resource. The Proposed RMP/Final EIS implements several protective measures for arctic char populations in the Kigluaik Mountains, Chapter II.B.(1)(d)(3). and Appendix A.
65-69	McCarthy's Marsh and Kuzitrin River provide marshy habitat which offer warmer water temperatures that support the growth of fish species. The fish in these areas stand to be impacted from prospective mining activities...Draft RMP/EIS, at 3-48. As such, it seems imperative that BLM prohibit energy development and limit exploitation in or near these habitats by according the proper protections for a watershed-based approach to managing fishery habitat.	Approximately 70% of McCarthy's Marsh was conveyed to the State of Alaska in 2006. The upper Kuzitrin and lands in McCarthy's Marsh remaining under BLM management will be open to mineral entry and leasing subject to the Required Operating Procedures (ROPs) in Appendix A and all appropriate Federal and State regulations. The ROPs and regulations provide BLM with the management flexibility to protect fish habitat when and if energy development were to occur.
65-106	All proposed/recommended 300-foot riverbank setbacks (for both locatable and leasable mineral management) should be "minimum" setback distances and ... the BLM [should] explain how they arrived at 300 feet for an adequate riverbank setback.	Thank you for your comment. See the response to comment #65-55.
65-107	Setbacks and closures should also be applied to tributaries of the main rivers identified in the draft RMP.	Oil and gas leasing stipulation #2 prohibits permanent facilities within 500 feet of fish bearing water bodies. This stipulation applies to all rivers in the planning area. Most of the ROPs apply to all streams and rivers (Appendix A, Proposed RMP/Final EIS).

Letter # - Comment #	Comment	Response
66-5	Providing an adequate buffer around rivers and streams provides protection for fisheries resources by conserving the delicate riparian areas, which help prevent erosion and flooding. It is also important to preserve the river substrate from disturbance because of its relationship to spawning fish, and because of the threat of decreased water quality for developing juvenile fish due to silt deposits from disturbed sediments. Protecting water flow patterns and water quantity within a river system is also important to preserving fish populations.	Required operating procedure (ROP) FW-7a requires that a claimant, operator, or applicant proposing to use or develop the lands, waters, or resources within 300 feet of the banks of active stream channels must demonstrate that such use or development will not adversely alter the condition and ecological function of aquatic and riparian systems. Several other ROPs in Appendix A, section 3, "Water, Riparian, and Wetlands" pertain to protect of aquatic, riparian, and wetland habitats. See also response to comment # 65-107.
197-7	Pg. 2-40: While 300-foot setbacks from certain rivers and streams may be adequate, these setbacks are inadequate in areas that are important moose habitat or fish spawning areas and therefore additional setback protections should be set aside to protect these habitats. Consultation with ADF&G and local knowledge must be considered in these cases.	The 300-foot setbacks discussed in the Draft RMP/EIS are measured from either side of the mean high water mark, creating a 600-foot buffer around the mainstems of the rivers. This should be adequate for fish habitat protection in the listed drainages. Any Federal actions proposed near critical fish habitat within the planning area will be conducted in a manner which minimizes damage to the aquatic environment. ADF&G will be consulted if necessary.
WILDLIFE: Western Arctic Caribou Herd (WACH)		
15-8	We commend BLM for identifying the herd's most important habitats and proposing to establish Areas of Critical Environmental Concern (ACEC) to protect them. However, opening these areas to mineral development, especially solid leasable minerals, as proposed under Alternative D, is a concern. It is uncertain whether the effects of large-scale surface development and associated infrastructure in these areas could be adequately mitigated.	Thank you for your comment. See response to comments # 65-36, # 65-108 and # 65-70.

Letter # - Comment #	Comment	Response
15-9	[P]otential impacts to the WAH and the subsistence communities that rely on it would be substantially reduced if areas designated as ACECs for the herd were deferred from leasing for oil and gas or other mineral development. If, however, any acreage within these WAH ACECs is opened to mineral development, stipulations and required operating procedures (ROPs) similar to those for oil and gas exploration should be developed for mining activities.	The Proposed RMP/Draft EIS does not defer oil and gas leasing within the proposed ACECs. It does, however, apply ROPs and Oil and Gas Leasing Stipulations (Appendix A) to protect important historic, cultural, fish and wildlife, and scenic values identified within the respective ACEC. The Proposed RMP/Final EIS does defer coal leasing - see response to comment # 65-70. The ROPs also apply to any surface disturbing activities, including mining. Additional NEPA evaluations, including mitigation measures, will be developed as needed in response to site specific applications for mining or oil and gas activities.
15-10	In the case of hard rock mining, or any other activity requiring an Operating Plan, wording should be added in the Final RMP/EIS to clarify that not only must the plan(s) be completed, but they must be approved by BLM, in consultation with the Western Arctic Caribou Herd Working Group, based on the plan's ability to ensure all potential impacts of the proposed activity on caribou will be adequately mitigated and cumulative effects considered before project activities commence.	Mining plans of operation must be approved by BLM before on the ground activity begins, as stated in the Proposed RMP/Final EIS in Chapter II, Section B.2.c)(2)(c), "Management Common to all Action Alternatives." Proposed mining plans of operation would be subject to NEPA analysis and the Working Group may provide input and recommend mitigation measures during this process. In addition, the proposed mining activity would be subject to the ROPs (Appendix A).
15-11	Aircraft altitude restrictions should be made more enforceable. Cloud ceilings on the calving grounds during calving are rarely 2,000 ft or higher. "Safe flying practices" would require pilots to stay free of clouds unless flying under instrument flight rules, which is not likely for development operations in this area. It seems likely that the "exception" noted in this ROP would become more common than the rule. Therefore, we recommend that...The BLM should prohibit flights below 1,500 feet over the WAH calving area during the calving period except for authorized research activities or in the case of emergency.	This ROP was adopted to be consistent with the adjacent National Petroleum Reserve-Alaska. The stipulation includes the exception: "unless doing so would endanger human life or violate safe flying practices." to address the safety issue raised by the commenter. See also response to comment # 58-31 (under Process_General).

Letter # - Comment #	Comment	Response
15-20	[T]he Draft Preferred Alternative (Alternative D) could be improved to better protect fish, wildlife and subsistence resources if the following recommendations are incorporated in the Final RMP/EIS. 2. All Rights of Way requests for WAH ACECs should be reviewed by the BLM in consultation with the Western Arctic Caribou Herd Working Group, and measures developed to prevent or mitigate any impacts.	All right-of-way applications (ROW) will be reviewed by BLM and analyzed under NEPA for impacts to wildlife and subsistence. Appropriate mitigation measures and stipulations will be incorporated into the ROW permit to mitigate impacts to the extent possible. Table 2-1 of the Proposed RMP/Final EIS states that appropriate mitigation measures for linear ROW in caribou habitat would be developed through activity level planning. The WACH Working Group may provide input and recommended mitigation measures on site-specific ROW applications during processing of permits and NEPA analysis as well as providing input into the development of activity level plans for caribou habitat.
24-4	[In] the southern end of the RMP area, from myself going to that area, [I have observed] there is significant evidence that caribou use that area where people do not generally access and it's likely important for those animals and for subsistence users who would use that area.	BLM recognizes that the southern Nulato Hills is important winter habitat for the WACH. This area is proposed for designation as an ACEC in the Proposed RMP/Final EIS Chapter II.B.3.a).
25-1	We have an unregulated number of transporters coming in, placing an unlimited number of hunters in multiple locations at throughout the migration. And so there is a biological concern in that regard. Because the Western Arctic Herd is so large right now, it is hard to confront this problem strictly on biological terms.	The largest block of BLM-managed land within the major migration routes of the WACH is the Squirrel River watershed. A Recreation Area Management Plan will be developed for this area to address these concerns. See Chapter II.B.2.d)(6).

Letter # - Comment #	Comment	Response
25-4	We are looking at on a broader scale, global warming. We don't know what the effect is going to be but we are already seeing effects in our wildlife here. We have the persistent organic pollutants that are becoming more and more dominate up here. So, this herd [WACH] is under a lot of stress or it is potentially under a lot of stress. And when you look at the development potential on adjacent lands, including the National Petroleum Reserve, I think we need to be very cautious about this most important herd that affects so many people, subsistence users in this region.	The Proposed RMP/Final EIS recognizes the potential for cumulative impacts to the WACH and their habitats in Chapter IV.B.3.b) and B.G.2.c)(2). It includes measures to protect caribou habitats in several sections of Chapter II and Appendix A.
25-7	I prefer Alternative C, but recommend increasing the 300' setback as described for [mineral development] (2-42). The southern Nulato Hills are extremely valuable winter habitat for the Western Arctic caribou herd, and maximum protection should be provided to allow winter use by caribou.	The 300-foot setback in Alternative C was designed primarily to protect riparian and fish habitat, not caribou habitat. See also response to comment # 24-4.
34-1	If we start selling all this land. If all those people from out of town or out of the region start buying land, you'll start seeing lights out there. There'll be lights in the mountains and the valleys. That's where all our caribou and all our birds migrate through. ...Those people they gonna block off all that caribou trails where they go through ours and they'll start finding another route. Where we won't see our caribou again.	Very few lands would be available for disposal. Any lands remaining in BLM management in the immediate vicinity of Nome and Kotzebue would be available for disposal through FLPMA sale. However, we anticipate that almost no BLM lands will remain in these areas after conveyances are completed. Once conveyances were completed, large blocks of BLM land identified on Map 2-18 would be retained in Federal ownership.

Letter # - Comment #	Comment	Response
49-1	That's one of our concerns, the Kauk River. How many guides is the problem. Or number of animals or transporters that the hunters allowed out there. And the time [of year]. If they start doing it [guiding and hunting] at the wrong time, they [the caribou] go the wrong way. One or two weeks would make a big difference [in the effects on caribou migration].	The Proposed RMP/Final EIS includes recommendations for managing commercial recreational use permits in the Extensive Recreation Management Area which will allow us to address issues such as the Kauk River.
50-2	Transporters or guide hunters turn the caribou before they reach here [Buckland].	Thank you for your comment. See response to comment # 49-1.
51-1	EPA has concerns regarding potential adverse impacts to important caribou calving and insect relief habitat for the Western Arctic Caribou Herd (WACH) resulting from resource exploration and development in the area. Additional management measures and monitoring are recommended to ensure the compatibility of uses.	Thank you for your comment. See response to comments # 15-11, # 65-36, # 65-70, and # 65-108.
52-9	Pg.2-53. 6. Alternative D: "About 60%" is incorrect. According to Table 2-9, 8% of the BLM managed land would be closed to provide additional protection to caribou habitat in the Nulato Hills.	Thank you for your comment. The acreage figure referred to has been corrected.
52-10	None the less, 8% (250,000 acres) is a huge area, far larger than should be closed. There is no demonstrated need for such a large closure.	The area is currently closed to leasing under a public land order. In the Proposed RMP/Final EIS, the area would be open to exploration subject to the ROPs and oil and gas leasing stipulations.

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54-4	Western Arctic Caribou herd - Over 500,000 animals make an annual migration from the North Slope down to the Nulato Hills and Seward Peninsula area. This animal herd is important to the native peoples in this area. It is also important to other animals as a major sustaining part of the food chain. This falls under the Alaska Dept. of Fish and Game's scope of responsibility, but it also falls under the responsibility of the land owner.	BLM recognizes the importance of the WACH for subsistence. The Proposed RMP/Final EIS includes measures to properly manage and monitor caribou habitats in Chapter II.
57-1	Protecting sensitive calving areas, summer grounds, and wintering habitat for the Western Arctic Caribou Herd (WACH) should be the highest priority. The health and safety of this extraordinary 500,000 caribou herd, Alaska's largest, would be threatened by opening up new areas within the herd's range to mining, oil, and gas activity.	Thank you for your comment. See responses to comments # 54-4 and 130-1.
57-3	I support the proposed Area of Critical Environmental Concern designations in Alternative C because they accord real protection for the WACH Calving and Insect Relief Habitat as well as the WACH Winter Range.	Thank you for your comment. Several of these ACECs would be designated in the Proposed RMP/Final EIS. However, management decisions differ somewhat than that outlined in Alternative C. See Appendix B.

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58-1	We strongly recommend that the BLM and Department of Interior prioritize the long term health and maintenance of the Western Arctic Caribou Herd and the habitats upon which it depends within the Planning Area to ensure the health of the herd and subsistence opportunities for the communities of northwestern Alaska. Maintaining productive caribou habitat and working closely with communities in northwestern Alaska and the Working Group should be a high priority for BLM's Kobuk-Seward Peninsula planning process.	BLM has prioritized the long-term health and maintenance of the WACH and its habitat. See response to comments # 116-1, # 58-13 and # 197-17
58-2	The Habitat Element of the Plan [WACH Cooperative Management Plan] also considers wildfire management and encourages resource management agencies to fully understand how wildfire affects the range condition and thus future management and conservation of the herd. The Working Group recommends wildfire management strategies that protect lichen habitats found on seasonal ranges, especially winter range.	Thank you for your comment. See response to comment # 58-13 and # 97-22
58-4	BLM [should] continue to work cooperatively with State and other Federal Agencies to help inventory and monitor habitats and populations of the WACH.	BLM will continue to work cooperatively with the State and other Federal agencies to help inventory and monitor habitats of the WACH as outlined in Chapter II, section B(1)(c)(3), "Management Common to All Action Alternatives."
58-5	Conservation and protection of migratory routes and seasonal ranges used by the [Western Arctic Caribou] herd is an important tool to be used in managing the future well-being of the WACH. [BLM should] minimize impacts of human activities on the WACH and the habitats associated with seasonal ranges used by the herd.	The Proposed RMP/Final EIS includes numerous management recommendations that will minimize impacts to caribou habitat. See responses to comments # 197-6, # 197-8, # 78-2, # 116-1, # 58-13, and # 58-6.

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58-6	Protection of caribou winter ranges is an important conservation tool to be used in managing the WACH; and [BLM should] preserve and protect the Nulato Hills as critical winter range of the WACH; and the Working Group nominates the Nulato Hills as an area of critical habitat of environmental importance in the Kobuk-Seward Peninsula Planning Unit.	This area would be designated as an ACEC in the Proposed RMP/Final EIS, Chapter II.B.3.a) and managed as important habitat for the WACH.
58-18	pg 2-11 and pg 2-12 Alternative C: This alternative is the best alternative presented, however it fails to designate seasonal migration corridors. Habitat protection is essential to maintain the WAH ... We strongly recommend that this alternative be modified to include migration corridors and that all of these seasonal core habitats be provided permanent protection. This will ensure that opportunity for human uses of Alaska's largest caribou herd are sustained for the 40 Native villages that depend on the herd and the other people who also use and appreciate this herd.	Thank you for your comment. See responses to comments # 78-2, # 197-6, and # 197-8.
58-19	pg 2-11 and pg 2-12 Alternative D to designate calving, insect relief and core wintering habitats; include an activity plans for calving, insect relief, core winter habitat; stipulations for calving/insect relief/linear ROW and winter range fire management (see table on pg 2-12). The Working group does not support this alternative because we strongly oppose development in these core seasonal habitats. We support strong, science-based stipulations to protect caribou and other wildlife throughout other areas of the planning area as long as the core seasonal habitats are permanently protected.	Thank you for your comment. See response to comment # 73-1, # 58-34, # 65-89, # 58-22, and # 58-37.

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58-22	The Working Group strongly recommends that mining within seasonal ranges of the caribou herd (e.g., summer calving and insect relief habitats, winter habitat, and seasonal migratory corridors) remain out of the scope of the Draft RMP/EIS, primarily because of the area's significant habitat values for the WAH.	Mining is a legitimate activity on public lands and is within the scope of the Proposed RMP/Final EIS. Caribou habitat will be protected through the implementation of the ROPs and through mitigation developed during site-specific NEPA analysis.
58-23	Additionally, stipulations must be developed and implemented to prevent localized and/or broad scale contamination of vegetation, drainages and habitats used by caribou in other portions of their range outside the protected habitats described above. Strict adherence to abatement of fugitive dust in mining activities must be stipulated.	The ROPs in Appendix A of the Proposed RMP/Final EIS apply to all permitted activities. These address potential contamination of vegetation and water. Additional mitigation can be developed on specific mining plans to deal with fugitive dust.
58-27	BLM should provide permanent protection for the entire range of the WAH and close the area to mineral exploration and development. In addition, the WAH insect relief and calving areas should be closed to all mineral exploration and development activities under all of the alternatives considered. Seasonal restrictions are not sufficient, as activities in other parts of the year may impact the quality of the habitat year round.	NEPA requires that BLM consider a reasonable range of alternatives during impact analysis. Closing WACH insect relief habitat to all mineral exploration and development under all alternatives would not represent a reasonable range of alternatives. See also response to comments # 58-22, # 58-40, and # 78-8.

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58-32	Caribou habitat protection should be a high priority in the Planning Area. No development should occur in the core seasonal habitats. Related to caribou, the primary objective should be preventing disturbance to caribou as they engage in their annual seasonal movements and range use. If hard rock mining is permitted, it should not be allowed within the primary calving ground (90% kernel analysis)(Figure 2), critical insect relief habitat (75% kernel analysis) (Figure 3C), migratory corridors in central Unit 23 (Figures 4 and 5), and winter range in the Nulato Hills. These seasonal ranges must be protected and should be considered ROW exclusion areas.	Thank you for your comment. See response to comments # 58-22 and # 15-20.
58-44	The Draft RMP/EIS should identify and describe sensitive caribou habitats and movement corridors within the Planning Area. Maps of the caribou habitats and movement corridors should be included in the Final RMP/EIS.	Map 3-12 of the Proposed RMP/Final EIS identifies caribou habitats as defined by Alaska Department of Fish and Game. Map 3-46 shows fall migration patterns.
58-46	In the Draft RMP/EIS Alternatives A, B, and D will allow resource development activities within sensitive caribou habitats and movement corridors within the Planning Area. A risk analysis should be conducted for the WAH similar to that prepared for the Porcupine Caribou Herd within the Arctic Refuge Coastal Plain (see Griffith et al. 2002).	Potential impacts from these activities will be minimized through the implementation of ROPs and, in the case of oil and gas, leasing stipulations. Site-specific mitigation measures will also be developed during project design.

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58-47	In the Draft RMP/EIS each alternative will allow industrial exploration and development activities within the Planning Area. The Draft RMP/EIS should explicitly describe what measures will be taken to protect sensitive caribou habitats and movement corridors and how those measures will be monitored and enforced.	The Required Operating Procedures and Oil and Gas Lease Stipulations (Appendix A) describe what measures will be taken to protect sensitive caribou habitat and movement. BLM would conduct monitoring inspections of construction, drilling, and rehabilitation operations, through a compliance officer and/or interdisciplinary team, to ensure acceptable attainment of objectives.
58-73	pg 2-105 WAH calving grounds & pg 2-105 WAH insect relief habitat: Overall, the Working Group supports many of the ACEC designations for critical WAH habitats outlined in Alternative C. The Working Group supports Alternative C designating calving grounds, insect relief areas, and winter habitat in the Nulato Hills as ACECs in the Planning Area. In addition, migratory areas as depicted in Figure 4 and 5 should also be considered as an ACEC in the Planning Area.	Support for designation of WACH habitats as ACECs is noted. See response to comment # 58-76 regarding designation of migration routes as ACECs.
58-74	The proposed ACECs do not provide meaningful protective measures for calving grounds, summer insect relief habitat, or winter range in the Nulato Hills.	The designation as an ACEC in and of itself does not confer any additional protection other than the requirement for a mining plan of operation. In conjunction with the ROPs, Stips, and Federal, State and local regulations, the ACECs will provide meaningful protective measures for caribou habitat.
58-80	Under Alternative D, development would be allowed in the southern Nulato Hills - critical winter habitat for the WACH. The only regulatory measure would be prohibiting mineral entry with 300 feet of the river. Allowing infrastructure associated with locatable mineral entry 300 feet from habitat (pg 2-107) is insufficient and will not ensure sustained wintering populations of caribou.	This is not the only regulatory measure that would apply. Permitted activities would be subject to all applicable Federal and State regulations. The ROPs in Appendix A of the Proposed RMP/Final EIS apply to all permitted activities within the Planning Area and would therefore apply to any proposed activities in the southern Nulato Hills. See also responses to comments # 15-20 and # 66-3.

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65-36	The cumulative analysis ... provides a more accurate picture of what the actual effects of actions on the lands will be, and so a determination that the calving grounds or insect relief habitat of the WACH might be threatened is of major concern. Because the WACH is such an important subsistence source for so many people...these concerns are especially important and warrant further review in the Final RMP/EIS.	BLM recognizes the importance of these habitats. The WACH insect relief habitat is a proposed ACEC in the Proposed RMP/Final EIS (Chapter II.B.3.a). In addition, a habitat management plan would be developed for the area before fluid mineral leasing would occur. Coal leasing has been deferred and the RMP would need to be amended before coal leases were issued. A mining plan of operations would be required before any locatable mineral activity could occur in the ACEC. Additional site-specific mitigation to protect caribou and their habitat could be developed at that time. All mining activity in the ACEC would be subject to the ROPs in Appendix A.
65-70	[M]ineral development is not an activity that is compatible with sensitive caribou habitat or the goals of the proposed WACH Calving and Insect Relief Habitat ACEC. Coal development in this region could affect availability and access to insect-relief terrain. Coal mining could result in a major industrial development and transportation infrastructure within the concentrated calving area and would bisect major caribou movement corridors.	The coal screening process (43 CFR 3420.1-4) has not been conducted in the planning area; therefore coal leasing is deferred. If an application for a coal lease should be received in the future, an appropriate land use and environmental analysis, including the coal screening process, would be conducted to determine whether or not the coal areas are acceptable for development and for leasing under 43 CFR 3425. The Kobuk-Seward Peninsula RMP would be amended as necessary.
65-94	Right of way exclusion areas should include all critical habitat for the WACH designated by ADF&G, including important migratory pathways.	Thank you for your comment. See response to comments # 15-20 and 197-6.
65-108	It is not clear from the RMP/DEIS if the restrictions such as seasonal constraints and closing selected areas will prove to be sufficient to protect critical fish and wildlife habitat... [particularly] the migratory routes and core habitat for the Western Arctic Caribou Herd.	BLM believes that the RMP/DEIS process it has followed is appropriate, legal and sufficient. BLM gathered important local and scientific knowledge and constructive public comment, and used this information to form a Preferred Alternative which balances competing resource values and interests in a responsible manner. The commenter has failed to provide details or a basis to support the claim that BLM's ROPs and Oil and Gas Stipulations may prove to be insufficient to protect fish and wildlife habitat.
65-109	BLM should provide permanent protection for the entire range of the WAH and close the area to mineral exploration and development.	BLM recognizes the importance of these habitats for the WACH. Appropriate ROPs and Stips (Appendix A) will be applied to projects proposed in these areas to minimize impacts and protect habitats.

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66-3	Improperly regulated development has the potential to affect the migration patterns or feeding areas of caribou, which would negatively affect subsistence users.	The Proposed RMP/Final EIS would allow BLM to properly regulate development within caribou habitats through application of the ROPs and Stips. If needed, additional mitigation measure could be developed on a site-specific basis when and if applications for development are received.
67-5	I am very concerned that mineral exploration and resource development not be allowed to adversely impact the habitat essential to this herd [WACH]. While a single development may not present significant impacts it is important to consider the cumulative impacts of multiple projects. I have read the comments submitted by the Western Arctic Caribou Herd working Group and share their concerns and support their recommendations.	The Proposed RMP/Final EIS recognizes the potential for cumulative impacts to the WACH and their habitats in Chapter IV.B.3.b) and B.G.2.c)(2). It includes measures to protect caribou habitats in several sections of Chapter II and Appendix A.
68-1	The priority in your planning effort should be to protect and enhance wildlife resources, particularly the Western Arctic Caribou Herd (WAH). As you know, the WAH numbers nearly a half million animals and is an extremely important subsistence resource for many people from over 40 villages. It is very important to minimize development in the northern parts of the planning area that are used for calving and insect relief.	The Federal Land Management and Policy Act (FLPMA) requires that BLM manage for multiple use and sustained yield. Multiple-use includes responsible development. BLM policy is to generally make public lands available for multiple use, while providing protection of natural resources. The Proposed RMP/Final EIS includes many provisions for maintenance, protection, and enhancement of wildlife resources. It attempts to strike a balance between multiple use and resource protection.
68-2	[Caribou] migration routes between the summer and winter areas must not be blocked.	When and if BLM receives any applications for linear ROW through caribou migration routes, impacts to caribou will be considered and mitigated to the extent possible. Facilities will be designed so as not to impede caribou movements.

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73-1	As a people who are still highly dependent on subsistence resources, we are alarmed by the fact that the critical caribou habitat--the calving grounds, the insect relief areas, the migratory routes, and the wintering areas of the Western Arctic Caribou--are all simultaneously planned to be opened for industrial development (coal mining, hard rock mining, oil & gas leasing, along with the potential roads, power lines, pipelines, buildings and support facilities), in the preferred alternative plan "D".	The Proposed RMP/Final EIS recommends that ANCSA 17(d)(1) withdrawals be revoked (see response to comment # 52-7). Once revocation is complete, these areas will be available for mineral entry and development. The RMP/EIS has taken a hard look at the impacts of the various activities that may take place during the life of the plan. BLM believes that the process it has followed is appropriate, legal and sufficient. BLM gathered important local and scientific knowledge and constructive public comment, and used this information to form a Preferred Alternative which balances competing resource values and interests in a responsible manner. The plan implements a number of Required Operating Procedures and oil and gas lease Stipulations to mitigate impacts identified in the plan. Coal leasing has been deferred - see response to comment # 65-70.
73-2	[T]he economic and social benefits of opening critical habitat areas of the State's largest caribou herd to development are highly questionable... we do not believe that plan is a truly balanced approach to incorporate other user groups that rely upon the health of the Western Arctic Caribou herd.	Thank you for your comment. See response to comment # 73-1.
78-2	There is a need to extend ACECs to major caribou migration corridors, which have been shown to exist from the caribou collar program that ADF&G has been carrying out in the region since 1998.	ACECs will not be extended to the major caribou migration corridors. Migration corridors are not well defined. Caribou may migrate through any part of the Planning Area in any given year. See also response to comments # 197-6 and # 58-76.
78-11	There is currently enough information to identify significant migration corridors and these should be identified in the document, including language in all items that have an impact to the integrity of these corridors.	Available information on fall caribou migration routes has been provided on Map 3-46. The information presented on this map represents a very limited data set and may not accurately reflect major migration corridors. See also response to comment # 197-6.

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78-12	Transportation corridors and extractive development should be planning accordingly with the migratory needs of caribou at the forefront of considerations, in addition to calving areas and insect relief areas.	No transportation corridors are defined in the Proposed RMP/Final EIS. Impacts on caribou will be considered and mitigated to the extent possible during processing of right-of-way applications. See response to comment # 15-20 and 197-22.
78-13	Identification and protection of old growth lichen stands is also necessary to managing this critical habitat for the needs of caribou.	Chapter II.B.1.b)(3) "Vegetation, Management Common to All Action Alternatives" includes several management decisions related to protection of lichen. See response to comment # 197-22.
116-1	We request/support designation of ACECs proposed for approximately 2 million acres of core winter range in the Nulato Hills as specified in Alt. C and 2.9 million acres of sensitive WACH calving grounds and summer insect relief habitat within the Lisburn Peninsula, as specified in Alt. C. ...We favor provisions that would protect valuable caribou and anadromous fish habitat such as prohibiting disruptive locatable and leasable mineral entry on selected lands and applying common-sense seasonal limits on OHV use.	Both these areas are recommended for ACEC designation in the Proposed RMP/Final EIS, Chapter II.B.3.a). A limited OHV designation will apply to these areas. These areas will be open to mineral entry and location. Impacts from mining or leasing will be minimized by implementing the ROPs. In addition, any locatable mineral activity would require that a mining plan of operations be approved by BLM before any activity begins.
130-1	Mining, oil drilling and gas development poses serious threats to the livelihood of the Western Arctic Caribou herd and the culture of Alaska Natives.	Potential impacts from these activities will be minimized through the implementation of ROPs and, in the case of oil and gas, leasing stipulations. Site-specific mitigation measures may also be developed during project design.

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197-6	Pg. 2-12 and Table 2-1: Protection of the four main caribou migratory trails identified by ADF&G must be included in the caribou habitat management plan. Caribou is the major food source for the people of this region and top priority must be given to its critical habitats.	Caribou migrate across a broad front that includes all of Kotzebue Sound and in some years, even extends east of the Dalton Highway. This area covers a multitude of landowners. Each autumn caribou migrate southwest as they leave their summer range and move toward wintering areas. Even so, fall migrations may vary substantially in both space and time from year to year. The data we do have reveal that other routes appear to get more usage than BLM-managed land. Fall caribou migration paths based on satellite collars (PTT) deployed between-1987 and 2004 is shown on Map 3-46. The data on this map represent 251 caribou years and was collected during a period when the herd was very large. The proportion of total WAH caribou fitted with a PTT during any individual year was miniscule. This map shows some migration across BLM land in the Squirrel River. The Preferred Alternative of the Proposed RMP/Final EIS is to develop a specific management plan for the Squirrel River (Chapter II.B.2.d) One of the issues to be addressed in this plan is the impact of recreation on caribou migration.
197-8	Pg. 2-46. Migratory routes of the WACH must be included in the No Surface Occupancy during the months of September and October, and during the spring migration in May and June.	Depending upon the location of oil development infrastructure, movement of caribou between calving grounds, insect relief habitat and summer range could be disrupted by oil development. The level of effect would depend upon the location and level of development. An aboveground pipeline with no associated road would have little effect on movement, including spring and fall migrations. It is anticipated that caribou could migrate through or around the proposed oil field with relative ease. The Preferred Alternative in the Proposed RMP/Final EIS for fluid mineral leasing (Map 2-8) designates the Squirrel River as open with special stipulations. Special stipulations include such things as seasonal restrictions. In the unlikely event that BLM issues fluid mineral leases in this area, measures to avoid disturbance to caribou migration could be included in development plans.
197-9	Pg. 2-53. Any exploratory coal mining and development must protect and avoid the WACH calving and insect relief areas, as well as migratory routes.	Coal exploration may occur subject to the ROPs (Appendix A). Before an exploration license may be issued, the BLM authorized officer must prepare an environmental assessment, or EIS if necessary, of the potential effects of the proposed exploration on the natural and socio-economic environment of the affected area. Coal leasing and development is deferred (Chapter II.B.2.c)(1)(b)3. See response to comment # 65-70.

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197-17	Pgs. 2-104 to 2-108. Maniilaq supports Alternative C of the [Special Designations section]. Protection of the critical habitat for the WACH is of utmost importance and must include key migratory routes in the spring, summer and fall. Caribou wintering range protection must extend to all of the Nulato Hills ACEC and not just the northern section. WACH is wintering further south and west in recent winters. Any activity plan developed for these areas must include participation of the WACH Working Group and others.	The WACH winter range varies over time. Based on available data, the northern Nulato Hills are used more than the southern Nulato Hills. The Northern area is currently withdrawn from mineral leasing. Under Alternative C, the existing withdrawal would be maintained. The withdrawal would not be maintained under the Proposed RMP. Potential for oil and gas in the Nulato Hills is very low and development is highly unlikely. BLM activity plans are open to public participation and we would welcome input from the Working Group and others.
197-22	Any fire management must place priority (besides property and human life) on the wintering ranges of the WACH. Lichen is a very important winter food source for caribou. Past research has shown that caribou avoid for years, areas that had wildfires. Therefore, wildfire suppression regimes must include this important winter feed areas.	The Proposed RMP recognizes the importance of lichen habitat for caribou (Chapter III.B.6.) and proposes that site-specific fuels management actions needed to meet desired future conditions, habitat needs, or protection objectives will be made through activity-level plans including: Modeling the impact of fire on habitat of the WACH to determine appropriate management strategies; Developing an activity plan for management of WACH insect relief and core wintering habitat. Through this planning process, additional oil and gas leasing stipulations for insect relief habitat, appropriate mitigation measures for linear ROW, and fire management prescriptions for caribou winter range would be developed (Chapter II.B.1c).
240-1	Intrusive invasions by vehicles of any kind can disrupt the breeding and migration instincts [of caribou].	Chapter IV.B.3.b) of the Proposed RMP/Final EIS discusses impacts to wildlife from motorized vehicles. The ROPs in Appendix A contain seasonal restrictions aimed at reducing stress on caribou during critical periods.

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WILDLIFE (INCLUDING SPECIAL STATUS SPECIES)		
15-1	The Kobuk-Seward Peninsula Planning Area encompasses a small portion of the North Slope breeding habitat of the Steller's (*Polysticta stelleri*) and spectacled eiders (*Somateria fischeri*) both of which are listed as threatened under the Endangered Species Act of 1973, as amended (Act). In addition, both species migrate through the area when moving between wintering grounds in the southern Bering Sea and their North Slope breeding grounds. The Planning Area is adjacent to two marine areas designated as critical habitat for spectacled eiders (Ledyard Bay and Eastern Norton Sound). Although these areas are not under the jurisdiction of BLM, their presence should be noted so that potential impacts from activities permitted within the Planning Area can be assessed.	Both areas of marine critical habitat are mentioned in Chapter III.B.8.c). Designated critical habitat for spectacled eiders has been added to Map 3-15. No impacts to these habitats are anticipated from activities on BLM land within the Planning Area.
15-4	Kittlitz's murrelet (*Brachyramphus brevirostris*) a candidate species, is also thought to breed within the Planning Area. Under Section 7 of the Act candidate species are not assessed as part of the formal consultation or described in the biological assessment. Although not a requirement, BLM may choose to request a conference on the proposed action for this species. We encourage BLM to develop mechanisms to avoid or minimize adverse effects to Kittlitz's murrelets in the Planning Area.	BLM may choose to request a conference on Kittlitz's murrelet. However given the extremely limited information available on murrelet distribution and use of habitat within the Planning Area, the value of requesting a conference at this time is questionable. In addition, nothing in the Proposed RMP/Final EIS prohibits BLM from developing measures to minimize adverse effects on murrelets as more information on their distribution, population status, and habitat needs becomes available.

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15-14	The Final RMP/EIS should evaluate potential impacts to polar bears and walrus, and to subsistence uses, particularly of walrus. We recommend that the BLM work with the Service's Marine Mammals Management Office to identify important terrestrial habitats for these two species within the Planning Area, to fill gaps in our understanding of how they use the Planning Area and adjacent habitats, to evaluate potential impacts of RMP/EIS-authorized activities including coastal facilities and associated increases in marine boat and barge traffic, and to craft mitigation measures to reduce the potential for adverse effects.	Thank you for your comment. We contacted the Marine Mammal Protection Office regarding important terrestrial habitats within the planning area. Walrus haul out on Cape Lisburne and Cape Thompson within the Maritime National Wildlife Refuge. Polar bears use coastal habitats between Icy Cape and Cape Lisburne. Additional language has been added both Chapter III.B.8.c) and Chapter IV.B.4.c) regarding polar bears.
15-15	We also encourage the BLM to notify potential lease holders that projects potentially impacting polar bears and/or walrus will require consultation with our Marine Mammals Management Office and may require Interaction Plans and Letters of Authorization for the incidental take of these species.	BLM will notify potential lease holders that projects potentially impacting polar bears and/or walrus will require consultation with the Service's Marine Mammals Management Office and may require Interaction Plans and Letters of Authorization for the incidental take of these species. General language addressing this issue has been added to Appendix A.
24-1	There's BLM tracts that are currently not being managed by BLM for hunting or fishing, they are being managed by the State of Alaska. And so in light of that, ...where some of these BLM tracts may occur it may be preferable to enhance protections or not prefer ... Alternative B which lays the ground work for mineral exploration and enhanced resource use.	Hunting and fishing on all BLM land is managed by ADF&G unless it is closed to non-qualified subsistence users by the Federal Subsistence Board. State and Native-selected lands are not considered Federal public land under ANILCA and hunting and fishing on these lands is managed by ADF&G. These selected lands are also segregated from the land laws and are therefore closed to mineral entry and development until the selections are relinquished or the land is conveyed. In this case, the new land owner is responsible for minerals management.
24-15	All of the terrestrial species listed experience dramatic fluctuations in abundance and I urge BLM to enact effective inventory and monitoring of fish and wildlife populations.	ADF&G is responsible for management of wildlife. BLM assists ADF&G in monitoring and inventory of some species, particularly those important for subsistence. The USFWS has some responsibility for monitoring of listed species and migratory birds. The Proposed RMP/Final EIS allows for this cooperative work to continue.

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24-24	BLM should conduct annual assessments for all terrestrial wildlife as there are no sufficient annual assessments for any terrestrial species in GMU 22.	Neither ADF&G or BLM has the funding or staff to assess all terrestrial species on an annual basis, nor is it necessary. In many species, population assessments every 3-5 years are sufficient to provide a population trend.
24-25	Sheep should be considered for reintroduction into the Kigluiak and Bendeleben Mountains. There is historic evidence that sheep inhabited the Kigluaik Mountains. A habitat assessment should be undertaken for their reintroduction that would supplement any that were done by the State of Alaska.	ADF&G is responsible for management of wildlife. Under the Master Memorandum of Understanding Between ADF&G and BLM, BLM agreed to not sanction introduction or transplant of any wildlife species on or affecting Bureau lands without first consulting with the State. Since ADF&G has not indicated any desire to reintroduce sheep or marmot on BLM-managed lands within the planning area and no consultation has taken place regarding reintroduction of these species, it would not be appropriate for BLM to include it in the RMP at this time. If a reintroduction is considered in the future, BLM policy requires that a site-specific activity plan be developed with public input prior to any reintroduction, and that such reintroduction be considered in the land use plan.
24-28	Marmot should be considered for reintroduction into the Kigluiak and Bendeleben Mountains. Alaska Native legends and historic accounts of large squirrels substantiate their presence in the Seward Peninsula. A habitat assessment should be undertaken for their reintroduction that would supplement any that were done by the State of Alaska.	Thank you for your comment. See response to comment # 24-25.

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25-6	In most cases, a 300 ft. setback from bankfull stage on major rivers would not adequately protect the tall shrub habitats that are critical to maintaining moose populations in western and northwestern Alaska. On the Seward Peninsula, riparian zones are very limited and often only occur in narrow zones that provide essential winter habitat for moose. A wider setback should be required to protect the full extent of riparian habitat. Loss of riparian habitat, as related to moose, should not be tolerated because many areas of Unit 22 and 23 are experiencing population declines and every effort should be made to protect tall shrub habitats to enable natural recovery of moose populations. Also, many other species are dependant on riparian habitats/corridors which are of limited distribution in Unit 22. Protecting tall shrub habitats helps maintain critical species diversity in these areas.	The Proposed RMP/Final EIS includes many protections for riparian habitat. The ROPs in Appendix A provide additional protection to riparian habitat - see response to comments # 65-54, # 24-2, and # 78-10. Oil and gas leasing stipulation #2 prohibits permanent facilities within 500 feet of either side of fish-bearing rivers. Management decisions in Chapter II section B(1)(c) "Fish and Wildlife" identify riparian and tall shrub habitats as high value wildlife habitat and recommend protection through avoidance and rehabilitation.
25-8	I prefer Alternative C, but recommend increasing the 300-foot setback as described for [solid leasables and locatable minerals] (pg. 2-42). The re-established Seward Peninsula muskoxen population is expanding eastward, and the Nulato Hills will provide important winter habitat that will ensure the recovery and restoration of the population reaches its full extent on the Seward Peninsula. The areas identified are valuable to several species of wildlife found in Unit 22 including moose, muskoxen, caribou, and migratory waterfowl.	Thank you for your comment. See response to comment # 25-6.

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25-11	This area [Kigluaik Mountains SRMA] is crucial brown bear and moose habitat and serves as a relatively inaccessible refuge for numerous Unit 22C wildlife populations. All 4 wheeler/pickup truck access should be prohibited from the area. Due to the close proximity of the area to Nome such allowed access would have adverse affects on the areas game populations.	In the Proposed RMP/Final EIS, Chapter II, section B.2.d) this area is identified as a Special Recreation Management Area. It will have a limited OHV designation. We plan on developing an Off-Highway Vehicle plan for this area that would involve diverse user groups. We appreciate your position and look forward to working with you in the future to develop appropriate limitations on OHV use in this area.
26-5	[L]arge blocks of land create refugia for animals, fish and wildlife that benefit subsistence. And I hope you look at it at a large block perspective and make some decisions about a larger patchwork rather than a small patchwork. Large patchworks are much more effective with fish and wildlife.	The Proposed RMP/Final EIS focuses management decisions such as ACEC designation and activity level planning on large blocks of BLM land. The plan allows for land exchange to consolidate land ownership in the future if deemed appropriate.
52-60	Pg. 4-212 (2) Wildlife, last paragraph, 1st sentence: The statement that mineral development would have the greatest impact on wildlife is not correct. Mineral development will affect only a few specific locations and, as with Red Dog, will have effectively NO impact on wildlife. To say otherwise flies in the face of the plain facts of nearly 20 years of experience at Red Dog. Hunting and subsistence harvest will have the greatest impacts, both positive and negative depending on management and this should be stated.	The language in Chapter IV.G.2.c)(2) has been revised.
58-17	pg 2-10 preventing wildland fire that is detrimental to caribou winter range: The comments on pg 2-8 (above) show the importance of old-growth lichen to caribou. The Working Group requests that the use of wildland fire techniques to improve moose habitat be separated from areas where fire would be detrimental to caribou.	Chapter II, section B.1.c)(3) "Management Common to All Action Alternatives" recommends use of fire to improve moose habitat only if it will not be detrimental to caribou winter range. Also, prescribed burning would require an in-depth analysis of the beneficial and detrimental effects on the habitat before such a project would be authorized.

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64-23	Pages 2-104 to 2-107, Alternative D: We recommend BLM develop stipulations to protect important resources for the Kuzitrin River and McCarthy Marsh in Alternative D. These areas provide critical moose habitat for moose populations important to many Seward Peninsula residents.	The ROPs in Appendix A of the Proposed RMP/Final EIS apply to all permitted activities on BLM-managed land within the Planning Area. About 70% of McCarthy's Marsh was recently conveyed to the State.
64-25	We also recommend the Bureau develop stipulations to protect important resources for the Kigluaik area in Alternative D. The area receives low access by motorized vehicles during snow free months and is an important bear denning area and rutting area for moose in the fall. There is also significant vegetation that is fragile and sensitive to disturbance in the area.	The Kigluaik Mountains will be designated as a Special Recreation Management Area and managed as outlined in Chapter II, section B(2)(d), "Recreation Management." A limited OHV designation will apply. Additional management direction may be developed through a Recreation Area Management Plan.
65-35	Residents of the planning area noted in scoping comments that the moose harvest level is not currently adequate: Moose populations are declining throughout the Seward Peninsula and it is becoming more difficult to obtain moose for subsistence. KSP RMP Scoping Report pg 11.	BLM is aware that moose populations are currently low in parts of the Seward Peninsula. Thus far, habitat quality has not been determined to be a cause of the current population declines. If habitat quality is declining, it is more likely due to overbrowsing or climate change than to activities authorized by BLM.
65-53	The quality of moose habitat plays an important role in dictating the distribution and availability of moose in a given area. It is important that BLM consider allocating protection to riparian zones and tall shrub habitats.	The Proposed RMP/Final EIS considers protection of riparian zones and tall shrubs. Many of the ROPs relate to riparian habitat protection (Appendix A). See also response to comment # 65-35.

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65-54	On the Seward Peninsula, riparian zones are very limited and often only occur in narrow zones that provide optimal winter habitat for moose... prime riparian habitat for moose is at risk if development takes place near riverbanks. Although the draft plan excludes prospective industrial activity from occurring within 300 feet of bank-full stage on major rivers, this may not adequately protect tall shrub habitats that are critical to maintain moose populations that are already in jeopardy.	Many of the ROPs in Appendix A (such as: ROP veg-2b, veg-2c, veg-2g, water-3d, water-3f, water-4b, water-5a, water-5b, water-5d, FW-7a) are designed to protect riparian habitat from disturbance. See also responses to comments # 65-35 and 65-53.
65-57	Of particular concern is wildlife habitat on the Agiapuk River...which supports the healthiest moose population on the Seward Peninsula, producing consistently high calf to cow and bull to cow ratios. BLM [should] adopt a watershed-based approach to the Agiapuk River's critical moose habitat management, and expand mineral development restrictions beyond the proposed 300 foot setback in order to protect areas where riparian habitat extends beyond that distance.	Thank you for your comment. See response to comment # 65-54
65-58	The approval of seismic activity and hard rock and fluid mineral entry in muskoxen habitat as proposed in Alternative D might conflict with recommendations from the Seward Peninsula Muskox Cooperators Group... which include: protecting and maintaining habitats that muskoxen depend on and allowing for continued growth and range expansion into historic habitats.	The RMP/EIS has taken a hard look at the impacts of the various activities that may take place during the life of the plan. BLM believes that the process it has followed is appropriate, legal and sufficient. BLM gathered important local and scientific knowledge and constructive public comment, and used this information to form a Preferred Alternative which balances competing resource values and interests in a responsible manner. The plan implements a number of Required Operating Procedures and oil and gas Stipulations to mitigate impacts identified in the plan. Coal leasing has been deferred - see response to comment # 65-70. The ROPs in Appendix A also apply to any surface disturbing activities, including mining. Before surface disturbing activities are approved, the BLM authorized officer must prepare and environmental assessment or EIS, if necessary, of the potential effects of the proposed exploration on the natural and socio-economic environment of the affected area.

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65-59	ADF&G's goal of developing a wolf management plan with public input for Unit 26A...might be jeopardized if industrial exploration and production activities are approved in this area under Alternative D, especially if subsequent WACH displacement occurs.	Thank you for your comment. See response to comment #65-58.
65-60	Under Alternative D, mineral development could affect prey populations that form the supplemental diet of the brown bear, thereby catalyzing declines in brown bear populations. This may be compounded with a decline in local fish stocks: Draft RMP/EIS at 3-60. Winter exploration can also disturb brown bears in their maternity dens.	Under the Preferred Alternative (D), minimal area will be disturbed, and the ROPs and Stipulations in Appendix A, and land allocations are intended to protect natural resources. We do not anticipate significant impacts to prey populations due to activities authorized by BLM.
65-61	BLM should work with ADF&G to establish baseline data and monitor lynx populations closely if development is permitted to occur in areas that may adversely impact its habitat or populations of snowshoe hare, the lynx's primary food source.	ADF&G is responsible for monitoring wildlife populations. BLM will work with the State and other Federal agencies in development of recovery plans, management plans, conservation strategies, or assessments of special status species as needed.
65-62	The draft plan states that alteration of habitat, seasonal "ground level activity" and high noise levels should be prohibited within 650 feet of [eider] nest sites. Draft RMP/EIS at 3-86. BLM does not explain how the distance was determined and nothing specific is outlined in either Alternative to address this proposal.	As stated in the RMP/EIS in Chapter III, section B(7)(c)(1)(b), "Spectacled Eider," these recommendations come from the Spectacled Eider Recovery Plan (FWS 1996). These recommendations are included under ROP SS-1b in Appendix A. The ROPs apply to Alternatives B, C, and D.

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65-63	Though BLM cites intentions to consult with the USFWS under Section 7 of ESA to mitigate and minimize adverse impacts to eider populations, this claim is contrary to earlier statements that convey the BLM has not conducted any census of breeding pairs in the planning area prior to proposing development.	BLM is currently consulting with the FWS on the Proposed RMP/Final EIS. Any terms and conditions resulting from this consultation will be incorporated into the Record of Decision and Final RMP. BLM has not proposed any specific development in the RMP. The RMP makes land available if there is interest from industry. When and if BLM receives an application for some type of activity and determines that the proposed activity "may affect" a listed species, we will initiate Section 7 Consultation on the proposed activity. Any terms and conditions resulting from this project level consultation will be included as stipulations in the permit authorizing the activity. FWS conducts annual eider surveys on the North Slope which encompass eider habitat within the Planning Area.
65-64	Kittlitz's Murrelet: The BLM's conclusion that the lack of sightings indicates that the Kittlitzs Murrelet "probably" winters at sea is not based on sound science and its dismissal of nest inventories due to cost effectiveness is irresponsible.	This conclusion is based on data summarized by Day et al. (1999). Very few nests have ever been found even in areas with much higher population densities than the Planning Area. Day et al. lists 25 known nest sites total, four of which were in Russia. Currently there is not a well designed census technique for breeding murrelets and areas of higher population densities such as Prince William Sound are higher priority for monitoring than the Planning Area. Nothing in the RMP prohibits BLM from conducting nest surveys should a good methodology be developed and funding be available. One management action identified in Chapter II.B.1.d) is to "Identify specific areas and habitats of importance to Special Status Species, including, but not limited to: spectacled eider, Kittlitz's murrelet, yellow-billed loon, and shorebirds." Additional language has been added to Chapter III.B.8.c)(2) to clarify.
65-65	Kittlitz's Murrelet: The Bureau should adopt cautionary measures to protect potentially threatened species rather than acting after listing [Under the ESA] occurs.	ROP SS-1a, ROP SS-1c, ROP SS-1d, and ROP SS-1e in Appendix A of the Proposed RMP/Final EIS outline measures that BLM will adopt to protect sensitive and candidate species. Also see response to comment # 15-4.
65-66	Should the USFWS declare the Kittlitz's Murrelet a threatened or endangered species, the BLM would be obligated by law to contract with the Service to inventory nest sites and more costs may be incurred than if preemptive measures are undertaken.	If the Kittlitz's murrelet is listed as threatened or endangered, BLM will consult with the USFWS as required under Section 7 of the Endangered Species Act. Any additional appropriate protective measures (terms and conditions) needed to further protect murrelets will be developed during consultation.

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197-3	Three hundred foot setbacks on streams does not adequately provide protection for critical moose habitat.	Thank you for your comment. See response to comment # 25-6.
197-24	Some drainage[s have] been completely over hunted by sports hunters and [have] virtually no moose. [In] areas where moose have been over hunted, recovery is very slow and hunting restrictions have been adopted to protect the population.	ADF&G manages wildlife populations and hunting. Also see response to comments # 65-35 and # 65-53 regarding moose.
197-4	While [Dall] sheep habitate in higher elevations and remote areas, they are very susceptible to harassment and are easily displaced. Any development activity must be controlled so that any activity that may affect them in their habitat is minimized.	There is very limited Dall sheep habitat on BLM-managed land in the Planning Area. If BLM receives proposals for activities in Dall sheep habitat, potential impacts to sheep would be analyzed under NEPA and mitigated to the extent possible.
198-8	BLM has failed to fully analyze the impacts on fish, waterfowl, moose and other wildlife in the EIS and has failed to develop an alternative that protects subsistence. Table 2-1 "Fish and Wildlife - Summary of Alternatives" (at 2-12) is an example of BLM's failure. As demonstrated by the summary, none of the alternatives specifically address any fish or wildlife concerns except for those related to caribou.	The Proposed RMP/Final EIS addresses both fish and wildlife. Table 2-1 is a summary of differences between alternatives for fish and wildlife management. Additional management action for fish and wildlife is outlined in Chapter II, section B(1)(c), "Fish and Wildlife," and section B(1)(d), "Special Status Species." The ROPs in Appendix A provide additional protection for wildlife and fish habitat, as well as subsistence use. Additional management actions beneficial to fish and wildlife are proposed under other programs, such as Special Designations or Recreation Management. Proposed management direction for subsistence is under Chapter II, section B(5), "Subsistence." Impacts on fish, wildlife and subsistence are analyzed in Chapter IV, section B(3), "Fish and Wildlife," section B(4), "Special Status Species," and section F, "Subsistence." Cumulative impacts are analyzed under Chapter IV, section G, "Cumulative Impacts."
417-1	The relative impact of the potential oil and gas in this area to U. S. energy supplies does not compare in importance to the significance of maintaining these lands for wildlife and native culture.	Thank you for your comment. See response to comment #65-58.

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FIRE MANAGEMENT AND ECOLOGY		
1-2	No prescribed burning should be allowed to provide lichen for caribou. Your burning causes far more delterious effects than the caribou eating the lichen	Prescribed fires would rarely if ever be conducted in areas where they would impact important caribou habitat. Prescribed fires would more likely be implemented to reduce a hazard fuel situation or improve habitat for species other than caribou. Note that under "Management Common to All Alternatives" in Chapter II.B(1)(b)(3)(b) that the first two bullets address the unique lichen-rich plant community habitat and managing action in support of those habitats. A prescribed burn would require an in-depth analysis of the beneficial and detrimental effects on that habitat before a decision that authorizes the project. The section noted above also provides for use of the appropriate fire management option designation to protect old growth lichen and for management for multi-age stands of lichen with the recognition that caribou prefer old growth.
58-20	pg 2-15&16 Alternative C – allow wildland fire use that is not detrimental to caribou lichen habitat: The Working Group supports Alternative C if wildland fire techniques are minimized in areas where fire would be detrimental to caribou through destruction of old-growth lichen.	Under both Alternatives C and D an activity-level plan will be written addressing wildfire and wildland fire use. The reason for writing the plan is to address management of old growth lichen habitat for caribou and other issues. The goals listed in Chapter II.B(1)(c)(1)(b) also reflect this thought. The intent is to work closely with ADF&G and the WACH Working Group to implement cooperative management efforts.
64-30	Page 2-129, Effects on Fire Management and Ecology: In the table under “Cumulative Effects,” review and edit the second sentence to read “There are several areas in the Full and Critical Management Options that are adjacent to BLM-managed lands.”	Thank you for your comment. This correction was made.

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CULTURAL AND PALEONTOLOGICAL RESOURCES		
23-1	We [Bering Straits Native Corporation] have a number of small tracts that are within these lands that we will receive conveyance of that are cemetery historic sites...mineral development may in fact impact the surrounding areas and the integrity of the sites as cemetery historic sites	Mineral development is managed by BLM under 43 CFR 3809 which mandates consideration of all cultural resources that may be affected by mining activities. Impacts from mining projects even outside of the direct area being mined are to be considered during this process while requirements of NEPA, FLPMA, and the NHPA also must be met. Native consultation would be done as required under these laws including for cemetery and historic sites. We would be glad to work further with you to ensure that information you have about any specific sites is considered.
56-26	Any pre-historic sites should become the property of the respective tribes. When cultural sites are found, the tribe should be consulted in a sufficient manner respective of EO 13175.	Archaeological sites are found on lands throughout the planning area. The status of these lands is a mix of State, Federal, and private (including Native allotments and Native corporation) ownership. EO 13175, with its overall charge to Federal agencies to consult and coordinate in the development of Federal policies that have tribal implications is carried out in the land management process through BLM's ongoing procedures required under NEPA and FLPMA. Under those laws, BLM routinely notifies, consults, and coordinates with Native Alaskans on proposed projects that may be of concern to them. Also, consultation is required under the National Historic Preservation Act for actions that may affect properties on or eligible to the National Register of Historic Place.
197-24	Pg. 2-19, Table 2-3: Manillaq supports and prefers Alternative C to "Avoid or mitigate impacts to significant cultural resources resulting in Bureau undertakings." All cultural resources must be protected and avoided to the greatest extent possible.	Site-specific designations direct fire managers to both protect these sites and to avoid any disturbance. Fire staff adhere to those directions provided they have been notified that the site exists and its location. Annual reviews and updates are required under the Fire Management Plan and interested parties may contact the local fire manager to confirm that their sites are correctly identified. When a fire does occur, fire staff make an effort to contact affected land owners. This also provides additional opportunities to notify the fire staff of site locations and appropriate actions.

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VISUAL RESOURCE MANAGEMENT		
52-19	Pg. 3-130. Table 3-15: VRM Class II designation of 28% of the Planning Area would adversely impact any development in the affected area. Specifically, it would hinder if not preclude the development of mineral resources. We would encourage BLM to remove all VRM II & III areas.	Table 3-15 makes reference to the initial visual inventory of the entire planning area. Table 2-4 shows the BLM's Preferred Alternative (D) with the following acreages: Class II (7%), Class III (41%) and Class IV (52%). Class III classification does not preclude development of mineral resources. The objective for Class III is to partially retain the existing character of the landscape. The changes made to the landscape should be moderate. The activities may attract attention but should not dominate the viewshed. (BLM manual H-8410-1).
WILDERNESS		
65-119	None of the alternatives specifically mention as an issue the identification of areas within the Kobuk-Seward Peninsula planning area that may warrant consideration for designation of Wilderness or Wilderness Study Area (WSA).	In Chapter I.D(2). Issues Considered but Not Further Analyzed, there is a section discussing the issue and the rationale for not including wilderness inventory and management in the RMP/EIS.
65-120	Criteria for areas to be considered for WSA designation are found in the Wilderness Inventory and Study Procedures Handbook...This inventory should be completed and should include a thorough wilderness review and inventory of the Kobuk-Seward Peninsula planning area and [be] forwarded to Congress. We strongly urge BLM to recognize wilderness as a resource category.	BLM appreciates your interest in considering wilderness for designation. Chapter I.D.2. "Issues Considered, but not Further Analyzed," gives BLM's rational for not considering lands within the planning area for wilderness designation. BLM has addressed wilderness values such as opportunities for solitude and unconfined recreation within the planning area in Chapter III.B.13. "Wilderness Characteristics."
65-121	We support the use of the Recreational Opportunity Spectrum and designation of deserved areas as “primitive”. However, this should not take the place of Wilderness inventory, recommendation, and ultimately, designation.	Thank you for your comment. See response to comment # 65-120.

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65-122	It [Secretary Norton's decision] is not a citizen-based policy. It sets up restrictive conditions that are not required by ANILCA or the Wilderness Act. She [Norton] falsely claims that Alaska BLM lands have been exhaustively reviewed for wilderness when in fact there has never been such a review.	Thank you for your comment.
65-123	The draft KSP RMP/EIS for the must include a reasonable range of alternatives that include recommendations to Congress for new wilderness designations.	Thank you for your comment. See response to comment # 65-120.

2. RESOURCE USES

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FOREST PRODUCTS		
1-3	Ban all logging, which causes erosion, creates heat islands, causes death of wildlife and birds.	Within the planning area, forest lands cover only 8% of BLM-managed lands, or just under one million acres. BLM has not conducted an inventory of forest resources. However, with anticipated long rotation periods between potential timber harvests (approximately 100 years), low timber volume, low timber productivity, scattered timber stands, long distances involved in log transport, minimal transportation infrastructure, potential for adverse impacts, and low foreseeable demand, commercial logging operations within the planning area do not seem practical. It is doubtful that BLM would authorize commercial timber harvest within the planning area.
26-3	[I] also noted that you didn't have beetles, spruce beetle infestations at Council and I know that in 2002, they reached there. I took several calls.	Spruce bark beetle activity east of Nome and Council shown on Map 3-23 is based on aerial flights made by Alaska State and Federal forestry personnel in 1991, 1999, 2000, 2002, and 2004. The focus was mainly on forested areas around Elim, the Tubutulik River, and the Fish River. It appears their flight lines did not extend farther west to the Council area. However, the Forest Health Conditions in Alaska – 2004 report states that the bulk of light to moderate bark beetle activity" occurs in the hills behind and around White Mountain; however, pockets extend upriver to at least Glacier Creek. Beyond that point, reliable observations were unable to be made due to "heavy smoke from wildfires" (Wittwer 2005). Glacier Creek is approximately 12 miles east of Council. Given the proximity of Council to documented areas of light to moderate bark beetle activity in the White Mountain/Fish River/Glacier Creek area, and the severe outbreak on nearby Elim Native Corporation lands, it is likely that the Council area has been affected by spruce bark beetles as well.
LIVESTOCK GRAZING		
1-4	Ban all grazing. Particularly cattle which cause horrendous environmental damage to the land, eat native plants beyond repair, etc. They pollute streams and water…Including rates of $1.25 per acre per year to graze.	The Proposed RMP/Final EIS allows for continuation of reindeer grazing on the Seward Peninsula. No grazing by cattle would be permitted.

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25-5	I support Alternative D which would limit permitted livestock grazing to reindeer, and close the vacant areas in McCarthy's Marsh and the Kuzitrin River to grazing. Western Arctic caribou are usually present during the fall migration, winter and spring migration seasons, thereby causing conflicts with any expansion of grazing activities. These areas [Kuzitrin River and McCarthy Marsh] should remain closed to reindeer grazing as long as caribou continue to winter on the Seward Peninsula.	Thank you for your comment. See response to comment # 69-4.
58-3	Minimizing conflict between reindeer herders and the caribou herd is a goal of [The WACH Cooperative Management Plan]. The Working Group recommends reduced grazing activities within areas frequented by caribou to help avoid conflicts in the future.	Thank you for your comment. See response to comment # 69-4.
64-12	Pgs. 2-34 and 2-35: The State supports limiting livestock grazing permits to allow only reindeer and to close vacant areas in McCarthy's Marsh and the Kuzitrin River to livestock grazing. Western Arctic caribou are usually present in these areas during the fall migration, winter, and spring migration seasons, thereby causing conflicts with any expansion of grazing activities. We request these areas remain closed to reindeer grazing as long as caribou continue to winter on the Seward Peninsula.	Thank you for your comment. See response to comment # 69-4.

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69-1	[H]istory shows that over 600,000 reindeer grazed the land from Barrow to Dillingham in the 1930s. If anything, the population of managed reindeer as compared to wild caribou is small and the concern for overgrazing by a group of animals should be directed at caribou.	The number of reindeer is very small (about 2%) compared to the number of wild caribou. The Western Arctic Caribou Herd (WACH) is definitely having an impact on their winter habitat as discussed in Chapter III.B.6.b). BLM has documented a clear decline in lichen cover in the Buckland River valley, Selawik Hills, northern Nulato Hills, McCarthy's Marsh, and Death Valley. In 1981, lichen cover on vegetation transects in Buckland River valley, Selawik Hills, and northern Nulato Hills averaged 35%. By 1996 it had decreased to 19%, and by 2005 to 13%. The first year of vegetation transects in McCarthy's Marsh and Death Valley (1997) showed 46% average lichen cover. By 2006, lichen cover showed a considerable drop to 21%. Fire contributed only slightly to this decline, as it affected only one of 33 vegetation transects from 1995-2005. Climatic warming, with its positive effects on shrub growth in Alaska, may be having a small negative effect on lichen growth as well. At this point we feel grazing by caribou is primarily responsible for the steady decline in lichen cover on portions of WACH winter range. ADF&G data from the mid 1980's through the present have shown an expansion of caribou winter range, out of the Nulato Hills, west into the Seward Peninsula. The WACH also has become more dispersed in the last decade, not only expanding west, north, and east during the winter, but also forming smaller groups spread out over a larger area during winter months. Thus we may be seeing the WACH respond to less available lichen in portions of their winter range. Caribou and their associated forage plant species are expected to fluctuate naturally over the short term (5-10 years) and long term (50-100+ years). BLM's knowledge of the condition and trends in forage plant species will help shape response to wildland fire. Funds and personnel can be directed towards protection of lichen-rich winter range that otherwise would be kept under routine surveillance and left to burn. Knowledge of caribou habitat, when combined with other key factors such as calf recruitment, mortality rate, harvest levels, and weather conditions can help predict large declines in caribou population numbers, and help prepare for the effects on subsistence-dependent communities.
69-3	Reindeer herders have a long standing relationship with BLM and therefore Alternative A, in which the status quo is maintained would be the best alternative for herders. The reindeer herders understand the system for obtaining permits for use of public grazing land. They understand the requirements for obtaining permission for developing infrastructure or improvements to corrals. The use of ATVs and snowmachines is permitted.	Thank you for your comment, it was considered when crafting the final preferred alternative. BLM looks forward to continuing to work with the Reindeer Herders Association. The permitting process will not change.

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69-4	We are opposed to Alternative C... and D... specifically permanently closing of permitted areas to reindeer herding…[we] suggest you maintain an open status for reindeer permits in McCarthy Marsh and Upper Kuzitrin River	The Proposed RMP/Final EIS closes McCarthy's Marsh and Upper Kuzitrin to grazing. These areas are important wildlife habitat that is frequently used by the WACH and have not been permitted for reindeer grazing since the 1980s.
MINERALS		
MINERALS - GENERAL		
14-16	In the face of uncertainty regarding potential impacts to these valuable [fish and wildlife] resources, avoiding surface disturbance in the most biologically sensitive areas, as presented in Alternative C, would provide the greatest level of protection (and least risk) to wildlife, and is our preferred management approach.	Alternative C provides the greatest level of protection under the Proposed RMP/Final EIS. However, in the interest of meeting BLM's mandate of managing for multiple use, BLM's Preferred Alternative is a melding of Resource Development (Alternative B) and Resource Protection (Alternative C).
14-21	For any activity requiring an Operating Plan, the plan must be completed and approved by BLM, in consultation with the Western Arctic Caribou Herd Working Group, before project activities commence.	BLM's final approval allowing on-the-ground actions to proceed requires site-specific planning and additional NEPA analysis. The WACH Working Group has opportunities to comment on proposed activities during NEPA analyses.
24-16	BLM cannot possibly substantiate the number of acres in its agency Preferred Alternative since the current level of activity does not come close to that proposed by BLM. BLM's proposed acreage for mineral development is outrageous and is not substantiated by any significant geological information.	The disturbed acreage projected by the Reasonably Foreseeable Development scenarios (RFD) are only an estimate and are designed to provide a baseline level of mineral activity for analysis of impacts under NEPA. The analysis represents best estimates of impacts since exact locations of development are often unknown. Impacts are quantified to the extent practical with available data. In the absence of quantitative data, best professional judgment provides the basis for the impact analysis. The separate technical documents, Mineral Occurrence Reports and Reasonably Foreseeable Development Reports prepared for Leasable and Locatable minerals, are the basis for these numbers, and are available from the State and Field offices, and on BLM's website at http://www.blm.gov/ak/ksp/

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43-2	I've lived here all my life and I've seen the effects of past mining companies up here. I've seen thousands of empty drums all up through the mountainside up here. Would BLM be up to cleaning up any of the barrels I am talking about? Would it have to be on BLM land? What I am talking about is all on native selected NANA lands.	This is outside the scope of the RMP/EIS process. However, until conveyed, Native-selected lands remain within the jurisdiction of BLM. Contact the appropriate field office with location and any additional information you can provide.
52-5	We encourage BLM to continue its efforts to conduct modern geophysical, geochemical and water surveys along with geologic mapping and mineral and energy resource studies. Up-to-date information will be needed to properly implement the Final RMP/EIS. We especially encourage more detailed assessments of the larger blocks of BLM-managed land, especially those areas closed by ANCSA Section (d)(1).	Thank you for your comment; it has been noted.
53-1	[BLM should] provide for maximum access to mineral resources because the Kobuk-Seward DRMP/EIS area is highly potential for discovery of new ore deposits	The goal and objectives for locatable minerals in the Proposed RMP/ Final EIS is to maintain or enhance opportunities for mineral exploration and development while protecting other resource values. In fact, BLM encourages development by private industry of public land mineral resources, and promotes practices and technology that least impact natural and human resources.
54-3	Resource development, such as mining, will have a negative impact. Our current mining laws are very liberal, allowing the use of dangerous chemicals, and have almost no provision for any local or state benefit from such activities.	See response to comment #78-8

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58-51	BLM has an overall restoration goal of returning the disturbed land to its previous primary uses as fish and wildlife habitat and for subsistence uses by native villagers; however, it has yet to develop specific dismantling, restoration, and reclamation requirements to implement that goal. The Draft RMP/EIS should explicitly describe the dismantling and removal of infrastructure, as well as a specific reclamation plan for the area, including time lines and funding mechanisms.	Reclamation decisions are more appropriately addressed in an implementation level plan when a surface disturbing activity is proposed. This occurs subsequent to the adoption of the RMP/EIS. Before any fluid leasable mineral on-the-ground activity is approved by the BLM, the Application for Permit to Drill (APD) must include a 12-point Surface Use Plan of Operation in accordance with the requirements of BLM Onshore Order #1. A reclamation plan is included in the Surface Use Plan of Operations and discusses plans for both interim and final reclamation. Reclamation is required of any surface previously disturbed that is not necessary for continued production operations.
58-52	An explicit monitoring and assessment plan must be developed and thresholds must be identified for specific management actions. This will allow BLM to meet its overall goal of returning the land to a condition that will sustain its previous uses such as caribou habitat and subsistence activities.	We believe the plan meets these objectives. See also response to comment #58-51
63-1	I would like to see very little to no industrial or commercial development on BLM lands. In my experience, commercial/corporate interests benefit only the shareholders of the company involved, and in rural areas, typically involve some type of resource extraction, leaving a long term negative impact on the land, the wildlife, and the peoples of the area affected. For local residents, the long-term value of the land for subsistence use and recreation is far more valuable than the short-term financial benefits to a corporation based hundreds or thousands of miles away, with no real vested interest in the local community.	BLM does not make planning decisions based on mineral values (high or low) but on multiple use and sustained yield. The objective is to maintain or enhance opportunities for mineral exploration and development while protecting other resource values. Responsible mineral development is carried out through the implementation and enforcement of ROPs and Stips (Appendix A) as well as through other appropriate laws and regulations already in place. Recreation does have a priority in this plan as there are several large blocks of land in the Preferred Alternative with a recreation emphasis (Squirrel River and Salmon Lake-Kigluaik special recreation management areas, Iditarod National Historic Trail). Regarding subsistence, ANILCA mandates that the BLM consider the effects of proposed management on subsistence resources.

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64-60	Concerns have also been expressed regarding the proposed 300-foot setback from Boston Creek due to the fact that this area contains abundant polymetallic veining and is host to numerous gold placer deposits surrounding the area. In addition, the 300-foot setback on the upper Kivalina River may negatively impact the resource value of State lands to the north and lands selected to the south. We request that BLM consider alternative means of managing the resources of this area as well.	The 300-foot locatable mineral withdrawal and NSO on Boston Creek was not carried forward into the Proposed RMP/Final EIS because the lower reaches of this watershed were conveyed to the State of Alaska in 2006. Oil and Gas Leasing Stipulation 2 which prohibits permanent oil and gas facilities within 500 feet of fish-bearing water bodies would apply to the upper watershed which remains under BLM management. An exception to this Stipulation may be approved on a case-by-case basis. The Kivalina River will not be withdrawn from mineral entry. However, strict standards for riparian and fisheries habitat protection will apply as discussed under ROP FW-7a will apply (Appendix A). In addition, Oil and Gas Leasing Stipulation 2 will also apply to the Kivalina River.
78-8	Extractive development will cause habitat destruction and disruption of local ecosystems through noise, pollution potential, and infrastructure and transportation corridors associated with development projects. Removal of these areas from available harvesting places and restricted access to a larger surrounding the development project is also of great concern as examples from the North Slope have shown. Also, there should be no development allowed in identified caribou critical habitat.	BLM has a multiple-use mandate which includes responsible mineral development carried out through the implementation and enforcement of ROPs and Stips (Appendix A) as well as through other appropriate laws and regulations already in place. An Interdisciplinary team of BLM resource specialists provided input to create the ROPs and Stips which mitigate impacts to other resources within the planning area.
117-4	Toxic chemicals used in mining should be banned in the management plan. A large scale mine of any sort would forever scar the environment as the lands in the arctic or sub-arctic recover very slowly from massive excavation.	Decisions to be made on the types of chemicals used for proposed mining operations are more appropriately addressed in an implementation plan. This occurs after the adoption of the RMP/EIS. Land use planning decisions consist of desired outcomes (goals, standards, and objectives) and the allowable uses (including allocations, levels of use, and restrictions on use) and management actions necessary to achieve those outcomes. Implementation decisions generally constitute BLM's final approval allowing on-the-ground actions to proceed. These types of decisions require site specific planning and additional NEPA analysis.

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396-1	I am very concerned about the use of chemicals in hard rock mining and do not want to see the irresponsible mining practices that threaten our area. [particularly] about the area around the Wild Goose Pipeline, Mt. Osborne and other scenic and subsistence related areas on the Seward Peninsula.	See response to comment #117-4
LOCATABLE AND SALABLE MINERALS		
24-8	BLM generally exaggerates the presence and availability of locatable minerals. It appears that the points on the RMP/EIS map of locatable mineral resources are merely every USGS RDF location and are so minor to preclude development other than panning for recreation. BLM should require a separate assessment of the locatable minerals since much of the assessments were done by exploration geologists that were or are connected very strongly to the mining community and comprise very brief information.	We disagree. The BLM geologists that work in this program have degrees in Geology and Mining Engineering from accredited Universities and the methodology they use to assess mineral potential have been developed by academic, industry and government entities over many years and are modified to reflect advances in geologic knowledge, understanding of mineral occurrences and advances in information technology. It is unfortunate that there is not sufficient funding or time to conduct any new field reconnaissance of these documented mineral occurrences. The ARDF (Alaska Resource Data File) locations, originally generated by the US Geological Survey were merged with the mineral occurrence data generated by the US Bureau of Mines mineral occurrence listings in order to compile a consolidated listing. No documented mineral occurrences were excluded without reason and regardless of how old the information is. Map 3-29 identifies known locations from AMIS and industry locations. These have not been sorted for previous production or level of potential production. The description of potential areas within the section describes historic and current activity. Mineral Occurrence Reports and Reasonably Foreseeable Development Scenarios are technical reports that were prepared in support of this planning effort, and are available from the State or Field office or on the BLM website at http://www.blm.gov/ak/ksp/. A separate assessment or inventory such as you recommend is beyond available funding.

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24-17	BLM did not adequately characterize the locatable minerals as many of these locations are very minor historical locations where trace amounts of gold may have been found.	Short of conducting a multi-year Mining District Mineral Assessment (Scheduled in the future subject to continued funding of the minerals program) this information represents the best available data from the publicly available geological literature. Funding for this program originally instituted by Congress in compliance with ANILCA section 1010 is in jeopardy for fiscal year 2007 and non-existent for fiscal year 2008. The commenter is correct in that the locations have not been mined or explored recently, and may have minimal potential. This is reflected in the Reasonably Foreseeable Mineral Development scenarios for this Plan, which anticipate only minor development on Federal land as shown in this document and supporting technical reports. Some areas have been closed to modern exploration and development, making any characterization difficult.
52-27	Pg. 3-164. Figure 3-3: What units are used for labor costs? This Figure is not well formatted in several ways, need to list years.	Figure 3-3 was reformatted. Unit labels ($/hr.) were added to the legend and years were added to the x axis.
52-28	Pg. 3-165. Figure 3-4: A separate scale with units is needed for labor and equipment costs to make the data more comprehensible. Are the costs shown in $/hour? This Figure is not well formatted.	Figure 3-4 was reformatted. The following text was added below the figure. "In the chart above, labor and equipment costs are plotted in actual dollars per hour and commodities in dollars per troy ounce. While these do not equate, it is the slope and inflections of the curves that are instructive"
52-29	Pg. 3-166. 1st full paragraph: "... mining notices and plans of operations from 1982 through the 2004 season." Figure 3-6 shows land disturbance from 1989-2004. Should 1982 be 1989 in this sentence?	Thank you for your comment. This correction has been made.

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52-30	Pg. 3-165. Figures 3-5 and 3-6: What is the purpose of these figures, and of this entire section? What is the significance or reason for this discussion of the high locatable mineral potential (HLMP) areas? The amount of land disturbed is a very small fraction of the total planning area. What is the total area of surface disturbance versus the total area? The total, excluding Red Dog Mine appears to be about 1000 acres based upon Table 3-17. This is a miniscule area. Also, are these disturbances all inclusive or only those associated with APMA data for the period 1982-2004? What is the basis or source of this information? The entire section appears to have a bias against any disturbance, even though Alaska has very stringent reclamation requirements.	Figure 3-5 plots the cumulative surface disturbance by mining operations for the 1989 through 2004 mining seasons by land owner. While the total amount of surface disturbance due to active mining is minimal (2,868 acres over 17 years) compared to the size of the planning area it is instructive to look at surface disturbance by land ownership in each of the identified High Locatable Mineral Potential Areas (HLMP). The chart shows that three-quarters of the active mining operations within the planning area boundary occurred on private lands and only 6% on Federally-managed lands which, while certainly in part due to increasing restrictions on Federal mining claims, reflects the distribution of patented mining claims and the success of the State and Native Corporations in selecting mineral lands. Figure 3-6 shows the distribution and level of mining activity (surface disturbance) in each of the HLMP areas by land ownership. The 3 highest levels of mining occur on private lands in the Red Dog HLMP, the Nome West HLMP and the Kougarok HLMP areas. The 3 highest levels of mining activity (surface disturbance) on State-managed lands occur in the Nome West HLMP, the Eastern Seward Peninsula HLMP and the Kougarok HLMP areas. On Federally-managed lands (including inholdings) the highest levels of mining occur in the Red Dog HLMP, the Nome West HLMP and the Teller HLMP areas. Figure 3-5 illustrates the limited mining on Federal Land based on APMA filings from 1982 through 2004 mining seasons. Figure 3-6 supports this by showing that of 12 HLMP areas, projected Federal surface disturbance is a minor acreage in five of the areas. It is not the purpose of this section to inform the reader that the acreage shown on Table 3-17 is from about 31 million acres, or that this document projects a maximum disturbance on Federal land to be less than 70 acres out of the millions of acres to be managed. Rather, it suggests that the Federal land will not be a significant resource as the area develops its mineral potential, using surface disturbance as a proxy for magnitude of impact from current and future development.
52-31	Pg. 3-167: If there is a purpose for this discussion/focus, a map showing the locations of the HLMP areas listed on Figure 3-6 should be referenced.	Reference Figure 6a in the Mineral Occurrence and Development Potential Report for Locatable and Salable Minerals KSP/RMP, which is available on the BLM website at http://www.blm.gov/ak/ksp/

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52-34	Pg. 3-180. Mining Activity Highlights: Much of the exploration activity is not listed in this section. The most glaring is that the Big Hurrah and Rock Creek deposits received significant attention and drilling over the past several years and are scheduled to go into production in 2007 (NovaGold Resources Inc.). At least three different companies have drilled over the past 15 years at Rock Creek.	Mining Activity Highlights were taken from the Exploration and Production sections of the State Geological Survey's annual report on Alaska's Mineral Industry current through the 2004 mining season (time of writing of this report). It is noted in Chapter III, section C(3)(b)(5)(b)(2)(b), "Mining Activity Highlights" that at the time of writing Nova Gold's Rock Creek/Big Hurrah Properties were then scheduled to go into production in 2006. Nova Gold has announced several production dates in the recent past, but to date production has been put back. Both the Rock Creek and the Big Hurrah Properties are located on private patented claims (core claims) and surrounded by State and Native lands.
52-35	Pg. 3-181. Nome West HLMP: In addition to Nova Natural Resources Corp, NovaGold, Altar Resources should both be listed.	We did not list Altar Resources because they are not listed in the Alaska Mineral Industry Report as a principal player in the economic development of the area.
52-36	Pg. 3-182-183: Nova Gold should be identified as NovaGold Resources Inc. A global search and replace on this name is needed.	Thank you for your comment. This correction has been made.
52-37	Pg. 3-186: No mention is made to the fact that Alaska Gold was purchased by NovaGold Resources. Also, activity in 2004 and 2005 is not included.	The 2005 activities are not considered here as this information was not available at the time of writing of the Draft RMP/EIS. Alaska's Mineral Industry Reports generally come out in summary during the spring of the following year and the final report is published in full the fall of the following year in time for the Annual Miners Convention. Consequently the most recent information from this report available at the time of writing of the Draft RMP/EIS was the 2004 Final Report .
52-38	Pg. 3-192: None of the drilling and other activity from 2003 to 2005 at Arctic by NovaGold is mentioned. This is an area of major significance in that it may be the highest grade and largest Cu deposit in the area. Also, no mention is made of the massive cleanup job that NovaGold did in the area.	The drilling section of the Alaska's Mineral Industry Reports generalizes drilling footage by region for confidentiality reasons and does not specifically report footage drilled by company or property. Similarly for information published in the exploration and production sections of AMI Reports. The planning area encompasses the Western Region and the western part of the Northern Region. Therefore it is generally not possible to quantify drilling footage by specific property.
52-39	Pg. 3-193. mid page incomplete sentence: "These placer gold occurrences are generally restricted to? the schist bedrock.	Thank you for your comment. This correction has been made.

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52-41	Pg. 3-196. last sentence, 1st paragraph beginning "Marginal ...." This comment is not a true and is totally inappropriate. Red Dog is not a marginal project. Hedging is done for a number of reasons but the comment has no relevance here.	This section was reworded to clarify. Particularly for operations beginning production, high up front capital costs can be hedged by future commodity prices. Incrementally increasing the initial mill production capacity, along with market increases in commodity prices is another strategy which expands reserves and encourages the post-startup development of recently discovered satellite deposits.
52-42	Pg. 3-196. Mining Activity Highlights: Should add Red Dog production information from November 1989 to present. Also need to include the number of jobs, amount of local purchases, local impacts on the villages, impacts on local unemployment, etc. Red Dog is has been a tremendous success story for the entire region and the plan should include this information. Other mines would have similar beneficial impacts and this should be made clear.	Red Dog Mine information is included in Chapter III, section (E) "Social and Economic Conditions". The costs and benefits of potential mining on Federal land have been addressed throughout this document. Chapter III, section (C)(3) "Minerals" is intended to identify mineral resource uses, without summarizing impacts. Also see the Mineral Occurrence and Development Potential Report, Locatable and Salable Minerals which is available on the BLM website at http://www.blm.gov/ak/ksp/
52-43	Pg. 2-207. Figure 3-7: Label x axis by year rather than number.	Figure 3-7 was reformatted as suggested by the commenter.
52-43	Pg. 3-206. (4) last sentence: Contains contradictory information. Prior sentence states that production exceeded 1 million tons.	Thank you for your comment. This sentence was deleted.

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52-54	Pg. 4-22: Consideration of hardrock/lode mining should be added. In the first paragraph on the page it states that because [of] the time needed to bring a hardrock deposit into production there would be no development...While such a statement may be correct for some deposits, it is not correct for other deposits. Much of the delay in developing mines is directly tied to the price of metals. When metal prices fall there is less exploration money available and less ability to develop new metal sources. If metal prices remain high, or if high grade deposits are found, they can be developed in a much shorter time frame. The Pogo Mine went from initial discovery to production in about 7 years and for Alaska, Pogo is a large mine. Pogo is in an area of effectively no previous mining, no infrastructure, and is about 50 miles from the nearest road. It is important that the analysis for hardrock mining be included in the plan. Pg. 4-144: Alternative D paragraph one states "It is expected that no new hard rock mines will develop during the life of this plan..." This is not correct. As stated above the primary factor is metal prices and if metal prices remain high it is very likely that new deposits could become mines rapidly. Pogo is just one example. Further, nearly all metal prices are now high (both precious metals and base metals) and if that continues the probability of new mines is even greater.	Pogo, by its location and proximity to an existing power distribution system, large population center, Fairbanks, and within 50 miles of a major highway network is not typical of conditions existing within the Planning Area.

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52-55	Pg. 4-22: The third paragraph begins "Since 1989…primarily on private and state lands." The reasons listed are only partially correct. However, the two biggest factors were low metal prices and the extremely adverse investment and operating climate created by Secretary Babbitt. If any statement is made to the reasons for little activity on BLM lands these points must be listed.	Thank you for your comment. This paragraph was expanded to include additional reasons for limited activity on BLM-managed lands.
52-56	Pg. 4-22-23. 2. Hard Rock Exploration: No mention is made of the work being conducted on the Boulder Creek uranium prospect by Triex Minerals and Full Metal Minerals. This area has been explored for many years and these companies have begun a $1.5 million exploration and drilling program.	This information post dates the development of the Draft RMP/EIS. The information used to develop the Draft RMP/EIS was the State's 2004 Mineral Industry Summary. BLM has decided not to revise the document to include more current information as doing so would not change management recommendations made in the Proposed RMP/Final EIS.
58-34	Outside these seasonal habitats used by caribou, hard rock mining in the Planning Area should be ROW avoidance areas and otherwise use regulations and permit stipulations to allow seasonal avoidance of caribou.	If proposals for hard rock mining are received by BLM, a site-specific plan of operations would be developed and impacts to caribou analyzed under NEPA. The ROPs (Appendix A) would apply as appropriate. If necessary, additional site-specific mitigation measures could be considered during approval of the mining plan of operations.
58-36	In the case of hard rock mining, or any operation requiring a plan, wording should be added that clarifies the plan must not only be completed but also approved by BLM based on the plan's ability to ensure all potential impacts of the requested activity on caribou are adequately mitigated and cumulative effects considered.	In a plan of operation an environmental assessment addresses all aspects of the environment identified in National Environmental Policy Act (NEPA). This includes caribou as well as other large game animals as other animal, aquatic and plant species in the area. BLM's approval is required for plans of operation.
64-16	Page 2-67, Mineral Materials, (c) Management Common to All Action Alternatives: Please state that guidelines and provisions regarding the disposal of mineral materials apply only to BLM-owned lands, especially regarding disposals on submerged lands, shorelands and tidelands.	Lands subject to tidal influence are not Federal lands, but are under the jurisdiction of the State of Alaska (reference U.S. Fish and Wildlife Service/Biological Services Program titled, "Gravel Removal Studies in Arctic and Subarctic Floodplains in Alaska", FWS/OBS80/09 printed June 1980).

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64-33	Pgs. 3-164 and 3-165, Figures 3-3 and 3-4: Consider including the full name for the various base metals, as well as their symbols, in the key to these figures for the lay reader.	Thank you for your comment. The legends for Figures 3-3 and 3-4 were revised.
64-34	Pg. 3-165 Second full paragraph: Please clarify the following phrase in the second sentence: "…special congressional legislation that excluded mineral deposits from in Federal enclaves that preclude mineral development…"	Thank you for your comment. This correction was made.
65-83	Representatives of the mining, oil, and gas industries, and BLM staff, have indicated that there is little commercial interest in the leasable and locatable mineral potential of most unencumbered BLM lands. We are concerned about the integrity of any entity that would be interested in pursuing exploration and development activities on such marginal-value lands...[and] about the environmental impacts of mining activities on these lands, considering that the financial viability of such activities appears to be questionable. It would be inappropriate for BLM to allow these activities unless it is fully prepared to justify covering the costs (using taxpayers' dollars) to remediate hazardous or unsightly mining operations and reclaim the land if the claimant fails to perform these functions.	We have no statute authority to determine the viability of a mining operation on public lands. As long as the plan submitted meets the regulatory reclamation standard or can be mitigated and the appropriate performance/reclamation bonding posted, the operation will be approved. New processes and deposit models are being developed all the time by competent mining industry geologists as well as Federal and State government professionals. The fact that there is currently little commercial interest in these marginal lands would not in itself be a viable reason to close these areas to future exploration/development.

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65-85	Should BLM lift the ANCSA 17 (d)(1) withdrawals...these lands would become subject to the 1872 Mining Law. This 133-year-old law allows private companies to take valuable minerals from public lands without regard for other potential values or uses of the land, without operating standards to protect the environment, without paying a royalty to the taxpayer and without regard for mining's impact to special places. Hardrock mining is practiced in a manner inherently threatening to human health to people living near, downstream or downwind from mines.	BLM has no statute authority to rule on the potential viability of a mineral resource extraction operation. Under NEPA and other related statutes, potential impacts to other resources can be avoided or mitigated and the extraction plan modified accordingly. The General Mining Law (as amended) was promulgated to encourage the development of mineral resources on unappropriated public lands as a way of encouraging development, expansion of a transportation network, development of commerce and providing employment for citizens of the United States. This was the prevailing philosophy as recently as 1976 when the Federal Land Policy Management Act (FLMPA) was passed, which in effect promoted the philosophy that the "Public lands" are "government lands." This reflected the change in philosophy that the government should receive a direct return to its coffers money generated by the development of mineral resources from these lands rather than an indirect benefit by encouraging economic development. Until the Congress acts to amend or repeal the General Mining Law, BLM will not be initiating policies that would be in direct conflict with enacted Law.
197-25	There should be absolutely no sale of mineral materials from river beds. One can just imagine what took place during the early gold rush days when miners dredged gold from river beds and totally ruined spawning grounds.	Studies done by the U.S. Fish and Wildlife Service show that mineral materials removal can be adequately mitigated so as to not be deleterious to anadromous fish habitat. The gold mining that took place in the early gold rush days is a totally different mining method than used for mineral material extraction and in those days gold mining was totally unregulated by law or regulation. Aside from beach materials and barrier islands along coastal areas the only other potential source of mineral materials would be glacial deposits. Glaciation within the planning area is very limited in extent. Due primarily to their bulk, mineral materials are developed for project use in close proximity to the planned development project, otherwise the project would not be viable.
LEASABLE MINERALS		
1-8	The oil spill data is minimized purposefully when it is in fact happening every day.	FEX L.P Drilling Company production in the National Petroleum Reserve-Alaska for the month of April 2006 yielded the following quantities of released fluids: <15 gallons of drilling muds, 4.5 gallons of diesel, 1 quart of transmission fluid and 2 gallons of engine oil. These fluids were either released into containment, or onto snow covered surfaces. Releases to surface are collected and sent to a central processing facility for treatment. General North Slope Oil Spill protocol can be accessed via web by going to http://alaska.bpweb.bp.com/hsea.

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1-12	The Standard [lease] Forms allow dirt cheap prices/rates to be paid for the use of national taxpayer owned land. This constitutes a rip off of national taxpayers by BLM.	The minimum royalty of 12.5% is not established by BLM, but under Section 17 of the Mineral Leasing Act of 1920, as amended, for leases offered through competitive bidding in areas of Known Geologic Structures. Regulations that govern the BLM's oil and gas leasing program are found in Title 43, Groups 3000 and 3100, of the Code of Federal Regulations. Congress passed the Federal Onshore Oil and Gas Leasing Reform Act of 1987 to require that all public lands available for oil and gas leasing will be offered first by competitive leasing. Non-competetive oil and gas leases may be issued only after the lands have been offered competitively and not received a bid. The royalty generally charged for conventional oil and gas development on public lands is 12.5%. Royalty rates may be reduced for all or portions of a lease if the Secretary determines that such action is necessary to encourage the greatest ultimate recovery of the leased resources, or is otherwise justified. In addition to royalty, annual rental rates for both competitive and noncompetitive leases are $1.50 per acre (or fraction thereof) in the first 5 years and $2.00 per acre each year thereafter. Lessees pay royalties to the Department of the Interior's Minerals Management Service on the amount or value of the oil or gas removed or sold from each lease. Lessees must pay a minimum royalty at the end of each year beginning on or after a discovery of oil or gas in paying quantities. For those Federal leases in Alaska located outside of the NPR-A, the State of Alaska receives 90% of all royalties collected by the MMS.
43-1	I am very against a road to Red Dog [to] that coal bed [Arctic Slope Regional Corporation Land], I would be very against that. I think it would be devastating for the caribou and to all our people.	The RMP/EIS has taken a hard look at the impacts of the various activities that may take place on BLM-managed lands during the life of the plan. The location of the proposed road (Red Dog to the Deadfall Syncline) is unknown at this time. However, should it include BLM-managed lands, the RMP/EIS implements a number of ROPs to mitigate impacts. In addition, additional NEPA analysis would be done at that time and impacts to caribou and subsistence would be considered.
52-8	Pg. 2-12 Table 2-1: The table should indicate that oil and gas leasing stipulations 6 and 7 would apply to Alternatives C and D if that is the case.	While it is a good suggestion, it would be redundant. The ROPs and Stips apply to all leasable mineral activities in Alternatives B, C, and D unless otherwise noted.
52-20	Pg. 3-146 (3) Minerals: The geographic location of many of the features discussed in this section need to be identified on a map. These would include the wells listed in the Colville Basin (Eagle Creek #1, Tungak Creek #1, and Akulik #1) and Kotzebue/Hope Basin (Cape Espenberg and Nimiuk Point).	Five wells have been added to Map 3-27.

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52-21	Pg. 3-148 Development Potential: In the discussions of plays, it would be helpful to maintain consistency in use of units. Either use acres or square miles not both.	Square miles have been converted to acres.
52-22	Map 3-27: Labeling of the oil fields on the map would be useful. The Coal Map 3-28 is better.	Labels have been added to Map 3-27.
52-23	Pg. 3-150: The reserve/resource estimates for the Cape Beaufort and Lisburne Fields should be included? Merritt, 1985 (PDI 85-20, p.7) references 20 million tons in the Kukpowruk field which is part of the Cape Beaufort Field. This area has an extremely large potential for coal development and further discussion of the coal potential is needed.	Additional coal field and district information, addressed in the Mineral Occurrence Report for Leasable Minerals, has been added to Chapter III, section(C)(3)(a)(2) "Coal".
52-24	Pg. 3-151. Chicago Creek Field: Merritt, 1985 (PDI 85-20 p.9) also reports that the field produced 110,000 tons mostly from Private NANA Corp lands.	Additional coal field and district information, addressed in the Mineral Occurrence Report for Leasable Minerals, has been added to Chapter III, section(C)(3)(a)(2) "Coal".
52-25	Pg. 3-151. (3) Geothermal: The location of Pilgrim Hot Springs KGRA should be shown on a map.	The Pilgrim Hot Springs Known Geothermal Resource Area (KGRA) has been added to Map 1-2.
52-26	Pg. 3-152. (4) Coalbed Natural Gas:The existence of shale hosted natural gas should also be discussed. Teck Cominco at Red Dog is investigating the potential for shallow gas in the area as a possible alternative source of energy for the Red Dog Mine. Natural gas from all possible sources should be discussed. This gas has the greatest potential for countering the extreme cost of energy in the villages of the planning area.	Additional information on shale-hosted natural gas at the Red Dog mine, addressed in the Mineral Occurrence Report for Leasable Minerals, has been added to Chapter III, section (C)(3)(a)(4) "Coalbed Natural Gas".

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52-53	Pg. 4-16 - 6. Oil Spills: The number of oil spills assumes production during the life of the plan. This is not realistic given the normal time frames required to develop a field following discovery.	During the planning process, BLM must project future exploration and development activity. It is not likely that Oil and Gas leases will be let in this remote area of Alaska. If leases are let, we have to assume production will occur within the timeframe of the lease. Given that production is associated with fluids escaping to the surface, we must develop a spill scenario to compensate for the associated releases, however unlikely.
52-58	Pg. 4-205. 4th bullet: Oil prices are now more than double the $30 per bbl level at which the Northwest JAP/EIS predicted increased oil and gas exploration activity.	During the planning process, BLM must project future exploration and development activity. In order to develop these projections BLM makes assumptions regarding the business decisions made by oil and gas companies. Oil and gas prices are the single most important factor controlling the amount of future drilling and production activity in Alaska. We also understand the speculative nature of price forecasting but know that the oil and gas industry uses price forecasting to evaluate the feasibility of new initiatives and make sound investment decisions. To offset price volatility, and because oil and gas developments require long-term investments, we assume companies base their investment decisions on conservative price projections. Informal comments by industry suggest companies are likely to scale activities according to average historical prices of oil and gas which are about half of current prices.
52-61	Pg. 4-216. 2nd paragraph, 1st sentence: Suggest inserting "leasable" between "from" and "mineral exploration" to differentiate this activity from the other types of minerals.	The following change has been made to Chapter IV, section G(3)(c)(1)(a), "Fluid Leasable Minerals" (first sentence of the last paragraph): "Roads resulting from mineral exploration and development (leasable, locatable, and salable) including community related activity, would add infrastructure to a region largely without and could increase interest in fluid leasable exploration on BLM-managed lands by reducing logistics costs."

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58-37	No leasing or activities associated with the development of coal bed methane or oil and gas should occur within the primary calving ground (90% kernel analysis) (Figure 2), critical insect relief habitat (75% kernel analysis) (Figure 3C), migratory corridors in central Unit 23 (Figures 4 and 5), and winter range in the Nulato Hills. Outside of the core habitat protection areas (described above), strong stipulations should be developed (in collaboration with caribou managers and scientists from state and federal agencies and universities) similar to those on the North Slope in order to minimize impacts to caribou.	BLM leasing activities are unlikely to occur in the primary calving grounds because these lands are all high priority State and Native selections and will not remain under BLM management. Leasing is unlikely but could technically occur in insect relief habitat, migratory corridors and winter range in the Nulato Hills. Leasing stipulations and ROPs (Appendix A) were developed to protect habitat and reduce impacts on caribou. These Stips and ROPs are very similar to those used on BLM leases on the North Slope.
58-40	If coal mining is permitted, it should not be allowed within the primary calving ground (90% kernel analysis) Figure 2), critical insect relief habitat (75% kernel analysis) (Figure 3C), migratory corridors in central Unit 23 (Figures 4 and 5), and winter range in the Nulato Hills. These seasonal ranges should be considered ROW exclusion areas. Outside these seasonal habitats used by caribou, coal mining in the Planning Area should be ROW avoidance areas and otherwise use regulations and permit stipulations to allow seasonal avoidance of caribou.	As discussed in comment #65-89, coal leasing and development is deferred. Therefore, no coal mining will be permitted unless the Plan is amended to allow it. Additional seasonal restrictions and stipulations could be developed at that time to protect caribou. The plan does allow for coal exploration. Because calving is the time caribou are most sensitive to disturbance, ROP FW-3a prohibits coal exploration activities within the WACH calving area from May 20-August 15. Coal exploration activity would be allowed during other times of the year, when caribou are more dispersed and less sensitive to disturbance.

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64-47	Pg. 4-135, Alternative A, (a) Oil and Gas Leasing; Pg. 4-136, Alternative B (a) Oil and Gas Leasing; Pg. 4-138, first full paragraph, last sentence: The logic of the concluding sentence of the section could be interpreted in several ways. If oil and gas exploration is limited or does not occur, these resources are not available in the near future for the next generation. However, if the development does not occur, these resources are still in the ground and consequently available for future generations to develop. Might it be more appropriate to conclude that these resources would be unavailable during the life of this plan, rather than “for future generations”?	The examples used in these alternatives are from a hypothetical standpoint. A proposed project "could" be uneconomic or "could" be technically unfeasible to drill. We have changed the wording in Chapter IV, section (C)(3)(a)(1)(a) "Oil and Gas Leasing" and (C)(3)(a)(2)(a) "Oil and Gas Leasing" to reflect the hypothetical nature of the examples. It now reads: "Consequently, these resources "could" be unavailable for future generations."
65-88	Although we prefer watershed-based approaches to managing rivers and river-related resources, we support the Alternative D proposal to close 1,059,000 acres of lands currently available to coal exploration and non-energy leasable minerals prospecting, as identified on page 2-53 of the draft RMP. These areas include: a) northern Nulato Hills; b) 300-foot setback on the following rivers: Pah, Shaktoolik, Ungalik, Inglutalik, Tubutulik, Kuzitrin, and Fish Rivers, and west bank of the Noatak River; c) 300-foot setback from mean high water mark on Boston Creek, Koyuk Creek, Peace River, Agiapuk River, and upper Kivalina River.	Support for this portion of Alternative D is noted.

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65-89	BLM [should] close the southern Nulato Hills and the BLM-managed lands on the Lisburne Peninsula to solid mineral development in the Final RMP/EIS, as proposed in Alternative C. It is apparent from Map 2-9 that no occurrences of coal exist in the southern Nulato Hills...[and] only a small portion of the northern and western Lisburne Peninsula possesses coal occurrences or coal fields.	The Nulato Hills and portions of the Lisburne Peninsula currently have no known coal potential, and likely will not have any interest in coal exploration over the life of the plan. The Proposed RMP/Final EIS defers coal development until interest is expressed by industry. The plan does however, allow for coal exploration. In preparing a land use plan, BLM does not make planning decisions based on mineral values (high or low) but on multiple use and sustained yield. The goal is to maintain or enhance opportunities for mineral exploration and development while protecting other resource values. In fact, BLM encourages development by private industry of public land mineral resources, and promotes practices and technology that least impact natural and human resources.
65-90	BLM [should] close the watersheds and tributaries of the Ipewik and Kukpuk Rivers to solid leasable minerals ...to protect critical nesting habitat for raptors. A setback should be applied which protects the full extent of riparian habitat on the Ipewik and Kukpuk Rivers (300-foot minimum setback).	Habitat for nesting raptors can be protected without closing these watersheds to solid leasable mineral entry. Appendix A includes many ROPs that are designed to protect riparian habitat. ROP FW-3b implements the USFWS recommendations for land clearing in Migratory Bird Habitat.
65-92	We request that vast majority of the BLM-managed lands on the Lisburne Peninsula, excluding the locations identified on Map 2-9 as possessing coal occurrences or coal fields, are permanently closed to solid leasable mineral development in order to promote and protect the region's caribou habitat and subsistence resources.	BLM has a multiple-use mandate which includes responsible mineral development. Our analysis in this RMP/EIS process has taken into account potential solid leasable mineral exploration and development on BLM lands, and we feel that there is adequate protection for the caribou habitat by applying Required Operating Procedures (Appendix A). Solid mineral development is not likely to occur in this location throughout the life of the plan. As noted under comment #65-89 the Proposed RMP/Final EIS defers coal leasing and development.
65-95	BLM should convert mitigation measures that seek to protect other resources to stipulations attached to any oil and gas and mineral leases to assure that they are enforceable, especially when they have the potential to impair the value of a lease.	Mitigation measures (ROPs), developed through this RMP/EIS process, are required and therefore, enforceable. Leasing Stipulations involve a "taking" (setting aside an area of a lease that makes it unavailable either by No Surface Occupancy (NSO) or by a seasonal restriction) while a ROP limits an activity. ROPs do not necessarily decrease the value of a lease. Stipulations can make a lease tract less economic (because of the "taking" concept). In order to manage the land for multiple use, an interdisciplinary team of BLM resource specialists have identified those resources that need additional protection (whether by NSO, or seasonal restrictions) and proposed the Stipulations in Appendix A. The idea is not to block mineral activity but to protect sensitive resources.

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312-1	The people live off all that the land and sea provide… If the oil spills and corrupts the land people will suffer greatly.	The ROPs (Appendix A) include many measures to prevent oil spills as well as to respond to spills in the event a spill occurs. In addition, there is a large number of Federal, State, and local regulations aimed at preventing spills.
RECREATION MANAGEMENT		
SQUIRREL RIVER SRMA		
13-1	I encourage BLM to restrict/maintain the hunting/fishing use of the Squirrel River for recreational purposes by non-natives because of the unwanted impact on our traditional subsistence way of life…Our children would learn the untraditional ways and rivers would become polluted due to more outsiders coming in.	See response to comment # 116-2. Any limit on visitor use days in the development of a RAMP would include all individuals, both Native and non-Native.
14-2	...Conflicts in the Squirrel River have yet to be resolved, we support the SRMA proposed under Alternative C as a way to deal with the problem. The vast majority of these lands are unencumbered BLM land, and we see no reason for BLM not to adopt the most strict of the proposed requirements in order to eliminate the causes of conflict. AQRC believes BLM has an opportunity to preserve nonmotorized hunting and to equalize hunting opportunities in this area by adopting the permit requirements and OHV limits set forth in Alternative C.	See response to comment # 116-2.
24-6	The lack of enforcement is likely a root cause of the Squirrel River issue and unless recognized and addressed, will remain an issue.	Thank you for your comment. BLM's law enforcement and staff conducts periodic field exams within budget constraints.

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25-20	While I prefer Alternative C [regarding management in the Squirrel River], from personal experience I have come to believe that the number of visitor use days permitted are too high, especially as there is additional non-local use that enters the area without employing a guide or transporter.	See response to comment # 116-2. Visitor use days would include all users (local, commercial, non commercial) and the appropriate number will be developed through a RAMP for the Squirrel River.
25-21	In order to protect the recreational, subsistence and wildlife values of the Squirrel River that BLM not only follow Alternative C, but add an amendment specifically stating that ADF&G be included when determining the number and nature of commercial permits issued for BLM lands.	See response to comment # 116-2. We consult with ADF&G during the NEPA process in assessing impacts to BLM lands and resources when Special Recreation Permits are proposed in a given area. We look forward to working with ADF&G in the development of a RAMP for the Squirrel River SRMA.
26-1	The Squirrel River is a situation ripe to explode. I think that limiting ATVs or off-road vehicles, whatever the term is, is a good idea there. I think boat access and generally limiting access would help solve the problems. The caribou move through there at a time when there is not much snow, in mass, and that is when the real problem exists. I think later in the season, I don't see a great need at this point for transport regulation after the snow flies. In fact generally, within this book, I found it odd that the 2,000 pound limit applied during the snowy months. Once the grounds frozen, its nearly bomb proof and I see every reason in the world to have a 2,000 pound limit thawed months. But during the frozen months, I don't.	See response to comment #116-2. We believe that the 2,000 pound limitation is needed even during frozen months. Use of vehicles weighing more than 2,000 pounds can be permitted by BLM if necessary.

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31-2	That means they can allow permits, so many permits, and they can allow so much within the Squirrel River, is that correct? So that they can continue to hunt and fish. The numbers that you put out here saying maybe 1,400 [Visitor Use Days] can enter within this time period. Do you [BLM} coordinate right now with the State about the numbers?	See response to comment #116-2. The 1,400 Visitor Use Day limit is not BLM's preferred alternative. Visitor use days, if necessary, will be developed through a RAMP.
31-4	I am really happy to hear right now that your trying to limit the number of [visitors] to the Squirrel [River]. We would like to know that locally we can have some kind of input to put numbers on those people, on the floaters, hunters. Because we're not floaters and hunters. We don't have the money to float and hunt.	Thank you for your comment. We look forward to working with concerned individuals in the development of a RAMP for the Squirrel River Special Recreation Management Area (SRMA).
35-1	I would like see some agencies [transporters] stop bringing by floatplanes up there. Last summer, a year ago, they brought a hunter up there, Squirrel River, and left him on an island. And pretty soon, sometimes over night, it started raining and water started coming up. And those hunters were almost drowned. And I would like to see it kind of slowed down bringing them hunters up there with a floatplane without no boats.	See response to comment #116-2. We agree that safety is an issue with transporters. We look forward to working with you on this issue.
36-1	I would like to see the BLM or whoever, a big agency give that land [Squirrel River] back to the natives. Because the natives were there first who used that land. And many of our subsistence camp has been given away to other people.	BLM's land transfer to ANCSA corporations, the State of Alaska, and individuals are set by specific acts of Congress.

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39-2	We see a lot of change in the migration. I take for instance the spring migration that goes north. They come through all the areas right now and they are not affected by anything [during spring migration]. We can see that the fall migration that goes south is affected by the noise and activity in Squirrel River.	Thank you for your comments and observations.
39-3	I would like to see that a guide be closely monitored and maybe with limited at 5 or 6 guides in there [Squirrel River].	See response to comment #116-2. We believe that prior to eliminating 50% of current guides, more participation is needed by user groups to determine the appropriate number of commercial operations in the Squirrel River SRMA.
39-4	The guide is also a transporter and he gets away with bringing more people in there. If somehow in the permit system that we could regulate the transporting also.	Permitting of air taxi and transporters in the Squirrel River will be considered during development of the Squirrel River RAMP along with other management issues. See response to comment # 116-2.
39-5	I think that date [August 1] is too early. It should be September 1st to October [dates to limit the number of visitor use days in the Squirrel River]. Because the caribou migration start about the 3rd, 4th week of August and if there is any noise or disruption then it changes the migration.	The August 1 date is not BLM's preferred alternative in terms of managing recreation use in the Squirrel River SRMA. See response to comment #116-2.
39-6	The 4-wheeler ...should be taken out of the hunts and the transporter and guide permit. We all walk when we hunt and they should do the same. They got their airplanes and their spotting systems and all that. And that is what we have to compete against. The 4-wheeler makes the access even better for them [non-local hunters].	Thank you for your comment. See response to comment # 78-4.

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40-2	I haven't really seen too, too much traffic up there [Squirrel River]. Other than the airplanes flying up there, you will see a few 4-wheelers. But I feel that they should look at limiting it because like they are talking about earlier, with the 4-wheelers, they will drive just about everywhere and interrupt the migration of the caribou. And I know that we can only limit BLM land but if we can look at, like I said limiting it to that area that they're, the caribou are trying to cross over.	Thank you for your comment. See response to comments # 78-4 and # 116-2.
40-3	If they [BLM] can work with the State at possibly closing off [to permitted activities] the [caribou] migrating areas up the Squirrel at a certain time. Say from the third week of August through the second week of September to give the caribou enough time to, at least the first herd, to migrate through and that way it doesn't disrupt the caribou migration. To work together to actually close them areas, so we can try to keep our herd going the way they are going. And we just talking about the fall [migration].	Thank you for your comment. See response to comments # 14-12 and # 116-2.
40-4	If we do have BLM lands that go through the migration area; if we can look at possibly trying to close those areas for guides or for transporters; to where they don't stop the migration. Because like we had a few other members [mention], they talked about how some [caribou] split off. But if you don't stop the main herd that is migrating through the pattern areas there. I feel that the caribou herd will keep coming through. So if we can look at possibly doing something in that route.	Thank you for your comment. See response to comment # 116-2

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40-4	Can [we] look at moving the permit time from [to?] the second week of September through October. Maybe BLM possibly working with the State to see what we can come up with. So it will kind of concur with their hunting season or how they set theirs up. So it does not affect our subsistence hunting because we do a lot of subsistence hunting the third and fourth week of August and the first week of September.	Thank you for your comment. See response to comment # 116-2
41-1	I would also like to see further limitations to the number of transporters, and guides, and hunters. Particularly in the Squirrel River area and even more specifically in the, during the fall time because it does interfere with fall caribou migration. With the importation of hunters that come in from places other than this area. I really believe that it disrupts the caribou migration patterns when they are allowed to hunt and do what they will up in that area.	Thank you for your comment. See response to comment # 116-2
41-2	The last thing I would like to comment on are the dates for the permits to be given [required], August 1st through September 30th. It would be nice to see an extension or to move the date further down the road because of the global warming impact that we have had. Several people have commented on how with our weather changing, our weather patterns changing. And it's warmer a lot further into the fall time. It makes sense, more sense to people trying to get meat, preserve the meat, to do it later on when it's cooler.	We appreciate your observations. Specific dates will be established through a Recreation Area Management Plan for the Squirrel River. See response to comment # 116-2

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45-1	We live off this land and especially the caribou, the migrating caribou from the North Slope area coming down through the Squirrel River area. And up north from here, from Ambler also coming down from the north toward our area where we live. And during the fall when they are coming down and the concern we have is the guides that are flown in the Squirrel River area. When they [guides] come in too early, they kind of block the caribou or kind of push them in the wrong direction, or kind of scare them away. In a sense, that they would maybe go in a different direction that isn't that.	Thank you for your comment. See response to comment # 116-2
45-2	if the BLM have some restrictions for guides down in the Squirrel area, I would think that they should put the same restrictions in our area, the Upper Kobuk so that there would be a balance of people, or hunters coming into our area. The same restrictions down in the Squirrel River and the same restrictions here in the upper Kobuk, the hunters might not want to come up here, knowing that the restrictions are the same in that area down there.	Thank you for your comment. See response to comment # 2-1 and
50-3	Selawik and Buckland get those caribou that cross the Squirrel River. And then they go through Selawik and then come here [Buckland area] when there's no hunters, game hunters. That's why we don't want nobody to mess around in the Squirrel River with airplanes. That's a whole wall that...the caribou are facing, of people.	Thank you for your comment. See response to comment # 116-2 and # 2-1

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52-12	Pg. 2-70 and 2-71: The Squirrel River should not be designated as a SRMA. Such designation would ultimately affect access to and potential development of mineral resources. We suggest that flexibility be retained in the guidelines but that no specific SRMA be established.	BLM feels that the SRMA in the Squirrel River is the best way to deal with extensive public input concerning resource conflicts. Identification of this area as a SRMA would not prohibit access to and potential development of mineral resources. Mining activity in the SRMA would be subject to the same required operating procedures operations areas outside of the SRMA.
52-14	Pg. 2-84. Table 2-14: The RAMP developed would need to address access requirements to existing mining claims as well potential new discoveries.	The Squirrel River would be open to entry under the mining laws. The mining laws provide for access to valid claims.
58-54	The Working Group recognizes that user conflicts occur in Unit 23. We request that the Draft RMP/EIS reflect the following actions: 1) expand the Squirrel River conflict area to include other areas of conflicts in Unit 23; 2) use interim measures to limit recreational users at current levels while a Recreation Area Management Plan (RAMP) is developed for areas of conflict; 3) integrate with a Unit 23 cooperative planning process to develop a RAMP that reduces conflicts in Unit 23; and 4) provide options for long-term cooperative planning processes to alleviate future conflicts that may arise.	Thank you for your comment. We agree with all suggestions except for expanding the Squirrel River SRMA. Outside of the Squirrel River SRMA, future management will use the Recreation Opportunity Spectrum (Table 2.13 - ROS Classifications for the ERMA) developed for the Extensive Recreation Area in determining appropriate commercial use levels and BLM's management discretion afforded in 43 CFR 2932.26.
58-55	BLM [should] integrate the following components and ideas in the Recreation Management section of the Final RMP/EIS: Use people management tools and land use requirements to reduce user conflicts in the Squirrel River and other areas of conflict in Unit 23.	We believe that a RAMP developed for the Squirrel River and BLM's management discretion afforded in 43 CFR 2932.26 can be used to control future permits if conditions in the remaining ERMA area warrant a reduction in commercial use.
58-56	BLM [should] Use interim management measures to reduce conflicts while the Recreation Area Management Plan is developed.	We plan on holding SRP to current numbers and instituting a permit system for transporters and air taxi operators during the interim.

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58-57	BLM [should] Expand the scope of conflict areas beyond the Squirrel River to include area the Kauk River drainage and lands near Buckland	See response to comment # 14-12. BLM's management discretion afforded in 43 CFR 2932.26 can be used to control future permits if conditions in the Extensive Recreation Management Area warrant a reduction in commercial use.
58-58	Maintaining the status quo of transporters and current visitor activity for the next 5 years, as outlined in Draft RMP/EIS alternatives, is unacceptable and will likely lead to escalated conflicts	Upon review, BLM is committed to permitting air taxi and transporters during development of a RAMP. BLM's management discretion afforded in 43 CFR 2932.26 can be used to control future permits. See response to comment # 116-2
64-8	[T]he long-standing conflicts among user groups in Unit 23 appear to be escalating. We appreciate that the plan recognizes this issue and offers proposals in Alternatives C and D to address the underlying issues. We are very concerned, however, that the five-year timeframe for completion of a RAMP proposed in Alternative D will unacceptably delay resolution of this issue while BLM completes the RAMP. We urge BLM to move forward as quickly as possible to develop a RAMP for the Squirrel River SRMA.	Thank you for your comment. See response to comment # 116-2

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64-9	While we appreciate BLM's interest in taking a lead role, the proposed approach [Squirrel River RAMP], focusing on establishing general public use limits does not target the specific underlying issue, which focuses primarily on hunting-related conflicts. There are a number of agencies and entities with applicable management authorities that have roles and responsibilities related to finding an effective solution. To effectively address the conflicts, these entities must work cooperatively together on a coordinated response strategy. The State urges BLM to immediately begin work with ADF&G to cooperatively design a multi-agency process that could start as soon as the RMP/EIS Record of Decision is signed. The effort should include ADF&G, DNR, the Alaska Board of Game, the Alaska Big Game Commercial Services Board, and ...other agencies as appropriate.	Our intent is to work with the State of Alaska in the development of a RAMP. Specific actions within a RAMP should not be predetermined. Regulating user days is one tool among many that BLM reviewed in the development of the draft RMP/EIS and it was not the preferred alternative. We believe involving a broad spectrum of users and user groups will lead to a RAMP that can have lasting impacts to address user conflicts in the Squirrel River SRMA.
65-21	This "preferred" alternative allows the long-standing problems and escalating conflicts among user groups of the Squirrel River (and adjacent watersheds) to continue for up to five years until a RAMP is completed.	Thank you for your comment. See response to comment # 116-2 and # 58-56.
65-22	The proposed interim strategy enables BLM to continue current, status quo management or take "No Action" in regard to limiting non-subsistence use in the Squirrel River conflict area while a RAMP is completed. This proposal is negligent and unacceptable, especially since the current management strategy has resulted in a negative finding for subsistence under Alaska National Interest Lands Act (ANILCA) section 810.	See response to comment # 116-2. We feel that capping the commercial guide use to current levels and instituting a permit system for air taxi and transporters will reduce subsistence conflicts.

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65-23	We support Alternative C, with modifications, and urge BLM to consider the following: 1) Expand the scope of the Squirrel River SRMA to include BLM administered lands in the Buckland region as well as the Kauk River drainage.	Thank you for your comment. See response to comment # 75-2
65-24	Squirrel River SRMA: 2) Prioritize the development and completion of a RAMP within the next 2-3 years	See response to comment # 116-2
65-25	Squirrel River SRMA: 3) Limit the numbers of clients for permitted guides & transporters.	This will be addressed through the proposed RAMP for the Squirrel River. See also response to comment # 116-2.
65-26	Squirrel River SRMA: 4) Require recreation permits for all non-subsistence visitors during the fall hunting season	Thank you for your comment. See response to comment # 58-63.
65-27	Squirrel River SRMA: Apply benefits-based recreation management principles in order to achieve a quality experience for both subsistence and non-subsistence hunters	The contemplated RAMP will accomplish this goal and we look forward to your participation.
65-28	Squirrel River SRMA: Law enforcement needed to enforce client limits and ensure meat is not wasted	Thank you for your comment. See response to comment # 24-6.
65-29	Squirrel River SRMA: Limit summer off-highway vehicle use within the Squirrel River SRMA, consider limiting to designated trails and implementing weight restrictions	Thank you for your comment. See response to comment # 116-2
65-30	Squirrel River SRMA: Adopt recommendations outlined in Resolution 2006-01 passed by the Western Arctic Caribou Herd Working Group. We see this resolution as a common sense approach to the current Squirrel River situation.	The issue in the Squirrel River will be addressed through the proposed RAMP. We look forward to working with the WACH Working Group in during development of the RAMP. See also response to comments # 116-2 and # 64-9.

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65-31	If it is within the authority of the BLM, we urge the agency to take action quickly to help resolve the long-standing competition and potentially hostile situation that has developed on the Squirrel River, and to protect this valuable caribou and moose habitat.	Thank you for your comment. See response to comment # 116-2
116-2	We request BLM accord SRMA status to 890,000 acres in the Squirrel River watershed as proposed in Alt. C… We support the proposed action to regulate transport of commercial users and instate seasonal limitations on visitor use days, which we feel will deter degradation of the area and minimize user conflict. We are concerned by BLM's Alternative D proposal to open lands within the Squirrel River SRMA to locatable and leasable mineral entry and we oppose lifting protective mining withdrawals from these lands.	We believe the Squirrel River SRMA will address conflicts between commercial, recreational and subsistence users. However, we feel that more participation by diverse user groups within a Recreation Area Management Plan (RAMP) will result in better management and increase public support and cooperation between user groups. We are committed to the development of a RAMP within 3 years of the Record of Decision (funding dependent). The RAMP would address recreational use taking into consideration current use levels, safety, resource impacts, operator tolerance, and quality of outdoor experience (See Table 2-12). Our steps of interim management before a RAMP is completed is to permit commercial air taxi and transporters to obtain better use numbers and limit commercial guide permits to a maximum of 10 as discussed in Chapter II, section (B)(2)(d)(6) "Alternative D." BLM's management discretion afforded in 43 CFR 2932.26 can be used to control future commercial use permits if conditions dictate. We have determined that a withdrawal from mineral entry is not needed in this area.
197-12	Pgs. 2-69 to 2-71. We are having caribou user conflicts crisis in Game Unit 23 and other areas in the Planning Area. BLM must take proactive steps with other Federal agencies, State of Alaska, Northwest Arctic Borough, Regional Advisory Councils, WACH Working Group, Guides, Transporters, and Air Taxi operators to resolve this situation. Immediate steps should be taken to reduce the number of non-local hunters in key migratory routes to minimize the amount of interference with migration of caribou.	Thank you for your comment. See response to comment # 116-2

Letter # - Comment #	Comment	Response
197-13	Interim measures to limit recreational users at or below current levels needs to be instituted in the Squirrel River and other areas to reduce user conflict. Five years is not an acceptable timeline for developing a RAMP in the Squirrel River SRMA. The plan must be developed much sooner than five years.	Thank you for your comment. See response to comment # 116-2
198-15	The draft RMP proposes to do nothing [in the Squirrel River] for at least the next 5 years regarding this issue [user conflict], except for maintaining the status quo for guides and outfitters while the Squirrel drainage is classified as a SRMA and a RAMP is developed. It is not possible for BLM to predict that impacts will not increase because there is absolutely nothing in BLM's current management or draft RMP that will prevent increased use by transporters, air taxis and their clients.	Thank you for your comment. See response to comment # 116-2
SALMON LAKE/KIQUAIK SRMA		
14-1	We support the creation of the Salmon Lake/Kigluaik SRMA which would appear to offer the only opportunities in this Draft for quiet recreation, such as backpacking and skiing, which are readily accessible from a road system. While we recognize that both Alternative C and the Preferred Alternative propose this SRMA, we support the restrictions set forth in C, such as those imposed on OHV travel and not lifting withdrawals so that opportunities for quiet recreation are protected. Additionally, we strongly urge BLM to take affirmative steps in regard to helicopter/fixed wing tourism activity in this SRMA by setting up a monitoring and permit system through this RMP.	We feel that more participation by diverse user groups to address concerns over OHV use will result in better management and increase public support and cooperation between user groups. Therefore, we are proposing development of an activity level plan for this area. We believe that the level of fixed wing access is limited by geographic features of the landscape. Helicopter access would continue until user conflicts occur. We have no record of such conflicts to date.

Letter # - Comment #	Comment	Response
25-10	I wholeheartedly oppose the proposed Kigluaik Mountain “semi-primitive motorized” proposal found in Alternatives C and D. The uniqueness of this area and its recreational potential will be severely diminished by motorized access during the non-snow season. There is almost no other place I know of that offers road access (on both sides) to such an outstanding wilderness area. Non-winter motorized vehicles already have access to an immense amount of country. This is one area that should be set aside for non-motorized use in snow-free months.	The preferred alternative in the Salmon Lake-Kigluaik Mountain SRMA for Travel Management/OHV use states that BLM may develop a future area-specific plan based upon resource values and management objectives that may limit OHV use to designated trails, seasonal restrictions, closures or weight limits (Table 2-15). We believe that current use does not warrant closure of this area to OHV use at this time. We believe that future OHV use restrictions above the 2,000 pound limitation will require more participation by diverse user groups within an area-specific plan, which will result in better management and increase public support and cooperation between user groups.
26-2	I hope that you consider the Kigluaik Mountains a recreational site. I think it would be a real shame to develop it much at all. I think a hiking trail through there would be a nice idea. I think in the winter months snowmachines are wonderful. But I would think ATVs in there in the summer would be a bad idea.	Thank you for your comment. Our preferred alternative designates the Salmon Lake-Kigluiak Mountain a SRMA.
64-3	The Kigluaik Mountains near Mt. Osborne were specifically mentioned in the State of Alaska Department of Natural Resources (DNR) Northwest Area Plan (NWAP) as recommended for state selection due to their values for “minerals, public recreation, subsistence and accessibility.” (Pg 3-48, NWAP). Alternative D proposes that a portion of these lands be set aside as the Salmon Lake - Kigluaik SRMA and, if retained in federal ownership, the Mt. Osborne Research Natural Area (RNA). Pg 2-106 of the RMP/EIS does not provide information regarding the rationale for designation such as specific ecological values.	Chapter III, section (C)(4)(b) "Special Recreation Permits, Commercial Uses, and Fee Use Areas" and section (D)(1) "Areas of Critical Environmental Concern and Research Natural Areas" of the Proposed RMP/Final EIS discusses the rationale for designation as a SRMA and ACEC. See page 3-212 and page 3-235 of the Draft RMP/EIS.

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117-5	The entire valley [Grand Central Valley] including Mount Osborn needs to be off limits for mineral exploration. Access should stay as is by foot only.	We believe that mineral exploration and development can be regulated to protect resource values in this area without a closure to mineral entry. OHV management in an SRMA calls for the development of an area specific plan to address OHV use. We appreciate your position and look forward to working with you in the future to develop an Off Highway Vehicle plan.
477-1	We favor the designation of an ACEC to include the Kigluaik and Salmon Lake area as proposed under alternative C. We feel that preserving them for their scenic and recreational value, far outweighs the benefits of opening them to other uses, such as resource development. We were unable to assess whether or not stipulations addressed in Vol. 2 apply, but would like to see no stipulations that would allow development of any kind in this special area.	In the Preferred Alternative (D) of the Proposed RMP/Final EIS, the Kigluaik Mountains and Salmon Lake are identified as a Special Recreation Management Area, Chapter II, Section (B)(2)(d)(6) "Alternative D". The Mount Osborn area will be designated as an ACEC, Chapter II, section (B)(3)(a)(6) "Alternative D". These areas will be open to mineral entry subject to the ROPs in Appendix A which would apply to permitted activities in this area.
RECREATION - GENERAL		
2-1	One area of concern I have is that our Ungalik Inglutalik areas remain open to access for caribou hunting purposes and also that our traditional sites are, that are traditionally used those areas to for camp sites to hunt caribou. That those be respected, to remain available and accessible to our people. And those include the Inglutalik, Ungalik and Shaktoolik river areas that BLM has land permits.	Thank you for your comment. BLM's preferred alternative (D) as outlined in Chapter II, section (B)(2)(e)(6) allows OHV use off of designated trails for subsistence purposes by qualified subsistence users.

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14-12	The BLM should require air taxi operators and transporters to obtain a recreation or special use permit prior to operating in Special Recreation Management Areas or Extensive Recreation Management Areas, and, as a condition of that permit, report their activity on an annual basis. Reports and data should be shared with other managing agencies in the Planning Area. This would improve the BLM's ability to identify activities that may be adversely impacting subsistence use or local wildlife resources. The Fish and Wildlife Service and the National Park Service currently require this of air taxi operators on their lands. If the BLM contributed to this shared database, a more comprehensive picture of public use for GMU 23 would be obtained, improving the information on which to base recreation and other management decisions.	We agree on instituting a permit system for air taxi operators and transporters in the Squirrel River SRMA. However, we feel that the use by air taxi and transport businesses in the ERMA within the remaining BLM managed lands within GMU 23 are low, and that BLM's management discretion afforded in 43 CFR 2932.26 can be used to control future commercial use permits if conditions dictate. We welcome the sharing of information by NPS and USFWS as to their permitting activities of air taxi and transporters within GMU 23.
14-13	The BLM should provide the local Field Manager the authority to approve or deny permits for activities within Extensive Recreation Management Areas, in consultation with other managing agencies and the Western Arctic Caribou Herd Working Group. This authority should also apply as an interim measure in proposed Special Recreation Management Areas during the planning process. Permits [should] be denied if proposed activities are determined to threaten a specific resource, limit otherwise legal public access, or negatively impact subsistence.	The Field Office Manager, located in Fairbanks and Anchorage, does have the authority to approve or deny Special Recreation Permits (SRP) for commercial use in the ERMA. The NEPA process is used to consult with groups and agencies affected by the proposed activity prior to a decision to approve or deny a permit. Proposed actions that threaten a specific resource, limit otherwise legal public access, or negatively impact subsistence are grounds for denial of a permit application.

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24-9	I am aware of problems with sport hunters in the Kobuk River area and feel strongly that much of the problem may be lack of enforcement but is also related to insufficient management actions by the State Boards of Fish and Game, and the Federal Subsistence Board, and BLM. No action [alternative] is not satisfactory.	Thank you for your comment. See response to comment # 75-2
24-18	Recreational cabins should not be allowed. Allowing recreational cabin permits will provide for fractionation of public lands which I believe is a systematic tool to erode Native culture. Our culture requires adequate wildlife refuges that are not owned by any one person, where fish and wildlife can flourish.	Thank you for your comment. See response to comment # 54-1.
25-9	I strongly oppose Alternative D [recreation management], and I only support Alternative C with modifications (given below.) There is a long-standing, well-established and escalating conflict among user groups in the Squirrel River and Kauk River drainages in Unit 23. There is concern that conflicts among user groups may lead to even more violent actions in the near future than it did in 1998 (when nonresident hunters were held at gunpoint along the Kobuk River drainage). BLM is in a position through this planning process to significantly reduce this problem if they act now. Alternative D allows the problem to continue unchecked for the next five years until the RAMP is completed.	We appreciate your concerns. See response to comment #58-54. We currently have only one special recreation permit in the Kauk River. In 2006, one application was denied. See response to comment # 116-2 to address your concerns in the Squirrel River. Interim management will be implemented in the Squirrel River during development of the RAMP.

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27-1	More recently, there have been a lot of problems [with user conflicts] on the southern Baldwin Peninsula. There have been a lot of problems in the Buckland-Deering area. There have been problems in 22B, the area east of the Darbys, the BLM-Koyuk area and I would strongly urge you folks to, in those alternatives, like in C to look at perhaps applying some of those remedies in some areas other than just the Squirrel River.	See response to comments #14-12 and # 25-9. BLM denied one Special Recreation Permit (SRP) for commercial guiding on the Kauk River in 2006. In 2005, one SRP was denied in the Koyuk River. Currently there is one SRP in the Koyuk River.
45-3	I'm not sure when you are open and when you are closed [for moose hunting]. But I think it is a little bit too short, the open season. And by the time they are real good to harvest, I think it would be closed. And I think if you would encourage the Fish and Game somehow to keep it open a little longer, maybe another month. A month longer would be good subsistence thing for us.	Thank you for your comment. See response to comment # 105-1
49-2	I saw there is some talk about having training for these guides or the transporters or whatever. I think that's a good thing. Because they can learn something extra from people that have been doing it or have done something that's useful.	Thank you for your comment. BLM has not proposed any training but our understanding is that the State of Alaska's Department of Fish and Game is developing various media to educate hunters in GMU 23.
52-13	Pg. 2-70: The remainder of the area should not be designated as an ERMA. Recreation is one of many multiple uses for the area but an ERMA would add unnecessary restrictions to other forms of multiple use.	According to BLM planning guidance and policy, all lands not in a SRMA are by default in an ERMA. Other multiple use actions within the ERMA are guided by Regulation and the RMP. BLM contemplates a custodial role in the ERMA.

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54-1	Cabin sites should be easier to obtain. This allows access to the country by having shelters where people can recover from weather, and stash spare gas and food. It should be a requirement that remote cabin sites are left unlocked for travelers in need of emergency shelter.	Cabins can be authorized under a 43 CFR 2920 permit. Cabins for private recreational purposes cannot be authorized by BLM.
58-7	The WACH Working Group requests that all State and Federal resource management agencies, local and Tribal governments, guides and transporters, local subsistence hunters, non-local and non-resident hunters, and other recreational users of the herd participate in the cooperative planning process to find solutions to user conflicts during the fall hunting season in Unit 23.	Thank you for your comment. Our intent is to involve the WACH Working Group in the development of a RAMP. See also response to comment # 116-2.
58-59	BLM [should] Integrate with a Unit 23 cooperative planning process involving diverse user groups to assess conflicts and identify requirements, stipulations or procedures that will minimize, reduce and alleviate conflicts in the future.	Thank you for your comment. See response to comment # 116-2
58-60	BLM [should] Prioritize development of an activity plan (e g. Recreation Area Management Plan) by integrating with a Unit 23 cooperative planning process to be completed in 2-3 years.	Thank you for your comment. See response to comment # 116-2
58-61	BLM [should] Allow the Working Group to make recreation management recommendations as BLM considers alternatives to minimize conflicts.	Thank you for your comment. We welcome your recommendations during the development of the EIS. See response to comment # 116-2
58-62	BLM [should] Use recreation permits for visitors in identified conflict areas within the Planning Area.	Thank you for your comment. See response to comment # 116-2

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58-63	BLM [should] Allow exemption from permitting requirements for local residents who demonstrate traditional use of the conflict area.	If BLM institutes a permit system for users through development of a RAMP, all users will be subject to the permit regardless of residency.
58-64	BLM [should] Regulate the number of transporters through the use of permits. Require air taxi operators and transporters to obtain a recreation or special use permits from BLM prior to operating on BLM lands (SRMAs or EMRAs). Use permit conditions to require annual reports of their activities within the Planning Area. This would improve BLM's ability to identify areas that may be adversely impacting subsistence use or local wildlife resources. USFWS and NPS are currently requiring this of transporters on their lands. If BLM could contribute to this shared database a more comprehensive picture of public use for Unit 23 could be obtained.	See response to comments # 116-2 and # 14-12. BLM's management discretion afforded in 43 CFR 2932.12 (a) can be used to control future permits if conditions in the remaining ERMA area warrant a reduction in commercial use.
58-65	BLM [should] begin using 'commercial use authorizations' to limit the number of transporters and air taxi operators in areas of conflict; interim measures should cap activities at current levels while an accelerated planning process is implemented	Thank you for your comment. See response to comments # 116-2 and #14-12.
58-66	BLM [should] Continue to restrict guides with 'commercial use authorizations' at the current levels;	Thank you for your comment. See response to comment # 116-2.

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58-67	BLM [should] Develop special conditions for recreation permits and commercial authorizations: a) Designate 'allowable camping areas' and 'no camping areas'; during August, September and October avoid camps on the north side of major rivers to allow normal passage of migrating caribou; b) Limit the total number of camps by time and space; use current density rates while cooperative planning process seeks solutions; c) Limit the total number of clients for transporters in areas of conflict; use current visitor rates while cooperative planning process seeks solutions; d) Require seasonal reports from permittees detailing the GPS location, duration, and occupancy (number of people) of all camps maintained in identified conflict areas in the Planning Area; e) Limit timing and density of visitor access to prevent deflection of migrating caribou.	We welcome information from the WACH Working Group as to specific conditions and the rationale behind those conditions and hope that these ideas will be brought forward in the development of a RAMP in the Squirrel River SRMA. See also response to comment # 116-2.
58-69	Provide the local BLM field manager the authority to deny permits for areas within an EMRA where: the permitted activity would threaten to deplete or harm a resource (e g. prohibit public access) or negatively impact subsistence. This authority should also apply as an interim measure in proposed SRMAs during the planning process.	Thank you for your comment. See response to comment #14-13.

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62-1	BLM should modify and adopt Alternative C to include: A) The drainages of the Koyuk, Inglutalik, and Ungalik Rivers: Nulato Hills and Bendeleben Mountains would be managed as a Special Recreation Management Area (SRMA); B) Limit number of SRP user days (up to 180 VUD to commercial guides per area) based upon current use levels, resource impacts, operator tolerance, and quality of recreational experience; C) Require transporters to obtain permit, which may be denied based upon lack of history of prior use levels, resource impacts, operator tolerance, and quality of recreational experience; D) Limit the number of commercial guiding operations to 2; E) No facilities would be developed or permitted to enhance visitor use.	We feel that the recreational use in these areas does not warrant a SRMA at this time. BLM's management discretion afforded in 43 CFR 2932.26 can be used to address conflicts between commercial permit operators if conditions (guides, air taxi and transporters among others) dictate. The Preferred Alternative in the Proposed RMP/Final EIS would manage these areas as part of the ERMA. See also response to comment #75-2.
62-2	BLM should modify and adopt Alternative C to include: A) Agiapuk and Buckland River drainages would be managed as a Special Recreation Management Area (SRMA); B) Limit number of SRP user days (up to 120 VUD to commercial guides per area) based upon current use levels, resource impacts, operator tolerance, and quality of recreational experience; C) Require transporters to obtain permit, which may be denied based upon lack of history of prior use levels, resource impacts, operator tolerance, and quality of recreational experience; D) Limit the number of commercial guiding operations to 2; E) No facilities would be developed or permitted to enhance visitor use.	We feel that the recreational use in the Agiapuk and Buckland Rivers do not warrant a SRMA at this time or into the foreseeable future. BLM's management discretion afforded in 43 CFR 2932.26 can be used to address conflicts between commercial permit operators if conditions (guides, air taxi and transporters among others) dictate. See also response to comment #75-2.

Letter # - Comment #	Comment	Response
62-3	The past use history and the current use patterns in the Koyuk, Inglutalik and Ungalik Rivers show no use what so ever by non-guided, air-taxi, drop-off transporters. If it is the intention of the BLM to limit the VUD to a low number it should be made clear that those VUD are intended for guided hunts.	The Preferred Alternative in the Proposed RMP/Final EIS guides future management within a Recreation Opportunity Spectrum developed for the Extensive Recreation Area in determining appropriate use levels. See also response to comment #75-2.
64-49	Pg. 4-158 (7): "The establishment of visitor use limits in specific areas would help ensure positive recreation experiences for commercial and non-commercial users while protecting the resources." It is the State's position that this conclusion results from a rather myopic view of management tools available for managing human use. We appreciate the fact that BLM recognizes that visitor use limits could also limit recreational opportunities for some. The State again wishes to emphasize that there are a variety of tools available to manage human use and protect resources that should be implemented before restricting general public use of an area.	Thank you for your comment. We look forward to working with the State of Alaska in the development of a RAMP for the Squirrel River SRMA to address user conflicts.
64-55	Pg. C-3, Table C-1, Recreation Management, Alternative D: review Alternative D. The text refers the reader to Alternative B, with a provision that no limits would be set on visitor use days for the Kigluaik Mountains. Alternative B refers the reader to Alternative A, with a statement that no major actions would be taken to enhance recreational opportunities. We suggest that this section of the table be reviewed and clarified if necessary. There are no references to limits on general visitor use days in either Alternative A or B.	Thank you for your comments. Table C-1 has been reworded to clarify the intent.

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75-2	Koyuk people desire limitations to be placed on the number of special permits authorized including on the volume of visitors permitted.	We acknowledge your desire to limit the number of special recreation permits. The Proposed RMP/Final EIS lays the groundwork for determining what level of commercial recreation use may be appropriate in your area. Future management will use the Recreation Opportunity Spectrum developed for the Extensive Recreation Area as showing in Table 2.X "ROS Classifications for the ERMA" in determining appropriate commercial use levels as well BLM's management discretion afforded in 43 CFR 2932.26.
78-1	[T]he unregulated nature of commercial recreational activities currently occurring on BLM land in the region is negatively impacting caribou migration, wildlife habitat and populations and thus affecting subsistence opportunities and needs. The Tribe recommends immediately devising a regulatory user permit system that deals specifically with commercial recreational activity (i.e.. guide and transport service activities carried out on BLM-managed lands) and a system that does not lump subsistence users into the same permit requirements as persons receiving or paying for transportation services to access BLM lands for the purpose of recreating.	We share your concerns over user conflicts and any negative impacts over caribou migration, wildlife habitat and populations and subsistence opportunities and needs. See response to comment # 116-2.
78-5	Any Extended [Extensive] Recreation Areas should have language allowing for the close management of guides and transporters as they may impact subsistence users and priorities	See response to comment # 75-2. Any Special Recreation Permit request receives an ANILCA 810 analysis of the effects upon subsistence users. If significant impacts to subsistence can be demonstrated, BLM may deny a permit.
105-1	Nowadays we see a lot of Natives being harassed by Fish and Game, etc. when a lot of non-natives fly out with the heads only and wasting precious meat. We need better enforcement of that on the lands.	The regulating and harvest of fish and game is done by the State of Alaska and the Federal Subsistence Board, not BLM. We share your concerns over wasting any game animal.

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197-20	BLM must do more to monitor resource populations important for subsistence users, especially in lands where access to BLM lands is unlimited. Commercially guided Fisheries is probably the next user conflict waiting to happen. The Planning Area contains some of the world class fisheries for Arctic char, sheefish, and Arctic grayling and these areas will soon be exploited by guides and transporters for clients who want to fish at the same time they are hunting big game.	Thank you for your comment. Alternative D of the Proposed RMP/Final EIS provides the groundwork to address future conflicts involving commercial guides. See also response to comment #75-2.
197-21	Management decisions on permitting activities and hunting guide permits must include transporters and air taxi operators. Conflict among subsistence users and sports hunters is real and must be acknowledged and addressed.	Thank you for your comment. See response to comment # 116-2.
TRAVEL MANAGEMENT		
8-1	Having flown over the state extensively for 40 years, one of the most significant changes is the 4-wheeler trails. There are few areas within 50 miles of the road system that are not criss crossed with 4-wheeler trails that were not there 40 years ago. It might be wise for future users to somewhat [limit] 4-wheeler use.	Thank you for your comment. The preferred alternative is to limit OHV use to 2,000 pounds. In any ACEC and SRMA (Table 2-15) area-specific plans may further limit OHV use based upon resource values and management objectives. See response to comment # 78-4.
14-4	Attempting to regulate OHVs on the basis of the State's Generally Allowed Uses is a paper exercise at best. We recommend that requiring OHVs to remain on designated trails in the non-winter season should be the standard adopted by BLM on all the lands it manages.	Thank you for your comment. However, we feel that more participation by diverse user groups prior to designation of specific OHV trails use will result in better management and increase public support and cooperation in OHV management. See also response to comment # 78-4.

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58-70	Off-Highway-Vehicle considerations are closely related to recreation management in the Planning Area. Damage to vegetation is accelerated with the use of multi-wheel OHVs (e.g. Argo type vehicles). These vehicles should not be permitted in the ice-free season when unfrozen soils are damaged by the opposing rotation of wheels (axles) to allow directional control of the OHV.	The proposed RMP/Final EIS recognizes the impacts to natural resources from unregulated OHV use in Chapter IV, section (B) "Resources." The need to regulate OHV use beyond a 2,000 pound weight limit was accommodated in ACECs and SRMAs (Table 2-15). Future OHV use determinations in these areas will be developed in an area-specific plan to address resource values and management objectives. In the remaining Extensive Recreation Management Area, BLM's policy on State-selected lands will limit OHV use under existing State policy. We believe that the lands outside these selected areas are not largely impacted by OHV use as to warrant a restriction beyond the 2,000 pound limitation. Regulations under CFR 8341.1 prohibit operation of off-road vehicles in a manner causing, or likely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources.
64-31	Page 2-139, Effects on Travel Management / OHV: Please review the next to the last sentence in Alternative D. We assume that the sentence should read: “The current free and unrestricted OHV use would be somewhat diminished compared to Alternative A.”	Thank you for your comment. This was corrected.
64-37	Pg. 3-218, fourth full paragraph: We suggest that in addition to citing the “Conditions for Generally Allowed Uses” and 11 AAC 96.025, BLM may wish to reference those portions of 11 AAC 96.025, “Conditions for Generally Allowed Uses” which specify that Generally Allowed Uses are subject to a variety of operating conditions.	Our intent was to reference the entire AAC 96.020 and 96.025 as the operating conditions are spelled out in the code. As the commenter noted, the Generally Allowed Uses are subject to a variety of operating conditions. E.g. using an all terrain vehicle with a curb weight of up to 1,500 pounds off road is allowable without a permit "if use off the road easement does not cause or contribute to water quality degradation, alteration of drainage systems, significant rutting, ground disturbance, or thermal erosion."
64-50	Pg. 4-159, first full paragraph, last sentence: What is the “degree of uncertainty that remains as to the future implementation-level planning and the impacts of limiting OHV use to designated trails or seasonal closure of areas”? Does this imply that implementation-level planning may or may not occur, or does this mean that the results of implementation level planning may have further impacts to OHV use and cannot be determined at this time?	OHV plans for areas designated as ACECs and SRMAs are subject to staffing and budgetary constraints. There is uncertainty as to when those plans will be completed and also what specific restrictions will be implemented in the plans. Since both an OHV plan date and content is uncertain, we cannot with certainty determine the environmental effects of future impacts.

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64-51	Pg. 4-160, Table 4-11: Under Alternative D, please specify the seasonal period for “Limited to 2,000 pound GVWR seasonally” for Alternatives A and D; or if there are no seasonal restrictions in these alternatives, please clarify.	Table 4-11 was revised to clarify. Refer also to the Table 2-14. Under alternative A the entire planning area is limited to a 2000 pound weight limit yearlong. In Alternative D, areas outside of ACECs or SRMAs are limited to a 2000 pound weight limit yearlong. However in SRMAs and ACECS, additional restrictions may be imposed on OHVs based on a RAMP or OHV plan.
67-1	Recreation Management (pg 2-73): I am opposed to the proposed Kigluaik Mountain “semi-primitive motorized” proposal found in Alternatives C and D and favor amending the language to allow foot access only. Naturally occurring rock and scree fields protect the heart of the area from access by four wheelers, thus the upper drainages provide a refuge for moose during the rut, the mountains are an important denning area for bears and the alpine lakes contain a genetically unique subspecies of char. It would be a travesty to open up this natural refugia to motorized access, when so much of the Seward Peninsula is easily accessible to off road vehicles and the land and wildlife are already heavily impacted by uncontrolled ORV use.	The area has been managed with a 2,000 pound limit since the Northwest Management Framework Plan was placed in effect in 1982. We have not seen evidence of any adverse effects on wildlife. The preferred alternative for the Salmon Lake-Kigluaik Mountain SRMA. Chapter II, section (B)(2)(e) "Travel Management/OHV" states that BLM may develop a future area specific plan based upon resource values and management objectives that may limit OHV use to designated trails, seasonal restrictions, closures or weight limits (Table 2-15). We believe that current use does not warrant closure of this area to OHV use at this time. Further OHV use restrictions beyond the 2,000 pound limitation will require more participation by diverse user groups within an area-specific plan which will result in better management and increase public support and cooperation between user groups.

Letter # - Comment #	Comment	Response
78-4	Habitat destruction caused by four wheel transportation and trash and waste left in the country needs to be addressed.	The proposed RMP/Final EIS recognizes the impacts to natural resources from unregulated OHV use in Chapter IV, section (B) "Resources." The possible need to regulate OHV use beyond just a 2,000 pound weight limit was accommodated in ACECs, RNAs, and SRMAs (Table 2-15). Future OHV use determinations beyond the 2,000 pound weight limit in these areas will be developed in a area-specific plan to address resource values and management objectives. In the remaining Extensive Recreation Management Area, BLM's policy on State-selected lands will limit OHV use under existing State policy. We believe that the lands outside these selected areas are not largely impacted by OHV use as to warrant a restriction beyond the 2,000 pound limitation. Regulations under 43 CFR 8341.1 prohibit operation of off road vehicles in a manner causing, or likely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources. We share your concern over trash and waste left on the public lands and will take action to prevent littering as we become aware of persons involved. We will take legal action under 43 CFR-8365.1-1 against persons involved in leaving trash and debris on the public lands without authorization.
117-1	Limited Off-Highway Vehicle use…For instance a project could get by with one road but people with the project could take many alternative routes and cause unneeded destruction of habitat. Restricted access is needed to protect the environment.	See response to comment # 78-4. BLM does review and restrict access under various permitted activities. Please refer to Required Operating Procedures (ROPs) in Appendix A.
117-2	This [limited access] could also restrict planes from landing in any area. Planes (bush planes) could be allowed but only in specific areas for specific reasons such as scientific research.	Currently access by plane is not causing significant damage in the Extensive Recreation Management Area and further restrictions are not warranted. In the Squirrel River, we believe that more participation by diverse user groups within a Recreation Area Management Plan (RAMP) will result in better management and increase public support and cooperation between user groups.
197-14	Pgs 2-81 to 2-85: Use of Argos or OHV with more than four wheels must be restricted or in some areas prohibited all together. This type of OHV causes considerable damage to tundra and wetland areas. Use of OHVs in critical habitat areas (ACECs, SRMAs) cannot be postponed until an activity plan is developed.	We believe that current use does not warrant closure of this area to OHV use at this time. We believe that future OHV use restrictions beyond the 2,000 pound limitation will require more participation by diverse user groups within an area-specific plan which will result in better management and increase public support and cooperation between user groups.

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	RENEWABLE ENERGY	
52-15	Pg. 2-91 (f) Renewable Energy: With escalating energy costs, wind turbines will become a viable energy source and the plan should contemplate that possibility.	Thank you for your comment. See response to comment #130-2.
65-118	The Draft RMP/EIS did not provide an adequate discussion of the potential for renewable energy within the planning area.	Chapter III, section (C)(6) "Renewable Energy" discusses the potential for renewable energy. The discussion is limited as there has been no demand to date for these types of development on BLM land in the planning area and future demand is unknown.
130-2	We must end our dependence on dirty, finite sources of energy like coal, gas and oil and move toward a cleaner and smarter energy future based on conservation, energy efficiency, and renewable energy resources…many companies already doing so and are reaping financial rewards... Government should be supporting research and development in these areas...Government should improve fuel standards for cars...Policy movement in this direction would be beneficial to all...	The Proposed RMP/Final EIS allows for renewable energy projects such as wind. If BLM received an application for a renewable energy project within the planning area, it would be considered as discussed in Chapter II, section (B)(2)(f) "Renewable Energy" and section (B)(2)(g)(3) "Management Common to All Action Alternatives."
216-1	We can easily obtain all the gas and oil we need through conservation efforts without additional drilling. Already technology exists in hybrid vehicles which greatly reduce our demand for oil.	BLM agrees that energy conservation efforts are important but they are outside the scope of this planning effort.
	LANDS AND REALTY ACTIONS	
4-1	All four of the Alternatives are weak on marine estuaries. They [Alaska Natives] want most privatized - not into trust lands- but into Native corporations where they will lock everybody out [referring to Native Selected lands]	Marine estuaries are usually tidal lands owned by the State of Alaska.

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24-19	I am strongly against any land acquisitions for the Kobuk-Seward Peninsula RMP/EIS management area. I urge BLM to remove that language from the plan as it will impact water resources, fish and wildlife resources, visual resources, and areas of critical environmental concern.	The Proposed RMP/Final EIS, Chapter II, section (B)(2)(g)(3) "Management Common to All Action Alternatives" allows BLM to acquire private land on a willing seller basis. As outlined in the plan, acquisition would focus on parcels on the Iditarod National Historic Trail and acquiring access on discontinuous 17(b) easements as the need and opportunity arise.
24-27	The vast majority of 17(b) easements are antiquated and may have merely been tracks left over from a tractor trail and nothing else…. The trails should not be confused with historic trails because they are not. Current access is adequate for the Kobuk-Seward Peninsula and does not need enhancement by BLM.	BLM will continue to review and reserve ANCSA 17(b) easements to ensure public access to publicly owned land.
25-17	At all cost BLM should avoid right-of-way allowances as this carves up habitat, and impacts wildlife, fishing, hunting, subsistence gathering and recreation.	Thank you for your comment. See response to comment # 78-7.
31-6	So with any kinds of decisions made, especially with lands that are going to be open for sale. Which Natives can't afford. So that [land disposal] is one thing I don't want to see - lights up there in the mountains. Up there in the valley and the hills, scattered all over what they purchased. Because we opened it, because we allowed it. I don't want to see that.	Thank you for your comment. The Preferred Alternative of the Proposed RMP/Final EIS allows for land sale in very small areas in Nome and Kotzebue as discussed in Chapter II, section (B)(2)(g)(6). Lands not identified for retention could be disposed of if the disposal would serve important public objectives or if the parcel was difficult to manage. Land sales are unlikely to occur.
39-7	On the land sale, I would think Alternative C would be the best one because I feel that we should not open up the land for sale. None of us here would buy land because we don't have the money and resource to. And who would buy the land? People in California and all over the United States would move into our background. Our hunting ground.	Thank you for your comment. See response to comment # 31-6.

Letter # - Comment #	Comment	Response
46-3	The government under Alaska Native Land Claims Settlement Act gave us native allotments and hardly any of them are being patented to our native allottees.	Native Allotments are approved under the Native Allotment Act. This is an ongoing process outside the scope of this Plan.
48-5	The Native Village of Point Hope feels it should have first right to any RS 2477 if there should ever be an opportunity or an action made by the Federal government in turning over RS 2477 as a result of relinquishing them to the State of Alaska.	RS2477 is a right-of-way granted to and asserted by the State of Alaska. If the State drops the assertion or terminates the right-of-way, the subservient landowner benefits.
52-3	The transfer of the remaining State and Native selections should continue in an expeditious manner so that the land ownership pattern is clear to all interested parties.	BLM is planning to accomplish this by the end of 2009. Conveyance is an ongoing process outside of the scope of this plan.
52-4	Broad latitude must be included to allow new transportation infrastructure to be developed in the most feasible ways possible. We do not know exactly where all of the mineral and energy resources are located so we cannot predict where and what types of transportation infrastructure will be needed. The need, therefore, is to implement an infrastructure planning process that will readily accommodate future resource discoveries and allow infrastructure to be reasonably developed.	The Proposed RMP/Final EIS provides broad latitude for development of infrastructure. These types of facilities could be developed under the land laws or the mining laws. Proposals would be considered on a case-by-case basis.
58-38	These seasonal ranges [WACH calving, insect relief, migratory corridors, and winter range] should be considered ROW exclusion areas.	ROW exclusion areas are unnecessary. ROW applications would be considered on a site-specific basis and impacts minimized through NEPA analysis. All appropriate ROPs would be applied to approved projects to further reduce impacts to habitat.

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58-71	Selected Lands and Interim Management: Since critical and seasonal caribou habitats occur on State and Native selected lands, the Working Group urges BLM to proactively manage all lands it administers, regardless of status, until they are conveyed. It is in the best interest of the WAH and their habitat if the management of selected lands favors conservative stewardship obligations. Under this scenario, selected-status lands will be minimally disturbed and remain in high quality condition until they are conveyed or retained by BLM. By taking this course of action, BLM is preserving lands it may retain after conveyances are completed.	BLM is the interim manager of selected lands. The Native corporation or the State have a large part in determining how much disturbance of the land occurs before they receive title. Before BLM authorizes a discretionary action such as a permit or right-of-way on Native-selected lands, the comments of the Native corporation are considered. If the lands are selected by the State, a concurrence is obtained from the State. Impacts to wildlife are considered and minimized during project-specific NEPA analysis. All appropriate ROPs would be applied to projects on selected lands to further reduce impacts to habitat.
58-77	Areas identified as migration areas [for caribou] should be designated as Right of Way exclusion areas.	Thank you for your comment. See response to comment # 58-38.
58-79	In its Proposed RMP Final EIS for the Central Yukon Planning Area (BLM 1986), the BLM cites details showing the importance of the Nulato Hills region. These lands in the Nulato Hills are on the eastern boundary and directly adjacent to the Planning Area. Since the Central Yukon Plan (CYP) prohibits permanent roads in these sensitive and critical habitats, the Working Group requests that the key wintering grounds in the Nulato Hills portion of the Planning Area be Right of Way exclusion areas; other wintering grounds in the Planning Area should be Right of Way avoidance areas. With these changes, the Working Group supports Alternative C for the Nulato Hills.	Although language prohibiting permanent roads may have been included in some alternatives of the Central Yukon Proposed RMP/Final EIS, it was not carried forward into the Record of Decision. The Central Yukon Plan does not prohibit permanent roads in the Nulato Hills. Rights-of-way are considered on a case-by-case basis. To see which decisions were implemented in the Central Yukon planning area, it is necessary to look at the Final RMP and Record of Decision for the Central Yukon Planning Area.

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64-21	Pg 2-94, Land Use Authorizations, FLPMA Leases and Permits: In contrast to BLM, the State does not define trapping as a "commercially oriented activity". Instead, trapping is only categorized as a regulated method of taking wildlife and not as a commercial or subsistence activity. Trapping includes the taking of furs for personal use, trade, and barter, as well as for sale. Therefore, it is an activity that should not be required to meet the terms of a commercial cabin use, i.e., acquisition of a lease at fair market value from the BLM under FLPMA. During deliberations concerning allowing trapping on NPS lands under ANILCA, Congress concluded that trapping is not a commercial activity unless: ". . . the trapping itself becomes a business with employees paid to support the trapping operation." (Senate Report 96-413). We request BLM modify discussions and decisions relative to trapping to reflect this decision in the final plan, as described further in the attached letter from ADF&G to the State Director of BLM.	BLM issues leases and permits for commercial activities. If the trapping is a substantial portion of the trapper's income, they may qualify for a lease or permit for a trapping cabin. They may harvest wildlife without using a cabin if they do not meet the income requirements.
64-5	In addition to the right-of-way corridors identified in ANILCA, several other possible routes were identified in the NWAP (Page 2-56, NWAP), the ability to develop prospective access corridors, especially where necessary for community and/or resource development purposes, should be considered and retained in the RMP/EIS and in implementation level planning.	Right-of-way corridors are designed to consolidate linear ROWs thus limiting impacts to a smaller area. Since there are no existing linear ROWs or known areas where a proliferation of ROWs are anticipated, BLM decided it was premature to designate corridors. A designated corridor is not needed to approve a ROW. Applications for ROW will be considered on a case-by-case basis throughout the planning area.

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64-6	Communication sites are also essential components of this remote area and should not be limited to those that currently exist, particularly for public health and safety. For example, new technologies may improve the area's communication potential with reduced ecological impacts, but may not be suited to existing sites. We suggest that new communication sites be considered on a case-by-case basis.	As outlined in Chapter II, section (B)(2)(g)(6) "Alternative D" communication site ROW would be considered on a case-by-case basis throughout the planning area. When feasible, sites will be co-located to avoid a proliferation of sites.
64-17	Page 2-82. The phrase "public landowner the easement accesses" in the first paragraph, second sentence, should be replaced by "federal agency responsible for lands accessed by the easement." By using the term "public landowner" and with the inclusion of the last sentence in that paragraph, it appears as if the State is abdicating a responsibility to manage easements accessing its lands. Enabling federal legislation and DOI policies mandate that it is BLM's responsibility to allow access across lands conveyed to a Native corporation and to administer those easements which access non-Federal lands (43 USC § 1616; 43 CFR 2650; 601 DM 4.2). The State does not generally accept management of 17(b) easements unless the trail or easement is already partly under state management (Page 2-20, NWAP).	43 CFR 2650 refers to the reservation of easements across lands conveyed to Native Corporations and the termination or modification of these reservations. 601 DM 4 addresses the administration of ANCSA 17(b) easements. The last sentence of 601 DM 4.2, cited in the comments states that each bureau (of the Department of the Interior) is authorized to negotiate with other Federal agencies, the State of Alaska, an Alaska borough or municipal government to transfer administration of a specific easement, if authorized by law. The offending sentence has been modified in the Proposed RMP/Final EIS.

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64-18	The bulleted list on Pg. 2-82, governing discretionary actions as well as demarcation of 17(b) easements, grants a priority for "[easements where landowners support the activity allowed by the easement." Regard of this nature for the preferences of the adjacent landowner is inappropriate according to the intent and legislation governing 17(b) easements. These easements are reserved to maintain the right of access to public lands and waters and to eliminate trespass concerns. The partiality of the adjacent landowner should not take precedence when establishing priorities, especially over the access needs of the public (not listed as a specific priority).	Our priority is not given to "adjacent" landowner support but to the owner of the land crossed by the easement. If the landowner feels trail management is needed to reduce trespass on Native land, this would make management of the subject trail a higher priority than management of other easements.
64-19	The RMP/EIS states that easement acquisition impeded by allotments will be remedied "on a case-by-case basis as the need or opportunity arose, and as funds allow" and only from willing landowners. The State would appreciate that every effort be made to prevent private lands from interfering with access utilizing easements.	Thank you for your comment.

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64-20	We request that this section [R.S. 2477 Routes, Pg. 2-82] of the RMP/EIS be adjusted to reflect new DOI policies regarding interpretation and implementation of R.S. 2477 rights of way, as outlined in Secretary Norton's March 2006 Memorandum... also acknowledge in this section that the State additionally claims section line easements under R.S. 2477. We recommend the following language replace the first paragraph in this section: Under Revised Statute (R.S.) 2477, Congress granted a right-of-way for the construction of highways over unreserved public land. Under Alaska law, the grant could be accepted by either a positive act by the appropriate public authorities or by public use. "Highways" under state law include roads, trails, paths, and other common routes open to the public. Although R.S. 2477 was repealed in 1976, a savings clause preserved any existing R.S. 2477 right-of-way. The State of Alaska claims numerous rights-of-way across federal land under R.S. 2477, including rights-of-way identified in AS 19.30.400. Land use planning does not affect valid R.S. 2477 rights or future assertions. The validity of all R.S. 2477 rights-of-way will be determined on a case-by case basis and outside of this planning process.	The commenter correctly states 'The validity of all R.S. 2477 rights-of-way will be determined on a case-by case basis and outside of this planning process." Additional language on R.S. 2477 is provide in Chapter III, section (3)(C)(5)(a)(2) "Trails, R.S. 2477 Routes, and 17(b) Easements.
64-22	Page 2-98, FLPMA and R&PP Leases, Alternatives C and D (and elsewhere in the document): This section does not clarify whether BLM would authorize trapping cabins (as currently managed under FLPMA leases) in ACECs and RNAs. The State does not support restrictions on the use of trapping cabins on administratively designated lands.	Trapping cabins may be considered in ACECs on a case-by-case basis under FLPMA sec. 302 permits as discussed under Chapter II, section (g)c(3) permits.

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65-7	In addition to the right-of-way corridors identified in ANILCA, several other possible routes were identified in the NWAP (Page 2-56, NWAP, attached). The ability to develop prospective access corridors, especially where necessary for community and/or resource development purposes, should be considered and retained in the RMP/EIS and in implementation level planning.	Thank you for your comment. See response to comment # 64-5.
65-72	All lands administered by BLM should proactively managed until they are conveyed. Management of selected lands should err toward conservative 'stewardship' obligations. This will ensure that the lands remain in high quality, minimally disturbed resource condition when, and if, State and Native-selected land conveyance occurs. By preserving lands it administers today, the agency is preserving lands it may retain after conveyances are settled.	Thank you for your comment. See response to comment # 58-71.
78-6	Land sales are of concern as most local community members do not have the resources to purchase large amounts of land and its loss to outside interests will not benefit the local community and is almost sure to be a source of future conflicts. If the BLM has lands available for disposal, maybe they should consider allotting them to veterans who have yet to obtain land under the Veteran Allotment Act.	There is no provision in the Federal laws and regulations governing land sales to limit sales to certain groups of people.

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78-7	BLM should address ROWs and transportation more specifically with regard to east-west ROWs that may be developed to transport minerals. We are concerned that these ROWs would impact caribou migration corridors. There needs to be [ROW] avoidance and exclusion areas in place to protect main caribou migration corridors.	The Proposed RMP/Final EIS allows for rights-of-ways (ROW) for various purposes. When a site-specific application for a ROW is received, it will be analyzed under NEPA and appropriate mitigation measures developed to minimize impacts. BLM will consult with ADF&G for help in developing measures to avoid disruption of caribou migration.
197-16	Pg. 2-92 to 2-96. While there is mention of Native selected and State selected lands, there is no mention of Native Allotments. Individual native allotment owners must be given the same treatment in regards to land use authorizations that may affect the allotment or the use of their allotment.	Land use authorizations generally are not issued on pending native allotments. Native allotments are considered Indian trust lands and jurisdiction on native allotments passes to the Bureau of Indian Affairs upon approval of the allotment. Certificated native allotments are private property and thus outside the scope of this plan. Native allotments are mentioned numerous times in the plan, particularly under the minerals discussion. Map 3-33 shows the location of native allotments.
ANCSA D(1) WITHDRAWALS		
52-2	Substantial lands within the study area have been closed to mineral entry since 1971 by the passage of ANCSA. Since that time new deposit models for mineral resources have been developed and applied to contiguous areas. Section 17(d)(1) lands should be returned to pre-(d)(1) status and opened as soon as possible.	The Proposed RMP/Final EIS recommends lifting all the ANCSA 17(d)(1) withdrawals in the planning area. Actual modification or revocation of the withdrawals will require additional action by BLM after approval of the Final RMP and Record of Decision. See response to comment #52-7.
52-7	One of the proposed implementation actions of the DRMPEIS is to revoke the 17(d)(1) withdrawals. This should be stated more clearly including an explanation of the steps required to bring this to completion and at what level in the Federal Government would this action occur.	Chapter III, section (C)(7)(c)(2) "Withdrawals" of the Proposed RMP/Final EIS describes the process. Modification or revocations of any administrative withdrawal orders including those under Section 17(d)(1) of ANCSA requires a formal action that includes Secretarial-level review and approval. The final result is a public land order signed by the Secretary of the Interior that will formally revoke or modify the 17(d)(1) withdrawal order(s).

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57-2	I oppose the provisions in Alternative D, the BLM's preferred choice, that Revoke ANCSA (d)(1) withdrawals in critical caribou habitat and open huge swaths of public lands to mineral exploration and development that were previously closed to such activities.	Thank you for your comment.
58-72	ANCSA 17(d)(1) Withdrawals: Caribou habitats will be affected if the protective status of ANCSA § 17 (d) (1) withdrawals are lifted in the Planning Area and all available acreage is open to locatable and leasable mineral entry. The Working Group supports maintaining ANCSA § 17 (d) (1) withdrawals within areas that are under consideration and/or are recommended for special management - this will afford the maximum protection for resource values.	BLM has determined that caribou habitat can be properly managed and protected without withdrawal from the mining laws.
64-1	The State is pleased to see that BLM has conducted a review of the existing withdrawals and is recommending revocation of ANCSA 17(d)(1) withdrawals; however, we do not support replacing several of these old (d)(1) withdrawals with new withdrawals. Instead we recommend alternative management tools be applied to those areas in order to meet planning objectives.	Withdrawals proposed along Boston Creek, Ungalik River, Kivalina River and Mount Osborn were not carried forward into the Preferred Alternative (D) of the Proposed RMP/Final EIS. An additional ROP FW-7 (Appendix A) have been developed to address locatable mineral development along anadromous streams. Several additional ROPs listed under SS-4 will protect lakes supporting Kigluaik Arctic char.
65-80	Current demands of multiple user groups on public resources threaten to overwhelm BLM Alaska's management workload. Should BLM proceed with its proposal to lift the (d)(1) withdrawals within the Kobuk-Seward planning area, the agency could quickly be deluged with the additional pressures of managing commercial leasable or locatable mineral development activities in pristine areas possessing critical wildlife habitat and subsistence resources.	The workload impact of lifting the 17(d)(1) withdrawals is speculative. BLM will manage any change in workload through the budgeting process.

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65-81	BLM Alaska may not have adequate financial support and staff...to handle the additional workload that would accompany such a significant change in mineral management policy. Thus, the (d)(1) withdrawals should not be lifted until the agency is allocated sufficient additional permanent funding and personnel resources.	Thank you for your comment. See response to comment # 65-80.
65-84	There is tremendous potential for conserving natural resource values on BLM-managed Kobuk-Seward lands. BLM [should] maintain (d)(1) withdrawals within the following areas...to protect valuable wildlife habitat, subsistence resources, and recreation opportunities...until the proper withdrawals or other similar protective status can be applied: 1) WACH Calving and Insect Relief Areas proposed ACEC; 2) WACH winter range, wildlife habitat, and anadromous fish habitat within the proposed Nulato Hills ACEC, Inglutalik River ACEC, Ungalik River ACEC, and Shaktoolik River ACEC; 3) Important Western Arctic Herd migration seasonal corridors (as designated by ADF&G); 4) Squirrel River's proposed SRMA...as well as other potential SRMA lands in the Buckland region and Kauk River drainage; 5) Kigluaik Mountains and the proposed Mount Osborn RNA.	If a new withdrawal is recommended, the (d)(1) withdrawals will be revoked and new withdrawals implementing the planning decisions will be issued simultaneously. However, BLM has determined that withdrawals are not necessary to protect resource values in the planning area. Federal regulations, the required operating procedures and stipulations described in Appendix A, and BLM management discretion in approval of site specific projects is sufficient to protect resource values in most areas.
198-13	BLM Should Not Continue with the Proposal to Rapidly Lift all of the Withdrawals under Section 17[d][l] of the Alaska Native Claims Settlement Act ("ANCSA") Without Replacing Them with Adequate Protections for Their Outstanding Resource Values and Accounting for the Consequences of the Effect of Eliminating Withdrawals on Subsistence.	BLM has determined that withdrawals are not necessary to protect resource values in the planning area. Federal regulations, the required operating procedures and stipulations described in Appendix A, and BLM management discretion in approval of site specific projects is sufficient to protect resource values in most areas.

Letter # - Comment #	Comment	Response
210-1	I support the provisions in Alternative D, the BLM's preferred choice, that revoke ANCSA (d)(1) withdrawals in critical caribou habitat and open huge swaths of public lands to mineral exploration and development that were previously closed to such activities. Mining, oil, and gas ventures would not jeopardize habitat quality and will not spoil our wild lands.	Thank you for your comment.
SPECIAL DESIGNATIONS		
ACECs and RNA		
4-2	We want BLM to examine again seashore sites & areas near Kivalina, Teller, Koyuk and Unalakleet. We see at least four ACECs near these places.	BLM evaluated these four areas for possible ACEC designation. Virtually all of the coastal land in the Teller, Kivalina, and Koyuk areas has either been conveyed out of BLM ownership or is high priority State or Native selections. BLM will not retain sufficient lands in these areas to warrant ACEC designation. The small amount of land remaining under BLM ownership near Koyuk does not meet the criteria for designation. Unalakleet is outside of the Planning Area.
14-3	As a general matter, we support the creation of ACECs and RNAs because such special designations include additional protections for surface resources…In view of the surrounding state and native corporation lands, and neighboring NPRA, we see no reason for BLM to be eager to lift the withdrawal status on the lands it will retain or those included in the ACEC and RNA designations specified under the Preferred Alternative.	The ANCSA withdrawals were intended to protect resources, to prevent encumbrances that could interfere with State or Native entitlements, and to study lands for further inclusion into conservation units. In the early 1970s when the lands were withdrawn under Section 17(d)(1) and (d)(2) of ANCSA, there were few regulations to oversee the development of the public lands and protect important natural resources. Since then Congress has passed significant legislation for the orderly development of public lands and to protect the environment from adverse impacts. BLM has 1) developed oil and gas lease stipulations, required operating procedures (ROPs), and surface management regulations for mining, which are sufficient to assess and protect the resources in most situations, 2) the selection period is over and BLM is completing conveyance of State and Native entitlements, and 3) Conservation Units have been established. Many of the (d)(1) withdrawals have outlived their original purpose and are an unnecessary encumbrance on the public land records.

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15-17	Mineral leasing should be prohibited or deferred in ACECs [particularly those for the WACH] until an active adaptive management program backed by rigorous research and monitoring demonstrates that leasing in these areas can be adequately mitigated to avoid or minimize impacts to fish, wildlife and subsistence resources.	Coal leasing has been deferred in the planning area - see response to comment # 65-89 (minerals) and # 58-40 (fish and wildlife). The ACECs would be open to oil and gas leasing subject to the ROPs and Leasing Stipulations - see response to comment #58-37 (minerals).
15-18	The ACECs proposed under Alternative C in the Draft RMP/EIS should be adopted for the Preferred Alternative in the Final RMP/EIS, and the BLM should consult with the Service's Marine Mammals Management, Migratory Bird Management, and Selawik National Wildlife Refuge offices, and with the Western Arctic Caribou Herd Working Group, to determine if designation of additional ACECs may be necessary. BLM [should] work with the Service's Marine Mammals Management and Migratory Bird Management offices, and with the Selawik and Alaska Maritime National Wildlife Refuges to identify which, if any, other important habitat areas should be considered for designation as ACECs and deferred from oil, gas and other mineral leasing pending results of adaptive management research and monitoring efforts.	Other than McCarthy's Marsh and Upper Kuzitrin River, ACECs proposed in Alternative C are included in the Preferred Alternative of the Proposed RMP/Final EIS. Portions of the Kigluaik Mountains would be designated as the Mount Osborn ACEC. McCarthy's Marsh ACEC was not carried forward due to extensive conveyance of land in this area to the State in 2006. Kuzitrin River was also not reconsidered for inclusion in the Preferred Alternative. The WACH Working Group nominated several ACECs and these were evaluated. The Service's Fairbanks Field Office, Alaska Regional Office, and Selawik Refuge, and National Marine Fisheries Service were included in scoping outreach efforts and distribution of the Draft RMP/EIS but did not nominate any ACECs.

Letter # - Comment #	Comment	Response
24-20	The following areas should be nominated as Areas of Critical Environmental Concern (ACEC): Benedeleben Mountains - Significant and unique geological resources, prominent summer range for caribou that summer on the Seward Peninsula, potential site for reintroduction of sheep and marmot; Darby Mountains-Significant and unique geological resources, prominent summer range for caribou that summer on the Seward Peninsula; American and Agiapuk Rivers - Very similar to Kuzitrin River it contains significant and relatively undisturbed fishery resources that contribute to the entire watersheds of the Kuzitrin, American, and Agiapuk rivers. It also holds Significant and unique archeological resources.	BLM evaluated these four areas for possible ACEC designation. BLM does not own any land along the American River thus ACEC designation could not occur in this area. The other three sites have some relevant values but do not meet the Importance Criteria defined under 43 CFR 1601.7-2 and were therefore not proposed for designation as ACECs.
25-12	The Kuzitrin River and McCarthy Marsh areas identified as ACEC in Alternative C should be included as ACEC in the Preferred Alternative D. These areas provide critical moose habitat for moose populations important to many Seward Peninsula residents. Also these areas should remain closed to reindeer grazing as long as caribou continue to winter on the Seward Peninsula.	See response to comment # 65-19. These areas will remain closed to reindeer grazing.

Letter # - Comment #	Comment	Response
25-14	The Kigluaik area identified as an ACEC in Alternative C should be included as an ACEC in the Preferred Alternative D. There is currently little access to this area by motorized vehicles during snow free months and the area serves as a 'refugia' for bears (many denning sites) and as a 'protected rutting area' for moose in the fall. This situation should be preserved by limiting motorized access to existing trails, if not eliminating it altogether. It would also preserve the outstanding road-accessible wilderness recreation opportunity this incredible area offers.	This area will be managed as a Special Recreation Management Area. Wildlife values will be considered during management of recreational use in the area. See also response to comment # 15-18.
52-45	Pg. 3-236 (b) RNAs: Need to define RNA and the impact of such designation.	A definition of RNA can be found in the glossary and also in Chapter III, section D(1)(b)(1), "RNA's - Background." The impacts of designation on various programs are discussed in Chapter IV.
57-5	Real protection of these Areas of Critical Environmental Concern means keeping these special places closed to all forms of mineral development. It is irresponsible of BLM to recognize the important habitat values of these areas while at the same time opening these previously closed areas to mining and mineral development activities.	Many of the proposed ACECs are currently open to mineral entry. For example, most of the Nulato Hills, Ungalik River, Shaktoolik River, and Inglutalik River ACECs were opened to mineral entry in 1983 through PLO 6744 which modified the ANCSA 17(d)(1) withdrawals. Selected lands within these ACECs, which are minimal, are segregated against entry. Once conveyances are complete, segregations will be removed and the underlying open status will take precedence. Most of the underlying withdrawals in McCarthy's Marsh and Kuzitrin River ACECs were also modified in 1983. However, extensive selections in these areas keep the lands segregated against mineral entry. See maps 3-26 and 3-29 for current mineral status. See also response to comment # 68-1 (fish and wildlife).
58-75	As written in Alternative C, the proposed ACECs do not meet the Working Group expectations of habitat protection or BLM's own standards to safeguard critical resources (see BLM Manual 1613.12). The Draft RMP/EIS must reflect ACECs that meet FLPMA requirements and guidance from the BLM Manual.	As written in Alternative C, the proposed ACECs meet BLM Manual 1613.12 requirements for special management attention. Special management attention refers to management prescriptions developed during preparation of an RMP expressly to protect the relevant and important values from potential effects of actions permitted by the RMP. Under Alternative C, all proposed ACECs would be closed to fluid mineral leasing, closed to solid mineral exploration, withdrawn from mineral locatable mineral entry, closed to FLPMA and R&PP leases, designated as ROW avoidance areas, closed to grazing, and closed to disposal actions. (Appendix B)

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58-76	The multiple major pathways and convergence area of fall migration and the narrow corridor of spring migration in the vicinity of Selawik-Kobuk should be given ACEC status and provided protections that preserve and do not alter the habitat in these areas.	BLM evaluated this for ACEC designation and determined that designation is not warranted. The area meets the relevance criteria in that it supports a significant wildlife resource. However, data on caribou migration routes is not available to support the importance criteria. In fact, the limited data available seems to indicate that caribou migrate less on BLM land and more on private, National Park Service, Fish and Wildlife Service, and State land.
58-78	The Working Group supports Alternative C with modification designating winter habitat in the Nulato Hills as an ACEC in the Planning Area. Additional factors need to be considered and included in the ACEC designation.	Support for the Nulato Hills ACEC is noted. The Preferred Alternative in the Proposed RMP/Final EIS designates the Nulato Hills as an ACEC.
58-82	pg 2-105: McCarthy's Marsh is a winter habitat favored by caribou in years when they migrate to this portion of the Seward Peninsula. The Working Group supports Alternative C designating the area as an ACEC with specific restrictions.	Thank you for your comment. See response to comment # 15-18.
64-4	The State is concerned that RNA designation [Mount Osborn] may impede access to and development of these resources on both federal and state-owned lands. The State ...maintains concerns regarding justification and availability for access corridors and mineral development on administratively designated lands.	In the Proposed RMP/Final EIS the Mount Osborn area would be designated as an ACEC rather than an RNA.

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64-26	Pg. 2-106: We request BLM clarify management intent for the Mount Osborn RNA because of concerns that administrative designation under Bureau regulations may preclude the State's use of management tools for fish and wildlife, such as weirs or radio towers. We request BLM revise the final plan to state that the Mount Osborn RNA will not preclude use of various facilities necessary for state wildlife or fisheries management purposes.	In the Proposed RMP/Final EIS the Mount Osborn area would be designated as an ACEC rather than an RNA.
64-53	Pg B-4, Table B-1: We suggest that Alternative C clearly state that it pertains to the larger Kigulaik ACEC and that Alternative D pertains to the Mt. Osborne RNA (perhaps in the header row or put that specific text in bold in the first row of the table). The footnote clearly states this, as does the first row of the table, but in our initial reading of the table, we missed this distinction and others may as well.	This clarification was made in Table B-1. Although, in the Proposed RMP/Final EIS, Mount Osborn would be designated as an ACEC rather than an RNA.
65-2	ACECs are an important management tool for the BLM in the land use planning process. ...BLM [should be] prohibiting mineral development within these proposed ACECs and adopting strong protective management directives for each of the special areas.	Required operating procedures outlined in Appendix A and other management prescriptions in Chapter II provide strong protective management to these areas. See response to comments # 65-89, # 58-40, and # 58-37 (all under minerals).

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65-3	BLM's ACEC Manual explicitly recognizes mineral withdrawal as an appropriate management prescription for protecting ACEC values. BLM Manual No. 1613, Section .33.C (Provision for Special Management Attention). In general, we object to BLM's failure to include sufficiently strong management prescriptions, especially the revocation of ANCSA 17(d)(1) withdrawals, within proposed ACECs.	BLM considered mineral withdrawal of ACECs in Alternative C of the Draft RMP/EIS. Such withdrawal was not carried forward into the Preferred Alternative of the Proposed RMP/Final EIS.
65-4	We strongly support the designation of 2,893,000 acres on the Lisburne Peninsula for WACH Calving and Insect Relief Habitat as an Area of Critical Environmental Concern (ACEC), as outlined in Alternative C. ...mineral development is not an activity that is compatible with goals of conserving this sensitive caribou habitat.	Support for the ACEC is noted. The Preferred Alternative in the Proposed RMP/Final EIS designates the WACH insect relief habitat as an ACEC but does not recommend withdrawal from mineral entry or closure to mineral leasing.

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65-5	According to Map 2-11... there are no placer producing areas or known mineral deposit areas within this [WACH calving/insect] proposed ACEC. And according to Map 2-9, only a very small portion of the northern and western Lisburne Peninsula possesses coal occurrences or coal fields. Therefore, we argue that there is no acceptable justification for revoking existing (d)(1) withdrawals and making these pristine lands available to locatable and leasable mineral development. The wildlife habitat and caribou populations in this area are far too fragile to endure the disruptive effects of industrialization. We request that this area is permanently closed to locatable mineral entry. We also request that the vast majority of the BLM-managed lands on the Lisburne Peninsula, excluding the locations identified on Map 2-9 as possessing coal occurrences or coal fields, are permanently closed to solid leasable mineral development. We believe that this strategy will best enable BLM to promote and protect the region's caribou habitat and subsistence resources.	In preparing a land use plan, BLM does not make planning decisions based on mineral values (high or low) but on multiple use and sustained yield. Portions of the Lisburne Peninsula currently have no known coal potential, and likely will not have any interest in coal exploration over the life of the plan. The Proposed RMP/Final EIS defers coal development until interest is expressed by industry. The plan does however, allow for coal exploration. The Proposed RMP also allows for locatable mineral entry subject to the ROPs. The lack of known locatable mineral potential makes development on BLM lands unlikely in this area. See also response to comment # 14-3 regarding justification for revoking ANCSA withdrawals.
65-6	The conclusions of the NRC, coupled with the predictions of Griffith et al. (2002) which predicted significant population-level impacts to the Porcupine Caribou Herd from industrial development within the concentrated calving grounds, gives us great concern for the future of the WACH. The potential for population-level impacts could be high, given the similarities of the size of the herds, type of projected impact, and distance of migration paths.	Effects of the Proposed RMP/Final EIS on caribou are covered in Chapter IV.B.3.b) pages 4-67 to 4-84. BLM does not anticipate any population level impacts to caribou from the actions allowed under the Proposed RMP/Final EIS. As discussed under the cumulative impact analysis on Chapter IV.G.2.c)(2) there could be population level impacts on the WACH under the cumulative case if industrial activity occurred within the calving grounds or crucial insect relief habitat.

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65-7	The ROPs and Stips only help to mitigate the worst impacts of potential mining activities, and may still allow for a significant amount of surface disturbing impacts and environmental contamination to occur within caribou habitat and watersheds of the many anadromous streams located on the Lisburne Peninsula. We believe that the threat of mining development to sensitive wildlife habitat and subsistence resources within the proposed Caribou Calving and Insect Relief Habitat ACEC is not sufficiently addressed by these measures. Therefore, we request that the Alternative C proposal for this ACEC, which would protect habitat and subsistence resources by keeping the lands closed to mineral development, is adopted in the Final RMP/EIS.	Support for the closure of this ACEC to mineral development is noted. See Response to comment # 65-4.
65-8	We support the designation of ... WACH winter habitat in Nulato Hills ACEC, as outlined in Alternative C. Mineral development is not ...compatible with the conservation of these remote caribou wintering grounds, wildlife habitat, and important anadromous rivers.	Support for the Nulato Hills ACEC is noted. The Preferred Alternative in the Proposed RMP/Final EIS designates the Nulato Hills as an ACEC. Required operating procedures outlined in Appendix A provide strong protective management in this area.

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Letter # - Comment #	Comment	Response
65-9	According to Map 2-11 and 2-12 of the draft RMP, there are no placer producing areas or known mineral deposit areas within the proposed Nulato Hills ACEC, the Shaktoolik River ACEC, the Ungalik River ACEC, or the Inglutalik River ACEC. These are unencumbered lands that have not been selected for conveyance to either the State of Alaska or Native corporation. Therefore, it can be assumed that the occurrence of minerals in the Nulato Hills is low. Since development of minerals in this area will be unlikely or not economically feasible, we request that the lands remain withdrawn and closed to locatable and leasable mineral entry. Alternative C's proposed conservation measures for wildlife habitat, fisheries, and traditional uses should be the management priorities for BLM lands in the Nulato Hills and the watersheds of the Ungalik, Inglutalik, and Shaktoolik Rivers.	When preparing land use plans, BLM does not make planning decisions based on mineral values (high or low) but on multiple use and sustained yield. The Preferred Alternative in the Proposed RMP/Final EIS designates these areas ACECs. Required operating procedures outlined in Appendix A provide strong protective management in this area. Most of these areas were opened to locatable mineral entry through PLO 6744 in 1983. See response to comment # 57-5.
65-10	An ACEC management plan [for Nulato Hills] should be developed shortly upon finalization of the RMP/EIS.	The Proposed RMP recommends development of an ACEC management plan to include more specific measures to protect caribou and their habitat, including recommendations on fire management. The time frame for development of this plan depends upon workload and funding.

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65-11	The ROPs and Stips only help to mitigate the worst impacts of potential mining activities, and may still allow for a significant amount of surface disturbing impacts and environmental contamination to occur... The threat of mining development to sensitive wildlife habitat and subsistence resources within the proposed Nulato Hills, Shaktoolik River, Ungalik River, and Inglutalik River ACECs is not sufficiently addressed by these measures. Therefore, we request that the Alternative C proposal for this ACEC, which would protect habitat and subsistence resources by keeping the lands closed to mineral development, is adopted in the Final RMP/EIS.	The Preferred Alternative in the Proposed RMP/Final EIS designates these areas as ACECs but does not recommend withdrawal from locatable mineral entry or closure to fluid mineral leasing. These areas would be deferred from coal leasing.
65-12	Alternative D proposes to develop an ACEC management plan with the intention of protecting caribou and caribou habitat, a definitive fire management plan would not be implemented. Instead, the ACEC management plan would include “recommendations on fire management to protect lichen habitats from fire”. Draft RMP/EIS at 2-107. Prescribing “recommendations” does not carry the weight of a fully-devised and implemented management plan. Therefore, it is incumbent upon BLM to develop specific outlines for fire management, as outlined in Alternative C.	The wording in this section has been revised for clarification. The intent in Alternative D is to develop a more encompassing plan that would include both fire management and additional stipulations on other activities to protect caribou habitat. In Alternative C, the plan would focus on fire management since the ACEC would be closed to many other types of land uses.

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65-13	[If] BLM chooses to implement the recommendations above, it would remain consistent with the land it administers directly east and adjacent to the Nulato Hills wintering grounds in the Central Yukon Planning Area. In fact, the BLM found the Nulato Hills region to be of such importance that it proposed several ACECs were designated in its RMP Final EIS for the Central Yukon Planning Area (BLM 1986). Critical and sensitive habitats located in the Central Yukon Planning Area were deemed so important, that the Final Plan prohibited permanent roads. It would be consistent with this plan, developed in 1986, for the current plan to consider designating this key migratory path for the WACH as a Right of Way exclusion area and peripheral wintering grounds as a Right of Way avoidance area.	The Central Yukon Plan does not prohibit roads in the Nulato Hills. See response to comment # 58-79.
65-14	We support the designation of the proposed 84,000 acre Mount Osborn Research Natural Area (RNA). Approximately 50 glacially-formed cirque lakes in the Kigluaik Mountains support populations of reproductively isolated fish species. These genetically unique Arctic char populations have been identified by BLM as a sensitive species and warrant protection, as well as targeted scientific research. Additionally, the unique geology of the area provides habitat for rare plant species and gyrfalcons, highly metamorphosed rocks, and small mountain glaciers and moraines.	In the Proposed RMP/Final EIS, 82,000 acres in this area would be designated as an ACEC rather than an RNA. Additional Required operating procedures were developed to protect Kigluaik char habitat (Appendix A, section B(4) "Special Status Species"). BLM will take additional management actions to protect sensitive species. See response to comments # 65-67 and # 65-68 (fish and wildlife) regarding management of arctic char.

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65-15	The Kigluaik Mountains are an extremely fragile environment, and the use of motorized vehicles during the snow-free months causes severe scarring and damage to the terrain. Wildlife habitat for moose and bears is also be negatively impacted by the presence of off-highway vehicles. Only foot trail access should be allowed in the Mount Osborn RNA. Therefore, we are opposed to the 'semi-primitive motorized" proposal for the Kigluaik Mountains, as presented in both Alternatives C and D. Since this area is relatively close to Nome, we request that physical barriers are constructed to prevent motorized access [and] adequate law enforcement presence is allocated.	The semi-primitive motorized designation is necessary because snowmachine use occurs in the Kigluaik Mountains during the winter. Much of this use is associated with subsistence hunting. If it was classified as primitive or primitive non-motorized, use of snowmachines would be prohibited. Given the size of the area and the number of possible access points, physical barriers would likely not be very effective. See also response to comments # 25-10 (Recreation) and # 67-1 (Recreation).
65-16	We support the Alternative D recommendation to permanently close the proposed Mount Osborn RNA to locatable mineral entry. Eliminating the opportunity for mineral development to occur in this area will provide BLM with a strong management tool for protecting the unique ... values for which the area is being recognized through RNA designation.	In the Proposed RMP/Final EIS, Mount Osborn would be designated as an ACEC rather than an RNA. See response to comment # 65-14.
65-17	Many of the lands in this area [Mount Osborn RNA] are high priority selections for the State of Alaska. We request that interim protective management and prohibition of motorized vehicle use is allocated to these lands upon completion of the Final RMP/EIS, as would be assigned when designation occurs.	Actually, most of the high priority State selections are outside of the RNA boundary as proposed in the Draft RMP/EIS. In the Proposed RMP, the Mount Osborn ACEC would be designated. Interim management is outlined in Appendix B "ACEC comparison tables".

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65-18	If any adjacent lands within Alternative C's proposed Kigluaik Mountains ACEC are retained in permanent BLM management, we request that they are also added to the Mount Osborn RNA, afforded the same protective management, and closed to motorized vehicles.	In the Proposed RMP/Final EIS, 82,000 acres in the Kigluaik Mountains would be designated as the Mount Osborn ACEC. The boundary of the ACEC was developed to include important habitats for Kigluaik arctic char and has been adjusted to reflect current land ownership and selection priorities (Map 2-21).
65-19	We request that the Final Kobuk-Seward RMP/EIS adopt a long-term management scenario in which the state-selected lands within the (Alternative C) proposed McCarthy's Marsh and Upper Kuzitrin River ACECs would be re-considered for ACEC designation if sufficient acreages of these lands are retained in permanent BLM management.	Based on conveyances to the State in 2006, McCarthy's Marsh ACEC was not carried forward into the Proposed RMP. Kuzitrin River was also not reconsidered for inclusion in the Preferred Alternative of the Proposed RMP.
65-20	McCarthy's Marsh ACEC should be a Right of Way exclusion area to protect caribou movement corridors. These lands are also important traditional subsistence use areas for residents of the Seward Peninsula	Much of McCarthy's Marsh was conveyed to the State in 2006. See also response to comment # 58-38 regarding right-of-way exclusion areas.
65-73	All proposed ACECs, RNA's, and SRMAs, should include selected lands within their boundaries. This will prevent management and enforcement problems when, and if, land ownership changes in the planning area.	These areas do include selected lands within their boundaries. These lands will be managed as specified in the Final RMP until they are conveyed. Lands retained in Federal ownership will remain part of the special area and will continue to be managed as specified in the RMP. Selected lands will not be encumbered by designation and if conveyed to the State or Native Corporations, management prescriptions will not remain attached to the land.

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65-76	Ungalik Watershed ACEC: The RMP/DEIS notes that "placer mining could still occur on State managed lands within navigable portions of the riverbed itself." Id. Obviously, this activity on State-owned lands would have an impact on the adjacent Federally-managed lands. BLM should further acknowledge this uncertainty as to impacts and plan accordingly... to minimize the outside impact on lands that will remain in Federal ownership.	Placer lodes within the State of Alaska have been identified and viable lodes have been/are being developed. The probability of development within the Ungalik ACEC is unlikely. If indeed placer mining were to be proposed within the navigable portion of the Ungalik River within the Ungalik ACEC, BLM would address that action through the NEPA process to mitigate effects on BLM-managed land.
65-86	We support the Alternative C proposal to keep unencumbered caribou habitat within the proposed Calving/Insect Relief ACEC and Nulato Hills Winter Range ACEC closed to fluid leasable minerals development, as depicted on Map 2-7 of the draft RMP.	Thank you for your comment. Support for closure to fluid mineral leasing is noted.
65-124	We strongly support the ACEC proposals for critical habitat of the Western Arctic Caribou Herd. However, we are very concerned about the weak management prescriptions applied to the sensitive habitat, specifically the proposals to revoke ANCSA 17(d)(1) withdrawals and open the lands to mineral development.	Support for ACEC designation of WACH habitats is noted. See response to comments # 14-3.
67-2	I support identifying the Kuzitrin River and McCarthy Marsh areas as ACEC. These areas provide critical moose habitat for moose populations that are important to Seward Peninsula residents of Nome, White Mountain, Golovin, Elim, Teller and other AK residents.	Thank you for your comment. See response to comment # 65-19

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67-6	The Kigluaik Mountains should be identified as an ACEC... The Kigluaik Mountains are in close proximity to Nome and are used by Nome residents who enjoy backpacking and recreating in a remote and unspoiled environment. This area is a hiking paradise and trails are completely unnecessary for access or navigation. Naturally occurring rock and scree fields protect the heart of the area from access by four wheelers, thus the upper drainages provide a refuge for moose during the rut, the mountains are an important denning area for bears and the alpine lakes contain a genetically unique subspecies of char.	Portions of the Kigluaik Mountains would be designated as the Mount Osborn ACEC in the Proposed RMP/Final EIS. In addition, the Salmon Lake-Kigluaik Mountain Special Recreation Management Area is identified. Management of the SRMA would focus on providing the appropriate recreational opportunities while protecting sensitive resource values.
116-5	If State-selected lands are retained in permanent BLM management, we support ACEC designation for McCarthy's Marsh and Upper Kuzitrin River, for conservation of caribou, moose, anadromous fish, and waterfowl habitat.	Thank you for your comment. See response to comment # 14-18.
197-10	The ACEC in Nulato Hills must include the southern portion of the Nulato Hills for wintering area of WACH as the herd has been wintering further south in recent years, near and east of Shaktoolik.	The southern portion of the Nulato Hills is part of several ACECs as shown on Map 2-21
197-24	The proposed ACECs do not provide meaningful protection for the caribou calving, insect relief, and winter critical habitat areas.	Thank you for your opinion, it was considered when crafting the final preferred alternative in the Proposed RMP/Final EIS.
197-15	Pg. 2-81 to 2-85. Implementation decisions that apply to other areas in Alternative C must apply to Nulato Hills ACEC and calving/insect relief ACEC as our preferred alternative, rather than Alternative D.	We believe the commenter is referring to Tables 2-13 and 2-14 of the Draft RMP - Travel Management Areas. The current level of OHV use in the Nulato Hills and Insect Relief ACECs do not warrant more specific travel management decisions at this time. The RMP does allow for development of more specific OHV limits in the future if necessary.

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210-2	I do not support the proposed ACEC designations in Alternative C because they do not accord any real protection for anything. It is the job of the BLM to recognize the important habitat values of these areas while at the same time opening these previously closed areas to mining and mineral development activities.	Alternative C is not BLM's preferred alternative.
GENERAL SPECIAL DESIGNATIONS		
18-2	I am hoping that, that the Koyuk country, which when I say Koyuk country would be the headwaters of the Koyuk River, the Granite Mountain area on down, the East Fork headwaters, the Inglutalik headwaters and Ungalik River headwaters, including their basins. I'm hoping that ...there could be a special designation mainly because this has been the pristine country and it is one of the last pristine countries left in the world.	The headwaters of the Inglutalik and Ungalik rivers are both proposed ACECs in the Preferred Alternative. The Koyuk River area will be managed to maintain healthy fish and wildlife populations. Activities permitted by BLM will be subject to the required operating procedures. Recreation management decisions provide a basis for limiting commercial activities in this area if conflicts arise - see response to comment # 75-2.
52-6	Additional special restrictive designations of RNAs, ACECs, wild & scenic rivers, etc. are not appropriate. Massive areas in this part of Alaska are already in congressionally designated parks, preserves, monuments, refuges, etc.	Under FLPMA and BLM Planning Guidance, BLM is required to consider special designations during the planning process. Chapter II outlines which types of designations are considered under the various alternatives.
65-74	If ACECs and SRMAs only encompass unencumbered BLM lands; what will happen to adjacent lands that are selected and excluded, but ultimately retained in federal ownership?	ACECs and SRMAs do not only encompass unencumbered lands. Most include some selected land. Special Area boundaries in the Draft RMP were based on watersheds, current BLM land ownership, selection priorities, and location of the relevant values. Lands outside of boundaries identified in the Final RMP that are retained in Federal ownership would not be part of the ACEC or SRMA. Several of the special area boundaries were adjusted in the Preferred Alternative of the Proposed RMP to reflect updated State-selections and conveyance that occurred in 2006.

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65-75	When land conveyances are completed within the Kobuk-Seward planning area, BLM [should] conduct an inventory of all lands remaining under BLM management to identify those that are near or adjacent to designated ACECs, RNAs, or SRMAs. These lands should then be incorporated into the recognized areas in order to expand the positive benefits of special management attention.	See response to comment # 65-74.
		WILD AND SCENIC RIVERS
14-2	We support Alternative C in its designation of a number of rivers as "wild" under the WSRA. We believe such designations can lead to expanded quiet recreational opportunities. We are puzzled however, as to how BLM is meeting its obligations under this act [WSRA] when the Preferred Alternative summarily states that no rivers pass the test of "suitability". No analysis showing how each river was determined not to be suitable is included in the Draft.	The Bureau is required to consider potential wild and scenic rivers in planning, and we are doing this by considering a range of alternatives showing the impacts on river values under designation and non-designation scenarios. In the preferred alternative we are looking at the impacts of a scenario where no rivers in the planning area would become part of the national wild and scenic rivers system. The suitability decision will be made in the record of decision.
25-15	Include the Agiapuk River as a river suitable for Wild and Scenic Designation if this is the only way to protect the unique wildlife resources of this drainage, upon which there is significant subsistence reliance for moose, fish and berries. The Agiapuk River drainage supports the healthiest moose population on the Seward Peninsula (consistently highest calf:cow and bull:cow ratios) and preservation of the habitat in this area is critical to maintaining this important subsistence resource. If protection of the drainage and its high quality moose habitat can be accomplished without Wild and Scenic designation, this is an acceptable alternative.	This comment casts a vote for designation, and poses moose habitat as an outstandingly remarkable value. After reviewing with the planning team, we added this value to Table 3-36.

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25-16	Include the Fish River as a river suitable for Wild and Scenic Designation if this is the only way to protect the unique wildlife resources of this drainage. This river system is an important subsistence area which supports a wide variety of fish and wildlife resources utilized by a large cross section of Seward Peninsula residents from Nome and nearby villages. If protection of the wildlife and subsistence resources associated with the Fish River can be accomplished without Wild and Scenic designation, this would be acceptable.	This comment casts a vote for designation.
26-6	The Agiapuk is a very rich stream and I encourage you to keep wild and scenic classification there.	Thank you for your comment. See response to comment # 25-15.
57-4	Although I am not familiar with all eleven rivers that are eligible for Wild and Scenic River designation, it is hard to believe that none of them are worthy of recommendation for this designation and so I request that BLM revisit that decision in the final plan.	Thank you for your comment. See response to comment # 14-2.
64-2	The Wild and Scenic River assessment done for the Kobuk Seward plan must consider the fractionalized ownership pattern of BLM lands. Because of the fragmented land ownership patterns in the area, it is unlikely that any rivers in the planning area are suitable for Wild and Scenic River designation. In addition, the State as an upland land manager and the manager of navigable water bodies is unlikely to support additional designations. Adequate protection of Alaskan lands and waters is not dependent on additional Congressional conservation designations	We have carefully considered the professional opinions expressed, and agree that land ownership patterns, and lack of State support for designation affect the suitability of rivers in the planning unit as potential additions to the national Wild and Scenic River system. However, these factors alone are not sufficient to make a suitability determination. See response to comment # 65-51.

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64-28	Page 2-115, Table 2-18 Wild and Scenic Rivers – Summary of Alternatives: Clarify that for "Free-flowing rivers" (Alternative C), prohibitions on dams and significant diversions are only applicable to unencumbered BLM-owned lands. The State also requests that such prohibitions be considered on a case-by-case basis and, when on uplands adjacent to navigable waterways, in consultation with the State.	We have carefully considered the professional opinions expressed; but, we believe that since most dams and diversions require licenses and permits from the Federal government, and many rely on federal funding, dams and diversions along wild and scenic rivers are prohibited in many areas in addition to "unencumbered BLM-owned lands."
64-40	Pg. 3-243 (d) Suitability: Please review the first sentence and consider editing the phrase "within the planning area as…" We wish to reiterate the fact that there is a clear lack of State support for further Wild and Scenic River designations within this planning area.	We added a sentence to the end of the paragraph to capture the information in this comment.
64-48	Pg. 4-157 (10) Impacts to Recreation from Special Designations: It is unclear why the RMP/EIS states that future planning and study will attempt to identify rivers to be added to the Wild and Scenic River System. Please note previous comments made regarding the State's position on future designations.	We deleted this sentence. BLM is obligated to consider potential WSRs in any planning effort, but the sentence we deleted was confusing.
64-52	Pg. 4-167, Alternative C (7): It is unclear why the RMP/EIS states that future planning and study will attempt to identify rivers to be added to the Wild and Scenic River System. (Similar language on page 4-157)	See response to comment # 64-48. We deleted the sentence.
65-32	An additional management tactic that we urge BLM to adopt in the final RMP is the continuance of protection for Squirrel River's outstandingly remarkable values, free flowing nature, and pristine water quality, as currently ensured by its Wild and Scenic Study River status	The decision on Wild and Scenic River designation for the Squirrel River is with Congress. It is true that certain protections as a study river will soon expire should Congress not act, and BLM is considering a range of actions to protect river values without designation.

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65-40	We recommend that BLM adopt a watershed-based approach to managing the outstanding and remarkable resources of these rivers, especially the Ungalik, Agiapuk, Squirrel, Kivalina, and Fish Rivers.	To the extent practicable, BLM does use a watershed-based approach to management of these (and other) rivers.
65-41	On pages 3-245 and 4-180 of the draft RMP/EIS, BLM lists eleven eligible rivers and their outstandingly remarkable values (ORVs). The draft RMP/EIS does not, however provide any detailed description of the ORVs relevant to each eligible river. This is not adequate to constitute a 'careful documentation' of all of the applicable ORVs for each river. A more detailed description of the specific ORVs for each river must be provided.	The plan was prepared with the information available, and we are considering the effects of various management options on potential wild and scenic rivers, as required by the WSRA. Throughout scoping, and now with the draft plan, we have solicited comments on ORVs, and the information we have is included in the various sections of Chapter III. We've taken a liberal approach to deciding if a river value is outstanding to allow for the limited information we have at hand.
65-42	Further, documentation of the values of a particular river segment is necessary to ensure that those values are protected until a final suitability determination is made. The BLM Manual 8351 § .33c requires that "As long as a river segment is under study it must be afforded protection at the tentative classification level it was given when determined eligible, even if another classification is considered as an alternative in the RMP." This requires protection of the values for which the river was found eligible. Without detailed descriptions of those river values, it is impossible to determine whether adequate protection is provided for the eligible rivers.	We have considered the professional disagreement expressed in this comment, and believe that we can protect fisheries, wildlife, scenery, etc. without extensive or detailed information covering hundreds of miles of stream and hundreds of thousands of acres of land along these streams. Nor do we believe this is required by law or policy. When there is a specific action proposed we take a closer look prior to authorizing the proposed use. Some actions are clearly out of place in a stream under protective management, for example, dam building. Once a river becomes part of the national system a detailed plan is developed to protect values for which it was designated, and developing such plans for streams that are not at risk prior to designation would not be in the public interest.

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65-44	Although the draft RMP/EIS indicates that the eleven eligible rivers "will be managed—to the extent possible using BLM discretionary authority—to protect the outstandingly remarkable values identified in the table until a final" suitability decision is made, it does not provide specific information regarding the proposed management plan. RMP/DEIS at 4-181. According to BLM Manual 8351, the interim protective measures being implemented by BLM "shall be included in the RMP," and BLM is required to provide public notification of its protective management measures "no later than public and release of the draft RMP."	We have considered the professional disagreement expressed in this comment, and disagree with the interpretation of BLM 8351. WO IM 2004-196 clarifies protective management from the time a stream is found eligible to the time a suitability determination is made: "BLM's policy is to protect any ORVs identified in the eligibility determination process to assure a decision on suitability can be made. The Bureau has broad discretionary authority to not impact rivers values or make decisions which might lead to a determination of eligibility. It is BLM's policy to manage and protect the free-flowing character, tentative classification, and identified ORVs of eligible rivers according to the decisions in the associated Resource Management Plan. This protection occurs at the point of eligibility determination, so as not to adversely constrain the suitability assessment or subsequent recommendation to Congress. BLM may protect river values using both NEPA and FLPMA. Wild and Scenic River issues involving NEPA supplementation are the same as for other resource values. When BLM considers a proposal that could constitute a major Federal action that significantly affects the quality of the human environment, the Council on Environmental Quality regulations require NEPA compliance before BLM can act on the proposal (40 CFR 1506.l). Eligible river segments determined to be nonsuitable through a land use plan decision are subject to the direction and management decisions contained in the land use plan." The Final EIS will identify the eligible rivers to be placed in protective management. One of the outcomes of this land use plan will be suitability determinations on all eligible rivers in the planning area. We added a sentence to the WSR discussion in Chapter III to tentatively classify the eligible rivers for management as wild river areas.
65-45	The draft RMP/EIS does not indicate how these values [ORV] will be protected throughout the planning process...It provides little description of how these values will be protected pending a final suitability determination. Alternatives A, B, and D in part depend on ROPs and stipulations to protect these rivers. RMP/DEIS at 4-63...The ROPs do not specifically discuss the individual rivers, or how they would provide protection for the outstandingly remarkable values for each of those rivers. RMP/DEIS Appendix. A. Without further explanation, this is inadequate to effectively protect the values of each river segment.	Thank you for your comment. See response to comment # 65-44.

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65-46	We contest that BLM acted arbitrarily and capriciously under NEPA in finding that all rivers are suitable under one alternative and that no rivers are suitable based on the same factors under another alternative. All of the rivers are potentially suitable, and a reasonable range of alternatives would arguably include alternatives that find some portion of the rivers suitable as well.	The alternatives do not constitute a "finding" regarding suitability of rivers as worthy additions to the national Wild and Scenic Rivers system. Rather, the alternatives provide a framework for analyzing the impacts, both positive and negative, to the human environment, of designating certain rivers. Designation is a congressional prerogative. Determination of suitability, the authority for which has been delegated to BLM State Directors, will be one of the outcomes of this planning process, and will be documented in the Record of Decision. It may be arguable that we could have developed an alternative with two or three rivers managed as components of the national system, but such an alternative is not required for a substantive consideration of the effects of designation, nor for a reasoned and fair decision on suitability as an outcome of the planning process.
65-47	The Ungalik River stands out as unique and worthy of permanent protection. The land status along this river is not encumbered by Native or State selections, and therefore offers BLM an opportunity to ensure long-term management and recognition under the National Wild and Scenic Rivers System. The river's headwaters have already been designated as an ACEC within the Central Yukon RMP for the protection of fish habitat. We request that BLM adopt the Alternative C finding that the Ungalik River is suitable for Wild and Scenic River designation, and expand the recommendation to include the river's adjacent, unencumbered headwaters for a comprehensive, watershed-based designation proposal.	This is a reasonable comment, and if the Ungalik is found to be suitable in the record of decision, the Bureau will look at inclusion of the headwaters in any legislative package prepared as a result.
65-48	Support for rivers identified as suitable in Alternative C: Fish River-This essential river supports a wide variety of fish and wildlife resources utilized by the Seward Peninsula's local subsistence users.	We note this opinion concerning the suitability of the Fish River as a potential Wild and Scenic River.

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65-49	Ipewik & Kupik Rivers: Unique, critical nesting habitat for raptors is found along these rivers as well as a high occupancy of nesting sites, which thereby warrants protection under the Wild and Scenic Rivers Act.	We note this opinion concerning the suitability of the Ipewik and Kukpik as potential Wild and Scenic Rivers.
65-50	Support for rivers identified as suitable in Alternative C: Providing exceptional wildlife habitat and subsistence resources, the Agiapuk River supports the healthiest moose population on the Seward Peninsula and preservation of this habitat is critical to maintaining subsistence resources upon which local residents rely.	We note this opinion concerning the suitability of the Agiapuk River. See response to comment # 25-16.
65-51	We recommend that BLM use this RMP public process to collect information and conduct a preliminary suitability analysis, yet defer the final suitability decisions until after State and Native conveyances are completed. Only at that time will the ownership status of the eligible rivers be fully known and the corresponding management challenges, if any, best understood. If eligible river values are managed in accordance with their tentative classifications, as required under BLM Manual 8351, the river status and eligibility will not be diminished in the interim.	We note this recommendation, the professional disagreement expressed with the direction taken by the planning team. However, after careful consideration we believe that ownership considerations are not going to make or break suitability determinations, and that it is in the public interest to make suitability decisions in the record of decision. We note that no significant impacts to river values are identified for eligible rivers under any of the alternatives.

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65-52	In the Final Kobuk-Seward RMP/EIS, BLM should follow suit with the Final East Alaska RMP/EIS decision to (a) defer the suitability determination for eligible rivers until ANCSA and State entitlements are met, (b) provide strong interim management of eligible river corridors, including prohibition of mineral exploration and development, and (c) commit to conduct a future valid suitability assessment of all eligible rivers that are retained under permanent BLM management.	Thank you for your comment. See response to comment # 65-51.
66-1	While it is appropriate to have "wild and scenic" designations for some river systems and especially those on the southern Seward Peninsula, this designation would not be useful because the spawning salmon habitats are generally within Native Allotments, which are not affected...Land ownership and subsequent regulations, would become more convoluted for local users, leading to confusion and possible non-compliance. It is important to balance the conservation of the resource with the realities of access, land ownership and regulation changes, as well as subsistence needs of local users.	We note the opinions expressed concerning the impacts of wild and scenic designation on local users and on river values. We agree that it is important to balance the conservation of the resources with other aspects of the human environment.
67-3	(Pg 2-115) Identify the Agiapuk River as a river suitable for Wild and Scenic designation.The Agiapuk River supports the healthiest moose population on the Seward Peninsula with consistently the high calf:cow and bull:cow ratios. Preservation of the habitat in this area is crucial to maintaining this important subsistence resource.	Thank you for your comment. See response to comment # 25-16.

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67-4	Identify the Fish River as a river suitable for Wild and Scenic designation. This river system is an important subsistence area which supports a wide variety of fish and wildlife resources utilized by a large cross section of Seward Peninsula residents from Nome and nearby villages.	Thank you for your comment. See response to comment # 64-48.
116-3	We support wild and scenic river designation of the eligible Ungalik River and Kivalina River. The Ungalik River is located within critical winter range for caribou, and the fisheries for Pacific salmon and resident species are outstandingly rich. The Kivalina River also possesses an exceptional salmon fishery and is noted for its important and rare spawning and rearing habitat for Dolly Varden. Recreational and sportsman opportunities are virtually unlimited along both rivers... inclusion in the WSR system would ensure the strongest protections available...	As noted by the commenters, the Ungalik and Kivalina Rivers are shown in Chapter III as eligible. Chapter IV describes the impacts to the basic river values of free-flowing unpolluted waters and the outstandingly remarkable value of fisheries in these rivers under scenarios where these river would be managed as components of the national wild and scenic rivers system, or not. We note that the commenters believe these rivers are suitable for designation.
117-4	The WSRA has not been used to my knowledge in this area. The designated or recommended rivers need to be classified as WSRA. These areas cannot be re-created and need to be protected for future generations.	This comment has been noted.
198-12	There is substantial uncertainty regarding which river areas will remain in federal ownership and which will be conveyed to the State and/or Native entities. Making final non-suitability decisions in the face of such uncertainty, could mean that an eligible river's values would be permanently removed from the possibility of protection under the WSRA. Therefore, we submit that it is premature and inappropriate to make final suitability decisions and recommendations within this RMP.	Thank you for your comment. See response to comment # 65-51.

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SOCIAL AND ECONOMIC		
25-2	But there is a huge, sociological problem out there. Social problem which it is genuinely and legitimately feared could come to violence, and blows and death. There have been conflicts in the past so any actions BLM can take are highly advisable. What needs to be regulated and limited is the number of clients that are going into this area.	We are addressing this issue through development of a Recreation Area Management Plan for the Squirrel River. Various tools for managing recreational use and visitor use levels will be considered during development of the RAMP.
48-4	In dealing with mining opportunities and development opportunities...We do not have any opportunities for participating in any mining activities at this point.	Thank you for your comment. See response to comment # 102-1
52-17	Pg. 2-142. Summary and Comparison Tables: "Up to 50 new jobs may be created ...." Mining as an industry has a high local hire rate. Examples include Red Dog, Rock Creek, Donlin, and Pebble. The sentence starting "Although the benefit on the local economy..." this is not correct. New mines will have a tremendous impact on the local area and, depending on the size, will have a large statewide impact. Even smaller placer mines often hire local residents and this must be taken into account.	We agree that mining has a positive economic impact on State and local economies. The EIS attempts to put into perspective the level of development given the state of resource knowledge where BLM-managed land is the topic. None of the mines mentioned in the comment are on BLM-managed land. It seems the land was selected and conveyed because the resource was well know. This is the case and basis for land selection made by the State of Alaska and by ANCSA Native corporations.
52-57	Pg. 4-25 (2) Social and Economic Conditions: Out migration is largely due to the lack of good jobs. Expanded resource development, if it occurs, could help provide high-paying, long-term, year-around jobs and help prevent further out migration.	Reasons for migration are complex. During most of the 20th century, rural Americans moved to cities to capture opportunities…jobs and other perceived benefits. It could be that rural Alaskans are following a similar pattern. For example, the Red Dog Mine employs NANA shareholders...but most of them have moved out of the bush. This is a consequence of have a good job and money to spend...

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52-62	Pg. 4-221 3" paragraph: The paragraph beginning "In 2000, revenues..." contains interesting information but how is it relevant? If the information is included, the same year should be used for the comparison between the NSB, State, and Federal revenues.	This is part of describing a regional economy, and putting the planning area into perspective with larger economic divisions. We are using the North Slope Borough in part because our oil and gas development scenario is in the borough. Not all information is available with the same regularity.
65-82	BLM should analyze the long-term potential economic benefits of lifting (d)(1) withdrawals in the Kobuk-Seward region and include these findings in the Final RMP/EIS.	The impact analysis under Alternatives B and D assumes the revocation of (d)(1) withdrawals and impacts are assessed, based on reasonably foreseeable development over the life of the plan.
69-2	[R]eindeer herders, who are also subsistence hunters and fishermen, have provided as substantial economic impact to their communities monetarily and through distribution of a healthy red meat...we would like to continue reindeer herding	The preferred alternative carries on grazing at the same level active herding occurs now.
77-1	[I] have yet to see public lands mined to the financial benefit of its owners, we the people. When will BLM begin to treat land use by mining companies and others as a well published business plan to the benefit of the people owners which involves a time-limited commercial lease, resource fees, clean up and reclamation and present this to the people land owners as a business plan to vote on?	Mineral development is subject to regulations under 43 CFR 3809, which provides resource protection. Additional environmental analysis will be necessary for site-specific development. The NEPA process will afford the public input.
102-1	The jobs resource development brings does not hire local Alaskans or train local Alaskans to qualify for the jobs.	Corporations in the tourism, seafood, oil and gas, and mining industries in Alaska currently hire and train Alaskan residents…with mixed results. Red Dog Mine is a good example of local hire.
130-6	The Kobuk-Seward Peninsula should be protected from resource development because the potential resources or economic gain is not sufficient to out weigh harm to the environment.	The tradeoff between short-term benefits and long-term productivity are considered in Chapter IV, section (J) "Short-Term uses vs. Long-term Productivity."

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201-1	It is critical at this time to open the lands to mineral entry, to open the door for economic development.	Most of the planning area will be open to both locatable and leasable mineral entry under the Proposed RMP/Final EIS.
HAZARDOUS MATERIALS		
1-11	Prescribed burning releases mercury and fine particulate matter into the air causing air pollution and that fine particulate matter causes lung cancer, heart attacks, strokes, asthma, pneumonia and allergies.	Neither prescribed fire nor wildfire release mercury as they burn. The only way mercury could be released by fire is if a mercury contaminated site burned. We know of no such site(s) in the planning area. Prescribed fire does release particulates into the air, however we know of no data that links prescribed fire as the cause of pulmonary, respiratory or allergic conditions or disease. While people with asthma or allergies may be affected by prescribed fire, healthy individuals should not be affected. Before any prescribed fire is implemented smoke management is thoroughly addressed in a burn plan.
52-48	Pg. 3-251 (1) Potential Sources of Hazardous Materials: "There are 14 known contaminated sites ..." There are many more sites than this shown on Map 3-36. We assume the remainder are not administered by BLM's Hazardous Materials Program.	The assumption is correct. The list of sites from available data sources is plotted on the map along with the generalized land status. The 14 sites mentioned are on BLM-administered lands.
52-49	The second sentence under (1) Potential Sources "Most sites are or were related to... mining..." This statement is not supported by the map where only three mining sites are marked and at least one of these, Big Harrah, is not abandoned. If this entire line of reasoning is not removed, at the very least the word "most" should be changed to "some".	Most sites that affect BLM-administered lands where a potential responsible party, such as the Department of Defense, is not present or does not exist are associated directly and indirectly with mining related activities.
52-50	The majority of Hazardous Materials Sites in the region are related to military activity. With only 14 sites it should be a simple matter to list them and spell out the contamination for each.	Thank you for your comment. More detailed information on the 14 sites on BLM land is available from the Fairbanks District Office and Anchorage Field Office.

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52-51	Pg. 3-252 Table 3-37: we suggest that cyanide be replaced by mercury as it was more widely used historically by mines in the planning area for recovery of gold. Also, cyanide converts to carbon and nitrogen very readily unless extraordinary management effort is expended to maintain pH. If cyanide was used it would have broken down naturally after a few weeks, let alone the decades that have elapsed. Mercury can and does persist in the environment in its metallic form and can react to produce toxic organic forms of mercury such as methyl mercury. See www epa gov/rnercury/index .htm for more info.	The comment is noted and the contaminant has been added to Table 3-37.
52-52	Pg. 3-253: Table 3-38 purports to list potential effects and risks. This is tremendous overkill and totally unnecessary when considering the size of the potential problem... This table should be dropped.	The potential affects and risks table (Table 3-38) is related to the inter-relationship of contaminated media and potential impacts.
		ENVIRONMENTAL JUSTICE
65-39	If nonlocal hunters are given unlimited access to the wildlife and fish resources in the planning area, to the detriment of local use of the same resources, then the plan has had a disproportionate effect on the local community. BLM should evaluate possible effects on the local communities' use of resources not only for compliance with ANILCA, but also as part of its mandate to consider environmental justice.	In the East Alaska RMP we evaluated the effect of total loss of subsistence hunting areas under an alternative proposing complete transfer of the TransAlaska Pipeline Utility Corridor. This indicated effects on all hunters holding Federal subsistence permits, as key areas would be unavailable. In the Kobuk/Seward Peninsula Planning area local residents are not losing Federal subsistence permits, or hunting area. They, in fact should have a continued advantage over non-local hunters. If the game populations fall to a level of concern for subsistence, the ADF&G and the State Game Board will correspondingly limit general hunting. That said, we are not at a point where there would be disproportionate local *economic* effects.

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SUBSISTENCE		
5-1	I would like to comment on the importance of subsistence, especially the Western Arctic Caribou Herd and then also the harvesting of timber for firewood and/or for building purposes be allowed in some areas along the rivers. And the biggest concern we have is protecting our subsistence and access to those subsistence resources be it caribou, or fish, or moose.	BLM recognizes the importance of the Western Arctic Caribou Herd in terms of both its wildlife value and as a subsistence resource. The use collection of small amounts of dead and down wood for campfires or similar personal use is allowed on BLM lands. Harvesting larger amounts of live, or dead and down timber for personal use firewood, houselogs, or similar purposes is also allowed but requires the harvester to obtain a permit from the BLM pursuant to 43 CFR 5500. Section 811 of ANILCA directs the BLM that subsistence users must have reasonable access to public lands for subsistence use. See response to comment # 24-5.
9-1	The changes that BLM is considering to adopt will negatively affect our access to the land for hunting and fishing….restrictions will be imposed such as they have along the Alyeska Pipeline corridor...if mineral mining takes place within this area, area restrictions will be adopted to protect the workers, their camp and equipment.	The level hard rock mining likely to occur on BLM lands is so low, it is very unlikely to have any significant impacts on subsistence use. Based on past experience in opening areas to mineral exploration, it is envisioned that only 3-5 new small scale operations (defined as 250 cubic yard/day operations), and 1 medium-sized operation (5,000-7,000 tons/day) could result; no large scale operations like that at Red Dog are envisioned. This is based on both the low mineral potential of the planning area, and the remote locations of known mineral occurrences. Restricting subsistence users from accessing public lands is not allowed under ANILCA, and the Dalton Highway Corridor (referred to in comment as Alyeska Pipeline Corridor) is open to subsistence hunting for communities that live near and within the corridor (see Unit 24 Subsistence Hunting Regulations, 50 CFR 100 and 36 CFR 242).
11-3	The sale of lands should not be considered at all as our subsistence way of life would be threatened, through more people moving in, and this in turn would affect the migration of caribou, fish/animals would be depleted because of more hunting/fishing competition.	Thank you for your comment. See response to comment # 34-2.
12-1	I oppose mining that would affect our subsistence way of life. The Natives lives on all seasons of subsistence fall, winter, spring and summer	Thank you for your comment. See response to comment # 9-1.

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17-1	I can contend to you today that subsistence has been severely impacted by the activities that I think BLM has permitted in terms of commercialism and that we haven't did a total inventory in our area as to how those impacts has added up until now.	One of the primary purposes of the current planning effort is to assess the current management strategy employed by BLM on lands in the planning area, in order to update and apply needed changes to this strategy. The ANILCA 810 evaluation of Subsistence Use and Needs found that Alternative A, the No-Action Alternative that would continue the current management of the planning area with no changes, was found to result in a significant restriction to subsistence in the Squirrel River Area. This finding was a result of both the low numbers of moose, and the direct competition for resources and access as a result of sport hunting. It is the intent of this planning effort to work with local communities and stakeholders to address and minimize these impacts to subsistence.
18-1	If transporters will be allowed to do operations in this country all the way from the headwaters of the Koyuk River, Granite Hills down to Ungalik, if its anything like what it is up north, then subsistence will be drastically impacted.	Thank you for your comment. See response to comment # 75-2.
24-5	In some cases Native corporations may have developed land use policies for protection of the land for wildlife or subsistence purposes. When lands were selected by ANCSA corporations subsistence uses were of primary concern. I believe that BLM should develop a policy to protect subsistence uses in those cases even though ownership may revert to BLM.	BLM manages subsistence under the Alaska National Interest Lands Conservation Act (ANILCA). Section 802 of ANILCA (16 U.S.C. 3112) states the policy of subsistence management and use under ANILCA as: "consistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands; consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for each unit established, designated, or expanded by or pursuant to titles II through VII of this Act, the purpose of this title is to provide the opportunity for rural residents engaged in a subsistence way of life to do so." To this end, BLM is committed to cause the least adverse impact possible to subsistence use while still fulfilling its mandate of allowing multiple-use on Federal public lands.

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24-7	BLM must not avoid provisions that protect subsistence and must not put in place conflicting land use policies that negatively affect that priority. I believe allowing resource development on federally qualified lands violates ANILCA. BLM permitting does not always coincide with State or Native subsistence use priorities...Subsistence uses are maintained as a priority in Federal Law and BLM permits must reflect State and Federal Fish and Game laws and not negatively impact subsistence uses.	In ANILCA, the subsistence priority is directly related to the harvesting of resources, and specifies that harvesting for subsistence purposes will be given the priority over other harvesters (such as commercial or sport), if there is a shortage of resources. ANILCA Section 804 states that on Federal public lands the "taking of fish and wildlife for nonwasteful subsistence use shall be accorded priority over the taking on such lands of fish and wildlife for other purposes" and goes on to further define the criteria by which the decision to prioritize harvesters will be made, and is the responsibility of the Federal Subsistence Board. BLM is mandated to manage Federal lands for multiple use, including resource development, and this is not a violation of ANILCA. BLM strives to minimize impacts to subsistence as is mandated by ANILCA (see response to letter # 24-5).
24-21	It must be recognized that some subsistence uses have remained completely separate from the influence of mining and it may not hold any co-existence can occur between mining and subsistence under the broad and general statements within the RMP EIS….Traditional Native subsistence values are largely ignored under modern rules and regulations. Additional, commercial and sport uses from outside influences may bear upon the resources or RMP EIS and will affect my culture.	Much of this comment is unclear; subsistence use and mining, especially small-scale mining, has occurred concurrently throughout the state, and while there have been impacts to indigenous populations as a result of introduced diseases, this is not a direct reflection on mining, but on contact between people regardless of what motivates that contact. And, it is true that many of the rules and regulations regarding hunting and fishing, both those set by the State of Alaska and those set by the Federal Subsistence Board, do not incorporate traditional subsistence values, in part because those values vary from culture to culture. However, this is an issue beyond the scope of this plan, as the Federal Subsistence Board, and not BLM, is responsible for enacting subsistence management regulations through the Federal Subsistence Program. BLM is addressing the commercial and sport use within the planning area using recreation and travel management parameters as specified in Chapter II, Sections B(2)(d) and (e) "Recreation" and "Travel Management/OHV."
25-3	There have even been non-local hunters that have come into the Fish and Game office upset because they saw people leaving racks behind and only bringing in the meat...but the people it most affects are the local subsistence hunters and there is concern that villages in that area are being impacted by potential changes in the migration route.	The largest block of BLM-managed land within the major migration routes of the WACH is the Squirrel River watershed. A Recreation Area Management Plan will be developed for this area to address these concerns. When and if BLM receives any applications for linear ROW through caribou migration routes, impacts to caribou will be considered and mitigated to the extent possible. Facilities will be designed so as not to impede caribou movements.

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31-5	Subsistence is really important to us and as far as numbers in terms of floaters, guides. You know I hope that somehow our village, our tribe, our elders could be involved in probably regulating those numbers with the State if its going to continue as it is.	BLM is proposing to create a Recreation Activity Management Plan for the Squirrel River Area to address and minimize recreation and subsistence use conflicts. It is the sincere hope of BLM that we will get significant input and help from local communities, including residents and governmental entities, in creating this plan.
31-7	Supposing that there was some decision made within this ANILCA Section 810 Analysis of Subsistence Impacts-the land that you own. For instance is there going to be any discrimination saying certain individuals can't hunt, its still open to natives is that the case?	An ANILCA 810 evaluation is not a decision document, but is an analysis of how a proposed action may affect subsistence. Because BLM must cause the least impact possible (see response to comment # 24-5) to subsistence under ANILCA, the 810 evaluation identifies those impacts that may occur, so that managers can alter the proposed action or mitigate the identified impacts in order to lessen impacts to subsistence. Section 811 of ANILCA directs BLM that subsistence users must have reasonable access to public lands for subsistence use.
33-1	We depend on this meat. What we hunt, we eat it. And if we allow sports hunters and trophy hunters to come in, they are gonna leave meat out there. Just drag them in the willows or whatever you know. I oppose this wild and scenic [rivers]. Thanks.	Thank you for your comment. See response to comment # 78-9.
34-2	I wish we would oppose all this selling of all the land; that would help us with our subsistence life.	The Preferred Alternative (D) allows for land sale in the immediate vicinity of Nome and Kotzebue (Table 2-16). Sale of BLM land is unlikely to occur.
36-1	We ask if you have any money for us to go out subsistence hunting, with this high cost of gasoline and fuel too. We know you guys ask for so much land, why can't you ask for gas to help us subsistence.	BLM is not authorized to use Federal funds as payments to communities or individuals for fuel, or to purchase fuel for a community's or individual's use. The land that is managed by BLM is considered public land, and it is held in trust by the Federal government for the benefit of all U.S. residents. In Alaska, these lands were defined as part of the land claims process (ANCSA and ANILCA).
48-3	The Section 810 determination should reflect that there is a dramatic impact from this mine itself [Red Dog] and there is no documentation or no baseline in dealing with the affects of our animals, our people from Red Dog Mine.	The ANILCA 810 analysis includes the Red Dog Mine and accompanying Portsite in the Cumulative Case, which was found to meet the threshold of "may significantly restrict" subsistence use. Given the low mineral potential of the BLM-managed lands within the planning area, a mine such as Red Dog is not likely to occur on BLM lands. Impacts from Red Dog Mine are discussed in Chapter IV, section (G) "Cumulative Impacts".

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50-1	But if somebody turns them (caribou) around, like in those Selawik Hills where they come from that direction then they're going to go way up, another 50, 60, 70 miles up there where we can't get at them.	Thank you for your comment. See response to comment # 25-3.
54-6	Place emphasis on protecting our fish and wildlife for local subsistence users.	Fish and wildlife are important resources, and we will make every effort to protect these resources and their habitats from undue harm as a result of management decisions by BLM.
58-68	[BLM should] assess the impact on subsistence related to recreational use of the Planning Area; determine how changes to current procedures will reduce negative impacts on subsistence;	Impacts to subsistence as a result of Recreation Management are described in Chapter IV, section F(3) "Alternative A", F(4) "Alternative B", F(5) "Alternative C" and F(6) "Alternative D" of the Proposed RMP/Final EIS.
63-2	A large portion of the local population relies on the land for subsistence hunting and fishing. For wildlife to remain plentiful and available, thus allowing adequate subsistence harvests, it is important that industrial development of the land be kept to a minimum. This is even more important now, as rising fuel prices (currently at $4.00/gallon and expected to rise significantly in the next few weeks) impact household budgets, causing more and more people to rely on subsistence to help make ends meet.	While the Plan is proposing to open millions of acres to mineral location and leasing, the surface disturbance resulting from this activity is expected to be less than 6,000 acres (or less than one percent of the area involved) over the 20 year life of the plan. This represents the anticipated exploration and development activity to result from management actions in the planning area. This low level of development is not anticipated to significantly impact subsistence use or resources.

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64-10	Ch.1, Introduction/p.10, Issue Statement 2, Subsistence: The second sentence states that ANILCA requires that rural residents have a priority over other users to take fish and wildlife for subsistence on Federal public lands where a recognized consistent and traditional pattern of use exists. This statement is inaccurate. ANILCA Sections 802 and 804 specify that rural residents shall be given preference (or accorded priority) for the taking of fish and wildlife over other consumptive uses only when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of that population. Please correct this sentence.	You are correct, this is an inaccurate statement in the Draft RMP/EIS. Thank you for pointing this out; it was corrected in the Proposed RMP/Final EIS.
64-29	Subsistence on pages 2-120 and 2-121, cooperation and coordination with ADF&G and the state regulatory boards is not referenced either as a goal or management activity. The State continues to regulate subsistence harvesting on all lands statewide, except in specific locations where federal subsistence regulations supersede state regulations. Consequently, in this section we request BLM express its continuing commitment to working with the State on subsistence management activities.	BLM is committed to working with the State on subsistence management. Additional language regarding coordination with the State was added to the Proposed RMP/Final EIS, Chapter II, section (B)(5) "Subsistence".

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64-41	Pgs. 3-276 to 3-294: The narrative and maps in this section are very informative. The authors acknowledge that subsistence use data are not available for all communities (pages 3-280 and 3-282), but do not indicate if any significant gaps occur that should be addressed in order to fully assess local use and importance of Bureau lands for subsistence purposes. Identification of information gaps that need to be addressed in the plan is important to ensure that someone does not misinterpret the information when land use issues arise in the future and this plan is utilized in decision-making.	Thank you for your comment. Additional language was added to Chapter III, section (F) "Subsistence" of the Proposed RMP/Final EIS clarifying that there are information gaps in the subsistence data. BLM will attempt to identify information gaps and consider the most updated information when implementing decisions in the RMP.
64-43	Pg. 3-279, Subsistence Patterns Today, fourth paragraph: The first sentence indicates that during the scoping process, the public submitted comments that indicate protection of subsistence use is integral to the well being of Iñupiat people in the planning area. We...suggest the final plan modify the statement to recognize that subsistence is important to all residents of the planning area.	Thank you for your comment. An additional sentence was added to the Proposed RMP/Final EIS to address the fact that subsistence is important to all residents.
64-44	Pg. 3-284 Table 3-49: In the last column this table presents a dollar value of resources harvested for subsistence purposes...provide a notation explaining the figures in the table, e.g., whether the value is a per capita figure.	Thank you for your comment. The recommended change was made in the Proposed RMP/Final EIS.

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65-33	While BLM plans to hold the required hearings about impacts to subsistence under Alternative A and the cumulative case, BLM does not intend to seek public input on impacts to subsistence under the preferred Alternative (D), even though the agency acknowledges that significant impacts to subsistence use of the WACH could result under this course of action. RMP/DEIS, at D-13.	We disagree. Although the Draft Section 810 Analysis only identified a positive impact on subsistence in No Action Alternative and Cumulative case, participants at the hearings were encouraged to comment on all alternatives and the validity of the findings. According to BLM policy, a positive finding of "may significantly restrict" subsistence use for any alternative including the cumulative case triggers the requirement to hold ANILCA 810 hearing(s) in the vicinity of the area involved. ANILCA 810 hearings are for the purpose of eliciting input regarding subsistence from potentially affected communities. As was stated at the beginning of each 810 Hearing: "Before we begin to take comments I would like to stress that our meeting today is specifically to hear comments and concerns related to the Kobuk-Seward Peninsula Draft Resource Management Plan and Environmental Impact Statement and the ANILCA Section 810 finding in it. Your comments will serve several purposes. They will tell us if we have correctly identified the resources of the area, uses of these lands and the potential affects of the different alternatives in the Draft Environmental Impact Statement. You can suggest other alternatives that would reduce or eliminate affects on lands and resources needed for subsistence purposes. **You can also tell us if the proposed subsistence findings in the Draft Environmental Impact Statement are accurate and whether we have left anything out of our subsistence evaluation.** Finally, you can make suggestions or recommendations to us on things that we can do in order to minimize impacts to subsistence."
65-37	In addition, BLM determines that Alternatives B, C, and D will have no significant restrictions on subsistence uses in part because of “the management parameters outlined in Chapter II of the main document and including the Stipulations and ROPs found in Appendix A.” RMP/DEIS at D-10 (Alternative B); see also RMP/DEIS at D-11 (Alternatives C and D). However, the stipulations and ROPs are not stringent. If these stipulations and ROPs are not adequate to protect the caribou herd, BLM’s findings may not be supportable. Thus, it is likely that these alternatives [B, C, D] may have a significant restriction on subsistence uses.	A Resource Management Plan differs from, for example, a specific, detailed project request to BLM for a permit for use or occupancy. The purpose of a Resource Management Plan is to define in broad terms BLM's goals and objectives for resource management of an area, including potentially-allowed uses and protections. The Stipulations and Required Operating Procedures in this RMP comprise a list of overarching measures that would be taken for resource protection. For every individual project or request for permitted activity, an ANILCA 810 evaluation will be completed, and additional mitigation measures that serve to minimize project-specific impacts will be applied.

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65-87	If a spill occurred in the planning area, it could have profound and lasting effects on the amount and quality of subsistence resources.	It is not likely that oil and gas leases will be let in this remote area of Alaska within the life of the RMP. However, it is an option that we are directed to consider, including the possibility of an oil spill. We agree that oil spills could cause deleterious effects on subsistence resources, and will strive to put in place appropriate mitigation measures, should leasing become viable. See also response to comment # 312-1.
65-131	Alternative A or the "No Action" Alternative, "may significantly restrict subsistence use and needs in the Squirrel River." Appendix D, at D-7. This restriction cannot be approved under ANILCA. See 16 U.S.C. 3120(a). It is not necessary, as it would not occur under Alternative C. Furthermore, it does not involve the minimal amount of public lands necessary to accomplish the purposes of the Squirrel River's intended use, and BLM has not proposed any steps to minimize the adverse impacts on subsistence uses that would result from this alternative. Alternative D does not meet the requirements of ANILCA.	Under Alternative D, BLM is proposing to hold the level of guide permits issued in the Squirrel River Area to the 2004-2005 level while completing a RAMP that would include significant input from local entities, including subsistence users. The final determinations referred to in the comment, i.e., Section 810(a)(3), if applicable, will appear in the Final Section 810 Analysis accompanying both the Proposed RMP/Final EIS and the Final RMP/Record of Decision as described on page D-17. See also response to comment # 198-5.
66-2	Development associated with mining and the roads needed for mining may produce sedimentation, erosion, pollution, and habitat loss, which would be deleterious to the resources that people from this region depend upon to support their subsistence lifestyle. Although some development is acceptable, it must be carefully regulated and monitored so that subsistence resources are protected.	We agree that these potential activities could harm resources if not designed, managed and monitored properly. When and if development such as this is proposed to BLM, an additional NEPA analysis including an ANILCA 810 evaluation will occur. The Required Operating Procedures in Appendix A also serve to prevent the impacts mentioned by the commenter.

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75-1	Koyuk's longtime traditional subsistence boundaries, still being used by our people today, run from Isaac's Point up towards the head of Kiwalik River over towards the mouth of North Fork of East Fork River down Tipooktukearuk River down towards Ungalik River (Inglutalik River Inclusive). Any careless hunting, fishing, and mining activities occurring upon and near the headwaters of the rivers mentioned above, or connected to the rivers above, will negatively affect health of the fisheries and other renewable resources to the mouth of these rivers.	Thank you for the information regarding Koyuk's subsistence use area; it will be cross-referenced with the maps in this document to check the accuracy of the maps. BLM will strive to put in place appropriate mitigation measures to ensure that negative effects will be kept to a minimum.
78-9	Almost every part of the document will in some way impact subsistence use and access. Subsistence is still the highest priority use for these lands and the overall charge of the Federal Government's responsibility as it relates to the lands they manage and to the people through the ANILCA 810 statute. There needs to be more consideration given these needs and the way the BLM goes about making sure local people are involved with the management activities and changes to these.	See response to comment # 24-5, and comment # 31-5. BLM will strive to put in place appropriate mitigation measures to ensure that negative effects to subsistence will be kept to a minimum.
80-1	Caribou hunting provides food on the table. Fishing and gathering are very critical to the residents in our area [Selawik] and need to be protected to the utmost level.	Caribou, especially the Western Arctic Caribou Herd, have been identified as a critical resource in the RMP. Several "Areas of Critical Environmental Concern" (ACECs) are proposed, most because of the role they play as critical habitat for the WACH. By designating these areas as ACECs we are able to apply additional protective measures and respond quickly to changes or threats that have yet to be identified. Please also see response to comment #78-9.
110-1	Our subsistence resource is already declining and with any development, further development, it would greatly decline our subsistence resources and mineral resource.	Thank you for your comment. See response to comment # 9-1.

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136-1	I am writing in favor of Alternative C which favors the conservation of our wildlife, fisheries and subsistence activities. There is nothing that can replace our wildlife and fish that we depend on for our lifestyle.	Management objectives for fish and wildlife, as well as required operating procedures to protect these resources when permitted activity occurs, accompany every action alternative in the RMP. See also the response to comment # 24-5.
197-5	Communities outside or adjacent to the Planning Area [such as Point Lay, Wainwright, Unalakleet, Huslia, Allakaket, Koyukuk, and Nulato] should have been given opportunity for Section 810 evaluation as many of these communities will also be affected by actions taken in the Planning Area.	Point Lay is within the Planning Area, and has been included in all correspondence, including receiving copies of the Draft RMP. Any Federally-recognized tribe has the ability to request to be included in the tribal consultation process. Additionally, BLM welcomed comments from any and all individuals, community entities, or other organizations. See comment #198-2.
197-18	Pg. 2-120 to 2-121 a) Goals: Fourth bullet should also include displacement from non-local and recreational hunters that are permitted by BLM.	We agree, and this was added to Chapter II, section (B)(5) "Subsistence" under goals.
198-3	BLM is violating of section 810 of ANILCA by allowing transporters and guides to use public lands under its jurisdiction before complying with section 810 of ANILCA. The borough requests that the BLM immediately refrain from permitting big game transporters, air taxis, guides, outfitters and their clients from operating on BLM lands until BLM has fulfilled its legal obligations under section 810 of ANILCA.	It is unclear in this comment how you feel BLM has not complied with ANILCA 810, and what the legal obligations you refer to are. Under the management plan currently in place (which this RMP is attempting to update) the only activity that you list which BLM permits (i.e., issues a permit for) is commercial guiding. In order to significantly change the current management parameters in place on lands in the planning area, BLM has to go through the planning process.

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198-4	In explaining its rationale for waiting to take action until it has developed an RAMP in addition to the RMP, the BLM claims: "Under this scenario, impacts to subsistence users of the area due to increased competition from nonlocal hunters would continue, but would not increase, until which time the RAMP is in place." Appendix D-12. It is not possible for BLM to predict that impacts will not increase because there is absolutely nothing in BLM's current management or draft RMP that will prevent increased use by transporters, air taxis and their clients. Uses by transporters and their clients have in fact been increasing and will likely continue to increase given BLM's failure to manage these uses. Moreover, this statement seems to indicate that the only impact on subsistence users in the Squirrel drainage is due to "increased competition". This ignores disruption to caribou migration patterns and other significant impacts.	As an interim and information-gathering measure, BLM is proposing to require permits of all transporters and air taxis operating in the Squirrel River Area during development of the RAMP as part of the Preferred Alternative in the Proposed RMP/Final EIS. The permit will include the requirement of transporters to document and provide to BLM the number of people transported, and the location of all drop-offs and pick-ups. This information will be used in developing the acceptable use parameters within the RAMP. This finding for Alternative A in the ANILCA 810 evaluation was based on a variety of factors, including: testimony during the scoping meetings by local residents that described in detail impacts that they personally experienced due to increased competition by non-resident hunters; the increase in OHV use by hunters in recent years, leading to a degradation of habitat; an increase in air traffic resulting in the probable displacement of resources from subsistence harvest areas; and the low numbers of moose in the area according to recent ADF&G monitoring.

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198-5	BLM's 810 analysis is wholly inadequate. As stated above [comment 198-4] , the alternatives evaluated in the Draft EIS and 810 analysis do not satisfy the requirement in section 810 that requires an evaluation of alternatives that would reduce or eliminate the use of lands needed for subsistence. BLM's stated strategy (Draft RMP/EIS at Appendix D-11 and 12) to allow transporters and the general public to have 'no set limits on use" while the BLM develops the RAMP is arbitrary, capricious and itself a continued violation of Section 810.	The purpose of an RMP is to define in broad terms BLM's goals and objectives for resource management of an area, including potentially-allowed uses and protections. The various resource management strategies presented in the Draft RMP/EIS represent a range of alternatives, each with defined parameters, including specific limitations and/or mitigation measures, for every resource use. This range of alternatives includes the designation of ACECs in order to identify and create special provisions for areas that are critical to subsistence and other resources, and which constitute reduction in use. The statement in the ANILCA evaluation that you refer to is not BLM's strategy, it is merely a statement of the fact that there is not a set limit on the number of nonlocal hunters who utilize this area - a limit that is set through hunting regulation by ADF&G using the Tier II or registration permit process or by the Federal Subsistence Board by closing the area to nonsubsistence users. BLM is attempting to do what we can in this matter, given that the use that we are able to manage through the RMP is that related to the land - such as camping or allowing/not allowing OHVs - and not related to hunting. Because guiding is a commercial activity requiring a permit from BLM, we have some ability to manage this use. Hunting, whether it be by locals or nonlocals, is managed by the State or the Federal Subsistence Board, and not BLM. Allowing nonlocals to hunt in Unit 23 is not a decision that can be made by BLM, so the argument that BLM is making this decision arbitrarily or capriciously is wrong. Since the ANILCA 810 findings are on those uses under the control of BLM, the claim of a continued violation is moot with regard to this decision.
198-6	Each individual 810 evaluation for the Squirrel drainage guides is flawed because it fails to sufficiently analyze the factors required by the law. BLM simply makes conclusory statements in the required evaluations instead of genuinely taking a hard look at alternatives. Moreover, BLM has failed to look at the cumulative impact of all the guides it has permitted to use this area.	Thank you for your comment. Although BLM disagrees that our previous EA level 810 analyses were flawed, we are keenly aware that user conflict issues in the region are of the utmost importance. It was due to our awareness of these conflicts that BLM has not allowed new guides into the Squirrel River region since 2004/2005. The combination of capping the number of guides and increasingly restrictive hunting regulations (e.g., limited moose permits) has likely reduced the cumulative impacts of guides in the Squirrel River region from 2001. We believe you will find that the 810 analysis for this NEPA document (i.e., the Proposed RMP/Final EIS) fulfills all of our legal requirements and addresses your concerns.

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198-9	It is hard to square BLM's determination that Alternative A meets the threshold for the 810 analysis because it may 'significantly restrict subsistence uses" but Alternative B, C and D do not. The 'Effects on Subsistence" described at 2-144 suggest that all the alternatives require analysis under Section 810 and under cut BLM's conclusory statements in Appendix D that they do not.	All Alternatives, as well as the cumulative case, were analyzed in the ANILCA 810 evaluation accompanying the Draft RMP/EIS (Appendix D). The ANILCA 810 evaluation for the Kobuk Seward Peninsula RMP resulted in a finding of "may significantly restrict" subsistence for Alternative A, the No-Action Alternative, for the Squirrel River drainage. This finding was based on a variety of factors, including: testimony during the scoping meetings by local residents that described in detail impacts that they personally experienced due to increased competition by non-resident hunters; the increase in OHV use by hunters in recent years, leading to a degradation of habitat; an increase in air traffic resulting in the probable displacement of resources from subsistence harvest areas; and the low numbers of moose in the area according to recent ADF&G monitoring. These factors, when combined, led to the finding of "may significantly restrict" for that area under the management scenario of Alternative A. All of the action alternatives in the plan (Alternatives B, C, and D) propose measures to be taken by BLM to rectify the situation within our legal jurisdiction, i.e., limiting the number of guides and outfitters authorized to operate in the area and limiting the number of visitor-use days associated with guiding. This new management scenario for the area will allow for a decrease in competition, an increase in access, and reduced disturbance to wildlife. It is for these reasons that Alternatives B, C, and D do not result in a finding of significant restriction for subsistence.
317-1	I prefer Alternative C, the option that protects wildlife, fish and subsistence and caribou. Why? It is one of our only means of food for basic survival and we will protect it with all our worth. We live off the land.	Management objectives for fish and wildlife, as well as required operating procedures to protect these resources when permitted activity occurs, accompany every action alternative in the RMP. See also the response to comment # 24-5.
RMP/EIS Process		
1-9	The references are so old that they are not suitable at all for making plans for the future.Taking 1950 information and using it to make plans for 2010 leads to complete inaccuracies and unreality.	It is not clear which reference you are referring to. Some references from the 1950's or even earlier are still valid sources of information.

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15-2	The Service concludes that several activities permitted under the preferred alternative may have adverse effects on listed species. Therefore, formal consultation under section 7 of the Act is required.	BLM is currently conducting informal consultation with the USFWS and if formal consultation is determined to be necessary, a BA will be prepared and formal consultation will be requested.
15-4	You described that wind turbines for power generation are only likely to occur immediately adjacent to communities within the Planning Area. It should be noted that if development of facilities were to occur later, consultation might need to be reinitiated if the assumptions of the scenario are violated, or other changes occur that would affect the conclusions of the original BA and BO.	BLM is aware of it's obligation to reinitiate consultation as required 50 CFR 402.16.
15-6	The Planning Area is within the ranges of the spectacled eider (*Somateria fisheri*) and the Alaska-breeding population of Steller's eider (*Polysticta stelleri*), both listed as threatened under the Endangered Species Act (Act). Due to the potential for projects authorized by the RMP/EIS to impact listed eiders, consultation under section 7 of the Act is recommended.	Thank you for your comment. See response to comment # 15-2

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15-7	No other threatened or endangered species occur in the project area; however, Kittlitz's murrelet (*Brachyramphus brevirostris*), a candidate species for listing, is also thought to breed on the Seward Peninsula and north to Cape Lisburne and the Lisburne Hills. Additionally, the Service has been petitioned to list yellow-billed loons (*Gavia adamsi*) and polar bears (*Ursus maritimus*), both of which occur in or immediately adjacent to the Planning Area, under the Act. Under section 7 of the Act, candidate species and those petitioned for listing are not assessed as part of the consultation; however, if these or any other species are listed in the future, it will be necessary to reinitiate consultation.	If any additional species are listed during the life of the RMP, BLM will reinitiate consultation with the Service.
23-2	I would encourage BLM to consult directly with us [Bering Straits Native Corporation] as far as the future management and the effect of this on those sites [cemetery historic sites] and use of those sites by the Corporation's shareholders. And I believe that that would be required under Section 106 National Historic Preservation Act	Section 106 does not address ANCSA 14(h)(1) sites as well as it should. In many cases, these sites can fall outside the purview of section 106 in that cemetery sites are often not considered "historic properties", and many 14(h)(1) sites may not fulfill national Register eligibility criteria. That said, the prudent course for the BLM and other federal land managing agencies would be to recognize that these sites are significant and important to shareholders, and undertake consultation when considering undertakings that may adversely effect these sites, even if the affects are indirect. See also comment # 24-26.
31-1	And you said something earlier like well we are going to close hunting in this area if we chose this alternative. Which means are you going to treat the natives just the same as you do anyone else? Or are you going to treat the natives continuing this ANILCA Act where, you know we can come in. Even though you have an alternative can we continue to hunt?	BLM does not close hunting seasons. That is done by Alaska Department of Fish and Game, The Board of Game, and the Federal Subsistence Board. The Proposed RMP/Final EIS does not propose to close any areas to hunting.

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31-3	When we talk about hunting and limiting those numbers and you talk about so many, 1,400 [VUD] for this time period you know, I don't think you are including us [Native communities] in that number. There are sports hunters they are allowing, talking about so just make sure that we know that there is a difference there.	The 1,400 visitor use days (VUD) proposed in the Squirrel River under Alternative B would only include VUD associated with guides and outfitters.
65-43	We request that BLM prepare a Revised Draft RMP/EIS that sets forth adequate ORV [outstandly remarkable values] descriptions so that the public will have an opportunity to review and comment on this information before a Final RMP/EIS is issued.	In developing the list of eligible rivers (i.e. free-flowing rivers with one or more outstandingly remarkable values) we used input from the scoping and alternative development processes. Since all the rivers in the planning area are free-flowing, we focused on those rivers where the public or interdisciplinary team members identified important river-related values that should receive protection. Generally, the description of such values was quite limited in detail, as would be expected with such a large planning area. After looking at a sample of rivers that have been congressionally designated as components of the national wild and scenic rivers system, it was obvious that there is a wide range of river-related values that can meet the standard of being outstandingly remarkable. Rather than limit consideration of individual rivers over questions of eligibility, the team took a very open view of outstandingly remarkable values: if during scoping and alternative development certain river-related values were singled out for protection, then the values could be considered outstandingly remarkable, at least at the draft EIS stage. As a matter of interest, we received no comments on the Draft EIS that identified additional rivers with outstandingly remarkable values, nor did we receive any comments indicating the outstandingly remarkable values we identified in the Draft EIS were not outstandingly remarkable.
65-98	BLM should clarify whether it will rely on RMP/EIS for future decisions. BLM must provide key stakeholders in the region with opportunities to provide analysis and input on any proposals for future resource development, or other activities that may damage resources or resource values in the planning area.	Any site-specific proposal or request for permit from BLM must be in conformance with the Final RMP. When site-specific development proposals are received, BLM will analyze impacts through the appropriate NEPA document. These documents will be available for public input. Based on the results of the analysis, BLM will make a decision on whether or not to approve the project.

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65-99	The Final RMP/EIS also must clarify and provide a detailed explanation of how the BLM may tier off the document for future decision-making on resource development or other activities that may damage resources or resource values.	The tiering process is described in the BLM's National Environmental Policy Act Handbook (H-1790-1). Tiering is used to prepare new, more specific environmental documents without duplicating relevant parts of previously prepared, more general, or broader documents such as RMP/EIS. The decision to tier off the Final RMP/EIS would be made on a project specific basis. When a proposal is received, BLM will look at existing NEPA analysis, including the Final EIS and determine if it is appropriate to tier.
65-125	The Fairbanks District Office [should] follow the example set by the Glennallen District Office's Final East Alaska RMP/EIS in regard to clearly depicting changes made from the draft to the final document.	Thank you for your comment. A similar process was followed.
198-7	The BLM should immediately begin to develop a RAMP for the Squirrel drainage and should do so on an expedited basis. The RAMP should be independent of the RMP to allow it to move at a faster pace.	We have requested funding to begin a recreation area management plan (RAMP) for the Squirrel River in 2008. The Proposed RMP/Final EIS will identify the Squirrel River as a Special Recreation Management Area, making it eligible for funding for a RAMP.
PUBLIC OUTREACH/INVOLVEMENT		
1-6	Page 1-18- Where is your outreach to animal protection groups like Humane Society, Friends of Animals, Doris Day Protection League, IDA, etc	Public comments were solicited during scoping and the public comment period for the Draft RMP/EIS through Federal Register Notices, press releases, the BLM web page, newsletters, and other sources.
1-11	Since this is a National area, how are you planning to keep the national taxpayers who are taxed to support this area involved and aware of the changes BLM management has in mind.	The public will be informed through the BLM webpages, news releases, Federal Register Notices, Newsletters and other publications. Interested parties can request that they be kept informed by having their name added to the mailing list for this plan.
24-13	[T]argeting a presentation to the *International Society of Arctic Char Fanatics* is of concern because I am not aware of a presentation within this region other than perhaps a small circle of State or Federal fish biologists.	BLM is willing to give presentations on Arctic Char within the region. Any such presentations would be open to the public. We want to keep the local residents informed on Arctic Char issues and concerns.

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24-22	I feel that tribal consultation was grossly deficient for this RMP/EIS. I feel that BLM has NOT made the appropriate efforts with tribes for the RMP/EIS planning area.	BLM requested government-to-government consultation with 25 tribes within the planning area in March 2004. Newsletters outlining progress on the plan were mailed to these tribes during development of the Draft RMP. Seven scoping meetings and 10 public meetings were held within the region. A schedule of all these meetings was provided to all the tribes in advance of the meetings. The public comment period was extended to allow for additional input from Tribes. We received comments from several tribes on the Draft RMP/EIS.
24-23	I feel that BLM violated Executive Order #13175 which governs all Federal administrative procedures for tribal consultation. I feel BLM conducted the least level of correspondence when it considered this RMP EIS and has not fulfilled tribal consultation per Executive Order #13175.	EO 13175, with its overall charge to Federal agencies to consult and coordinate in the development of Federal policies that have tribal implications is carried out in the land management process through BLM's ongoing procedures required under NEPA and FLPMA. See response to comment # 24-22.

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25-18	...BLM has conducted a totally inadequate public process on this plan as well as preceeding ones...accountability for conducting a public process should be based on the number of participants in your public process, and not simply the number of ads or poorly attended meetings you hold. An ad in the paper does not suffice, especially if no preliminary information efforts have been undertaken to explain to people the relevancy of the scheduled meeting. This could be done by being interviewed on the local radio stations preceding the meeting. Additionally, direct mail fliers explaining the relevancy in local terms of the meeting should be mailed to every box holder in the specific region where the meeting will be held-and the information should be clear and engaging and relevant. You may claim this is expensive but it is not...and it is certainly a minor expenditure in your overall process....BLM should be asking each village IRA and/or City Council, when their next scheduled meeting is and if they could present. They also don't need to send three people - one is enough. And that one person should remain an extra day and set themselves up at the City Office or IRA office and be available for discussion and questions.	Thank you for your comments. They will be taken into consideration when planning future meetings.
39-1	We needed more time to go through the document.	The comment period was extended from August 4 until September 15.
46-1	I would like to have another extension on your proposal. You said we have until August 2006? Maybe it be better if you give us another 120 day extension or longer. So BLM could be able to meet with our tribe.	The comment period was extended from August 4 until September 15.

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46-2	I now request, strongly request that BLM meet with our tribal leaders, and work out this draft….So I still strongly recommend that you do tribal consultation with our Tribe. We got a government. They are a recognized, sovereign tribe.	BLM requested government-to-government consultation with the Native Village of Point Hope in March 2004. Newsletters outlining progress on the plan were mailed to the Native Village of Point Hope during development of the Draft RMP/EIS. A public meeting was held in Point Hope on June 6, 2006. The public comment period was extended. All of these things are a continuation of the government-to-government consultation process.
46-4	We do have tribal organizations throughout the North Slope. We do have a mother tribal organization called Inupiat Community of Arctic Slope. Did BLM get a chance to consult with these people?... Did ICAS get to review the draft that was being sent out in April?...Did Native Village of Point Hope had a chance to review the draft before you called a public hearing? I don't know. Did Native Village of Point Lay have a chance to review the proposal?...I think you need to consult with our tribal organization called Native Village of Point Hope. They are a recognized tribal organization..	The Inupiat Community of the Arctic Slope was included on the mailing list and was mailed several copies of the Draft RMP/EIS. A copy of the Draft RMP was also sent to the Village of Point Hope, the City of Point Hope, and the Point Hope Native Corporation. The Draft RMP was mailed on April 28, the meeting in Point Hope was held June 6. Copies of the Draft RMP were also sent to the Village of Point Lay and the Point Lay Native Corporation. BLM requested government-to-government consultation with the Native Village of Point Hope in March 2004.
47-1	I asked the [City] staff if the draft was here and it was pretty alarming that yes there was a notice that the meeting was going to be here but apparently the draft wasn't here. And I guess the board or the corporate world did get that draft. So I want to, I wanted to tell, share things as far as the draft not being available as the staff of Native Village of Point Hope.	A copy of the Draft RMP was mailed to the City of Point Hope on April 28, 2006. A newsletter with information on how to obtain additional copies was mailed out on April 17, 2006. Additional copies of the Draft RMP were available in Point Hope during the public meeting on June 6, 2006. The Draft RMP/EIS was also available on the BLM website.
47-2	And I want to thank you for this time and the extension, for the opportunity for, boy I plead that we extend it a little bit.	Thank you for your comment. See response to comment # 39-1

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48-1	[T]here was no consultation with the Native Village of Point Hope, a Federally recognized tribe in regards to this plan. There was a schedule or indication that there was a planned scoping meeting that was to take place but Point Hope was not included in it and believes that is a violation of the consultation procedure that is essentially required in dealing with a government-to-government relationship with a federally recognized tribe and who are directly affected by decisions that are made by BLM.	Thank you for your comment. See response to comment # 46-2
48-2	Because of that [lack of consultation], we requesting for an extension of time and are requesting for another hearing to be made because of lack of consultation with the tribal council.	Thank you for your comment. See response to comment # 39-1
58-29	[T]he Working Group requests an opportunity to provide analysis and input to BLM on any resource development proposals that may damage caribou habitats in the Planning Area.	The Working Group's request to be involved in project scoping that may affect caribou is noted.
58-49	An additional public process should be conducted if industry asks BLM to change their ROPs and Stips and, if the changes are likely to affect caribou habitat, the Working Group must be consulted regarding the changes.	Before surface disturbing activities are approved, the BLM authorized officer must prepare an environmental assessment (EA) or EIS, if necessary, of the potential effects of the proposed activity on the natural and socio-economic environment of the affected area. Any changes made to a ROP will be addressed in the EA or EIS. It is important to note that the objective of the subject ROP will remain unchanged. Oil and gas lease stipulations include criteria for waivers, exceptions, and modifications. If the BLM Authorized Officer determines that a stipulation involves an issue of major concern, modifications, waivers and exceptions of the stipulation will be subject to at least a 30-day advance public review (43 CFR 3101.1-4).

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66-4	The potential use restrictions resulting from a change in BLM management plans must remain clear to those who access the land on a continual basis... Land ownership patterns may also make the resulting hunting regulations confusing, which may inadvertently result in non-compliance with the regulations. Therefore, there must be a balance between protecting the resources... and providing access to local users, and recognizing the realities of subsistence hunters.	BLM will continue to work with the Regional Advisory Councils, the Federal Subsistence Board, State Boards of Fish and Game, and State Regional Advisory Committees to reduce confusion between State and Federal hunting and fishing regulations. The Final RMP/EIS will be distributed widely to ensure that people are aware of management changes on BLM land. We will work to inform local residents of changes that may affect them.
197-1	EO 13175 Section 5 states: "Each agency shall have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." We feel strongly that BLM did not follow this process as required by government-to-government relationships with tribes of the affected area.	Thank you for your comment. See response to comment # 24-22
197-19	BLM should have afforded the RACs an opportunity to review and comment on the Plan. Simply giving a copy of the plan to the RACs is insufficient. RACs are not scheduled to meet until October, after the comment period has closed. As such, there was no "meaningful voice" for subsistence users in the management process.	While Section 805(a)(3) grants authority to the RACs to review management plans, it does not mandate or describe a process by which Federal agencies or others interact with the councils. It simply grants the RACs the authority to carry out this task. BLM did make an effort to involve the RACs. The Northwest Arctic and Seward Peninsula RACs were given updates on the plan at every regularly scheduled meeting from initiation of the planning process in 2004 through the fall of 2006. They had an opportunity to review and comment on the plan during the public comment period. Subsistence users gave BLM input on the Draft RMP/EIS at 10 public meetings within the region, through written comments by individuals, the WACH Working Group, IRA Councils, non-profits, and Native Corporations.

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198-1	The Borough continues to object both on legal and policy grounds to the limited opportunity provided for comment. The Borough incorporates herein its letters of June 17, July 25, and August 29, 2006 laying out many of the borough's objections to the lack of meaningful opportunity provided to subsistence users to comment on the Draft RMP. Most objectionable was the unreasonable haste in holding 810 hearings in borough villages. The Borough repeats its request that BLM hold additional 810 hearing in the borough. The borough again reminds the BLM that the Secretary's 1984 policy implementing Section 810 requires at least 30 day notice before the 810 hearings can be legitimately held.	Thank you for your comment. See response to comment # 198-2 and # 46-1.
198-2	BLM is required under section 810 of ANILCA to notify the RAC prior to making any determination under 810(a)(3). Read together, it is clear that before finalizing the EIS the BLM must provide the RAC a meaningful opportunity to comment on its draft RMP.	BLM provided notice of the Section 810 Hearings and a copy of the Draft Section 810 analysis to 37 organizations or individuals on May 2, 2006. These included: The FWS coordinators for the NW Arctic RAC, the Seward Peninsula RAC, and the North Slope RAC; the chairs of the Fish and Game Advisory Committees in the region (S. Norton Sound AC, N. Norton Sound AC, Kotzebue AC, Lower Kobuk AC, Noatak/Kivalina AC, and N. Seward Peninsula); all IRAs within the planning area; the agency rep, chair, and coordinator for the Western Arctic Caribou Working Group; and ADF&G commissioner. Additional notice for the hearings was provided through: a press release on May 5; a Newsletter sent to 250 individuals or organizations on the mailing list on May 5; a schedule posted on the BLM website the first week of May; two display ads in the Nome Nugget in May. In addition, BLM met with the Northwest Arctic Borough on May 9th and provided them with a schedule of the hearings. See also response to comment #197-19.
198-16	A new draft EIS, including a revised 810 analysis, should be developed that includes an alternative that maximizes protection for the subsistence way of life and the fish, wildlife and resources and habitat that sustain that way of life. Without developing a new ' protective" alternative, both the EIS and the 810 analysis are legally defective.	BLM will not be developing a new draft EIS. The Section 810 analysis was revised after development of the Proposed RMP/Final EIS as appropriate, based on changes to the preferred alternative. The final Section 810 analysis will be part of the Proposed RMP/Final EIS, and the Final RMP and Record of Decision.

Letter # - Comment #	Comment	Response
198-11	BLM' has Failed to Involve the Borough as a "Cooperating Agency" in the EIS process as Mandated by the Council on Environmental Quality.	BLM sent a letter to the Northwest Arctic Borough Mayor on May 17, 2004. The last paragraph of the letter states: "This letter serves to inform you of the Resource Management Planning process and invites you to participate in the process." We apologize for not more clearly stating an invitation to be a cooperating agency in this letter. BLM developed guidelines to incorporate President Bush's Executive Order on Cooperative Conservation in 2005. This planning effort began in January 2004, before these guidelines were available. We would like the Borough to be a cooperating agency on the Recreation Area Management Plan for the Squirrel River.
NEPA ADEQUACY, RANGE OF ALTERNATIVES, CUMULATIVE EFFECTS		
51-9	As part of the cumulative effects analysis, the RMP/EIS should evaluate the past, present and reasonable foreseeable future actions associated with the Kobuk-Seward Peninsula Planning Area. The geographic boundary for consideration of the reasonably foreseeable future actions should include areas within and adjacent to NPR-A, Beaufort Sea, Chukchi Sea, Kotzebue Sound, and Norton Sound.	The RMP/EIS evaluates the past, present, and reasonably foreseeable future actions within the Planning Area as part of the Cumulative Effects Analysis. The geographic area of consideration included the planning area and adjacent areas, including NPR-A.
52-59	p.4-206 - c,Speculative Development: No mention is made of the construction of a rail system in the planning area. If multiple resource development projects occur in the region, such as the development of minerals in the Brooks Range and coal or other hydrocarbons in the Northwest Arctic, a railroad would be logical and this should be addressed in the plan.	We were unaware of any serious proposals (applications for permits or funding) to construct a rail system in the planning area. We would consider such a project highly speculative during the life of the RMP.

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58-21	Under the BLM preferred alternative, fluid and solid mineral leasing and development would be allowed in nearly all critical caribou habitats. According to the BLM chart featured on 2-128 of the RMP, the impacts on wildlife from oil and gas development under the Preferred Alternative would be the same as Alternative B in it potential impacts to wildlife and habitat, particularly caribou. If this is the case, the BLM cannot claim that Alternative D strikes a balance between utilitarian use and conservation since the implications to wildlife are the same in both alternatives.	The reasonably foreseeable scenario for fluid mineral development forecasts the same level of development in both alternative B and D. Therefore, impacts to wildlife from lesasble minerals were similar under both alternatives. The table on pg. 2-128 of the Draft RMP/EIS and the text in Chapter IV. 3. b)(c) Impacts to Wildlife From Leasable Minerals has been revised to more clearly state the differences in impacts. Although impacts to wildlife from leasable minerals would be very similar between these alternatives, there would be a difference in impacts to wildlife from other programs. The referenced table is a generalized summary of differences between alternatives. To see a more detailed analysis, refer to the text in Chapter IV.B.3.b) Wildlife.
58-24	The Draft RMP/EIS acknowledges that the current quality of caribou habitat in the planning are is largely unknown (See RMP/DEIS at 3-58). It further acknowledges that the "combination of ongoing and future oil and gas development occurring on both State and Federal lands" in the North Slope and in the planning area would have cumulative impacts on the WAH and that new development could potentially have "significant" impacts on the caribou herd (See RMP/DEIS at 2-128). NEPA requires an analysis of these cumulative impacts, but the draft RMP/DEIS fails to provide such an analysis. It is not sufficient to reserve an analysis of the cumulative impacts until mineral development activity actually occurs. The minimal analysis provided regarding impacts on caribou for the various alternatives under consideration indicates that some areas, if subject to mining disturbances, could take decades to recover (RMP/DEIS at 4-71 to 4-72). The minimal protections afforded to caribou habitat are not sufficient to ensure that the herd is not disturbed.	The RMP/EIS analyzes the type of cumulative impacts that may affect caribou due to reasonably foreseeable future actions in the planning area and on the adjacent North Slope, Chapter IV.G.2.c)(2). Due to great uncertainty in the timing, type, and location of future development, it is very difficult to quantify such effects or even determine which activities are reasonably foreseeable. Under the Reasonably Foreseeable Future Development scenarios for the RMP, the total acres exposed to long-term disturbance from all forms of mineral activity would be fewer than 1,000 acres or less than 1% of the calving/insect relief habitat on BLM land within the planning area. An additional 4,322 acres may be disturbed due to pipeline construction; this would be short-term disturbance, as construction activity would occur during the winter when the ground is frozen and the pipeline would be elevated. Again, this would be less than one percent of the available habitat on BLM land (Chapter IV.A.2.).

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58-25	Alternative C…provides that some areas will be closed if retained under federal ownership, but does not provide analysis of the anticipated impact if these areas are not retained under federal ownership.	Conveyance is a non-discretionary action and is not subject to NEPA analysis. See Chapter I.D.2.b). One assumption for analysis (Chapter IV.A.2.a).) is that State and Native entitlements will be met during the life of the plan and the amount of BLM-managed land in the planning area will be reduced by up to 7 million acres. Assuming any particular level of activity on these lands after conveyance would be speculative.
58-26	Under the analysis provided in the RMP/DEIS, it is not clear that the restrictions (i.e. seasonal constraints) and closing selected areas is sufficient to protect the caribou herd.	The RMP/EIS does not anticipate any population level impacts on caribou under Alternatives A-D. Thus, one can conclude that the restrictions would be sufficient, or the level of impact low enough not to threaten the continued existence of a viable caribou herd. Seasonal constraints and other ROPs will not prevent all impacts to caribou but they will minimize impacts.
58-42	In the Draft RMP/EIS each alternative will allow industrial exploration and development activities within the Planning Area. The Draft RMP/EIS should evaluate and describe cumulative effects of those activities on caribou habitat and populations throughout the entire range of the WAH.	The RMP/EIS evaluates and describes the cumulative effects on caribou throughout the entire range of the herd. Given the lack of knowledge about the timing, type, and location of reasonably foreseeable future activities, these impacts are described in a qualitative manner rather than a quantitative manner.
58-43	In the Draft RMP/EIS each alternative will allow industrial exploration and development activities within the Planning Area. The Draft RMP/EIS should evaluate and describe cumulative effects of those activities on subsistence and other uses throughout the entire range of the WAH.	The RMP/EIS evaluates and describes the cumulative effects on subsistence throughout the entire range of the herd. Given the lack of knowledge about the timing, type, and location of reasonably foreseeable future activities, these impacts are described in a qualitative manner rather than a quantitative manner.
58-50	Cumulative effects analysis of industrial activities within the Planning Area must also address concurrent climate change issues in the Arctic and appropriate risk analyses should be conducted.	Additional language on climate change has been added to the RMP/EIS.

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58-53	The Draft RMP/EIS should evaluate the tradeoffs between short-term resource exploration and development activities and their resulting benefits versus long-term sustainable uses of caribou in terms of social, cultural, and economic values.	BLM recognizes the importance of the WACH for subsistence and cultural needs of local residents. BLM will continue to work with ADF&G and other Federal agencies to inventory and monitor WACH habitats and population trend. The plan implements a number of Required Operating Procedures and oil and gas Stipulations to mitigate impacts to caribou. Before surface disturbing activities are approved, the BLM authorized officer must prepare and environmental assessment, or EIS if necessary, of the potential effects of the proposed exploration and development on the natural and socio-economic environment of the affected area. A section on short-term uses vs long-term productivity was added to Chapter IV.J.
65-1	We do not find the draft Kobuk-Seward plan's "preferred" alternative to strike a good balance between conservation of the resources and development within the planning area. We are disappointed by how similar Alternative D (BLM's "preferred" alternative) is to Alternative B (the extreme pro-development alternative). We feel that the "preferred" alternative prioritizes short-term development opportunities over the long-term, sustainable management of natural resources, wildlife habitat, and subsistence resources.	Thank you for your comment. It was considered during development of the Proposed RMP/Final EIS. See also response to comment # 73-1.
65-71	BLM has omitted analysis of the impacts that conveyance of selected lands will have on the parcels remaining in Federal ownership. We acknowledge that the RMP will not affect conveyance. However, conveyance could affect the RMP and may alter the impacts to the land anticipated by the RMP. Though the RMP cannot influence the conveyance process, it can take that process and the uncertainties associated with it into account as it tries to plan a management strategy for the un-conveyed lands to be retained by BLM.	Thank you for your comment. See response to comment # 58-25.

Letter # - Comment #	Comment	Response
65-70	BLM does not adequately consider the impacts of land conveyances. See 40 C.F.R. 1508.7. BLM should, at a minimum, provide further details and analysis concerning the lands selected. The conveyance of at least some of the selected lands is reasonably foreseeable; it is the location and the timing of the conveyances that is less clear.	Thank you for your comment. See response to comment # 58-25.
65-77	[C]onveyance actions are not listed among the "activities considered in the cumulative case." RMP/DEIS, at 4-204. Given the high percentage of land in the planning area selected by either the State or Native corporations, the Final RMP/EIS needs to consider the uncertainty associated with which lands will be conveyed as part of the planning process.	Land conveyance was added as a reasonably foreseeable future action in Chapter IV.A.2.a). Assuming any particular level of activity on these lands after conveyance would be speculative. See also response to comment # 58-25.
65-78	BLM has not provided information as to what lands are selected within areas critical for the WACH; without this information, BLM has not provided the requisite level of analysis for predicting effects on the WACH from development in the various selected areas.	Maps 2-20 and 2-21 show selected lands within proposed caribou ACECs. One of the assumptions for analysis is that State and Native entitlements will be met during the life of the plan, reducing the amount of land within the BLM planning area by up to 7 million acres. Land conveyance is an ongoing, non-discretionary process which it taking place outside of this planning process. Reasonably foreseeable future development on State or Private land (which includes any lands conveyed in the future) are considered in the cumulative effects analysis.

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65-79	Just as the agency may not act first and study later where impacts of an action are unknown, Nat'l Parks and Conservation Assoc. v. Babbitt, 241 F.3d 722, 734 (9th Cir. 2001), it similarly should not act first in opening up all lands to development and then study and deal with the impacts of conveyances later. The agency [BLM] needs to better evaluate the impacts from this reasonably foreseeable development now, when it can use that information to try to minimize the impacts of the development through the RMP, rather than later, when the opportunity to incorporate responses to the impacts into planning is gone.	In the court case referred to by the commenter, the court found that the NPS had failed to show that the potential impacts were in fact insignificant and thus an EIS was required (failure to take a "hard look"). The referenced court case is different from the situation in the planning area. BLM is doing an EIS and the agency's conclusions have been reached by a reasoned extrapolation of the available data. The only action that is "reasonable certain to occur" is the conveyance of land. Assuming any level of activity after conveyance would be speculative - as speculative as assuming some development level on lands already owned by others but with no "proposal."
65-88	As planning and development of NPR-A pushes westward, BLM should adequately describe the cumulative impacts of potential future transportation infrastructure within the entire region, including the Kobuk Seward planning area. Land managers must evaluate these changes and determine how they will be integrated within the entire western Arctic and the North Slope communities. Cumulative impacts from oil and gas development, coal extraction, hard-rock mining, and the associated transportation infrastructure within the western Arctic need to be fully analyzed relative to their potential impacts on Arctic caribou.	Chapter IV, Cumulative Impacts, describes the cumulative impacts of potential future transportation infrastructure, oil and gas development, and hard rock mining in the region. Activities considered in the cumulative case include past development such as oil and gas development on the North Slope over the past 30 years, seismic exploration and exploratory drilling in NPR-A; present and reasonably foreseeable future development such as Red Dog and Rock Creek Mines, the Nome Road system, and De Long Mountain Terminal; and speculative development such as the Yukon River Highway. The commenter's request would require that BLM speculate on what a transportation system that will be constructed far in the future would look like. NEPA does not require such speculation.

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65-97	BLM Failed to Comply with NEPA in analyzing mineral leasing impacts — In direct contravention of its duty to take a “hard look” at potential environmental effects, BLM solely listed general potential impacts.	The analysis represents best estimates of impacts since exact location, timing, type, and extent of development are unknown. Impacts are quantified to the extent practicable with available data. In the absence of quantitative data, best professional judgment provides the basis for the impact analysis. The separate technical documents, Mineral Occurrence Reports and Reasonably Foreseeable Development Reports prepared for Leasable and Locatable minerals, are the basis for the assumptions for analysis, and are available from the State and Field offices and are available on BLM's website at http://www.blm.gov/ak/ksp/
65-110	The draft plan fails to fully consider the cumulative impacts the proposed management strategies will have on the climate, landscape, wildlife habitat, and resources of Northwestern Alaska.	Chapter IV.G.2. of the Proposed RMP/Final EIS considers cumulative impacts on wildlife habitat and other resources found within the planning area. We do not anticipate that the Proposed RMP will result in any impacts on climate.
65-126	The draft Kobuk-Seward RMP places far greater priority on the desires of the mineral development industry, and does not adequately address the needs of all other multiple-users of these BLM-managed public lands.	The RMP/EIS includes management objectives and decisions for many multiple use activities including soil, water, air, fish, wildlife, recreation, forestry, grazing, and cultural resources. Appendix A includes 23 pages of required operating procedures that would apply to permitted activities on BLM land.
72-5	[I]t would be helpful if the RMP/EIS identified the environmentally preferred alternative; ...the alternative that will promote the national environmental policy expressed in NEPA section 101.	BLM will identify the environmentally preferred alternative in the Record of Decision as required by 40 CFR 1505.2
73-1	While the drafters of the management plans tout that the preferred alternative “D” represents a balance of the alternatives, a closer review actually reveals that it is strikingly similar to Alternative "B" which emphasizes resource development.	Alternative D is similar to Alternative B in that the reasonably foreseeable development scenario for minerals is the same for both alternatives. Features in Alternative D but not in Alternative B include designation of six ACECs, identification of one additional special recreation management area, additional oil and gas leasing stipulations and required operating procedures, and designation of one right-of-way avoidance area.

Letter # - Comment #	Comment	Response
GENERAL		
1-7	Page 2-3 I favor Alt C but think it should be beefed up with more protections for animals and vegetation than it presently offers.	Thank you for your comment. It was considered during development of the Proposed RMP/Final EIS.
15-3	For many of the activities it is not clear what level of development may occur (e.g., oil and gas). In order for the Service to assess potential adverse effects, BLM should develop reasonable scenarios to describe the anticipated activity levels. The assumptions used to develop these scenarios should also be stated.	BLM has developed reasonably foreseeable development scenarios for mineral development. These are summarized in the Assumptions for Analysis in Chapter IV. The full scenarios are available in separate technical documents, Mineral Occurrence Reports and Reasonably Foreseeable Development Reports prepared for Leasable and Locatable minerals. These documents are available from the State and Field offices and on the BLM's website at http://www.blm.gov/ak/ksp/
24-10	I feel that allowing for increased trail or road access will allow for areas to become trashed, sensitive arctic and sub-arctic plant communities to become destroyed, sensitive arctic and sub-arctic fish and wildlife populations to become impacted, and visual resources to become degraded.	The Proposed RMP/Final EIS institutes OHV designations which will limit access when compared to the No Action Alternative. The limited OHV designation proposed in the RMP will allow for further restrictions in specific areas if impacts to resources becomes a problem.
24-29	The geographic setting should include all of the Seward Peninsula; the RMP/EIS characterization of the northern Seward Peninsula only is erroneous.	The wording in this section has been changed to clarify that the entire Seward Peninsula is within the Planning Area.
52-1	Alternative D would unnecessarily restrict valid multiple use activities.	Alternative D provides for a wide variety of multiple use activities while providing protection for natural resources.
52-116	p.2-119 - (4) Social and Economic: The heading: "Social and Economic" is misleading as it includes only a discussion of public safety. Suggest making "public safety" the heading.	This heading was re-worded for clarity.

Letter # - Comment #	Comment	Response
54-2	Further restrictions on land use will only limit the amount of enjoyment that we can get from the land…make the land accessible to people for fishing, hunting, and other recreational activities.	The Proposed RMP/Final EIS makes BLM land accessible to people for fishing, hunting, and other recreational activities. The Plan incorporates some limitations on off-highway vehicles.
54-5	Let's promote tourism as Alaska's best, most renewable, least harmful source of income.	The Proposed RMP/Final EIS allows for the promotion of tourism.
58-16	Note that p.2-10 of the planning volumes incorrectly refers to the plan as a "Strategic Management Plan."	This correction has been made in the Proposed RMP/Final EIS.
64-11	We appreciate acknowledgement of the State's role in managing and regulating fish and wildlife harvests in the planning area, and of the Master Memorandum of Understanding (MMOU) between the Alaska Department of Fish & Game and the BLM. However, we request the Bureau include a copy of the MMOU as an appendix in the final plan.	The Master Memorandum of Understanding has been added as an appendix to the Proposed RMP/Final EIS.
64-35	Pg. 3-206: Please edit the following sentence: “Consequently in some instances it is difficult to separate production from these areas outside…..”	This correction has been made in the Proposed RMP/Final EIS.
64-36	Pg. 3-208 (5) Commodity Value and Market Share, third sentence: The text reads, “…our biggest year was 1993 where we sold $274,215 worth of…” Replacing “we” with BLM would clarify this statement.	This correction has been made in the Proposed RMP/Final EIS.
64-54	WACH ACEC: The preferred Alternative described in Table 2-10 on page 2-61 appears to be inconsistent with Alternative D for Locatable Minerals as described in Table B-2. Correct Table B-2 to be consistent with Table 2-10.	This correction has been made in the Proposed RMP/Final EIS.

Letter # - Comment #	Comment	Response
66-1	While it is appropriate to have "wild and scenic" designations for some river systems and especially those on the southern Seward Peninsula, this designation would not be useful because the spawning salmon habitats are generally within Native Allotments, which are not affected...Land ownership and subsequent regulations, would become more convoluted for local users, leading to confusion and possible non-compliance. It is important to balance the conservation of the resource with the realities of access, land ownership and regulation changes, as well as subsistence needs of local users.	We agree with the final sentence of this comment and will attempt to achieve this balance in the development of our decisions. It is not clear if the first two sentences are commenting on a perceived deficiency in the analysis (i.e. the impacts of designation of certain rivers are not adequately addressed) or if they represent a simple opinion about how decisions should be made regarding the suitability of certain rivers as worthy additions to the national wild and scenic rivers system. Decisions about suitability will be documented in the Record of Decision, not through the development of alternatives in the plan. Wild and scenic designation does affect any federally funded or assisted water resources projects, even on private lands, so the contention that designation would have no effect if based on a mistaken assumption.
72-1	[Review Table 2-19]...In some cases, the impacts are not quantified. For example, in Effects on Wildlife under Alternative B, “Increased mineral exploration and development would increase the level of impacts to wildlife and their habitat.” In Effects on Wilderness Characteristics under Alternative B, “After construction, structures, human presence and associated activity and noise would have adverse impacts on solitude, naturalness, or primitive/unconfined recreation.” In both examples, the reader is left to wonder how widespread and great the impacts would be. In other cases, the impacts are usually described as localized, short-term, negligible and minor...[T]he terms widespread, long term, moderate, and major either do not appear or appear rarely in the comparisons. This gives the reader the impression that the environmental consequences of all the alternatives are relatively benign and generally will not extend beyond BLM-managed lands. If that is correct, then the language should stand. If it is not, it would be useful if the impacts were better, more accurately described.	Table 2-19 is a summary of effects by alternative. Alternatives B, C, and D are compared to Alternative A. For a fuller description of the impacts, see Chapter IV, Environmental Consequences. The commenter is correct that impacts are not always quantified. The location, timing, and types of projects that may occur within the 13 million acre planning area over the next 15 years are unknown, making it difficult to quantify impacts. The environmental impacts anticipated from implementation of the Proposed RMP are relatively benign and in most cases will not extend beyond BLM-managed lands. Additional discussion was added to Chapter IV to address cases where impacts may extend beyond BLM-managed land.

Letter # - Comment #	Comment	Response
72-2	Though Chapter IV, “Environmental Consequences,” gives a more detailed comparison of the effects of each alternative resource, the layout of the chapter can make it difficult to compare the consequences of each alternative. For example, if the reader wants to compare the impacts of grazing to wildlife, he has to turn back and forth between pages 4-69-70, 72, 74, 81, and 83.	Determining the best way to organize the impact analysis is difficult. The layout used in the Draft RMP/EIS does make it difficult to compare impacts of grazing on wildlife for example, between the four alternatives. This is one reason for Table 2-19. If one wants to look at the impacts of one entire alternative on wildlife, the organization in the Draft RMP/EIS makes it easier to do so. We struggled with this dilemma during development of the Draft. We chose not to reorganize the document at this point but thank you for your comment.
72-3	Compare the language describing the impacts of special designations under alternatives B, C, and D on pages 4-80, 4-82, and 4-84 respectively. There are no definitive statements made in a consistent vocabulary that tell the reader to know how important special designations are to wildlife. The reader wonders whether alternative C really offers significant benefits over alternative D.	This section of the Proposed RMP/Final EIS was revised to clarify.
72-4	[T]he document does not include an analysis of the environmental impacts to the NPS-managed and other lands within and adjacent to the planning area. While these lands are not subject to RMP/EIS actions, we believe the plan would best describe the potential effects upon them.	Chapter IV, A. Introduction discusses assumptions for non-BLM lands used during analysis. Additional impact analysis has been added to those programs where there could be an effect on non-BLM land. For the most part, impacts are expected to be localized and mostly limited to BLM land. If a future project proposal includes facilities off of BLM-managed land, the NEPA analysis for the project would analyze impacts on other lands and approval of other involved land owners would be required before the project could proceed.
116-4	Commercial and private hunting and fishing activities on these lands are dependant upon healthy game and fish populations and the endurance of natural habitat. This will be threatened if precautions are not taken to preserve Alaska's wild areas. We support protective measures, such as appropriate ACEC and SRMA designations and the retention of the ANCSA 17(d)(1) mining withdrawals, which will help ensure sustainable future management of wildlife and fish populations.	Thank you for your comment. It was considered during development of the Proposed RMP/Final EIS. The Preferred Alternative identifies two special recreation management areas and several areas of critical environmental concern to improve management of natural resources and hunting/fishing related recreation.

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130-3	I support protection of Alaska's Kobuk-Seward Peninsula and do not want to see it opened to resource development due to impacts on wildlife, ecosystems, caribou, Native people, subsistence, wilderness, habitat, the general environment or because it will lead to increased pollution or environmental degradation. Resource development in this area will harm sensitive calving grounds, summer habitat, and wintering grounds for the Western Arctic Caribou Herd.	Thank you for your comment. It was considered during development of the Proposed RMP/Final EIS. The Preferred Alternative contains numerous required operating procedures and special designations that will serve to protect natural resources and subsistence uses in the planning area.
130-5	It is our moral responsibility to protect our nation's most pristine wilderness areas for future generations. These areas should also be preserved because of the economic value of wilderness areas, value as undisturbed areas for research, value of pristine areas for tourism.	Thank you for your comment. It was considered during development of the Proposed RMP/Final EIS.
373-1	I live, hunt and fish in the balm's plan area (northwest Alaska). While I support managed development to help reduce heating/transportation costs in the plan area, the plan must consider detrimental effects to ensure continued growth, maintenance and harvest of the renewable resources.	Thank you for your comment. It was considered during development of the Proposed RMP/Final EIS. The Preferred Alternative contains numerous required operating procedures and special designations that will serve to protect natural resources and subsistence uses in the planning area.
477-2	We would like to see some public land that is within reasonable reach by the broader public preserved and protected from commercial development. Given that the population here [Nome} is significantly cut off from recreational and /or scenically preserved public lands elsewhere in the state, it seems appropriate to make some lands available to those who cannot readily travel to enjoy other preserved areas of the state.	The Preferred Alternative in the Proposed RMP/Final EIS identifies the Kigluaik Mountains as a special recreation management area. The RMP includes management objectives to maintain the visual, wildlife, fisheries, and recreational values of the planning area. Most BLM lands in the planning area are expected to remain in a primitive and natural state.

Letter # - Comment #	Comment	Response
198-14	BLM should carefully examine whether it has the financial support, resource specialists, permit administrators and law enforcement personnel to manage the additional permit activity that would accompany the changes suggested by the EIS, particularity as to Alternatives B and D.	See response to comment # 65-80 (under renewable lands)
64-56	It may be useful to include as an appendix the Fact Sheet "Generally Allowed Uses on State Lands and Conditions for Generally Allowed Uses" since it is frequently referenced.	This has been added as Appendix G in the Proposed RMP/Final EIS.
MAP COMMENTS		
22-1	how come our Koyuk River wasn't on the maps?..and where BLM and the private land..	The Koyuk River was added to the maps (Alternative D maps from the draft EIS) for the Proposed RMP/Final EIS. Generalized Land Status was not displayed on all maps to maintain visual clarity of map subject matter. However, Land Status is featured on Map 1-1 and several other maps throughout the plan.
52-44	p.3-312: The geographic locations of several features mentioned in the text should be shown on a map (Salmon Lake, Kigluaik Mountains, Mount Osborn).	Map 1-2, A General Relief and Features was added to the Proposed RMP/Final EIS to display features frequently mentioned in the document text.
58-45	Maps of the caribou habitats and movement corridors should be included in the Final RMP/EIS.	BLM included Map 3-12 which displays caribou range with the best available data provided by the State of Alaska - ADF&G. In addition, a new map will be included to show caribou movement using a dataset provided by ADF&G (Map 3-46)
64-15	Page 2-53, Item 6, Alternative D. The second sentence appears to contradict the first sentence. If 12,074,000 acres are open to coal exploration and 1,059,000 acres are closed, the percentage of lands closed cannot total 60%. The table on page 2-54 appears to reflect the correct percentage. We suggest checking acreage and changing the percentage of closed acreage in the text on page 2-53 to be consistent with Table 2-9.	This is a typographical error, the percentage used in the first paragraph of item 6 of the Solid Leasable Minerals section was changed to reflect that 8% of BLM-managed lands are closed. The amended text reflects the correct percentage as shown in Table 2-9.

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64-42	Pg. 3-279: The two paragraphs reference a series of maps with generalized depictions of areas used by planning area communities for subsistence purposes (Maps 3-37 thru 3-45). We recommend the Bureau add language to the map legends indicating the time period depicted by the maps.	The legends of subsistence use maps 3-37 through 3-45 were changed to reflect that data was collected in 1985 and 1986. The areas shown on the maps are known to have been used during survey respondents time living in each community.
64-58	A series of maps depicting the relationship of the SRMAs and ACECs and other associated restrictions would be very useful although we recognize that visually depicting this much information on one map (for each alternative) may be challenging. Of interest would be the relationship of the Salmon Lake - Kigulaik SRMA, the Kigulaik ACEC and the Mt. Osborne RNA. Another area that would benefit from further visual clarification is the Nulato Hills ACEC (Alternative C) versus the combination of the Nulato Hills, Inglutalik River, Ungalik River and Shaktoolik River ACECs (Alternative D). We would appreciate an effort to visually depict the sum of the land management strategies of Alternative B, C, and D. We suggest including boundaries of the ACECs, SRMAs, ERMAs, Mineral closure areas, NSO areas, and other pertinent restrictions.	While attempting to display the sum of the land management strategies was not possible on one map, 4 maps (summarizing Mineral Management and Special Designations) for Alternatives C and D have been added to the Proposed RMP/ Final EIS. (Maps 2-23, 2-24, 2-25, and 2-26)
CLIMATE CHANGE		
51-2	…the Final RMP/EIS should address the potential climate change effects on the region as a reasonably foreseeable future action.	For the purposes of analysis, this document assumed that climate change was occurring as part of the baseline. Additional discussion of climate change is included in Chapter IV, Cumulative Effects and in various other parts of the document. Many of the results of climate change will not occur during the life of this plan (15-20 years).

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51-10	The final RMP/EIS should consider how the proposed actions, alternatives, goals and objectives may influence the emissions and sinks of greenhouse gases, thereby contributing to, and/or reducing impacts to climate change. Specific management strategies should be considered to minimize potential adverse effects of greenhouse gases and regional climate change. The Final RMP/EIS should include information that considers how climate change could potentially influence the proposed actions in the Kobuk-Seward Peninsula Planning Area.	It is highly unlikely that actions authorized under this RMP will contribute significantly to global climate change. The RMP does provide enough management flexibility to respond to climate change and to mitigate those impacts that can be affected by BLM actions. Most climate change models are global and may not predict local changes very accurately. In addition, feedback loops are not well enough understood to predict changes on the local scale. Some additional general discussion on climate change was added to the Proposed RMP/Final EIS in Chapter III and Chapter IV, Cumulative Effects.
51-11	In particular, climate change will have a profound effect on the arctic polar environment. As the polar arctic ice cap retreats, new opportunities are created for international circumpolar marine transportation routes. The Final RMP/EIS should plan for this reasonably foreseeable future opportunity and evaluate the potential cumulative effects associated with summer and/or year round international transport of oil and gas, hard rock mineral, and coal resources to world markets.	The projected life of the Final RMP is only 15-20 years. The changes discussed by the commenter are not reasonably foreseeable during the life of this plan.
58-8	The Draft RMP/EIS lacks adequate consideration of climate warming/climate change and its effects on caribou, habitats and ecosystem relationships. Any responsible attempt to create an effective long-term plan spanning the next 10-20 years for the area must address the impacts of climate change on the region.	Some additional general discussion on climate change was added to the Proposed RMP/Final EIS in Chapter III and Chapter IV, Cumulative Effects.

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58-9	In addition, melting of permafrost affects transportation infrastructure and structures. The Draft RMP/EIS should acknowledge the need to revise current standards in the face of rapid climatic changes.	The required operating procedures (ROPs) and Stips described in Appendix A are designed to adapt to changing site-specific conditions so that protection will still be provided to soil, water, vegetation, fish and wildlife resources. (e.g. ROP FW-2e: Stream and marsh crossings shall be designed and constructed to ensure free passage of fish, maintain natural drainage, and minimal adverse effects to natural stream flow). This allows for site-specific design of culverts which will be based on recent stream flow data.
58-10	Forest ecology is modified by climate change and warming climates are having significant impacts on Alaska forest ecosystems…Disturbance to normal forest processes reduces forest performance and increases vulnerability to disease and fire. Mature black spruce forests, which are most vulnerable to fires when mature, provide important habitat for caribou by supporting lichens that caribou rely on during the winter. The effects of climate change on these types of habitats related to caribou should be considered and evaluated for lands within the Planning Area.	Only 8% of the planning area supports forest lands. The spruce woodland/shrub community often has conspicuous amounts of lichen cover and provides habitat for caribou. However, this vegetation type is present on less than 4% of the planning area. The Proposed RMP/Final EIS recognizes that climate change may affect vegetative resources, and some additional discussion of the impacts of climate change have been added to the Proposed RMP/Final EIS (Chapter III, "Affected Environment" and Chapter IV, "Cumulative Effects").
58-35	Cumulative effects analysis of hard rock mining and other industrial activities within the Planning Area must also address concurrent climate change issues in the Arctic and appropriate risk analyses should be conducted.	Additional discussion on climate change has been added to the RMP/EIS in both Chapter III and Chapter IV cumulative impacts.
65-111	As temperatures rise, discontinuous permafrost is warming and thawing, resulting in extensive areas of marked subsidence of the surface. (Hinzman, et. al. 2005. p 262.) This reality is not reflected in the soil section of the Draft EIS (Draft EIS, Chap III, p. 9.).	The third paragraph of Chapter III, section B(3), "Soil Resources," discusses the effects of melting permafrost including development of thermokarsts. However, an additional note and reference have been added to Chapter III, section B(3), "Soil Resources." Osterkamp and Romanovsky (1999) also found that discontinuous permafrost is warming and thawing and extensive areas of thermokarsts terrain are now developing as a result of climatic change.

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65-112	One of the relatively obvious long-term impacts of the drying of the Arctic is a continued decrease in waterfowl populations that rely on Kobuk and Seward Peninsula wetlands. The draft EIS...does not predict future drops or provide strategies for dealing with the decline.	The RMP provides overarching management prescriptions for BLM land within the planning area. The plan provides enough flexibility to address changing situations. The data is not specific enough to project future drops in waterfowl populations due to drying within the planning area. The plan recognizes that this is a possible future impact (Chapter IV, section G "Cumulative Impacts").
65-113	While the management plan is not the place to set detailed standards for infrastructure, it is the place to acknowledge the need to revise current standards in the face of clear climatic changes. For instance climate change in the Arctic is resulting in increased run-off in glacially-fed rivers and more intense storm events (Hinzman et al. 2005). This suggests that culvert standards which are essential for ensuring fish passage, need to be revised to provide for higher water flows.	The required operating procedures described in Appendix A are designed to adapt to changing site-specific conditions so that protection will still be provided to soil, water, vegetation, fish and wildlife resources. (e.g. ROP FW-2e: "culverts must be designed to avoid restriction of fish passage and adverse effects to natural stream flow."). This allows for site-specific design of culverts which will be based on recent stream flow data.
65-114	White spruce forests, which are the most vulnerable to insects and disease, can be limiting habitat for some songbirds. Black spruce forests, which are most vulnerable to fires when mature, offer climatically optimal conditions for lichen growth because of slow plant succession and little competition from other plant forms. These lichens provide preferred forage for caribou in the winter...the destruction of forage lichens by fire or mechanism may have an immediate effect on the winter range of caribou. In the long run burning of black spruce forests may increase the availability of lichen forage, another factor for land managers to consider.	Only 8% of the planning area supports forest lands and only about half of those land are lichen rich communities. Chapter IV section B.3 of the Proposed RMP/Final EIS discusses impacts of fire on wildlife. The RMP provides the necessary flexibility to adapt fire management to changing conditions.

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65-115	It is likely that special steps, such as fire fighting in areas traditionally allowed to burn, will be necessary to sustain the remnants of the forests until the transition to new forests has been completed. It is the function of the management plan to address those conflicts and set priorities. To do so, it must begin by acknowledging the likely future loss of forest functions.	Only 8% of the planning area supports forest lands. The Proposed RMP/Final EIS provides the flexibility to adapt fire management to changing climatic conditions and changing fire regimes. The RMP/EIS acknowledges that climate change may result in changes to the vegetative community. It is one of the assumptions for analysis. The transition to new forests is unlikely to occur within the life of the plan.
65-116	The disruption of subsistence activities by climate change suggests that land managers should approach other activities that impact subsistence with caution. Regardless of the choices managers make, the Kobuk-Seward Peninsula management plan must recognize the disruption of subsistence activities in the region and incorporate those impacts into its planning efforts.	While climate change will undoubtedly have some influence on future subsistence use (such as change in season of harvest, changes in species distribution, and access), we don't anticipate a significant increase in the "other activities" that the commenter may be referring to that could impact subsistence (such as hard rock mining, or oil and gas) within the life of this plan. Also, the ROPs and Stips in Appendix A are designed to be adapted to changing conditions.
65-117	In this draft plan, the BLM has chosen to increase the potential nonclimate stressors on wildlife by dramatically increasing the areas available for leasable and locatable mineral exploration within the management area. It is essential that BLM acknowledge the impacts of climate change, the multiplier effect of other stressors, and explain its decision to emphasize mineral development in that context.	Although the Proposed RMP/Final EIS recommends significantly increasing the amount of land open to mineral entry and leasing, the reasonably foreseeable development scenario would result in disturbance of less than 1/10 of one percent of the BLM-managed land. The EIS acknowledges that there would be impacts to wildlife from mineral exploration and development. The impacts to wildlife would be minimal given this level of development.

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76-1	As written, the current Kobuk-Seward Peninsula plan ignores climate change and the significant impact it is having on people and wildlife in the planning area... There is an overwhelming scientific consensus that climate change is taking place and that it is having impacts on the arctic environment in Alaska and the rest of the world today. According to the Arctic Climate Impact Assessment, “Arctic average temperature has risen at almost twice the rate as the rest of the world in the past few decades. Widespread melting of glaciers and sea ice and rising permafrost temperatures present additional evidence of strong arctic warming.” (Arctic Climate Impact Assessment. 2004., p 9. See also Hinzman, et. al. 2005. Evidence and Implications of Recent Climate Change in Northern Alaska and other Arctic Regions. Climatic Change 72: 251-298.)	Additional discussion on climate change has been added to the RMP/EIS both Chapter III and Chapter IV cumulative impacts.
76-2	[I]t is essential that BLM acknowledge the impacts of climate change, the multiplier effect of other stressors, and explain its decision to emphasize mineral development in that context.	Additional discussion on climate change has been added to the RMP/EIS both Chapter III and Chapter IV cumulative impacts.
78-3	There is now enough scientific evidence for federal agencies to acknowledge that climate change is taking place and having impacts on the arctic environment in Alaska. Any management plans must address the impacts of climate change on the region in relation to the different management objectives.	Additional discussion on climate change has been added to the RMP/EIS both Chapter III and Chapter IV cumulative impacts.

Letter # - Comment #	Comment	Response
130-4	Alaska is already seeing the devastating effects of global warming and continued resource development would only make matters worse. Resource extraction leads to additional global warming.	Additional discussion on climate change has been added to the RMP/EIS both Chapter III and Chapter IV cumulative impacts.
197-2	[Climate change must be addressed in the RMP] There is overwhelming scientific evidence that impacts from climate change are having significant effect on the ecology of the area and must not be ignored.	Additional discussion on climate change has been added to the RMP/EIS both Chapter III and Chapter IV cumulative impacts.
245-1	All species are at risk with climate change but those nearest the poles are even at greater risk. It is crucial that we protect habitat now.	Additional discussion on climate change has been added to the RMP/EIS in both Chapter III and Chapter IV cumulative impacts.
86-1	Global warming must continue to be monitored and scientific facts taken seriously by all countries.	Thank you for your comment. BLM agrees.
ROPS AND STIPS		
51-12	The Final RMP/EIS should identify and evaluate the types of research, monitoring, and compliance activities being conducted in the Kobuk-Seward Peninsula Planning Area to ensure that proposed actions, stipulations, and Required Operating Procedures (ROPs) would be effective in providing full protection of sensitive subsistence, cultural, and environmental resources.	The Proposed RMP/Final EIS identifies priority inventory and monitoring activities under each resource. The RMP/EIS allows flexibility to engage in additional research, inventory, and monitoring to address new issues that may arise during the life of the Plan. For permitted activities, BLM will conduct monitoring inspections to ensure compliance with permit stipulations. If monitoring indicates that stipulations or required operating procedures are not effective they can be modified on a project specific basis.
51-13	The Final EIS should discuss what types of monitoring would be conducted to ensure that development activities meet the requirements of the ROPs, oil and gas stipulations, and standard lease terms.	BLM will conduct monitoring inspections of construction, drilling, and rehabilitation operations, through a compliance officer and/or interdisciplinary team, to ensure acceptable attainment of objectives.

Letter # - Comment #	Comment	Response
51-14	The Draft RMP/EIS incorporates a number of ROPs, oil and gas leasing stipulations, and standard lease terms. We recommend that the Final RMP/EIS address additional requirements for the abandonment, removal, and reclamation of activities relating to oil and gas and hard rock mineral and coal mining exploration, development, and operation after leases have expired and operations have ceased. The discussion should identify responsible parties, sources of funding, and the extent to which abandonment, removal, and reclamation would be considered complete. We recommend that general performance criteria for how areas impacted from resource development would be restored and rehabilitated, and any post monitoring, if any, would be required. In addition, the Final RMP/EIS should identify the types of monitoring and corrective actions required to ensure that abandonment, removal, and reclamation actions would be completed.	Oil and Gas leasing stipulation #4 addresses abandonment and expiration of oil and gas leases. Mining of locatable minerals is subject to surface management regulations found in 43 CFR 3809. The Plan defers coal leasing. Reclamation decisions are more appropriately addressed in an implementation level plan when a surface disturbing activity is proposed. This occurs subsequent to the adoption of the RMP/EIS. Before any fluid leasable mineral on-the-ground activity is approved by BLM, the Application for Permit to Drill (APD) must include a 12-point Surface Use Plan of Operation in accordance with the requirements of BLM Onshore Order #1. A reclamation plan is included in the Surface Use Plan of Operations and discusses plans for both interim and final reclamation. Reclamation is required of any surface previously disturbed that is not necessary for continued production operations. A mining plan of operations would have to be approved by BLM before on-the-ground activity associated with locatable mineral development began. Bonding would be required. The mining plan of operations would include proposed reclamation.
58-28	In general, the Working Group favors using fully protective stipulations attached to leases for resource development (e.g. oil/gas or mineral development) as methods to protect and conserve caribou habitats rather than using ROPs as described in the Draft RMP/EIS. We think lease stipulations provide enforceable management and incentives that will minimize actions that might degrade or impair caribou or their habitats.	Thank you for your comment. See response to comment # 65-95 (under Minerals).

Letter # - Comment #	Comment	Response
58-30	Vol. 2 p.A-15 ROP FW-3a. No coal exploration activities between May 20-August 15. No coal exploration between August 16-May 19 when caribou are present in the exploration area. These ROPs should be required in areas outside of the core habitats defined above. No development should occur in the core seasonal habitats.	Thank you for your comment. See response to comment # 197-9 (under Wildlife).
58-31	Vol.2 pg A-15, ROP FW-3d. Aircraft flights for exploration and development activities should be conducted at least 2,000 ft AGL (except for take-offs and landings). No harrassment of wildlife by low flying aircraft during exploration activities. Aircraft restrictions for the Planning Area should not adversely affect the flights of guides and transporters authorized to work in the Planning Area. These ROPs should be required in areas outside of the core habitats defined above. No development should occur in the core seasonal habitats. Aircraft altitude restrictions should be written in a manner that is enforceable. The cloud ceilings on the calving ground during the critical period is rarely 2,000 ft. or higher. "Safe flying practices" would require pilots to stay free of clouds unless flying under instrument flight rules which is not likely for development operations in this area. The "exception" noted in this ROP would likely be more common than the rule. A ceiling minimum should be set (1,500 ft). If safe flight conditions can not be maintained at or above that altitude they should not be permitted.	This comment discusses two separate required operating procedures (ROPs). In relation to the concern about guides, ROP FW-3d has been revised to state "Within defined WAH insect relief areas, aircraft associated with development activities shall maintain an altitude of at least 2,000 feet AGL (except for takeoffs and landings) from June 20-August 15, unless doing so would endanger human life or violate safe flying practices." In regard to ROP FW-3c which pertains to calving areas, this ROP was adopted to be consistent with the adjacent National Petroleum Reserve-Alaska. The stipulation includes the exception: "unless doing so would endanger human life or violate safe flying practices," to address the safety issue raised by the commenter. We believe the 2,000-foot limit was developed based on Technical Report No. 86-3 (Schideler 1986) which reviewed studies on the effects of aircraft overflights on caribou. In almost all studies, aircraft maintaining flight altitudes of 2,000 feet above ground level caused little or no disturbance to caribou.

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58-39	Outside of the core habitat protection areas…strong stipulations should be developed (in collaboration with caribou managers and scientists from state and federal agencies and universities) similar to those on the North Slope in order to minimize impacts to caribou.	The oil and gas leasing stipulations and required operating procedures (ROPs) in Appendix A were adapted from the ROPs and Stips developed for the North Slope.
58-48	In writing management stipulations to mitigate potential impacts on caribou or their habitats, the Draft RMP/EIS should not allow exception clauses that weaken conservation stipulations. The Authorized Officer should not be allowed to waive Required Operating Procedures or stipulations.	Before surface disturbing activities are approved, the BLM must prepare an environmental assessment (EA) or EIS, if necessary, of the potential effects of the proposed activity on the natural and socio-economic environment of the affected area. Any changes made to a ROP will be addressed in the EA or EIS. The objective of the subject ROP will remain unchanged. Oil and gas lease stipulations include criteria for waivers, exceptions, and modifications. If the BLM Authorized Officer determines that a stipulation involves an issue of major concern, modifications, waivers and exceptions of the stipulation will be subject to at least a 30-day advance public review (43 CFR 3101.1-4).
64-14	Pages 2-53 and 2-54, Solid Leasable Minerals, Alternatives C and D. As mentioned ...in comments regarding p.2-41 to 43 [fluid leasable minerals], we recommend including and using Required Operating Procedures (ROPs) and Stipulations (Stips) along the specified rivers to protect riparian habitat as appropriate. In the southern Nulato Hills, riparian corridors provide valuable winter habitat for the Western Arctic caribou herd that would benefit from ROPs and Stips designed to protect habitat for winter use by caribou.	The ROPs apply to all permitted activities and unless specifically noted in the ROP, apply to the entire planning area. Many of the ROPs are designed to protect riparian habitat and would apply to activities permitted in the Nulato Hills.

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64-13	We request the Bureau include provisions with the ROPS and Stips that provide the necessary flexibility along the specified rivers to protect valuable riparian habitat where necessary. Given NEPA requirements and the ability to impose ROPs and Stips on development activities, a statement to the effect that the value of prime riparian habitat will be considered for protection and mitigation in the development of any mineral resources that may impact riparian resources would allow site-specific impacts to be addressed through the application of appropriate constraints and mitigation. Riparian habitat would be protected taking into consideration the characteristics of a particular site and resource development could occur provided appropriate mitigation and/or setbacks are imposed. In some instances, 300 feet may be appropriate protection for riparian habitat, in some instances, a smaller setback may provide adequate protection, and in some instances a larger setback may be required. [Pgs. 2-41 to 2-43, 2-60, 2-136]	Several additional ROPs have been developed to protect riparian vegetation and aquatic habitats (Appendix A). Activities occurring within 300 feet or the flood-prone width of high value rivers could not occur unless the claimant, operator, or applicant proposing to use or develop this area can demonstrate that such use or development will not adversely alter the condition and ecological function of aquatic and riparian systems or diminish the quality and diversity of habitats needed to sustain the production of fish and wildlife populations at their natural potential. See Appendix A, section B(3) and B(5).
64-59	Rather than creating a 300-foot setback on both sides of the Ungalik River, we request that BLM consider alternative means of managing the portion of the Ungalik River south of T8S R9W, Kateel River Meridian such as ROPS and Stips designed to protect valuable habitat.	Additional Required Operating Procedures have been developed to manage the Ungalik River. See Appendix A, section B(5).
65-96	BLM failed to identify the most relevant mitigation measures. Nowhere did BLM attempt to analyze the effectiveness of the stipulations and ROPs or explain how they were developed.	See response to comment # 65-37. Additional text was added to Appendix A, explaining how the Stips and ROPs were developed.

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65-100	Authorized Officer should not be allowed to waive ROPs or stipulations. An additional public process should be conducted if industry asks BLM to change their ROPs and Stips and if the changes are likely to affect critical habitat or subsistence user areas, key stakeholders in the region must be consulted regarding the changes.	If BLM determines that a stipulation involves an issue of major concern, modifications, waivers and exceptions of the stipulation will be subject to at least a 30-day advance public review (43 CFR 3101.1-4). See response to comment # 58-48.
65-101	Dismantling, Removal and Restoration (DR&R) requirements must be added to the Final RMP/EIS. BLM has yet to develop specific DR&R requirements to meet its overall obligation of returning the disturbed land to its previous primary uses as fish and wildlife habitat and for subsistence uses by native villagers. Thresholds must be identified for specific management actions as well as development of a monitoring and assessment plan.	Reclamation decisions are more appropriately addressed in an implementation level plan when a surface disturbing activity is proposed. See response to comment # 58-51.
65-102	ROP FW-3a. Coal exploration activities should be limited to between May 20-August 15. Coal exploration between August 16-May 19 should not be allowed.	ROP FW-3a limits coal exploration within caribou calving and insect relief habitats during the most critical time period, May 20- August 15. Coal exploration would be allowed in these areas after caribou disperse into other habitats.
65-103	ROP FW-3d. Aircraft flights for exploration and development activities should be conducted at least 2,000 ft AGL (except for take-offs and landings). During exploration activities, low flying aircrafts should not be allowed to harass wildlife. ROP [FW-3d] should identify how it will be enforced.	Mitigation measures (ROPs), developed through this RMP/EIS process, are required, and therefore, enforceable. Compliance with the ROPs would be determined through monitoring of individual projects. Harassment of wildlife by low flying aircraft is illegal.

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65-105	These ROPs [FW-3d and FW-3a] should apply all lands outside ACECs which should prohibit industrial activities, and absolutely no development activities should be allowed in areas identified by ADF&G as core habitats for the WACH.	The Proposed RMP/Final EIS allows for mineral exploration and development within ACECs. Therefore, ROP FW-3a and FW-3d will apply within ACECs. These ROPs are designed to reduce stress on caribou during the most sensitive times in their life cycle.
197-22	Any rights-of-way, ROPs, Stipulations and permitting must ensure that critical habitat for moose, fish, caribou, and other subsistence resources be afforded all possible protection that can be instituted, if it means seasonal restrictions or avoidance areas, so be it.	The ROPs and Oil and Gas Leasing Stipulations were designed to protect the resources the commenter refers to.
198-10	The ROPs applicable to subsistence (Appendix A-17) require only that "permitees may be required to provide information to potentially affected subsistence communities" and that "permitees may be required to consult with potentially affected subsistence communities." Providing information and consulting with people are simply not enough to ensure that there will not be adverse affects to subsistence arising out of the development that will be allowed under either Alternative B or D.	BLM has used this same stipulation language in other areas of the State to great effect. The consultation requirements described within this overarching programmatic stipulation/ROP ensures that communities will interact with permittees, and play an active role in helping to shape the project to cause the least amount of impact to subsistence uses and resources in their particular area. The RMP/EIS acknowledges that there will be some unavoidable impacts to subsistence. In addition to the ROPs mentioned by the commenter, ROP Sub -1a states that "In order to eliminate, minimize, or limit effects of permitted activities on subsistence use, BLM may recommend modifications to proposed activity…" For every individual project or request for permitted activity, an ANILCA 810 evaluation will be completed, and additional mitigation measures that serve to minimize project-specific identified impacts will be applied. ROPs under other programs also serve to protect fish and wildlife, and their habitats to the subsistence user's benefit.
198-17	The ROPs for Fish and Wildlife (Appendix A-15 and 16) only pertain to pipeline construction.	The ROPs for Fish and Wildlife do not only pertain to pipeline construction. They apply to a variety of permitted uses. ROP FW-4b pertains to the design of roads and pipelines to allow for free movement of wildlife and unimpeded passage of subsistence users.
EDITORIAL CHANGES		
1-10	The Reference on page 18 is unreadable.	We were unable to find the reference referred to.
52-11	Pg. 2-60 (d) Alternative B, 3rd line: "regulations is misspelled.	This correction has been made in the Proposed RMP/Final EIS

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52-32	Pg. 3-173-4. Imnachuk HLMP: "unencumbered" is misspelled.	This correction has been made in the Proposed RMP/Final EIS
52-33	p. 3-175 - Southern Seward Peninsula Region, last sentence: "Peninsula" is misspelled.	This correction has been made in the Proposed RMP/Final EIS.
52-39	p.3-193 - mid page incomplete sentence: "These placer gold occurrences are generally restricted **to?** the schist bedrock.	This correction has been made in the Proposed RMP/Final EIS
52-40	Pg. 3-194 (g) 1st sentence: "...in the planning area include a limestone ...."	This correction has been made in the Proposed RMP/Final EIS
52-46	Pg. 3-243. (2) Key Elements 3rd bullet: insert "be" after designation.	This correction has been made in the Proposed RMP/Final EIS
52-47	Pg. 3-244 c) last paragraph, line 10: replace "to" with do.	This correction has been made in the Proposed RMP/Final EIS
64-38	Pg. 3-224 c) Biomass: Edit first sentence to remove duplicative text.	This correction has been made in the Proposed RMP/Final EIS
64-39	Pg. 3-236 1) Background third bullet: Change plan to "plant".	This correction has been made in the Proposed RMP/Final EIS
64-45	Pg. 4-24, last sentence: delete the word "within"	This correction has been made in the Proposed RMP/Final EIS
64-46	Pg. 4-126 First and second paragraphs, grammatical errors: Line 9: "….to take place on non-BLM managed…; " Line 2, pp2, change "to" to "in": "could increase interest in exploration on...; "Line 5/6: "This would result in the displacement of mineral activities to…"	This correction has been made in the Proposed RMP/Final EIS
64-57	Include VABM in list of Acronyms	VABM was added to the list of acronyms.

E. Index of Comment Letter Numbers

Below is a list of names of those who commented on the Draft Kobuk-Seward Peninsula RMP/EIS and their assigned comment letter number. Also shown are the page numbers where responses to their specific comments can be found. Letters which contained no substantive comments are marked as such. Organizations and government entities are listed by the organization or the government agency rather than by the signature to the submission. An index organized by comment letter number rather than alphabetically by last name follows as well.

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Artley, Richard	0219	*No Substantive Comment
Ashenfelter, Jack H.	0123	*No Substantive Comment
Bailey, Edna	0084	*No Substantive Comment
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* Denotes a form letter with multiple signatures.

Acronyms

AAC	Alaska Administrative Code
ACEC	Area of Critical Environmental Concern
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
AKDOT&PF	Alaska Department of Transportation and Public Facilities
AFS	Alaska Fire Service
AIWFMP	Alaska Interagency Wildland Fire Management Plan
AKEPIC	Alaska Exotic Plants Information Clearinghouse
ANCSA	Alaska Native Claims Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
ANWR	Arctic National Wildlife Refuge
AO	Authorizing Officer
AOGCC	Alaska Oil and Gas Conservation Commission
APD	Application for Permit to Drill
APMA	Alaska Placer Mining Application
AS	Alaska Statute
bbl	barrels (of oil)
Bbbl	billion barrels
bcf	billion cubic feet
BLM	Bureau of Land Management
BPIF	Boreal Partners in Flight
BSNC	Bering Straits Native Corporation
CBNG	Coalbed Natural Gas
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CK	Creek
CNIPM	Committee for Noxious and Invasive Plant Management
CPF	Central processing facility
DLP	Defense of Life and Property
DOD	Department of Defense
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ERMA	Extensive Recreation Management Area
EROS	[USGS] Earth Resources Observation Systems
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FERC	Federal Energy Regulatory Commission
FLPMA	Federal Land Policy and Management Act
FWS	[U.S.] Fish and Wildlife Service
GMU	Game Management Unit
GPS	Global Positioning System
GVWR	Gross Vehicle Weight Rating
HLMP	High Locatable Mineral Potential
IAP	Integrated Activity Plan
IC'd	interim conveyed

INHT	Iditarod National Historic Trail
IM	Instruction Memorandum
IRA	Indian Reorganization Act
ITC	International Tin Council
KGRA	Known Geothermal Resource Area
KMDA	Known Mineral Deposit Area
MFP	Management Framework Plan
MLRA	Major Land Resource Area
NAB	Northwest Arctic Borough
NANA	Northwest Arctic Native Association
NEPA	National Environmental Policy Act
NOA	Notice of Availability
NOI	Notice of Intent
NPR-A	National Petroleum Reserve-Alaska
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NSO	No Surface Occupancy
NWR	National Wildlife Refuge
OHV	Off-highway Vehicle
PDO	Pacific Decadal Oscillation
PGE	Platinum Group Elements
PLO	Public Land Order
ppm	parts per million
PRP	potential responsible party
R	River
RFD	Reasonable Foreseeable Development
R&PP	Recreation and Public Purposes [Act]
RAC	Resource Advisory Council (BLM-Alaska)
RAC	Regional Advisory Council (Federal Subsistence Program)
RAMP	Recreation Area Management Plan
RMIS	Recreation Management Information System
RMP	Resource Management Plan
RNA	Research Natural Area
ROD	Record of Decision
ROP	Required Operating Procedure
ROW	Right-of-Way
Sec.	Section
SOCAL	Standard Oil Company of California
SRMA	Special Recreation Management Area
SRP	Special Recreation Permit
SSS	Special Status Species
T&E	Threatened and Endangered [species]
TAPS	Trans-Alaska Pipeline System
UAF	University of Alaska Fairbanks
UIC	Underground Injection Control Program
USC	U.S. Code
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
VABM	Vertical angle benchmark
VRM	Visual Resource Management
VUD	Visitor Use Day
WACH	Western Arctic Caribou Herd
WSR	Wild and Scenic River

Glossary

17(b) easement
Sec.17(b) easements are rights reserved to the U.S. on lands conveyed to Native corporations. The primary purpose of Sec. 17(b) easements is for accessing Federal, State, or municipal corporation (including boroughs) lands and navigable waters. These rights are reserved under Sec. 17(b) of the Alaska Native Claims Settlement Act (ANCSA) when the BLM conveys land to a Native corporation under ANCSA. The standard uses reserved to the U.S. are:

25-Foot Trail - The uses allowed on a 25-foot-wide trail easement are: travel by foot, dogsleds, animals, snowmobiles, two- and three-wheeled vehicles, and small all-terrain vehicles (less than 3,000 lbs. gross vehicle weight).

50-Foot Trail - The uses allowed on a 50-foot-wide trail easement are those allowed for a 25-foot trail plus large all-terrain vehicles (more than 3,000 lbs. gross vehicle weight), tracked vehicles, and four-wheel-drive vehicles.

60-Foot Road - The uses allowed on a 60-foot-wide road easement are those allowed for 25- and 50-foot trails plus automobiles and trucks.

1-Acre Site - The uses allowed on a site easement are: vehicle parking (e.g., aircraft, boats, all-terrain vehicles, snowmobiles, cars, and trucks), temporary camping, and loading or unloading. Temporary camping, loading, or unloading is limited to 24 hours.

3809 regulations
Surface management regulations for locatable mineral operations.

- A -

aboriginal
Refers to those people who reported identifying with at least one Aboriginal group, that is, North American Indian, Metis, or Inuit.

Alaska National Interest Lands Conservation Act (ANILCA)
A law passed in 1980 designating 104 million acres for conservation by establishing or expanding national parks, wildlife refuges, wild and scenic rivers, wilderness areas, forest monuments, conservation areas, recreation areas, and wilderness study areas to preserve them for future generations.

Alaska Native Claims Settlement Act (ANCSA)
A law passed by Congress in 1971 to settle aboriginal land claims in Alaska. Under the settlement the Natives received title to a total of over 44 million acres, to be divided among some 220 Native Villages and 12 Regional Corporations established by the act. The corporations shared in a payment of $962,500,000.

alternative
One of a number of possible options for responding to the purpose and need for action.

ambient
Environmental or surrounding conditions

anadromous
Ascending rivers from the sea for spawning. Salmon are an anadromous species.

aquatic
Living or growing in or near water.

archaeology
The study of past human cultures through the analysis of their material and physical remains.

Area of Critical Environmental Concern (ACEC)
An area within the public lands where special management attention is required to protect important historic, cultural, or scenic values, fish and wildlife or natural systems or processes, or to protect life and safety from natural hazards.

artifact
An object that was made, used, and/or transported by humans that provides information about human behavior in the past. Examples include pottery, stone tools, bones with cut marks, and coins.

assessment
The act of evaluating and interpreting data and information for a defined purpose.

Athabaskan
The name of a broad group of closely-related languages that characterize the people who live in the Alaskan Interior, Canadian Interior, and the Southwestern United States.

aufeis
Ice formed by water flowing over a frozen surface. These ice forming situations can occur wherever there are continuous sources of water and freezing temperatures.

- B -

Best Management Practices
A suite of techniques that guide, or may be applied to, management actions to aid in the achieving of desired outcomes.

Break-up
The period in the spring when warming temperatures initiates snow melt, begins surface runoff to lakes and streams, and rapidly increases water levels that flush the ice out.

Bima
Oceangoing bucket line dredge used for gold mining.

- C –

candidate species
A species designated as a candidate for listing as threatened or endangered by the U.S. Fish and Widllife Service or National Marine Fisheries Service. A list of candidate species has been published in the Federal Register.

closed
Generally denotes that an area is not available for a particular use or uses (BLM, H-1601-1).

closed area *(in reference to OHV designations)*
An area where OHV use is prohibited. Use of OHVs in closed areas may be allowed for certain reasons (e.g., to access subsistence resources); however, such use shall be made only with the approval of the authorizing officer (43 CFR 8340.05(h)).

Code of Federal Regulations (CFR)
A codification of the general and permanent rules published in the Federal Register by the Executive Departments and agencies of the Federal Government. The Code is divided into 50 titles which represent broad areas subject to Federal regulation. Each volume of the Code is revised at least once each year and issued on a quarterly basis.

collaboration
A cooperative process in which interested parties, often with widely varied interests, work together to seek solutions.

commercial use
Any use of public lands where money is paid for services provided.

commercial recreational use
Recreational use of public lands and related waters for business or financial gain. When any person, group, or organization makes or attempts to make a profit, receive money, amortize equipment, or obtain goods or services, as compensation from participants in recreational activities occurring on public lands, the use is considered commercial. An activity, service, or use is commercial if anyone collects a fee or receives other compensation that is not strictly a sharing of, or is in excess of, actual expenses incurred for the purpose of the activity, service or use (Guides, outfitters, air taxi operators etc.).

commerical logging and firewood sales
Commercial forest product sales that may require a competitive bidding process and are fairly large scale projects. Permits come with a fee amount set according to BLM standards.

condition class
A relative measurement describing the degree of departure from the historical fire regime. These three classes (Condition Classes 1, 2, and 3) categorize and describe vegetation composition and structure conditions that currently exist inside the fire regime groups, and serve as generalized wildfire rankings. The risk of loss of key ecosystem components from wildfires increases from Condition Class 1 (the lowest risk) to Condition Class 3 (the highest risk). (Also see *fire regime condition class*).

continentality
Continentality refers to the influence of the ocean waters and sea ice on climate patterns.

conveyed
Title to land was transferred from one party to another. The United States conveys title to land to Native corporations by patent and interim conveyance (IC) and to the State of Alaska by patent and tentative approval (TA).

cratering
Shallow depressions in the vegetation mat extending down into organic material or deeper into mineral soil. Cratering is caused by grazing animals pawing through the snow to reach underlying vegetation.

Cryogenic/cryogenic processes
Those processes related to low temperatures or the effects of freezing.

cumulative effects
Impacts on the environment that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

curb weight
The weight of a vehicle with a full tank of fuel and all fluids topped off, but with no one sitting inside or on the vehicle and no cargo loaded.

- D -

(d)(1) withdrawal
A withdrawal made under section 17(d)(1) of the Alaska Native Claims Settlement Act for study to determine the proper classification of the lands and to determine the public values of the lands which need protection.

designated trail
A trail that is marked on the ground and mapped for public use. It is an administrative and not a legal designation. In some areas, motorized travel may be limited to designated trails.

developed recreation
Recreation dependent on facilities provided to enhance recreation opportunities in concentrated use areas.

diabase dikes
A tabluar body of igneous rock of basaltic composition consisting essentially of labradorite and pyroxene and where the labradorite is imbedded in large pyroxene crystals.

diurnal
Periodic day to night change or alteration.

dispersed recreation
Recreation activities of an unstructured type which are not confined to specific locations such as recreation sites. Example of these activities may be hunting, fishing, off-road vehicle use, hiking, and sightseeing.

drainage
A general term applied to the removal of surface or subsurface water from a given area either by gravity or by pumping.

- E -

ecosystem
A naturally occurring, self-maintained system of varied living and non-living interacting parts that are organized into biophysical and human dimension components.

ecosystem health
A condition where the parts and functions of an ecosystem are sustained over time and where the system's capacity for self-repair is maintained, such that goals for uses, values, and services of the ecosystem are met.

endangered species
An animal or plant species designated by the U.S. Fish and Wildlife Service to receive Federal protection status because the species is in danger of extinction throughout all or a significant portion of its natural range.

environmental analysis
A comprehensive evaluation of alternative actions and their predictable short- and long-term environmental effects, including physical, biological, economic, social, and environmental design factors and their interactions.

environmental assessment (EA)
A concise analysis of the significance of a given project's potential environmental consequences. An EA is required by the National Environmental Policy Act (NEPA), and determines if an Environmental Impact Statement (EIS) is needed.

environmental impact statement (EIS)
A detailed statement of a given project's environmental consequences, including unavoidable adverse environmental effects, alternatives to the proposed action, the relationship between local short-term uses and long-term productivity, and any irreversible or irretrievable commitment of resources.

environmental justice
The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies.

Essential Fish Habitat (EFH)
Essential Fish Habitat means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH is defined by the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265).

Exception (of a lease stipulation)
A lease stipulation exception is a one-time exemption to a lease stipulation; exceptions are determined on a case-by-case basis.

Executive Order
A rule or order having the force of the law.

existing trail
A trail that exists on the ground but has not been inventoried and evaluated by the managing agency to determine use sustainability.

extensive recreation management area (ERMA)
A public lands unit identified in land use plans containing all acreage not identified as a special recreation management area. Recreation management actions within an ERMA are limited to only those of a custodial nature.

- F -

Fairbanks District
The geographic region that defines the BLM public lands administered by the BLM Fairbanks District Office.

Fairbanks District Office
One of the three BLM Field Offices located in Alaska. The Fairbanks District Office is responsible for managing approximately 59 million acres of public lands in northern Alaska.

Federal Land Policy and Management Act (FLPMA)
A law passed in 1976 to establish public land policy, guidelines for its administration, and provide for the management, protection, development, and enhancement of the public lands.

fire dependent ecosystem
A vegetative community that has evolved adaptations to fire such as reliance on fire as a disturbance agent, protection of a species against the effects of fire, or strengthening or enhancement of a species through a fire event.

fire frequency
A general term referring to the reoccurrence of fire in a given area over time. Also referred to as fire cycle.

fire regime
A description of the patterns of fire occurrences, frequency, size, severity, and, sometimes, vegetation and fire effects, in a given area or ecosystem. A fire regime is a generalization based on fire histories at individual sites. There are five standard fire regimes, but only three fire regimes are represented in the Kobuk-Seward Peninsula planning area:

- Fire Regime III, with a fire frequency of 35-100+ years, with a mixed fire type,
- Fire Regime IV, with a fire frequency of 35-100+ years, with a stand replacement fire type, and
- Fire Regime V, with a fire frequency of 100+ years, with a stand replacement fire type.

Fire Regime Condition Class (FRCC)
(1) An interagency, standardized tool for determining the degree of departure from reference condition vegetation, fuels, and disturbance regimes. Assessing FRCC can help guide management objectives and set priorities for treatments.
(2) A classification of the amount of departure from the natural fire regime. There are three FRCCs. They include three condition classes for each fire regime. The classification is based on a relative measure describing the degree of departure from the historical natural fire regime. This departure results in changes to one (or more) of the following ecological components:

vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated disturbances (e.g. insect and diseased mortality, grazing, and drought). The three Condition Classes are:

Condition Class I: Within the natural (historical) range of variability of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.

Condition Class II: Moderate departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.

Condition Class III: High departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.

fire return interval
The number of years between two successive fire events for a given area.

fire severity
The degree to which a site has been altered or disrupted by fire; loosely, a product of fire intensity and residence time. In Alaska, fire severity refers to the amount of organic layer removed by a fire event.

FLPMA 302 permits
Section 302 of FLPMA provides for use, occupancy, and development of public lands with consideration for multiple use and sustained yield by requiring permits for utilization of public lands for habitation, cultivation, and the development of small trade or manufacturing concerns.

Federal Register
A daily publication that reports Presidential and Federal Agency documents.

fishery
Habitat that supports the propagation and maintenance of fish.

Free use permit
The free use application permit is used for various vegetative and mineral products applied to domestic purposes or by a non-profit agency (43 CFR 5500 and 43 CFR 3604).

frost boil
See *permafrost*.

fuels treatment
The development and implementation of prescribed fire or a mechanical or chemical treatment to wildland fuels in given areas to meet resource objectives.

- G -

Generally Allowed Uses
The State of Alaska's uses and activities that are generally allowed on State land. For travel across State land (OHV use) it allows, "Using a highway vehicle with a curb weight of up to 10,000 pounds, including a four-wheel-drive vehicle and a pickup truck, or using a recreational-

type vehicle off-road or all-terrain vehicle with a curb weight of up to 1,500 pounds, including a snowmobile and four-wheeler, on or off an established road easement, if use off the road easement does not cause or contribute to water quality degradation, alteration of drainage systems, significant rutting, ground disturbance, or thermal erosion. An authorization is required from ADF&G for any motorized travel in fish bearing streams" (ADNR 2004). All generally allowed uses are subject to conditions outlined in 11 AAC 96.005.

Geographic Information System (GIS)
An information processing technology to input, store, manipulate, analyze, and display all forms of geographically referenced information.

goal
A broad statement of a desired outcome that is usually not quantifiable (e.g., "maintain ecosystem health and productivity").

Gross vehicle weight rating (GVWR)
GVWR is the maximum allowable total weight of a vehicle that is loaded to capacity, including the weight of the vehicle itself plus fuel, passengers, cargo, and other miscellaneous items such as extra aftermarket parts, as specified by the manufacturer.

- H -

hummock
See *permafrost*.

hydrocarbons
A group of chemical compounds containing only hydrogen and carbon; these include petrol, diesel, gas, oil, and some solvents

Hydrologic Unit Code (HUC)
A hierarchical system of numbering watersheds initiated by the U.S. Water Resources Council (1970) and expanded by Seaber et al. (1987) for use by water-resource organizations as a standardized base "for locating, storing, retrieving, and exchanging hydrologic data." The U.S., including Alaska, Hawaii, and parts of the Caribbean, is divided into 21 major hydrologic regions, then subdivided into 222 sub-regions, 352 accounting units, and 2,149 cataloging units. At each division, a 2-digit numerical code is added so that each watershed is assigned a unique numerical identifier.

- I -

ice scour
Removal of vegetation, or gouging of holes in loose soil or soft bedrock from the movement of ice over the land surface.

ice wedge
See *permafrost*.

Implementation plan
A site-specific plan written to implement decisions made in a Resource Management Plan. Also called an Activity Plan.

invasive species
Organisms that have been introduced into an environment where they did not evolve. Executive Order 13112 focuses on organism whose presence is likely to cause economic harm, environmental harm, or harms to human health. See also *noxious weeds*.

- L -

land status
The legal standing of land within BLM boundaries. Land status includes private, military, State, State-selected, Native, Native-selected, and unencumbered public lands.

land use allocation
The identification in a Resource Management Plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the planning area, based on desired future conditions.

leasable minerals
Minerals subject to exploration and development under leases, permits, and licenses under various mineral leasing acts. Leasable minerals include oil, gas, and coal. See also *locatable minerals*.

lease
A means of allowing long-term use of public lands without transferring ownership of that land.

Lease stipulation (oil and gas lease)
Lease stipulations are conditions of lease issuance that provide protection for other resource values or land uses by establishing authority for substantial delay or site changes, or the denial of operations within the terms of the lease contract. Lease stipulations clarify the BLM's intent to protect known resources or resource values.

lens
See *permafrost*.

lessee
A person or entity holding record title in a lease issued by the United States (see 43 CFR 3160.0-5).

limited
Generally denotes that an area or roads and trails are available for a particular use or uses (BLM, H-1601-1). See also *limited area* below.

limited area *(in reference to OHV designations)*
An area restricted at certain times, in certain areas, and/or to certain vehicular uses. These restrictions may be of any type, but can generally be grouped into the following categories: number of vehicles; types of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing road and trails; use on designated roads and trails; and other restrictions (CFR 43 sec. 8340.05(g)).

locatable minerals
Minerals subject to appropriation under the mining laws and 43 CFR 3809. Locatable minerals include base metals (e.g. copper, lead, and zinc), noble metals (e.g. silver and gold), nickel, iron, platinum group elements, bentonite, gem and semiprecious gemstones, and nephrite jade. See also *leasable minerals*.

loess
A wind deposited silt.

- M -

major land resource areas (MLRAs)
Geographically-associated land resource units classified by the dominant physical characteristics: land use, elevation and topography, climate, water, soils, and vegetation.

Management Framework Plan
A planning decision document prepared before the effective date of the regulations implementing the land use planning provisions of FLPMA. The MFP establishes, for a given area of land, land-use allocations, coordination guidelines for multiple-use, and objectives to be achieved for each class of land use or protection.

Memorandum of Understanding (MOU)
A formal, written agreement between organizations or agencies that presents the relationship between the entities for purposes of planning and management.

meristic
Any fish body form characteristic that can be measured or counted. For example: fin rays, pyloric caeca, gill rakers, vertebrae, and scales.

metasediments
A metamorphic rock of sedimentary origins.

metaliferous
Yielding or containing metal.

mine
An opening or excavation in the earth for extracting minerals.

mineral entry
The filing of a claim on public land to obtain the right to any minerals it may contain.

mineral materials
The BLM authorizes disposal of mineral materials such as gravel, sand, petrified wood, stone, cinders, pumice, pumicite, and clay to third parties on unimproved lands. Materials cannot be bartered or sold and must be used in connection with project construction or maintenance.

mitigation measures
Actions taken to reduce adverse impacts on resource values.

model
An analytical framework based on the past behavior of numeric variables that is able to predict the future behavior of those variables. 10 CFR Part 960.2 defines a model as "a conceptual description and the associated mathematical representation of a system, subsystem, component, or condition that is used to predict changes from a baseline state as a function of internal and/or external stimuli and as a function of time and space."

Modification (of a lease stipulation)
A lease stipulation modification is a change to the provisions of a lease stipulation either temporarily or for the term of the lease.

monitoring
The process of collecting information to evaluate if objectives and anticipated results of a management plan are being realized, or if implementation is proceeding as planned.

multiple-use
According to the Multiple-Use Sustained-Yield Act of 1960, the management of all the various renewable surface resources so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

muskeg
A water-soaked form of peat or moss, 3-10 feet thick. Similar to a bog.

- N -

National Environmental Policy Act of 1969 (NEPA)
An act mandating an environmental analysis and public disclosure of Federal actions.

National Wild and Scenic Rivers System
A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams: 1) recreation—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past, 2) scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely un-developed but accessible in places by roads, and 3) wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shore-lines essentially primitive and waters unpolluted.

Native-selected
The Alaska Native Claims Settlement Act (ANCSA) of 1971 gave Alaska Natives an entitlement of 44 million acres to be selected from a pool of public lands specifically defined and withdrawn by the Act for that purpose. Some ANCSA corporations filed selections in excess of their

entitlements. Similar to overselections by the State, some of the Native-selected lands will not be conveyed and will be retained in federal ownership. Native-selected lands constitute approximately 15 percent of the planning area and 35% of the BLM-managed lands.

no action alternative
The most likely condition expected to exist if current management practices continue unchanged. The analysis of this alternative is required for Federal actions under the National Environmental Policy Act of 1969 (NEPA).

Non-commercial recreational use
Recreational use of the public lands and related waters for non-financial gain.

No Surface Occupancy (NSO)
A limitation of oil and gas leasing. It denotes that the area is open for mineral leasing but analysis has found that in order to protect other resource values, no well sites, tank batteries, or similar facilities are to occupy the surface of specified lands unless site-specific analysis shows that resource values can be protected.

noxious weed
A plant species designated by Federal or State law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or non-native, new, or not common to the U.S. See also *invasive species*.

- O -

objective
A concise statement of a specific desired outcome for a resource. Objectives are usually quantifiable and measurable.

off-highway vehicle (OHV)
Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: 1) any non-amphibious registered motorboat; 2) any military, fore, emergency, or law enforcement vehicle being used for emergency purposes; 3) any vehicle whose use is expressly authorized by the authorizing officer, or otherwise officially approved; 4) vehicles in official use; and 5) any combat or combat support vehicle when used for national defense (CFR 43 sec. 8340.05(a)).

open
Generally denotes that an area is available for a particular use or uses (BLM, H-1601-1). See also *open area* below.

open area *(in reference to OHV designations)*
Any area where all types of vehicle use is permitted at all times, anywhere in the area subject to the operating regulations and vehicle standards set forth in subparts 8341 and 8342 of the Title 43 CFR (CFR 43 sec. 8340.05(f)).

organic material
Referring to or derived from living organisms; compounds containing carbon.

outstandingly remarkable value
As defined by the Wild and Scenic Rivers Act of 1968, an “outstandingly remarkable value” is the characteristic of a river segment that is judged to be a rare, unique, or exemplary feature that is significant at a regional or natural scale. Values can be recreational, scenic, geological, historical, cultural, biological, botanical, ecological, heritage, hydrological, paleontological, scientific, or research-related.

- P -

paleontological
Of or relating to past geological periods. Paleontological resources include fossils of shellfish, swamp forests, dinosaurs, and other prehistoric plants and animals, including both vertebrates and invertebrates, and direct evidence of their presence (tracks, worm burrows, etc).

paleontology
The study of ancient plants and animals now known only from fossil remains.

particulates
Fine liquid or solid particles such as dust, smoke, mist, fumes or smog, found in the air or emissions.

permafrost
Soil, sand, gravel, or bedrock that has remained below 32° F for two or more years (Muller 1945). Permafrost features include: frost boils (accumulation of excess water and mud in subsurface materials during spring thaw which may break through the surface), hummock (a mound of broken ice projecting upward, formed by ice deformation), ice wedge (a build up of ice in frozen soil, that is wedge-shaped in cross-section), ice lenses (accumulation of ice in cavities and hollows in the soil), pingos (an arctic mound or conical hill, consisting of an outer layer of soil covering a core of solid ice), polygonal ground (a type of patterned ground in areas of ice wedges), and solifluction lobes (an isolated tongue-shaped feature formed by rapid solifluction (downhill movement of soil) on a slope).

permit
A means of authorizing use of public lands in an equitable, safe, and enjoyable manner while minimizing adverse impacts and user conflicts. A permit does not transfer ownership of the land, it simply allows the permittee to use the land in a pre-determined fashion for a set amount of time.

pingo
See *permafrost*.

planning area
The region within which the BLM will make decisions during a planning effort. A planning area boundary includes all lands regardless of jurisdiction; however, the BLM will only make decisions on lands that fall under the BLM jurisdiction (including subsurface minerals).

play
When referring to oil and gas resources, play is defined as a specific combination of geological features with perceived potential for oil and gas accumulation.

polar jet
The polar jet is a mass of strong upper-level winds that circulate from west to east across the North Pacific. The position of these winds, often simply called the jet stream, is important because air temperatures are often 10-20° F cooler to the north of the polar jet than air to the south. While the path of the polar jet often follows a seasonal pattern, north of the Alaska Peninsula in summer and south towards the Gulf of Alaska in winter, the jet can shift large distances in a few days, altering storm tracks and producing major weather changes. At other times, the jet may remain stationary for several weeks or more, blocking weather changes. During the winter, this can produce extremely cold, calm weather in Interior Alaska.

pollutants
Any substance introduced into the environment that adversely affects the usefulness of a resource or the health of humans, animals, or ecosystems.

polygonal ground
See *permafrost*.

potential responsible parties
A “potentially responsible party” under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is any “person” who may be held liable for the costs of cleaning up hazardous substances released into the environment. A “person” can include an individual, corporation, partnership, municipality, or State or Federal agency who is a:

- Current owner or operator – A person who currently owns the land or operates the facility where the hazardous substances are located (regardless of whether the activity has occurred during the current owner or operator's involvement at the site),
- Past owner or operator – A person who owned or operated the land or facility at the time hazardous substances were disposed of at the site (requires proof that disposal occurred during the person's ownership or operation),
- Generator – A person who “arranged for” the disposal or treatment of the hazardous substances at the site (commonly known as the “generator” of the hazardous substances), or
- Transporter – A person who transported the hazardous substances to the site.

prehistory
Any period in the past for which there is no contemporary written historical evidence. For the Copper River Basin, “prehistory” refers to any events occurring before 1850.

prescribed fire
A fire purposefully ignited to meet specific objectives. Prior to ignition, a written, approved fire plan must exist and legal requirements must be met.

proliferation
To spread or grow by rapid production of new parts such as unmanaged growth of trails.

public land
Land or interest in land owned by the U.S. and administered by the Secretary of the Interior through the BLM without regard to how the U.S. acquired ownership, except land located on the Outer Continental Shelf, and land held for the benefit of Native Americans, Aleuts, and Eskimos.

Public Land Order (PLO)
Congressional orders defining withdrawals of public lands by statute or secretarial order from operation of some or all of the public land laws.

Public Water Systems
Public water supply systems are defined as systems that provide water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serve an average of at least 25 people for at least 60 days a year. The locations of public water supply systems and Source Water Protection Areas are available from the Alaska Department of Environmental Conservation Drinking Water and Wastewater Program.

- R -

Recreation and Public Purposes (R&PP) Act
An act authorizing the sale or lease of public lands for recreational or public purposes to State and local governments and to qualified non-profit organizations.

R&PP lease
A lease issued by the Federal government for use of public lands to serve community and recreational purposes on public lands by issuing leases for uses such as parks, cemetery, and landfills.

record of decision
A public document associated with an Environmental Impact Statement (EIS) that identifies all alternatives, provides the final decision, the rationale behind that decision, and commitments to monitoring and mitigation.

recreation area management plan (RAMP)
An activity level plan to develop more specific management guidelines for a special recreation management area.

Recreation Opportunity Spectrum (ROS)
A framework for stratifying and defining classes of outdoor recreation environments, activities, and experience opportunities. The settings, activities, and opportunities for obtaining experiences are arranged along a continuum or spectrum divided into seven classes: Primitive (P), Semi-Primitive Non-Motorized (SPNM), Semi-Primitive Motorized (SPM), Roaded Natural (RN), Roaded Modified (RM), Rural (R), Urban (U), Remote Developed Lakeside (RDL), and Special (S).

Required Operating Procedures (ROPs)
ROPs are requirements, procedures, management practices, or design features that the BLM adopts as operational requirements. In this Draft RMP/EIS, the ROPs would be common to all action alternatives. ROPs would apply to all permitted activities, including FLPMA leases and permits, Special Recreation Permits, oil and gas operations, mining Plans of Operation, and Right-of-Way authorizations. Obviously, not all ROPs would apply to all permitted activities. ROPs have been developed to ensure that objectives identified within the Alaska Land Health Standards are met when carrying out permitted activities and management practices.

Research Natural Area (RNA)
An area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: 1) a typical representation of a common plant or animal association; 2) an unusual plant or animal association; 3) a threatened or endangered plant or animal species; 4) a typical representation of common geologic, soil, or water features; or 5) outstanding or unusual geologic, soil, or water features. Uses of RNAs are defined in 43 CFR 8223.1.

right-of-way (ROW)
The legal right to pass over another owner's land, or the area over which a right-of-way exists.

right-of-way avoidance area
Areas where ROW should be avoided but may be allowed with special stipulations.

riparian corridor
Wetlands that are transitional between permanently saturated lowlands and drier upland sites. Riparian habitat is characterized by hydrophytic vegetation (plants that often grow in water or wet soils) that grows in nonhydric (moist but not wet) soils.

R.S. 2477
A provision originally part of the 1866 Mining Act that states in its entirety, “The right-of-way for the construction of highways over public lands, not reserved for public uses, is hereby granted.” In 1873, the provision was separated from the Mining Act and reenacted as Revised Statute (R.S.) 2477. In 1938, it was recodified as 43 U.S.C. Section 932. FLPMA repealed both the 1866 Mining Act and R.S. 2477, but all rights-of-way that existed on the date of the repeal (October 21, 1976) were preserved under 43 U.S.C. Section 1769. The State of Alaska recognizes approximately 650 R.S. 2477 routes throughout the State. The assertion of these routes has not been recognized and current BLM policy is to defer any processing of R.S. 2477 assertions except where there is a demonstrated and compelling need to make a determination.

- S -

salable minerals
See *mineral materials*.

scoping
The process used to determine, through public involvement, the range of issues that the planning process should address.

sedentary
Abiding in one place; not migratory; not moving.

sedimentary
Having the quality of being layered. Sedimentary rocks are those that were created through the deposition of layers of materials that were compressed into hard rock.

Sensitive Species
Those wildlife, fish, or plant species designated by the BLM Alaska State Director, usually in cooperation with the State agency responsible for managing the species, as sensitive. They

are: 1) species under status review by U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service; 2) species whose numbers are declining so rapidly that Federal listing may be necessary; 3) species with typically small and widely dispersed populations; or 4) species inhabiting ecological refugia or other specialized or unique habitats.

seral
Relating to ecological communities where all successional stages of biotic development are represented.

snowmachine
A motor vehicle of 850 pounds or less gross vehicle weight, primarily designed to travel over ice or snow, and supported, in part, by skis, belts, cleats, or low-pressure tires (11 AAC 12.340(9)).

small vegetative contract sale
Sales of vegetative products that are small scale and generally do not require a competitive bidding process. Ie: mushroom harvest, spruce cone harvest, or Christmas tree harvest.

solifluction lobe
See *permafrost*.

Source Water
Source water is untreated water from streams, rivers, lakes, springs, and aquifers that is used as a supply of drinking water. Source water areas are the sources of drinking water delineated and mapped by the states for each federally-regulated public water system.

Special Recreation Management Area (SRMA)
Areas where the management emphasis is on recreation, though other resource uses and development are allowed.

special recreation permit
A means of authorizing recreational uses of public lands and waters. Special recreation permits are issued for specific recreational uses as a means to manage visitor use, protect natural and cultural resources, and provide a mechanism to accommodate commercial recreational uses. There are four types of permits: commercial, competitive, organized groups/events, and individuals or groups in special areas.

Special Status Species
Special status species include the following: endangered species, threatened species, proposed species, candidate species, state-listed species, and BLM sensitive species.

species
Any species or subspecies of fish or wildlife or plants (and in the case of plants, any varieties), and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.

Standard Lease Terms (SLT)
Denotes that no special stipulations are applied to a lease. Current environmental protection laws and the Federal Onshore Oil and Gas Leasing Reform Act orders provide the direction for the oil and gas operation.

stand replacement fire
A fire which kills all or most of the living overstory trees in a forest and initiates forest succession or regrowth. Also explicitly describes the nature of fire in grasslands and some shrublands.

State-selected
These are formerly unappropriated and unreserved public lands that were selected by the State of Alaska as part of the Alaska Statehood Act of 1958 and Alaska National Interest Lands Conservation Act (ANILCA) of 1980. Until conveyance, State-selected lands outside of National Park system lands or National Wildlife refuges will continue to be managed by the BLM. ANILCA allowed for overselection by the State by up to 25 percent of the entitlement (sec. 906 (f)). Therefore, some State-selected lands will eventually be retained in long-term Federal ownership. State-selected lands constitute approximately 12 percent of the planning area and 28% of BLM-managed land.

Stipulations (Stips)
Stipulations are specific to oil and gas exploration, development, and production. They constitute restrictions on the conduct of operations under a lease. As part of a lease contract, lease stipulations are specific to the lessee. All oil and gas activity permits subsequently issued to a lessee will comply with the lease stipulations appropriate to the activity under review. The *Oil and Gas Leasing Stipulations* in Appendix A are examples of stipulations.

subsistence/subsistence use
Relying on fish, wildlife and other wild resources for food, shelter, clothing, transportation, handicrafts, and trade. An Alaskan resident living in a rural area may participate in Federal subsistence hunting on certain unencumbered BLM lands.

succession
The replacement in time of one plant community with another. The prior plant community (or successional stage) creates conditions that are favorable for the establishment of the next community.

sustained-yield
According to the Multiple-Use Sustained-Yield Act of 1960, the achievement and maintenance in perpetuity of a high-level annual or regular output of the various renewable resources of the national forests without impairment of the productivity of the land.

- T -

talik
A layer of unfrozen sediment located beneath a lake and river that is deeper than about 6 feet that remains unfrozen during winter.

thermokarsting
Ground subsidence due to the thawing of permafrost.

threatened species
A designation by the U.S. Fish and Wildlife Service when a plant or animal species is likely to become endangered throughout all or a specific portion of its range within the foreseeable future.

tiering
The coverage of broad, general information in environmental impact statements, with subsequent site-specific analyses incorporating that general information by reference.

tundra
A level or undulating treeless plain characteristic of northern arctic regions in both hemispheres. It consists of black mucky soil with a permanently frozen subsoil, but supports a dense growth of mosses and lichens, and dwarf herbs and shrubs, often showy-flowered.

turbidity
The opaque or dark color in water due to fine suspended sediment, algal growth, or dissolved chemicals.

tussock
A compact tuft of grass or sedges, or an area of raised solid ground, which is held together by roots of low vegetation, found in a wetland or tundra.

tussock tundra
A tundra landscape with a herbaceous vegetation of tussock forming plants, particularly *Eriophorum* spp.

- U -

unencumbered/unencumbered BLM lands
Public lands that have not been selected by the State or Native organizations. These are the lands that will be retained in long-term Federal ownership.

use of wildland fire
A wildland fire used to protect, maintain and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role.

- V -

viewshed
A region or area that can be seen from a particular location.

Visitor use day (VUD)
One person present in an area for any amount of time on one day. For example, 100 visitor use days could be one person present for 100 days, 10 people present for 10 days each; or 25 people present for 4 days each.

Visual Resource Management
A means of managing visual resources by designating areas as one of four classes: Class I: maintaining a landscape setting that appears unaltered by humans: Class II: designing proposed alterations so as to retain the existing character of the landscape; Class III: designing proposed alterations so as to partially retain the existing character of the landscape; and Class IV: providing for management activities which require major modifications of the existing character of the landscape.

- W -

Waiver (of a lease stipulation)
A lease stipulation waiver is a permanent exemption to a lease stipulation.

Wild and Scenic River
A river that is part of the National Wild and Scenic River System. In Alaska, most Wild and Scenic Rivers were designated through the Alaska National Interest Lands Conservation Act (ANILCA). The Glennallen Field Office manages two of these rivers: the Delta National Wild and Scenic River, and the Gulkana National Wild River. See also *National Wild and Scenic Rivers System*.

wildfire
An unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put out the fire.

wildland fire
Any nonstructural fire, other than prescribed fire, that occurs in an area under the fire management jurisdiction of a land management agency. This term encompasses fires previously called "wildfires."

wildland fire implementation plan (WFIP)
A progressively developed assessment and operational management plan that documents the analysis and describes the appropriate management response for a wildland fire use event.

Wildland Fire Situation Analysis (WFSA)
A decision making process that evaluates alternative wildfire suppression strategies against selected environmental, social, political, and economic criteria and provides a record of those decisions.

wildland fire use
The application of the appropriate management response to naturally ignited wildland fires to accomplish specific resource management objectives in predefined designated areas.

wildland urban interface
The line, area, or zone where structures and other human developments meet or intermingle with undeveloped wildland or vegetation fuels.

withdrawal
Federal land set aside and dedicated to a present, governmental use; public land set aside for some other public purpose, e.g., pending a determination of how the land is to be used; an action approved by the Secretary or a law enacted by Congress that closes land to specific uses under the public land laws (usually sale, settlement, location, and entry), or limits use to maintain public values or reserves area for particular public use or program, or that transfers jurisdiction of an area to another Federal agency.

References

Abele, G., J. Brown, and M.C. Brewer. 1984. Long-term effects of off-road vehicle traffic on tundra terrain. Journal of Terramechanics 21(3):283-294.

ACMP. *See* Alaska Coastal Management Program.

ADCCED. *See* Alaska Department of Commerce, Community, and Economic Development.

ADEC. *See* Alaska Department of Environmental Conservation.

ADF&G. *See* Alaska Department of Fish and Game.

ADLWD. *See* Alaska Department of Labor and Workforce Development.

ADNR. *See* Alaska Department of Natural Resources.

ADOT&PF. *See* Alaska Department of Transportation and Public Facilities.

AIWFMP. *See* Alaska Interagency Wildland Fire Management Plan.

Arctic Climate Impact Assessment. 2004. Impacts of a Warming Artic, Arctic Climate Impact Assessment. Cambridge University Press. http://www.acia.uaf.edu

Arctic Climate Impact Assessment. 2005. Arctic Climate Impact Assessment. Cambridge University Press, 1042p.

Alaska Climate Research Center. 2006. Temperature change in Alaska 1971-2000. http://climate.gi.alaska.edu/ClimTrends/30year/30yr.html.

Alaska Coastal Management Program. 1988. North Slope Borough coastal management program: Enforceable policies.

———. 1989. Bering Straits coastal resource service area coastal management plan. December 22.

———. 1998. Northwest Arctic Borough coastal management program: Enforceable and administrative policies.

———. 2004. Northwest Arctic Borough coastal management plan: Public review draft.

Alaska Department of Commerce, Community, and Economic Development. 2005. 2004 per capita tax revenues. Office of the State Assessor. http://www.commerce.state.ak.us/dca/osa/pub/04AKTax_Tab3a.xls.

Alaska Department of Environmental Conservation. 2002. Draft regional haze in Alaska: Summary of scientific knowledge and its implications for Alaska's state implementation plan. http://www.dec.state.ak.us/air/anpms/as/doc/FDhazesum.pdf.

Alaska Department of Fish and Game. 1973. Alaska's wildlife and habitat, vol. I. Juneau, Alaska.

———. 1978. Alaska's wildlife and habitat, vol. II. Juneau, Alaska.

———. 1990. Off-road vehicles and hunting in Alaska: A report to the Alaska Board of Game. Division of Wildlife Conservation.

———. 1994a. Black bear. Loyal Johnson. *In* Cheryl Hull, ed. Wildlife Notebook Series, 2002. Juneau, Alaska.

———. 1994b. Gray wolf. Ken Taylor. *In* Cheryl Hull, ed. Wildlife Notebook Series, 2002. Juneau, Alaska.

———. 1994c. Harlequin duck. Dan Rosenberg, Sam Patton, and Tom Rothe. *In* Cheryl Hull, ed. Wildlife Notebook Series, 2002. Juneau, Alaska.

———. 1994d. Lynx. Peter Berrie, Jeannette Ernest, and Bob Stephenson. *In* Cheryl Hull, ed. Wildlife Notebook Series, 2002. Juneau, Alaska.

———. 2001. Community Profiles Database. Available at www.state.ak.us/local/akpages/FISH.GAME. Accessed November 2005.

———. 2002. Letter to the BLM regarding an application to graze reindeer in McCarthy's Marsh.

———. 2003. Alaska subsistence fisheries 2002 annual report. Division of Subsistence, Juneau, Alaska.

———. 2004. Wings over Alaska Web site. http://www.wc.adfg.state.ak.us/index.cfm?adfg=birding.main. Accessed June 28.

Alaska Department of Labor and Workforce Development. 2004. Research and analysis population estimates; place estimates, 2000-2004. http://www.labor.state.ak.us/research/pop/estimates/04t4-3.xls.

———. 2005a. Alaska economic trends: The northern region. 25(3).

———. 2005b. Research and analysis. Current Employment statistics (CES). Industry Employment Estimates 2005 Alaska. http://www.labor.state.ak.us/research/emp_ue/ak95prs.xls

Alaska Department of Natural Resources. 1989. Northwest area plan for State lands. February.

———. 2004. Kobuk-Seward Peninsula RMP and EIS: Agency scoping comments. Office of the Commissioner. April 29.

———. 2005. Funds received from oil and gas leases. http://www.dog.dnr.state.ak.us/oil/programs/royalty/fundsreceived.htm. Division of Oil and Gas. Accessed November 28.

Alaska Department of Transportation and Public Facilities. 2004. Northwest Alaska transportation plan: Community transportation analysis.

Alaska Gold Company. 2006. Rock Creek Mine Plan of Operations. May 2006.

Alaska Interagency Fire Management Plan: Arctic Slope Planning Area. 1986.

Alaska Interagency Fire Management Plan: Kobuk Planning Area. 1984.

Alaska Interagency Fire Management Plan: Seward/Koyukuk Planning Area. 1984.

Alaska Interagency Fire Management Plan: Tanana/Minchumina Planning Area 1982 and Amendment. 1984.

Alaska Interagency Fire Management Plan: Yukon/Togiak Planning Area. 1984.

Alaska Interagency Wildland Fire Management Plan. 1998. Signatories: Alaska Department of Natural Resources, Alaska Department of Fish and Game, Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service, Forest Service, National Park Service, Tanana Chief Conference Inc., and Chugachmiut.

Alaska Land Transfer Acceleration Act. U.S. Public Law 108-452. December 10, 2004.

Alaska National Interest Lands Conservation Act. U.S. Public Law 96-487. December 2, 1980.

Alaska Native Claims Settlement Act. U.S. Public Law 92-203. December 18, 1971.

Alaska Statehood Act. U.S. Public Law 85-508. July 7, 1958.

Altman, B. and R. Sallabanks. 2000. Olive-sided flycatcher (*Contopus cooperi*). No. 502 in *The Birds of North America*, ed. A. Poole and F. Gill. The Birds of North America Inc., Philadelphia, PA.

Anderson, B. A., R. J. Ritchie, A. A. Stickney, J. E. Shook, J. P. Parrett, A. M. Wildman, and L. B. Attanas. 2003. Avian studies in the Kuparuk oil field, Alaska, 2002. Report prepared by Alaska Biological Research Inc., Fairbanks, Alaska, for ConocoPhillips Alaska Inc., Anchorage, Alaska.

Anderson, Douglas B., Wanni W. Anderson, Ray Bane, Richard K. Nelson, and Nita Sheldon Towarak. 1976. Kuuvaŋmiut subsistence: Traditional Eskimo life in the latter twentieth century. U.S. Department of the Interior, National Park Service, Alaska.

Anderson, Douglas D. 1970. Akmak: An early archaeological assemblage from Onion Portage, northwest Alaska. Acta Arctica Fasc. XVI.

———. 1984. Prehistory of north Alaska. *In* Handbook of North American Indians, Volume 5: Arctic, ed. by David Damas, pp. 80-93. Smithsonian Institution, Washington.

Anderson, Randi R. and Scott R. Robinson. 1991. Ground brood counts to estimate waterfowl populations in BLM's Kobuk District, Alaska: 1990 progress report. BLM Alaska open file report 32.

Arco Alaska Inc., Anadarko Petroleum Corporation, and Union Texas Petroleum. 1997. Revised Alpine Development Project: Environmental Evaluation Document, pp. 2-13, September.

Avian Power Line Interaction Committee (APLIC). 2006. Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006. Edison Electric Institute and the California Energy Commission. Washington DC and Sacramento, CA.

Ballard, W. B., L. A. Ayres, K. E. Roney, D. J. Reed, and S. G. Fancy. 1991. Demography of Noatak grizzly bears in relation to human exploitation and mining development. Final report. Alaska Department of Fish and Game. Fed. Aid in Wildl. Rest. Proj. W-23-1, W-23-2, and W-23-3. Study 4.20. Juneau. 227 pp.

Ballard, W. B. 1993. Demographics, movements, and predation rates for wolves in northwest Alaska. Ph.D. thesis, University of Arizona, Tucson, Arizona. 374 pp.

Barber V. A., Juday, G. P. & Finney, B. P. 2000. Reduced growth of Alaska white spruce in the twentieth century from temperature-induced drought stress. – Nature 405: 668–672.

Barr, J. F., C. Eberl, and J. W. McIntyre. 2000. Red-throated loon (*Gavia stellata*). No. 513 in *The Birds of North America*, ed. A. Poole and F.Gill. Philadelphia, PA.

Beeman, W. R., R. C. Obuch, and J. D. Brewton. 1996. Digital map data, text, and graphical images in support of the 1995 National Assessment of United States oil and gas resources: U.S. Geological Survey Digital Data Series 35.

Bering Straits Native Corporation. 1999. Bering Straits Native Corporation land use policy. Adopted May 14, 1999, with noted revisions adopted May 20, 2005.

Beschta, R. L., C. A. Frissel, R. Gresswell, R. Hauer, J. R. Karr, G. W. Minshall, D. A. Perry, and J. J. Rhodes. 1995. Wildfire and salvage logging: Recommendations for ecologically sound post-fire salvage logging and other post-fire treatments on federal lands in the West. Oregon State University, Corvallis, Oregon.

Besse, Robert Wells. 1983. Environment, subsistence patterns and socioeconomic alternatives among the NANA Iñupiat of northwest Alaska. Ph.D. thesis, University of Illinois at Urbana-Champaign.

BLM. *See* U.S. Department of the Interior. Bureau of Land Management.

BLM and DOE. *See* U.S. Department of the Interior. Bureau of Land Management and U.S. Department of Energy.

Bockstoce, John R. 1973. A prehistoric population change in the Bering Strait region. Polar Record, Vol. 16(105):793-803.

———. 1979. The archaeology of cape Nome, Alaska. University Museum Monograph 38. The University Museum, University of Pennsylvania, PA.

———. 1986. Whales, ice, and men: The history of whaling in the western Arctic. University of Washington Press, Seattle.

Bogojavlensky, Sergei. 1969. Imaangmiut Eskimo careers: Skinboats in Bering Strait. Ph.D. thesis, Harvard University, Cambridge, MA.

Bordage, D., and J. L. Savard. 1995. Black scoter (*Melanitta nigra*). No. 177 in *The Birds of North America*, ed. A. Poole and F. Gill. The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologist's Union, Washington, D.C.

Boreal Partners in Flight Working Group. 1999. Landbird conservation plan for Alaska biogeographic regions. Version 1.0. U.S. Fish and Wildlife Service, Anchorage, Alaska.

BPIF. *See* Boreal Partners in Flight Working Group.

Brabets, T. P. 1996. Evaluation of the streamflow-gaging network of Alaska in providing regional streamflow information. USGS Water Resources Investigations Report 96-4001.

Brabets, T. P. 2001. Hydrologic data and a proposed water-quality monitoring network for the Kobuk River Basin. USGS Water Resources Investigations Report 01-4141.

Branson, B. A. and D. L. Batch. 1971. Effects of strip mining on small stream fishes in east-central Kentucky. Proceedings of the Biological Society of Washington 84(59):507-517.

Braund, Stephen R. and David C. Burnham. 1983. Red dog mining project: Kivalina and Noatak subsistence use patterns. Report prepared for Cominco Alaska.

Brooks, Alfred H. 1908a. Development of the mining industry. *In* The Gold Placers of Parts of Seward Peninsula, Alaska by A. J. Collier, F. L. Hess, P. S. Smith and A. H. Brooks, pp. 10-39. United States Geological Survey Bulletin 328. U.S. Government Printing Office, Washington D.C.

———. 1908b. The Kougarok region. *In* The Gold Placers of Parts of Seward Peninsula, Alaska by A. J. Collier, F. L. Hess, P. S. Smith and A. H. Brooks, pp. 294-328. United States Geological Survey Bulletin 328. U. S. Government Printing Office, Washington D.C.

Brower, Charles D., Philip J. Farrelly, and Lyman Anson. 1994. Fifty years below zero. University of Alaska Press, Fairbanks.

Brower, Harry. 2002. Personal testimony during subsistence advisory panel meeting. June 6. Nuiqsut, Alaska.

Brown, R. J. and R. R. Jandt. 1992. Ground brood counts to estimate waterfowl populations in BLM's Kobuk District, Alaska. 1991 Progress Report. Bureau of Land Management open file report 43. Anchorage, Alaska.

BSNC. *See* Bering Straits Native Corporation.

Burch, Ernest S., Jr. 1975. Eskimo kinsmen: Changing family relationships in northwest Alaska. West Publishing Co., New York.

———. 1980. Traditional Eskimo societies in northwest Alaska. *In* Alaska Native Culture and History. Edited by Yoshinobu Kotani and William B. Workman. SENRI Ethnological Studies 4. National Museum of Ethnology, Osaka, Japan.

———. 1984a. Kotzebue Sound Eskimo. *In* Arctic, ed. D. Damas. Handbook of North American Indians, Vol. 5. Smithsonian Institution Press, Washington D.C.

———. 1984b. The modern Eskimo hunters of Kivalina, Alaska. Final Report on Research 1982-1984 submitted to the Alaska Department of Fish and Game, Division of Subsistence.

———. 1990. The cultural and natural heritage of northwest Alaska, Vol. 5: The Inupiaq nations of northwest Alaska. Nana Museum of the Arctic and the National Park Service, Anchorage, Alaska.

———. 1994. The Inupiat and the christianization of Arctic Alaska. Etudes/Inuit/Studies 18(1-2):81-108.

———. 1998. The Iñupiaq Eskimo nations of northwest Alaska. University of Alaska Press, Fairbanks.

Butler, R. G. and D. E. Buckley. 2002. Black guillemot (*Cepphus grille*). No. 675 in *The Birds of North America*, ed. A. Poole and F. Gill. The Birds of North America Inc., Philadelphia, PA.

Caldeira, K. 2005. Long-term consequences of continued carbon dioxide emission to the atmosphere. Seventh International Carbon Dioxide Conference. info@icdc7.com.

Calef, G., E. DeBock, and G. Lortie. 1976. The reaction of barren-ground caribou to aircraft. Arctic 29:201-212.

Cameron, R. D., K. R. Whitten, and W. T. Smith. 1981. Distribution and movement of caribou in relation to the Kuparuk Development Area. Preliminary report and second and third interim reports. 1980-81. Alaska Department of Fish and Game. Juneau, Alaska.

———, ———, and ———. 1983. Responses of caribou to petroleum-related development on Alaska's Arctic Slope. Federal aid in wildlife restoration research program progress report. Volume VII, projects W-21-2 and W-22-1, Job 3, 18R. Alaska Department of Fish and Game. Juneau, Alaska.

———, D.J. Reed, J.R. Dau, and W.T. Smith. 1992. Redistribution of calving caribou in response to oil field development on the Arctic Slope of Alaska. Arctic 45(4):338-342.

———. D. E. Russell, K. L. Gerhart, R. G. White, and J. J. Ver Hoef. 2000. A model for predicting the parturition status of arctic caribou. Rangifer 12:1-3.

———. W. T. Smith, R. G. White, and B. Griffith. 2002. The Central Arctic Caribou Herd. Part 1 Section 4. *In* Arctic Refuge Coastal Plain terrestrial wildlife research summaries, eds. D.C. Douglas and P.E. Reynolds. Biological Sciences Report USGS/BRD/BSR-2002-0001. U.S. Geological Survey, Biological Resources Division, Anchorage, Alaska. http://www/absc.usgs.gov/1002/index.html.

Carlson, Matt. 2004. Collaborative research: Effects of herbivory in a rare and widespread species pair. NSF proposal 04-587. Alaska Natural Heritage Program, Anchorage, Alaska.

Carlson, Stephanie Moreland. 2005. Economic impact of reindeer-caribou interactions on the Seward Peninsula. Masters thesis, University of Alaska, Fairbanks, Alaska.

Carroll, Geoff. 2002. Unit 26A moose management report. *In* Moose management report of survey and inventory activities July 1, 1999-June30, 2001. C. Healy, ed. Alaska Department of Fish and Game. Project 1.0. Juneau, Alaska. pp. 567-581.

———. 2003a. Unit 26A brown bear management report. *In* Brown bear management report of survey and inventory activities July 1, 2000-30 June 30, 2002. C. Healy, ed. Alaska Department of Fish and Game. Juneau, Alaska. pp 324-339.

———. 2003b. Unit 26A wolf management report. *In* Wolf management report of survey and inventory activities July 1, 1999-June 30, 2002. C. Healy, ed. Alaska Department of Fish and Game. Juneau, Alaska. pp. 247-259.

———. 2003c. Unit 26 A caribou management report. *In* Caribou management report of survey-inventory activities July 1, 2000-June 30, 2002. C. Healy, ed. Alaska Department of Fish and Game. Juneau, Alaska. pp. 280-303.

———. 2004a. Unit 26A moose management report. *In* Moose management report of survey and inventory activities July 1, 2001–June 30, 2003. C. Brown, ed. Alaska Department of Fish and Game. Project 1.0. Juneau, Alaska. pp. 597-612.

———. 2004b. Unit 26A furbearer management report. *In* Furbearer management report of survey and inventory activities July 1, 2000-June 30, 2003. C. Brown, ed. Alaska Department of Fish and Game. Project 7.0. Juneau, Alaska. pp. 352-359.

Carson, C. E. and K. M. Hussey. 1960. Hydrodynamics in three arctic lakes. The Journal of Geology 68(6): 585-600.

Case, David S. 1984. Alaska Natives and American laws. University of Alaska Press, Fairbanks.

Castle, N. H. 1912. A short history of Council and Cheenik. The Alaska Pioneer Vol. I (1):8-14.

Center for Biological Diversity. 2004. Petition to list the yellow-billed loon, *Gavia adamsii*, as an endangered or threatened species under the Endangered Species Act. March 30.

Chance, Norman A. 1990. The Inupiat and Arctic Alaska: An ethnography of development. Holt, Rinehart, and Winston, Fort Worth.

Childers, J. M. and D. Kernodle. 1981. Hydrologic reconnaissance of the Noatak River Basin, Alaska, 1978. U.S. Geological Water Resources Investigations Report 81-1005. Anchorage, Alaska.

Childers, J. M. and D. Kernodle. 1983. Reconnaissance of surface-water resources of the Kobuk River Basin, Alaska, 1979-80. U.S. Geological Water Resources Investigations Report 83-4027. Anchorage, Alaska.

Childers, J. M., D. Kernodle, and R. Loeffler. 1979. Hydrologic reconnaissance of western Arctic Alaska, 1976 and 1977. U.S. Geological Survey open file report 79-699. Anchorage, Alaska.

City of Kotzebue. 2000. City of Kotzebue comprehensive plan. http://www.dced.state.ak.us/dca/plans/pub/KotzebueCompPlan.pdf. December 7.

Clark, R. N. and D. R. Gibbons. 1991. Recreation. American Fisheries Society Special Publication 19:459-482.

Clough, J. G., A. C. Christensen, and P. C. Patton, eds. 1987. Arctic National Wildlife Refuge, Alaska, coastal plain resource assessment. U.S. Department of the Interior. Washington D.C.

Clough, J.G., Roe, J.T., Eakins, G.R., Callahan, J.E., and Charlie, K.M., 1995, Coal resources of northwest Alaska: Alaska Division of Geological & Geophysical Surveys Report of Investigation 93-3, 35 p., 10 sheets, scale 1:12,000.

CNIPM. *See* Committee for Noxious and Invasive Plant Management.

Cole, Terrence. 1984. Nome: City of the golden beaches. Alaska Geographic #11. Alaska Geographics Inc., Anchorage.

Committee for Noxious and Invasive Plant Management. 2001. Strategic plan for noxious and invasive plants management in Alaska. Developed by the Alaska Committee for Noxious and Invasive Plants Management. Alaska Cooperative Extension Service, University of Alaska, Fairbanks. 21 pp.

Conant, B. and D. J. Groves. 1997. Alaska-Yukon waterfowl breeding population survey: May 15-June 14, 1997. U.S. Fish and Wildlife Service. Juneau, Alaska.

——— and ———. 1998. Alaska-Yukon waterfowl breeding population survey: May 16-June 13, 1998. U.S. Fish and Wildlife Service. Juneau, Alaska.

———, J. I. Hodges, and D. J. Groves. 1999. Alaska-Yukon waterfowl breeding population survey: May 25-June 20, 1999. U.S. Fish and Wildlife Service. Juneau, Alaska.

Conger, Annie Olanna, and James S. Magdanz. 1990. The harvest of fish and wildlife in three Alaska communities: Brevig Mission, Golovin, and Shishmaref. Technical paper no. 188, Alaska Department of Fish and Game, Division of Subsistence, Juneau, Alaska.

Conners, P. G., and C. S. Conners. 1985. Shorebird littoral zone ecology of the southern Chukchi coast of Alaska. Pp. 3-57 *in* Environmental assessment of the Alaskan

continental shelf, final reports of principal investigators. Vol. 35. NOAA, Environ. Res. Lab., Boulder, CO.

Cooper, A. C. 1965. The effect of transported stream sediments on the survival of sockeye and pink salmon eggs and alevin. International Pacific Salmon Fisheries Commission Bulletin 18.

Cotter, P. A. and B. A. Andres. 2000. Breeding bird habitat associations on the Alaska breeding bird survey. Information and technology report USGS/BDR/ITR-2000-0010.

Council on Environmental Quality (CEQ). 1997. Considering cumulative effects under the National Environmental Policy Act. Council of Environmental Quality, Executive Office of the President, Washington, D.C.

Dames and Moore. 1980, Assessment of coal resources of northwest Alaska, in Coal resources of northwest Alaska phase I, v. 2, task 2: p. 175-176. Alaska Power Authority, Anchorage, Alaska.

Dau, Jim. 1999. Caribou survey-inventory management report. Units 21D, 22A, 22B, 23, 24, 26A. Pp. 160-185 *in* M.V. Hicks, ed. Caribou. Alaska Department of Fish and Game. Federal aid in wildlife restoration survey-inventory activities July 1, 1994-June 30,1996. Grants W-24-5 and W-27-1. Juneau, Alaska.

———. 2001. Muskox survey-inventory management report, Unit 23. M.V. Hicks, ed. Federal aid in wildlife restoration-inventory management report-muskox July 1,1998-June 30, 2000. Grants W-24-5 and W27-1, Study 16.0. Alaska Department of Fish and Game, Juneau, Alaska.

———. 2002a. Unit 23 moose management report. Pp 496-515 *in* C. Healy, editor. Moose management report of survey and inventory activities July 1, 1999-June 30, 2001. Alaska Department of Fish Game. Project 1.0. Juneau, Alaska.

———. 2002b. Units 23 and 26A Dall sheep management report. Pp. 142-154 *in* C. Healy, editor. Dall sheep management report of survey and inventory activities July 1, 1998-June 30, 2001. Alaska Department of Fish and Game. Project 6.0. Juneau, Alaska

———. 2003a. Unit 23 brown bear management report. Pp 271-290 *in* C. Healy, ed. Brown bear management report of survey and inventory activities July 1, 2000-June 30, 2002. Alaska Department of Fish and Game. Juneau, Alaska.

———. 2003b. Western Arctic caribou herd management report. Pp. 204-251 *in* C. Healy, editor. Caribou management report of survey and inventory activities July 1, 2000-June 30, 2002. Alaska Department of Fish and Game. Juneau, Alaska.

———. 2003c. Unit 23 wolf management report. Pp. 214-222 *in* C. Healy, ed. Wolf management report of survey and inventory activities July 1, 1999-June 30, 2002. Alaska Department of Fish and Game. Juneau, Alaska.

———. 2003d. Unit 23 muskox management report. Pp. 43-53 *in* C. Healy, ed. Muskox management report of survey and inventory activities July 1, 2000-June 30, 2002. Alaska Department of Fish and Game. Juneau, Alaska.

———. 2004a. Unit 23 moose management report. Pp. 523–541 *in* C. Brown, ed. Moose management report of survey and inventory activities July 1, 2001–June 30, 2003. Alaska Department of Fish and Game. Project 1.0. Juneau, Alaska.

———. 2004b. Unit 23 furbearer management report. Pps. 315-324 *in* C. Brown, ed. Furbearer management report of survey and inventory activities July 1, 2000–June 30, 2003. Alaska Department of Fish and Game. Project 7.0. Juneau, Alaska.

———. 2005. Western Arctic caribou herd management report. *In* C. Brown, ed. Caribou management report of survey-inventory activities July 1, 2002-June 30, 2004. Alaska Department of Fish and Game. Juneau, Alaska.

Day, R. H., K. J. Kuletz, and D. A. Nigro. 1999. Kittlitz's murrelet. No. 435 in *The Birds of North America*, ed. A. Poole and F.Gill.

Decicco, Fred. 2005. Personal communication with Dave Parker. Alaska Department of Fish and Game. Sport Fish Division, Fairbanks, Alaska.

Densmore, R. V., P. C. McKee, and C. Roland. 2001. Exotic plants in Alaskan National Park Units. U.S. Geological Survey, Alaska Science Center, and U.S. National Park Service, Denali National Park.

Derocher A.E., and I. Stirling. 1991. Oil Contamination of Polar Bears. Polar Record 27(160):56-57.

Diedrich, Jackie and Cassie Thomas. 1999. The wild and scenic river study process. Interagency Wild and Scenic Rivers Coordinating Council. Technical report.

Dilts, T. and C. Westcott. 2004. Visual resource management inventory for the Kobuk-Seward Peninsula resource management plan, 2004. Unpublished BLM report.

DOE. *See* U.S. Department of Energy.

DOI. *See* U.S. Department of the Interior.

Dorava, J. M. 1995. Overview of environmental and hydrogeologic conditions at Nome, Alaska. U.S Geological Survey open file report 95-178. Prepared in cooperation with the Federal Aviation Administration. Anchorage, Alaska.

Dorava, J. M. and J. M. Brekken. 1995. Overview of environmental and hydrogeologic conditions at Kotzebue, Alaska. U.S Geological Survey open file report 95-349. Prepared in cooperation with the Federal Aviation Administration. Anchorage, Alaska.

Dumond, Don E. 1984. Prehistory of the Bering Sea region. In Handbook of North American Indians, Volume 5, Arctic, ed. By David Damas, pp. 94-105. Smithsonian Institution, Washington D.C.

Earnst, S. L. 2004. Status assessment and conservation plan for the yellow-billed loon (*Gavia adamsii*). U.S. Geological Survey. Scientific investigations report 2004-5258.

Eastland, Warren G., R. Terry Bowyer, and Steven G. Fancy. 1989. Effects of snow cover on selection of calving sites by caribou. Journal of Mammalogy 70:824-828.

Eberhardt, L.E., W.C. Hanson, J.L. Bengtson, R.A. Garrott, and E.E. Hanson. 1982. Arctic fox home range characteristics in an oil-development area. Journal Wildlife Management 46(1):183-190.

Economides, M. J. 1982. Drilling and reservoir engineering analysis of Pilgrim Hot Springs, Alaska: submitted to the Division of Energy and Power Development; Fairbanks School of Petroleum Engineering, University of Alaska, p. 45.

Eisler, David. 1977. Preliminary report: Subsistence resource use proposed Chukchi-Imaruk National Reserve. University of Alaska, Fairbanks.

Ellanna, Linda J. 1983. Bering Strait Insular Eskimo: A diachronic study of ecology and population structure. Technical Paper No. 77. Alaska Department of Fish and Game, Division of Subsistence, Juneau.

Emers, M. and J.C.Jorgenson. 1997. Effects of winter seismic exploration on the vegetation and soil thermal regime of the Arctic National Wildlife Refuge. *In:* Disturbance and recovery in Arctic lands: An ecological perspective. R.M.M. Crawford, ed. Dordrecht, The Netherlands: Kluwer Academic Publishers.

EPA. *See* U.S. Environmental Protection Agency.

Fair, J. 2002. Status and significance of yellow-billed loon (*Gavia adamsii*) populations in Alaska. Report to The Wilderness Society and Trustees for Alaska, Anchorage, Alaska.

Federal Register. 1993b. Endangered and threatened wildlife and plants; Final rule to list the spectacled eider as threatened. U.S. Fish and Wildlife Service. 58(88): 27474-27480.

Federal Register. 1994. Endangered and threatened wildlife and plants; Removal of Arctic peregrine falcon from the list of endangered and threatened wildlife; Final rule. 59(192): 50796-50805.

Federal Register. 1997. Endangered and threatened wildlife and plants; Threatened status for the Alaska breeding population of Steller's eider; Final rule. 62(112): 31748-31757.

Federal Register. 2001. Endangered and threatened wildlife and plants; Final determination of critical habitat for the spectacled eider; Final rule. U.S. Fish and Wildlife Service. 66(25): 9146-9185.

Federal Register. 2004. Endangered and threatened wildlife and plants; Review of species that are candidates or proposed for listing as endangered or threatened; Annual notice of findings on resubmitted petitions; Annual description of progress on listing actions; Notice of review; Proposed Rule. U.S. Fish and Wildlife Service. 69(86): 24876-24904.

Federal Register. 2006a. EPA. Notices. ER-FRL-6674-8. Vol. 71, No. 87 Friday May 5, pp. 26498-26499. U.S. Government Printing Office.

Federal Register. 2006b. DOI, BLM. Notice of Availability of Kobuk-Seward Peninsula Draft Resource Management Plan and Environmental Impact Statement. AK-025-05-1610-DP-089L. Vol. 71, No. 87 Friday May 5, pp. 26557-26558. U.S. Government Printing Office.

Federal Register. 2007. DOI, FWS. Endangered and Threatened Wildlife and Plants: 12-Month Petition Finding and Proposed Rule to List the Polar Bear (Ursus maritimus) as Threatened Throughout its Range. Vol 72, No. 5 Tuesday January 9, pp. 1064-1099. U.S. Government Printing Office.

Felix, N.A., M.K.Raynolds, J.C.Jorgenson, and K.E. DuBois. 1989. Resistance and resilience of tundra plant communities to disturbance by winter seismic vehicles. Arctic and Alpine Research 24:69-77.

Finstad, G.L., D. Blodgett, H. Oleson, and S. Worker. 2005. Reindeer and caribou (wild reindeer) interactions and consequences and the use of satellite telemetry on the Seward Peninsula, Alaska. http://reindeer.salrm.uaf.edu/html/SatTelpresentation_files/outline.htm. Accessed October 10, 2005. Reindeer Research Program, University of Alaska, Fairbanks, Alaska.

Fitzgerald, D. 2002. Reindeer research: Intensive management may be key. *In*: AgroBorealis Vol. 34, No. 1: 4-7. Agriculture and Forestry Experiment Station, University of Alaska, Fairbanks, Alaska.

Flanders, Nicholas E. 1991. Missionaries and professional infidels: Religion and government in western Alaska. Arctic Anthropology 28(2):44-62.

Fleming, M. D. 1996. A statewide vegetation map of Alaska using a phonological classification of AVHRR data. Invited paper at Second Circumpolar Arctic Vegetation Mapping Workshop, Arendal, Norway. May 20-24.

Foote, Don C. 1960. The Eskimo hunter at Point Hope, Alaska. Point Hope, Alaska.

Fried, N. and B. Windisch-Cole. 2005. The northern region. *In* Alaska Economic Trends, March. Alaska Department of Labor and Workforce Development.

FS. *See* U.S. Department of Agriculture. Forest Service.

FWS. *See* U.S. Department of the Interior. U.S. Fish and Wildlife Service.

Ganley, Matt L. 1996. The role of Anatguk in northwest Alaska: Historic transformation. *NAOS* 12(1-3):5-19.

Gardino, Donna. 2006. Alaska Department of Transportation and Public Facilities Area Planner. Personal communication with Donna Gardino regarding northwest transportation projects. E-mail dated February 15, 2006.

Garner, G.W., and P.E. Reynolds, eds. 1986. Impacts of further exploration, development and production of oil and gas resources. *In* Arctic National Wildlife Refuge coastal plain resource assessment, final report. Baseline study of fish, wildlife, and their habitats.

Volume II. U.S. Department of the Interior, Fish and Wildlife Service. Anchorage, Alaska.

Georgette, Susan. 2001. Brown bears on the northern Seward Peninsula, Alaska: Traditional knowledge and subsistence uses in Deering and Shishmaref. Technical paper no. 248, Alaska Department of Fish and Game, Division of Subsistence, Juneau, Alaska.

———, K. Persons, E. Shiedt, and S. Tahbone. 2004. Subsistence wildlife harvests in five northwest Alaska communities, 2001-2003. Kawerak Inc., Maniilaq Assoc., and Alaska Department of Fish and Game.

Giddings, J. L. 1964. The archaeology of Cape Denbigh. Brown University Press, Providence.

——— and Douglas D. Anderson. 1986. Beach Ridge archaeology of Cape Krusenstern. Publications in Archaeology 20. National Park Service, Washington.

Goldsmith, S., et al. 2004. Status of Alaska Natives 2004. University of Alaska, Anchorage, Institute of Social and Economic Research. May.

Gorn, Tony. 2003. Unit 22 wolf management report. Pp 206-213 *in* C. Healy, ed. Wolf management report of survey and inventory activities July 1, 1999-June 30, 2002. Alaska Department of Fish and Game. Juneau, Alaska.

———. 2004. Unit 23 furbearer management report. Pages 304-314 *in* C. Brown, editor. Furbearer management report of survey and inventory activities July 1, 2000–June 30, 2003. Alaska Department of Fish and Game. Project 7.0. Juneau, Alaska.

Goetz, S. J., Bunn, A. G., Fiske, G. J. & Houghton, R. A. 2005. Satellite-observed photosynthetic trends across boreal North America associated with climate and fire disturbance. – Proceedings of the National Academy of Science 102: 13521-13525.

Goudie, R. I., S. Brault, B. Conant, A. V. Kondratyev, M. R. Petersen, and K. Vermeer. 1994. The status of sea ducks in the North Pacific Rim: Toward their conservation and management. Trans. 59th N. Amer. Wildl. Natur. Resour. Conf. :27-49.

Gresswell, R. E. 1999. Fire and aquatic ecosystems in forested biomes of North America. Transactions of the American Fisheries Society 128:193-221.

Griffith, B., D.C. Douglas, N.E. Walsh, D.D. Young, T.R. McCabe, D.E. Russell, R.G. White, R.D. Cameron, and K.R. Whitten. 2002. Section 3. The Porcupine Caribou Herd. In Biological Sciences Report USGS/BRD 2002-0001.

Groves, D. J., D. Conant, R. J. King, J. I. Hodges, and J. G. King. 1996. Status and trends of loon populations summering in Alaska 1971-1993. Condor 98: 189-195.

Hadland, Jeff, A. Wink. 2005. Nonresidents Working in Alaska 2003. Alaska Department of Labor and Workforce Development.

Hamilton, C. I., S. J. Starr, and L. L. Trasky. 1979. Recommendations for minimizing the impacts of hydrocarbon development on fish, wildlife, and aquatic plant resources of

lower Cook Inlet. Volumes I and II. Alaska Department of Fish and Game, Anchorage, Alaska.

Handel, C. M., S. M. Matsuoka, and D. C. Douglas. 1998. The Alaska landbird resources information system, version 98.1. USGS Alaska Biological Science Center, Anchorage, Alaska.

Hann, Wendel, Havlina, Doug, Shlisky, Ayn, et al. 2003. Interagency and The Nature Conservancy fire regime condition class website. USDA Forest Service, U.S. Department of the Interior, The Nature Conservancy, and Systems for Environmental Management [http://www.frcc.gov].

Hansen, D.J. 1981. The Relative Sensitivity of Seabird Populations in Alaska to Oil Pollution. BLM-YK-ES-006-1792. U.S. Department of the Interior, Bureau of Land Management, Anchorage, Alaska.

Hansen, Henry A., Peter E. K. Sheppard, James G. King, and William A. Troyer. 1971. The trumpeter swan in Alaska. The Wildlife Society. Wildlife Monograph 26.

Hansen, J., Ruedy, R., Glascoe, J. & Sato, M. 1999. GIS analysis of surface temperature change. – Journal of Geophysical Research 104: 30997–31022.

Harding L., and J.A. Nagy. 1980. Responses of grizzly bears to hydrocarbon exploration on Richards Island, Northwest Territories, Canada. Pps. 277-280 *In:* Fourth international conference bears resource and management, Volume 4. Bears, their biology and management.

Harrington, B. A. 2001. Red knot (*Calidris canutus*). No. 563 in *The Birds of North America*, ed. A. Poole and F. Gill. The Birds of North America, Inc., Philadelphia, PA

Harrison, Edward S. 1905. Nome and Seward Peninsula: A book of information about northwestern Alaska. Metropolitan Press, Seattle.

Hasselbach, Linda, Jay Ver Hoef, Jesse Ford, Peter Neitlich, Eric Crecelius, Shanti Berryman, Brett Wolk and Todd Bohle. 2004. Spatial patterns of cadmium and lead deposition on and adjacent to National Park Service lands near Red Dog Mine, Alaska: NPS Final Report. Alaska Region Natural Resource Report, NPS / AR / NRTR-2004-45.

Henny, C. J., Rudis, D. D., Roffe, T. J., and E. Robinson-Wilson. 1995. Contaminants and sea ducks in Alaska and the circumpolar region. Environ. Health Perspect. 103 (Suppl. 4):41-49.

Hicks, J., J.D. Hall, P.A. Bission, and J.R. Sedell. 1991. Responses of Salmonids to Habitat Changes. IN W.R. Meehan, ed. Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitats. American Fisheries Society. Bethesda: 483-518.

Hinzman, L. D., D. L. Kane, and K. R. Everett. 1993. Hillslope hydrology in an Arctic setting. *In* Proceedings of the sixth international conference on permafrost, Beijing, China, pp. 267-271.

Hinzman, Larry D., Terry Chapin, David Sandberg, Masami Fukuda, Kenji Yoshikawa, William R. Bolton, Kevin C. Petrone, and Susan E. Mitchell. 2000. Frostfire: Disturbance in an Alaska boreal forest. *In* Frostfire Synthesis Workshop, Meeting Abstracts, compiled by L. D. Hinzman.

Hinzman, Larry D., *et al.* 2005. Evidence and Implications of Recent Climate Change in Northern Alaska and Other Arctic Regions. Climatic Change 72:251-298.

Hodges, J. I., J. G. King, B. Conant, and H. A. Hanson. 1996. Aerial surveys of waterbirds in Alaska 1957-94: Population trends and observer variability. National Biological Service Information and Technology Report 4.

Holland, Clive. 1994. Arctic exploration and development c. 500 B.C. to 1915: An encyclopedia. Garland, New York.

Hughes, Charles Campbell. 1965. Under Four Flags: Recent Culture Change Among the Eskimos. Current Anthropology 6(1):3-69.

Hulten, E. 1968. Flora of Alaska and neighboring territories: A manual of the vascular plants. Stanford University Press, Stanford, California.

Hunt, P. D., and B. C. Eliason. 1999. Blackpoll warbler (*Dendroica striata*). No. 431 in *The Birds of North America*, ed. A. Poole and F. Gill. The Birds of North America, Inc., Philadelphia, PA

Hutchison, O. K. 1967. Alaska's forest resource. Institute of Northern Forestry, USDA Forest Service. Resources bulletin PNW-19.

IFWFPR Working Group. *See* Interagency Federal Wildland Fire Policy Review Working Group.

Interagency Federal Wildland Fire Policy Review Working Group. 2001. Review and update of the 1995 federal wildland fire management policy. January. http://www.nifc.gov/fire_policy/history/index.htm.

ISER. 2005. The Economic Multiplier (Interim Report). http://www.iser.uaa.alaska.edu/publications/client/afnjobs/ecmulti.pdf

Jandt, Randi R. and A. E. Morkill. 1994. Waterfowl production on the Central Seward Peninsula, Alaska: Final report. BLM Alaska open file report 52.

———, R. Meyers, and M. J. Cole. 2003. Western Arctic caribou herd winter habitat monitoring and utilization, 1995-96. BLM Alaska open file report 88. Anchorage, Alaska.

Jandt, R.R., Joly, K., Meyers, C.R. and Racine, C.H. Slow recovery of lichen on burned caribou winter range in Alaska tundra: potential influences of climate warming and other disturbances. Arctic, Antarctic and Alpine Research (Submitted).

Jingfors, K. and P. Lassen. 1984. Muskox responses to a seismic test operation: Preliminary observations. *In* First International muskox symposium, D.R. Klein, R. G. White, and S. Keller, eds. 1984. University of Alaska, Fairbanks p. 127.

Johnsen, S. R. and D. R. Herter. 1989. The birds of the Beaufort Sea. LGL Alaska Research Associates, Inc. B.P. Exploration Inc. Anchorage, Alaska.

Johnson, A. W., L. A. Viereck, R. E. Johnson, and H. Melchior. 1965. In N.J. Wilimovsky, Environment of the Cape Thompson Region, Alaska. U.S. Atomic Energy Commission, Washington, D.C.

Johnson, J. and E. Weiss. 2006. Catalog of waters important for spawning, rearing, or migration of Anadromous fishes – Arctic Region, Effective September 15, 2006. Alaska Department of Fish and Game, Special Publication No. 06-14, Anchorage.

Johnson, W. N., T. F. Paragi, and D. D. Katnik. 1990. The relationship of wildland fire to lynx and marten populations and habitat in Interior Alaska. U.S. Fish and Wildlife Service, Koyukuk/Nowitna Refuge Complex.

Joly, K., B. W. Dale, W. B. Collins, and L. G. Adams. 2003. Winter habitat use by female caribou in relation to wildland fires in interior Alaska. Canadian Journal of Zoology 81:1192-1201.

Joly, K. and C. R. Meyers. 2004. Report on the evaluation of habitat suitability for grazing bison in McCarthy's Marsh and Death Valley, Seward Peninsula, Alaska. Prepared by K. Joly, BLM Wildlife Biologist and C.R. Meyers, BLM Botanist. August 30.

Joly, K., Jandt, R.R., Meyers, C.R. and Cole, M.J. 2007. Changes in vegetative cover on Western Arctic Herd winter range from 1981-2005: potential effects of grazing and climate change. Rangifer.

Jorgensen, J. L., I. Stehlik, C. Brochmann and E. Conti. 2003. Am. Journal of Botany 90(10):1470-1480.

Jorgenson, M.T., J.E. Roth, M. Emers, S. Schlenter, and J. Mitchell. 2003a. Assessment of ecological impacts associated with seismic exploration near the Colville Delta. Alaska conference on reducing the effects of oil and gas exploration and production on Alaska's North Slope: issues, practices, and technologies. Boise, ID. National Engineering and Environmental Lab, Department of Energy.

Jorgenson, M.T., J.E. Roth, T.C. Carter, S.F. Schlentner, M. Emmers, and J.S. Mitchell. 2003b. Ecological impacts associated with seismic exploration on the Central Arctic Coastal Plain, 2002. Report by ABR, Inc. – Environmental Research and Services prepared for ConocoPhillips Alaska, Inc., Anchorage, Alaska.

Juday, G. P. 1985. Summary justification and boundary options for proposed Camp Haven Gap research natural area, Seward Peninsula. Unpublished report to BLM Northern Field Office, Fairbanks, Alaska.

Kawerak Inc. 2005. Tally records for Hadley 1992-2005. August 26.

Kelso, S. 1989. Vascular flora and phytogeography of Cape Prince of Wales, Seward Peninsula, Alaska. Can. J. Bot. 67:3248-3259.

———. 1995. Status report on *Primula tschuktschorum* Kjellman. Unpublished report to U.S. Fish and Wildlife Service, Anchorage, Alaska.

———, B. B. Yurtsev and D. F. Murray. 1994. *Douglasia beringensis* (Primulaceae): A new species from northwestern Alaska. Novon 4:381-385.

Kessel, B. 1989. Birds of the Seward Peninsula, Alaska: Their biogeography, seasonality, and natural history. University of Alaska Press.

Kessel, B. R. and D. D. Gibson. 1978. Status and distribution of Alaska birds. Studies in Avian Biology, No. 1. Cooper Ornithological Society.

Kineman, J. J., R. Elmgren, and S.Hansson (eds). 1980. The Tsesis oil spill: report of the first year scientific study (October 1977 to December 1978). U.S. Department of Commerce, National Oceanographic and Atmospheric Administration, Office of Marine Pollution Assessment, Boulder, CO.

Klein, D. R. 1982. Fire, lichens, and caribou. Journal of Range Management. 35:390-395.

Koskey, Michael S. 2003. Cultural activity and market enterprise: A circumpolar comparison of reindeer herding communities at the end of the 20th century. Ph.D. thesis, University of Alaska, Fairbanks.

Koutsky, Kathryn. 1981. Early Days on Norton Sound and Bering Strait, Volume 1: Shishmaref Area. Anthropology and History Preservation Cooperative, Fairbanks.

Kretsinger, Carl. 1987. Fisheries inventories of lakes and streams in the Kigluaik Mountains. Field Report. Bureau of Land Management, Fairbanks, Alaska.

Kuropat, P. and J. Bryant. 1980. Foraging Behavior of Cow Caribou on the Utukok Calving Grounds in Northwestern Alaska. In: Proceedings of the Second Reindeer/Caribou Symposium, E. Reimers, E. Gaare, and S. Skjennsberg, eds. Roros, Norway, Sept. 17-21, 1979. Trondheim, Norway: Direktorater for vilt og ferskvannsfisk.

Lanctot, R. B. and C. D. Laredo. 1994. Buff-breasted sandpiper (*Tryngites subruficollis*). No. 90 in *The Birds of North America*, ed. A. Poole and F. Gill. Philadelphia: The Acad. Nat. Sci., Washington DC: The Am. Ornithologist's Union.

Lawhead, B.E., A.M. Wildman, and J.R. Rose. 1997. Caribou distribution, abundance and calf production in the Kuparuk Oilfield during the 1996 calving season. Final report. Prepared by ABR Inc., Fairbanks, Alaska.

Lean, Charlie. 2003. National Park Service, Western Arctic Parklands biologist. Personal communication with Dave Parker, BLM, Central Yukon Resource Area biologist regarding chum salmon spawning habitat. E-mail dated May 14, 2003.

Lean, C. F. and J. A. Hartle. 1989. Norton Sound-Port Clarence-Kotzebue aerial stream catalog (1958-1988). Technical report. Alaska Department of Fish and Game, Division of Commercial Fisheries Management and Development, Anchorage, Alaska.

———, F. J. Bue, and T. L. Lingnau. 1993. Annual management report 1992 Norton Sound-Port Clarence-Kotzebue. Regional information report no. 3A93-15. Alaska Department of Fish and Game, Division of Commercial Fisheries Management and Development, Anchorage, Alaska.

Lewis, J.P. and R. Sellers. 1991. Assessment of the Exxon Valdez oil spill on brown bears on the Alaska Peninsula. *In* Exxon Valdez Oil Spill Natural Resource Damage Assessment. NRDA Terrestrial Mammal Study No. 4. Unpublished Final Report. U.S. Environmental Protection Agency, Natural Resource Damage Assessment, Anchorage, Alaska.

Lindsey, K. Don. 1986. Paleontological inventory and assessment of public lands administered by Bureau of Land Management, State of Alaska. Bureau of Land Management, Anchorage, Alaska.

Lipkin, R. 1985a. Status report on *Oxytropis arctica* var. *barnebyana* Welsh. Unpublished report to U.S. Fish and Wildlife Service, Anchorage, Alaska.

———. 1985b. Status report on *Oxytropis kobukensis* Welsh. Unpublished report to U.S. Fish and Wildlife Service, Anchorage, Alaska.

———. 1995. Alaska Natural Heritage Program botanist. Personal communication with Randy Meyers, BLM Fairbanks District Office, Natural Resource Specialist, concerning Lipkin and M. Robus collections of *Potentilla stipularis* on West Fork, Buckland River in August 1980.

———. 2005. Alaska Natural Heritage Program botanist. Personal communication with Randy Meyers, BLM Fairbanks District Office, Natural Resource Specialist, concerning population of *Potentilla stipularis* at Umiat, Alaska.

——— and D. F. Murray. 1997. Alaska rare plant field guide. U.S. Deptartment of the Interior, Washington, D.C.

Lowther, P. E., C. C. Rimmer, B. Kessel, S. L. Johnson, and W. G. Ellison. 2001. Gray-cheeked thrush (*Catharus minimus*). No. 591 in *The Birds of North America*, ed. A. Poole and F. Gill. The Birds of North America, Inc., Philadelphia, PA

Lyon, B. and R. Montgomerie. 1995. McKay's bunting. No. 198-199 in *The Birds of North America*, ed. A. Poole and F. Gill. The Birds of North America, Inc., Philadelphia, PA

MacDonald, S. O. and J. A. Cook. 2002. Mammal inventory of Alaska's national parks and preserves, Northwest Network: Western Arctic Parklands, annual report 2001. University of Alaska Museum. February 13.

Magdanz, James S., Charles J. Utermohle, and Robert J. Wolfe. 2002. The production and distribution of wild food in Wales and Deering, Alaska. Technical paper no. 259. Alaska Department of Fish and Game, Division of Subsistence, Juneau, Alaska.

Magdanz, J.A., R.J. Walker, and R.R. Paciorek. 2004. The subsistence harvests of wild foods by residents of Shungnak, Alaska, 2002. Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 279.

Magoon, L. B., C. M. Molenaar, T. R. Bruns, M. A. Fisher, and C. Z. Valin. 1996. Region 1, Alaska, geologic framework. *In* Gautier, D. L., Dolton, G.L., Takahashi, K.I., and Varnes, K.L., eds., National assessment of United States oil and gas resources--results, methodology, and supporting data: U.S. Geological Survey Digital Data Series DDS-30, Release 2, pp. 1-14.

Malins, D. C. 1977. Effects of petroleum on arctic and subarctic environments and organisms. Academic Press, Inc. New York, New York.

Marks, J. S., T. L. Tibbitts, R. E. Gill, and B. J. McCaffery. 2002. Bristle-thighed curlew (*Numenius tahitiensis)*. No. 705 in *The Birds of North America*, ed. A. Poole and F. Gill. Philadelphia, PA

Martin, D. J. 1985. Production of cutthroat trout (*Salmo clarki*) in relation to riparian vegetation in Bear Creek, Washington. Ph.D. dissertation, University of Washington, Seattle.

McCaffery, B., ed. 1998. The status of loons in Alaska: A preliminary needs assessment. Alaska Loon Working Group. Unpublished report.

McDowell Group. 1999a. Alaska Visitor Industry Economic Impact Study 1999 Update. Prepared for Division of Tourism Alaska Department of Commerce and Economic Development Juneau, AK.

———. 1999b. Economic and Social Effects of the Oil Industry in Alaska 1975 to 1995. OCS Study, MMS 99-0014. Technical Report 162. Anchorage, AK: Department of the Interior, Minerals Management Service, Alaska OCS Region.

McKendrick, J. D. 1999. Arctic tundra recovery from crude oil after 24 years, Prudhoe Bay. Agroborealis 3 (1):28-35.

———. 2000. Vegetative responses to disturbance. Pages 35-56 *in* J.C. Truett and S.R. Johnson, eds., The Natural History of an Arctic Oil Field: Development and the Biota, Academic Press, San Diego, CA.

——— and Wm. W. Mitchell. 1978. Fertilizing and seeding oil-damaged Arctic tundra to effect vegetation recovery, Prudhoe Bay, Alaska. Arctic 31 (3):296-304.

McLellan, B.N. 1990. Relationships between human industrial activity and grizzly bears. Pps. 57-64 *In* Eighth International Conference on Bear Research and Management: Bears - Their Biology and Management. February 1989. Victoria, British Columbia. L.M. Darling and Archibald (eds.). International Association for Bear Research and Management. Vancouver, British Columbia.

McCracken, J. G. and L. A. Viereck. 1990. Browse regrowth and use by moose after fire in interior Alaska. Northwest Science. 64:11-18.

McDonald, T.L., S. Wolfe, P. Jensen, B. Haley, W.J. Wilson, and R.G.B. Senner. 2002. Risk Assessment for a Proposed Spectacled Eider Unusually Sensitive Area (USA), Alaska North Slope. Report Prepared by Western Ecosystems Technology Inc., Cheyenne, Wyoming, and LGL Alaska Research Associates Inc., Anchorage, Alaska.

McEachern, P. M., E.E. Prepas, J.J. Gibson, and W.P. Dinsmore. 2000. Forest fire induced impacts on phosphorus, nitrogen, and chlorophyll a concentrations in boreal subarctic lakes of northern Alberta. Canadian Journal of Fisheries and Aquatic Sciences 57 (suppl. 2):73-81.

McKee, P.C. 2004. U.S. Geological Survey, Alaska Science Center botanist. Communication with Jeanie Cole, BLM, Central Yukon Resource Area planning and environmental coordinator regarding weed inventory on National Park Service lands. E-mail from C. McKee to J. Cole dated October 12, 2004.

Mecklenburg, C. W., T. A. Mecklenburg, and L. K. Thorsteinson. 2002. Fishes of Alaska. American Fisheries Society, Bethesda, MD.

Mellor, J.C. 1987. A statistical analysis and summary of radar-Interpreted arctic lake depths. Technical report 11. Bureau of Land Management. Anchorage, Alaska.

Merritt, R.D., 1988, Alaska bituminous coal and anthracite: Alaska Division of Geological & Geophysical Surveys Public Data File 88-15, 116 p.

Meyer, Kevin G. 2002. Managing degraded off-highway vehicle trails in wet, unstable, and sensitive environments. Tech rep. 0223-2821-MTDC. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. 48 pp.

Meyers, Randy. 1994. Botanical survey, Squirrel River uplands. Unpublished field notes (July 6-7, 1994). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1995a. Botanical survey, Squirrel River uplands. Unpublished field notes (July 4, 1995). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1995b. Botanical survey, Arctic Circle area, Baldwin Peninsula. Unpublished field notes (July 11, 1995). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1995c. Field report: Summer 1994 range management work on the Seward Peninsula (July 18-22, 2005). Unpublished report (March 28, 1995). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1995d. Botanical survey and arboreal lichens, Squirrel River. Unpublished field notes (July 7, 1995). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1996a. Search for *Potentilla stipularis*. Unpublished field notes (August 13, 1996). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1996b. Discovery and census of new population of *Rumex krausei*, North Fork, Squirrel River. Unpublished field notes (July 4, 1996). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1996c. Outline of BLM summer 1995 range management fieldwork on the Seward Peninsula, July 27-31. Unpublished report (March 18, 1996). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1997a. Field report: Summer 1996 range management work on the Seward Peninsula, August 1-4, 1996. Unpublished report (March 1997). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1997b. Rough estimates of reindeer held by various herders after fall/winter 1996-97 incursion of Western Arctic Caribou Herd into the central portion of the Seward Peninsula. Unpublished report (3/27/97). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 1997c. Lichen identification workshop at University of Alaska-Fairbanks. Unpublished lab notes (6-4-97). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2000a. *Gentianopsis detonsa* ssp. *detonsa* collected at mouth of Goodhope and Cripple rivers, Seward Peninsula. Unpublished field notes (08-26-2000). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2000b. Collection and census of a new *Saussurea* in the Waring Mountains, Selawik National Wildlife Refuge. Unpublished field notes (06-26-2000). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2001. BLM, Kotzebue Field Office botanist. Communication with Michelle Hebert, Alaska Cooperative Extension Service regarding non-native plant species in the Kotzebue area. Email from R. Meyers to M. Hebert dated 10-26-2001.

———. 2002. *Oxytropis arctica* var. *barnebyana* and plant succession. Unpublished field notes (09-25-2002). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2003a. End-of-year narrative summaries for botanical fieldwork 1996-2003. Unpublished. Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2003b. Field report: Summer 2002 reindeer grazing allotment assessments on the Seward Peninsula, 28 June-5 July 2002. Unpublished report (3/25/03). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2004a. BLM, Kotzebue Field Office botanist. Communication with Jeanie Cole, BLM, Central Yukon Resource Area planning and environmental coordinator regarding location of *Chenopodium album* on the Kobuk River. Email dated 09-23-2004.

———. 2004b. Cumulative impacts on remnant populations of *Gentianopsis detonsa* ssp. *detonsa* within the town and airport of Kotzebue, Alaska. Unpublished notes (09-30-2004). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2004c. New *Primula tschuktschorum* population on northwestern slope, Mount Bendeleben, within Roger Menadelook's reindeer grazing allotment. Unpublished field notes (07-25-2004). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2004d. Preliminary field report: Summer 2003 reindeer grazing allotment assessments on the Seward Peninsula, 9-13 July 2003. Unpublished report (March 23, 2004). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2004e. General observations: Cycles of lichen disturbance and recovery. Unpublished presentation notes for Reindeer Herders Association meeting in Nome, Alaska, on March 24, 2004. Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———. 2005a. BLM, Kotzebue Field Office botanist. Communication with Jeanie Cole, BLM, Central Yukon Resource Area planning and environmental coordinator regarding exotic plant species in Kotzebue, Alaska. Email dated October 2, 2005.

———. 2005b. BLM, Kotzebue Field Office botanist. Communication with Jeanie Cole, BLM, Central Yukon Resource Area planning and environmental coordinator regarding location of *Crepis tectorum* in Kotzebue, Alaska. Email dated September 28, 2005.

———. 2005c. Rare plant inventory of the Sinuk River uplands, Seward Peninsula, Alaska. Unpublished field notes (June 6-11, 2005).

———. Locations for the non-native species, *Stellaria media*, in Kotzebue, Alaska. Electronic mail sent to Jeanie Cole on December 9, 2005. Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

———, K. Sonnen, and K. Joly. 2005. Aerial and ground survey of the Tubutulik River, southeastern Seward Peninsula, to assess extent of beetle-killed white spruce. Unpublished field notes (July 28, 2005). Bureau of Land Management, Fairbanks District Office, Fairbanks, Alaska.

Miller, D.J., Payne, T.G., and Gryc, George, 1959, Geology of possible petroleum provinces in Alaska: U.S. Geological Survey Bulletin 1094, 131 pp.

Miller, F.L. and A. Gunn. 1979. Responses of Peary caribou and muskoxen to turbo-helicopter harassment, Prince of Wales Island, Northwest Territories. 1976-1977. Occasional paper No 40. Edmonton, Alberta, Canada. Canadian Wildlife Service. 90 pp.

——— and ———. 1984. Muskox defense formation in response to helicopters in the Canadian high arctic. In: First international muskox symposium, R.G. White, S. Keller and D.R. Klein, eds. UAF Special Report 4. University of Alaska, Fairbanks. Pp. 123-126.

Miller, J. A., Whitehead, R. L., and Olcott, P. G., 1999. Ground-Water Atlas of the United States, Segment 13, Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. U.S. Geological Survey Hydrologic Investigations Atlas 730-N. http://capp.water.usgs.gov/gwa/ch_n/index.html

Miller, M.C., R.T. Prentki, and R.J. Barsdate. 1980. Physics of the ponds. *In* Limnology of Tundra Ponds, Barrow, Alaska, J.E. Hobbie (ed.). US/IBP Synthesis Series 13. Dowden, Hutchinson, and Ross, Stroudsburg, PA.

Miller, S.D., and M.A. Chihuly. 1987. Characteristics of non-sport brown bear deaths in Alaska. *In* Seventh International Conference on Bear Research and Management: Bears - Their Biology and Management. February-March 1986. Williamsburg, Virginia. P. Zager, J. Beecham, G. Matula, and H. Reynolds III (eds.). International Association for Bear Research and Management. Vancouver, British Columbia.

Minshall, G. W., J. T. Brock, and J. D. Varley. 1989. Wildfires and Yellowstone's stream ecosystems. Bioscience 39:707-715.

Mishler, Craig (ed). 1986. Northwest Alaska cultural resource report. Public-data file 85-42L, Alaska Division of Geological and Geophysical Surveys, Anchorage. Available online at http://www.dggs.dnr.state.ak.us/scan2/pdf85/text/PDF85-42L.PDF.

Mitchell, C. D. 1994. Trumpeter swan (*Cygnus buccinator*). No. 105 in *The Birds of North America*, ed. A. Poole and F. Gill. Philadelphia: The Acad. Nat. Sci.; Washington D.C.: The Am. Ornithologist's Union.

MMS. *See* U.S. Department of the Interior. Minerals Management Service.

Moore, N. 2004. Final Report: Propagation and Mitigation Efforts for Oxytropis arctica var. barnebyana OAB (Barneby's milkvetch) at the Kotzebue Long Range Radar Site. Alaska Plant Materials Center, Division of Agriculture, Department of Natural Resources, Palmer, Alaska.

Moore, T.E., and Potter, C.J., 2003, Structural plays in Ellesmerian sequence and correlative strata of the National Petroleum Reserve, Alaska: U.S. Geological Survey Open-File Report 03-253, 58 p.

Moran, T. 2005. U.S. Fish and Wildlife Service, Selawik National Wildlife Refuge biologist. Personal communication with Jeanie Cole, BLM, Central Yukon resource area planning and environmental coordinator regarding bird strikes on wind turbines. E-mail November 15.

Moran, V.S. and R. Meyers. 1996. Results of the 1996 field season for Oxytropis arctica barnebyana. Unpublished report by U.S. Fish and Wildlife Service, Ecological Services, Anchorage, Alaska.

Moran, V.S. 1997. Implementation of the multi-partnership Conservation Agreement for *Oxytropis arctica* var. *barnebyana* (Barneby's milkvetch), Kotzebue Long Range Radar Station 1996/1997. U.S. Fish and Wildlife Service, Ecological Services, Anchorage, Alaska.

Motyka, R.J., M.A. Moorman, and S.A. Liss. 1983. Geothermal Resources of Alaska: Alaska Division of Geological & Geophysical Surveys. Miscellaneous Publication 8, 1 sheet, scale 1: 2,500,000.

Muller, S. W. 1945. Permafrost or permanently frozen ground and related engineering problems. Strategic engineering study 62. U.S. Army, Office Chief of Engineers, Military Intelligence Division. Reprinted in 1947 by J.W. Edwards Inc. Ann Arbor, Michigan.

Mulligan, G. A. 2001. Three new taxa and a summary of the species in the mustard family, *Brassicaceae* (*Cruciferae*) in Canada and Alaska. Canadian Field-Naturalist 115(2):341-342.

Murray, D. F. 1980. Threatened and endangered plants of Alaska. U.S. Forest Service and Bureau of Land Management.

——— and R. Lipkin. 1987. Candidate threatened and endangered plants of Alaska with comments on other rare plants. University of Alaska Museum, Fairbanks, Alaska.

——— and ———. 1998. Status and trends survey of "Category 2" plants of the Bering Land Bridge National Preserve and adjacent areas, Seward Peninsula, Alaska. Final report to Biological Resources Division, U.S. Geological Survey, Anchorage, Alaska.

——— and ———. 2005. "Re: Question on *Beckwithia glacialis* ssp. *alaskensis*". Electronic mail received by R. Meyers from Dave Murray and Rob Lipkin on 4-29-05 and 5-2-05 concerning taxonomic questions on *Beckwithia glacialis* ssp. *alaskensis* and *Ranunculus glacialis* ssp. *alaskensis*. University of Alaska Fairbanks Museum and Alaska Natural Heritage Program, Anchorage, Alaska.

National Marine Fisheries Service. 2005. Final environmental impact statement for essential fish habitat identification and conservation. Juneau, Alaska.

National Research Council (NRC). 1992. Restoration of Aquatic Ecosystems. Natural Research Council, National Academy of Sciences, Washington, D.C.

———. 2003a. Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope. Committee on Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope, Board of Environmental Studies and Toxicology, Polar Research Board, Division of Earth and Life Studies. The National Academies Press, Washington, D.C.

———. 2003b. Cumulative environmental effects of oil and gas activities on Alaska's North Slope. Prepublication Copy. The National Academies Press, Washington, D.C.

Neff, J. M. 1991. Long-term trends in the concentration of polycyclic aromatic hydrocarbons in the water column of Prince William Sound and the Western Gulf of Alaska following the Exxon Valdez oil spill. *In* Fourteenth Annual Arctic and Marine Oil Spill Program Technical seminar, June 12-14, 1991, Vancouver, British Columbia.

Nelson, G. L. and J. A. Munter. 1990. Ground water. *In* Cold regions hydrology and hydraulics, ed. W.L. Ryan and R.D. Crissman. Technical Council on Cold Regions Engineering Monograph: American Society of Civil Engineers.

Nelson, R. N. 1993. Unit 22 brown bear survey-inventory progress report. Pps. 226-237 in S. Abbott, ed., Management report of survey-inventory activities. Brown bear. Alaska Department of Fish and Game. Fed Aid in Wildl. Rest. Prog. Rep. Proj. W-23-4 and W-23-5. Study 4.0. Juneau, Alaska.

Nome Daily Gold Digger. 1908. Mining edition. October 1908. Nome, Alaska.

Nome Nugget. 1901a. Agiapuk district is promising. August 23. Nome, Alaska.

Nome Nugget. 1901b. Candle, a new creek. September 6. Nome, Alaska.

Nome Nugget. 1901c. All are hopeful. December 7. Nome, Alaska.

Nome Nugget. 1904. Nome to Council. September 21. Nome, Alaska.

North, M. R. 1994. Yellow-billed loon (*Gavia adamsii*). No. 121 in *The Birds of North America*, ed. A. Poole and F. Gill. Philadelphia, PA.

North Slope Borough 2005-2006 Operating Budget Summary by Government Entities. http://www.north-slope.org/nsb/BUDGET06/Section_A.pdf Accessed November 28, 2005.

North Slope Borough Contract Staff. 1979. Native livelihood and dependence: A study of land use values through time. U.S. Department of the Interior National Petroleum Reserve-Alaska 105(c) land use study. Anchorage, Alaska.

Northern Economics. 2002. An assessment of the contribution of Red Dog Mine operations to the economy of Northwest Arctic Borough. Prepared for the Alaska Industrial Development and Export Authority. October 2002; minor revisions November 2002.

Northwest Arctic Borough. 2004. Northwest Arctic Borough comprehensive economic development strategy. September.

NPS. *See* U.S. Department of the Interior. National Park Service.

NRCS. *See* U.S. Department of Agriculture. Natural Resources Conservation Service.

Oechel, W. C., Vourlitis, G. L., Hastings, S. J., Zulueta, R. C., Hinzman, L. & Kane, D. 2000. Acclimation of ecosystem CO2 exchange in the Alaskan Arctic in response to decadal climate warming. – Nature 406: 978–981.

Olson, T.L., and B.K. Gilbert. 1994. Variable impacts of people on brown bear use of an Alaskan river. *In:* Ninth International Conference on Bear Research and Management. February 1992. Missoula, Montana. J.J. Claar and P. Schullery (eds.). International Association for Bear Research and Management. Vancouver, British Columbia.

Ohmura, A. 2007. Keynote Speech. Seventh International Conference on Global Change: Connection to the Arctic (GCCA-7). International Arctic Research Center, University of Alaska Fairbanks, Fairbanks, AK. 312 pp. Speaker is President of the International Glaciological Society and Director of the World Radiation Monitoring Centre.

Oritsland, N.A., F.R. Engelhardt, F.A. Juck, R.J. Hurst, and P.D. Watts. 1981. Effects of Crude Oil on Polar Bears. Environmental Study No. 24. Canadian Department of Northern Affairs, Ottawa, Ontario.

Osterkamp, T. E. and Romanovsky, V. E.: 1999. Evidence for warming and thawing of discontinuous permafrost in Alaska. Permafrost Periglacial Process. Vol. 10, pp. 17–37.

Ott, A.G. 1997. Letter dated Aug. 20, 1997, to Johanna Munson, State NPR-A Representative from A.G. Ott, Regional Supervisor, Habitat and Restoration Div. State of Alaska, Dept. of Fish and Game.

Papineau, John. 2004. Understanding Alaska's climate variation. http://pafc.arh.noaa.gov/climvar/climate-paper.html

Parker, Carolyn. 1999. Floristic inventory of selected sites in the Nulato Hills, western Alaska 1997-1998. Task Order No. 1 and 2 under Cooperative Agreement between BLM and UAF Museum Herbarium, No. 1422 – L953 – A97 – 0016. University of Alaska Fairbanks Museum, Fairbanks, Alaska.

———. 2001a. Draft plant species list from summer 2001 botanical survey of Noatak National Preserve. Unpublished. University of Alaska Fairbanks Museum, Fairbanks, Alaska.

———. 2001b. Vascular plant inventory of selected sites in the Waring Mountains and vicinity, Selawik National Wildlife Refuge, northwest Alaska. U.S. Fish and Wildlife Service, Selawik NWR, Kotzebue, Alaska.

———. 2003. "That odd *Saussurea*….." Email received from Carolyn Parker, 03-10-03, University of Alaska Fairbanks Museum, Fairbanks, Alaska.

———. 2004a. Draft plant species list from summer 2001 and 2002 botanical survey of Cape Krusenstern National Monument. Unpublished. University of Alaska Fairbanks Museum, Fairbanks, Alaska.

———. 2004b. Draft plant species list from summer 2002 botanical survey of Kobuk River National Park, unpublished. University of Alaska Fairbanks Museum, Fairbanks, Alaska.

———. 2004c. "Re: KOVA population of *Saussurea triangulate*." Email received from Carolyn Parker, 11-23-2004, University of Alaska Fairbanks Museum, Fairbanks, Alaska.

Parker, C., A. Batten, and J. Herriges. 2003. Botanical survey of selected sites in the White Mountains National Recreation Area and the Steese National Conservation Area, Yukon-Tanana Uplands, Alaska. BLM-Alaska Technical Report 53, U.S. Department of the Interior, Bureau of Land Mangement.

Patten, S.M., and L.R. Patten. 1979. Evolution, Pathobiology, and Breeding Ecology of Large Gulls (Larus) in Northeast Gulf of Alaska and Effects of Petroleum Exposure on the Breeding Ecology of Gulls and Kittiwakes. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Boulder, CO.

———, R. Gustin, and T. Crowe. 1991. Injury Assessment of Hydrocarbon Uptake by Sea Ducks in Prince William Sound and the Kodiak Archipelago, Alaska. State-Federal Natural Resource Damage Assessment for December 1990-November 1991. Draft Preliminary Natural Resources Damage Assessment Status Report, Bird Study Number 11.

Persons, Kate. 2001. Unit 22 furbearer management report. Pp 301-309 *in* C. Healy, ed. Furbearer management report of survey and inventory activities July 1, 1997-June 30, 2000. Alaska Department of Fish and Game. Project 7.0. Juneau, Alaska.

———. 2002. Unit 22 moose management report. Pp 475-495 *in* C. Healy, ed. Moose management report of survey and inventory activities July 1, 1999-June 30, 2001. Alaska Department of Fish and Game. Project 1.0. Juneau, Alaska.

———. 2003a. Unit 22 muskox management report. Pp 13-42 *in* C. Healy, ed. Muskox management report of survey and inventory activities July 1, 2000-June 30, 2002. Alaska Department of Fish and Game. Juneau, Alaska.

———. 2003b. Unit 22 brown bear management report. Pp 259-270 *in* C. Healy, ed. Brown bear management report of survey and inventory activities July 1, 2000-June 30, 2002. Alaska Department of Fish and Game. Juneau, Alaska.

———. 2004. Unit 22 moose management report. Pages 496–522 *in* C. Brown, editor. Moose management report of survey and inventory activities July 1, 2001–June 30, 2003. Alaska Department of Fish and Game. Project 1.0. Juneau, Alaska.

———. 2005. Seward Peninsula muskox cooperators group meeting. Nome, Alaska. June 20-21.

Peterson, M. R., J. B. Grand, and C. P. Dau. 2000. Spectacled eider (*Somateria fischeri*). No. 547 in *The Birds of North America*, ed. A. Poole and F. Gill. Philadelphia, PA.

Peterson, M. R., W. W. Larned, and D.C. Douglas. 1999. At-sea distributions of spectacled eiders (*Somateria fischeri*): A 120 year-old mystery resolved. Auk 116:1009-1020.

Phillips Alaska, Inc. 2002. Colville River unit satellite development environmental evaluation document. Revised June. Anchorage, Alaska.

Rahn, Kenneth A., Randolph D. Borys, and Glenn E. Shaw. 1982. Sources and transport of Arctic pollution aerosol: A chronicle of six years of ONR research. Naval Research Reviews, 34, 3-26 pp.

Ray, Dorothy Jean. 1964. Nineteenth century settlement and subsistence patterns in Bering Strait. Arctic Anthropology 2(2):61-94.

———. 1967. Land tenure and polity of the Bering Strait Eskimos. Journal of the West 6(3):371-394.

———. 1974. The Omilak silver mine. The Alaska Journal 4(3):142-148.

———. 1975. The Eskimos of Bering Strait, 1650-1898. University of Washington Press, Seattle.

———. 1983. Ethnohistory in the Arctic: The Bering Strait Eskimo. The Limestone Press, Kingston, Ontario.

———. 1984. Bering Strait Eskimos. In Handbook of North American Indians Volume 5: Arctic. Edited by David Damas. Smithsonian Institution, Washington.

Reed, A., D. H. Ward, D. V. Derksen, and J. S. Sedinger. 1998. Brant. No. 337 in *The Birds of North America*, ed. A. Poole and F. Gill. Philadelphia, PA.

Renner, Louis L., S. J. 1979. Pioneer missionary to the Bering Strait Eskimos: Bellarmine Lafortune, S. J. Binford & Mort, Portland.

Retherford, R.M., Hinderman, T.K., and Hawley, C.C., 1986, Preliminary feasibility study of a coal mine at Chicago Creek, Seward Peninsula, Alaska: summary report: Alaska Division of Geological & Geophysical Surveys Report of Investigation 86-13, 38 p.

Reynolds, P. E. and D. J. LaPlant. 1985. Effects of winter seismic exploration activities on muskoxen in the Arctic National Wildlife Refuge. In: Arctic National Wildlife Refuge coastal plain resource assessment. Baseline study of the fish, wildlife, and their habitats, Vol. I, G.W. Garner and P.E. Reynolds, eds. 1984 update report. ANWR Progress Report No. FY85-2. Anchorage, Alaska. U.S. Fish and Wildlife Service.

———. 1986. Effects of winter seismic exploration activities on muskoxen in the Arctic National Wildlife Refuge, January-May, 1984-1985. Arctic National Wildlife Refuge coastal plain resource assessment, G.W. Garner and P.E. Reynolds, eds. 1985 update report baseline study of the fish, wildlife, and their habitats: Impacts. ANWR progress report No. FY86-4 Vol. 3, Appendix V. Anchorage, Alaska: U.S. Fish and Wildlife Service.

Reynolds, P. E., H. V. Reynolds III, and E. H. Follmann. 1986. Responses of grizzly bears to seismic surveys in northern Alaska. In: International conference on bear research and management, pp. 169-175.

Richter-Menge, J. *et al*. 2006. State of the Arctic Report.
NOAA OAR Special Report, NOAA/OAR/PMEL, Seattle, WA, 36 pp.

Rieger, S., D.B. Schoephorster, and C.E. Furbush. 1979. Exploratory Soil Survey of Alaska. GPO 1979- 247-478/68. U.S. Department of Agriculture, Soil Conservation Service, Anchorage, Alaska.

Robertson, G. J. and P. L. Savard. 2002. Long-tailed duck (*Clangula hyemalis*). No. 651 in *The Birds of North America*, ed. A. Poole and F. Gill. Philadelphia, PA.

Robertson, G. J. and R. I. Goudie. 1999. Harlequin duck (*Histrionicus histrionicus*). No. 466 in *The Birds of North America*, ed. A. Poole and F. Gill. Philadelphia, PA.

Robinson, Scott R. 1987. Wildlife of the Squirrel River, Alaska. BLM Alaska open file report 20.

Rodrigues R., R.H. Pollard, and R.O. Skoog. 1994. Inventory of Arctic fox dens in the Prudhoe Bay Oil Field. Abstract. *In*: Proceedings of the North Slope environmental studies conference. 14-15 February 1994. Anchorage, Alaska. ARCO Alaska, Inc. p. 33.

Romanovsky, V. E., T. E. Osterkamp, G. S. Tipenko, and D. O. Serqueev. 2004. Influence of climate and environmental factors on the thermal and moisture regimes of the active layer and permafrost. Website accessed December 13, 2005. http://www.gi.alaska.edu/snowice/Permafrost-lab/proj_influ/pr_influ.html

Rosgen, D. 1996. Applied River Morphology, second ed., Wildland Hydrology, Pagosa Springs, Colorado

Rupp, Scott. 2002. Boreal ALFRESCO model presentation. Unpublished data.

Rupp, Scott and D.H. Mann. 2005. Development of a Computer Model for Management of Fuels, Human-Fire Interactions, and Wildland Fires in the Boreal Forest of Alaska. Final Report to the Joint Fire Science Program Governing Board, August 1, 2005. 17pp. Unpublished report.

Savard, J.-P. L., D. Bordage, and A. Reed. 1998. Surf scoter (*Melanitta perspicillata*). *In The Birds of North America*, No. 363 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Schaaf, Jeanne. 1988. Bering Land Bridge National Preserve: An archeological survey. Vol I. Research/Resources Management Report AR-14. Alaska Region, National Park Service, Anchorage.

Schaffer, Ross. 2005. Personal communication between Schaffer, Northwest Arctic Borough Mayor, with M. Kasterin, on August 10 regarding PILT payments from Red Dog mine.

Schallenberger, A. 1980. Review of oil and gas exploitation impacts on grizzly bears. Pps. 271-277 *In:* Bears-their biology and management, fourth international conference on bear research and management. 7 February 1977. Kalispell, Montana. C.J. Martinka and K.J. McArthur (eds.). Bear Biology Association. Tonto Basin, Arizona.

Schultz, G. 2007. Alaska Department of Natural Resources, Northern Region. Personal communication with Jeanie Cole, BLM, Central Yukon Resource Area planning and environmental coordinator regarding current and foreseeable development of the Alpine Oil Field. Phone conversation January 22, 2007.

Scott, M. 2000. Aerial Photography Assessment of Riparian Areas in the Unalakleet Drainage, Alaska. BLM-Alaska Open File Report 81, U.S. Department of the Interior, Bureau of Land Management, Anchorage, Alaska.

Scott, S. 1987. National Geographic Society field guide to the birds of North America. 2nd ed. S. Scott, ed.

Serreze M. C., Walsh, J. E., Chapin, F. S., III, Osterkamp, T., Dyurgerov, M., Romanovsky, V., Oechel, W. C., Morison, J., Zhang, T. & Barry, R. G. 2000. Observational evidence of recent change in the northern high-latitude environment. – Climatic Change 46: 159–207.

Shepro, C. E., D.E. Mass, et al. 2003. North Slope Borough 2003 economic profile and census report. Barrow, Alaska. Department of Planning and Community Services. IX.

Shideler, R.T. 1986. Impacts of human developments and land use on caribou: A literature review volume II. Impacts of oil and gas development on the Central Arctic Herd. Alaska Department of Fish and Game, Technical Report 86-3.

Shideler, R.T. and J. Hechtel. 2000. Grizzly bear. Pps. 105-132 *In*: The natural history of an Arctic oil field: Development and the biota. J.C. Truett and S.R. Johnson, (eds.). Academic Press. San Diego, California.

Shults, B. 2004. National Park Service, Western Arctic Parklands biologist. Personal communication with Jeanie Cole, BLM, Central Yukon Resource Area planning and environmental coordinator regarding management of Dall sheep. Email dated August 19, 2004.

Selkregg, L. L. 1976. Alaska regional profiles: Northwest region, volume V. University of Alaska, Arctic Information and Data Center, Anchorage, Alaska.

Sellman, P. V., J. Brown, R. L. Lewellen, H. McKim, and C. Merry. 1975. The classification and geomorphic implications of thaw lakes on the Arctic coastal plain, Alaska. CRREL Research Report 344: USDOD, US Army COE, CRREL.

Simon, James J. K. 1998. Twentieth Century Iñupiaq Eskimo Reindeer Herding on Northern Seward Peninsula, Alaska. PhD Thesis, University of Alaska Fairbanks.

Singer, F. J., and D. Johnson. 1984. Dall sheep ecology in the Noatak National Preserve, Alaska. Unpublished report. National Park Service. Anchorage, Alaska.

Sloan, C. E. 1987. Water resources of the North Slope, Alaska. In Alaskan North Slope Geology, ed. I. Tailleur and P. Weimer. The Pacific Section, Society of Economic Paleontologist and Minerologists, and The Alaska Geological Society.

———, C.Zenone and L.R.Mayo. 1975. Icings along the Trans-Alaska Pipeline route. U.S. Department of the Interior, Geological Survey. Open file report 75-87. Anchorage, Alaska. 39 pp.

Smith, M.D. 1996. Distribution, abundance, and quality of forage within the summer range of the Central Arctic Caribou Herd. M.S. Thesis. University of Alaska, Fairbanks.

Smith, Philip S. 1911. The Squirrel River placers. In Mineral resources of Alaska: Report on progress of investigations in 1910, by A. H. Brooks and Others, pp. 306-319. Bulletin 480 U. S. Geological Survey. Government Printing Office, Washington D.C.

Sonoran Institute. 2005. Economic Profile System. http://www.sonoran.org.

Sparks, Tom. 2003. Dead trees. Email received by R. Meyers from Sparks on December 1, 2004, Natural Resource Program Coordinator, Bureau of Land Management, Nome, Alaska.

Spencer, Robert F. 1959. The North Alaskan Eskimo: A study in ecology and society. Bulletin 171, Bureau of American Ethnology. U.S. Government Printing Office, Washington D.C.

———. 1984. North Alaska Coast Eskimo. In Handbook of North American Indians, Volume 5 Arctic, edited by Davis Damas. Smithsonian Institution, Washington D.C.

Spindler, M. and B. Kessel. 1980. Avian populations and habitat use in interior Alaska taiga. Syesis 13:61-104.

St-Onge, J., and P. Magnan. 2000. Impact of logging and natural fires on fish communities of Laurentian Shield lakes. Canadian Journal of Fisheries and Aquatic Sciences 57 (suppl. 2):165-174.

Starr, S. J., M. N. Kuwada, and L. L. Trasky. 1981. Recommendations for minimizing the impacts of hydrocarbon development on fish, wildlife, and aquatic plant resources of the northern Bering Sea and Norton Sound. Alaska Department of Fish and Game, Anchorage, Alaska.

Stehn, R., and R. Platte. 2000. Exposure of Birds to Assumed Oil Spills at the Liberty Project. U.S. Department of the Interior, U.S. Fish and Wildlife Service, Migratory Bird Management, Anchorage, Alaska.

Stern, Richard Olaf. 1980. "I used to have lots of reindeers" – The ethnohistory and cultural ecology of reindeer herding in northwest Alaska. Unpublished PhD Dissertation, State University of New York, Binghamton.

———, Edward L. Arobio, Larry L. Naylor, and Wayne C. Thomas. 1980. Eskimos, reindeer and land. Bulletin 59, Agricultural Experiment Station, School of Agriculture and Land Resources Management. University of Alaska, Fairbanks.

Stickel, L.F., and M.P. Dieter. 1979. Ecological and Physiological/Toxicological Effects of Petroleum on Aquatic Birds. A Summary of Research Activities Fiscal Year 1976 through Fiscal Year 1978. FWS/OBS-79/23. U.S. Department of the Interior, Fish and Wildlife Service, Biological Services Program, Slidell, Louisiana.

Strouder, D., K. Fresh, and R. Feller, eds. 1997. Theory and Application in Fish Feeding and Ecology. University of South Carolina Press.

Sturm, M. 2001. Snow survey transect data for Arctic Alaska. On file at U.S. Army CRREL, Fairbanks, Alaska.

Sturm, Matthew., Charles Racine, Kenneth Tape. 2001. Increasing shrub abundance in the Arctic. Nature, 411, 546-547.

Suydam, R. S. 2000. King eider (*Somateria spectabilis*). No. 491 in *The Birds of North America*, ed. A. Poole and F. Gill. Philadelphia: The Acad. Nat. Sci.; Washington D.C.: The Am. Ornithologist's Union.

———, D. L. Dickson, J. B. Fadely, and L. T. Quakenbush. 2000. Population declines of king and common eiders of the Beaufort Sea. Condor 102: 219–222.

Swanson, J.D., M. Schuman, and P.C. Scorup. 1985. Range survey of the Seward Peninsula reindeer ranges, Alaska. USDA Soil Conservation Service, Anchorage, Alaska.

Swanson, D.K. 1996. Fruticose lichen distribution in the Kobuk Preserve Unit, Gates of the Arctic National Park. USDI NPS Technical Report AFA RNR/NRTR-96/28. Anchorage, Alaska.

Swanston, D.N. Natural Processes. 1991. IN W.R. Meehan, ed. Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitats. Amer. Fish. Soc. Spec. Pub. 19:47-55.

Talbot, S.S, B.A. Yurtsev, D.F. Murray, G.W. Argus, C. Bay, and A. Elvebakk. 1999. Atlas of Rare Endemic Vascular Plants of the Arctic. Conservation of Arctic Flora and Fauna (CAFF) Technical Report No. 3. U.S. Fish and Wildlife Service, Anchorage, Alaska.

Thompson, D. C. and K. H. McCourt. 1981. Seasonal diets of the porcupine caribou herd. American Midland Naturalist 105(1):70-76.

Tolmachev, A. I. and J. G. Packer (eds.) 1995. Flora of the Russian Arctic. Vol 1. Polypodiaceae-Gramineae. The University of Alberta Press, Edmonton. G.C.D. Griffiths, translator.

Trezona, C. E. 1900. Cape Nome and the northern placer mines. Denny-Coryell Co., Seattle.

Troutman, S.M., and Stanley, R.G., 2002. Map and digital database of sedimentary basins and indications of petroleum in the Central Alaska Province: U.S. Geological Survey Open-File Report 02-483, scale 1:2,500,000.

Troy, D. 1996. Distribution and abundance of spectacled eiders in the vicinity of Prudhoe Bay, Alaska: 1994 status report. Report prepared by Troy Ecological Research Associates for BP Exploration (Alaska), Inc.

———. 1997. Distribution and abundance of spectacled eiders in the vicinity of Prudhoe Bay, Alaska: 1997 status report. Report prepared by Troy Ecological Research Associates for BP Exploration (Alaska), Inc.

UAF. *See* University of Alaska Fairbanks.

Uhl, William R. and Carrie K. Uhl. 1977. Tagiumsinaaqmiit: Ocean beach dwellers of the Cape Krusenstern area subsistence patterns. Anthropology and Cooperative Park Studies Unit, University of Alaska, Fairbanks.

———. 2000. Flower of passion: The shaved gentian, *Gentianopsis detonsa* (Rottb.) Ma ssp. *detonsa*. Unpublished manuscript (February 2000), Kotzebue, Alaska.

University of Alaska Fairbanks. 2004. Museum ARCTOS Database. http://arctos.database.museum. Accessed November.

———. 2005a. Alaska food cost survey fourth quarter, December 2004. Cooperative Extension Service.

———. 2005b. Museum ARCTOS Database. http://arctos.database.museum. Accessed January.

U.S. Army Corps of Engineers. 2005. Draft environmental impact statement for navigational improvements De Long Mountain Terminal, Alaska.

U.S. Census Bureau. 2004. Population finder: 2004 population estimates. http://factfinder.census.gov/servlet/SAFFPopulation?_sse=on. Accessed on October 3, 2005.

U.S. Department of Agriculture. Forest Service. 1991. Forest insect and disease conditions in Alaska – 1991. Forest Pest Management Report R10-TP-22. USDA Forest Service, State and Private Forestry, Juneau, Alaska.

———. 2000. General technical report RMRS-GTR-42, volume 2, wildland fire in ecosystems, effects of fire on flora. 257 pp.

U.S. Department of Agriculture. Natural Resources Conservation Service. 2003. Major land resource areas of Alaska, 2002. Map. Developed April 15, 2002; minor revisions May 15, 2003. http://www.ak.nrcs.usda.gov/technical/maps.html.

———. 2004. Alaska's Snow, Water, and Climate Services. Current and historical snow course data for Alaska. AKSNOW website. http://ambcs.org

U.S. Department of Energy. 2001a. U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves. 2000 Annual Report. Washington, DC: U.S. Dept. of Energy, Energy Information Administration.

———. 2001b. Alaska wind resource map. National Renewable Energy Laboratory.

U.S. Department of the Interior. 1998. Departmental manual, part 620: Wildland fire management. Chapter 2, general policy and procedures – Alaska.

———. 2003. Memorandum: Bureau of Land Management wilderness review in Alaska. Office of the Secretary. April 11.

———. 2004. Departmental manual, part 620: Wildland fire management. Chapter 1, general policy and procedures.

———. 2003. Department of the Interior Strategic Plan 2003-2008. Department of the Interior, Washington D.C.

U.S. Department of the Interior. Bureau of Land Management. 1982. Northwest management framework plan. Northern Field Office, Alaska.

———. 1983. Seward 1008 study decision record. Northwest resources area, Northern Field Office. June 15. State ID AK830407-02.

———. 1986. Iditarod National Historic Trail: Seward to Nome route – comprehensive management plan. Anchorage Field Office.

———. 1988a. Norton Sound aquatic habitat management plan. BLM-AK-PT-019-6610-070.

———. 1988b. BLM Handbook H-1790-1 National Environmental Policy Handbook.

———. 1988c. Birch Creek placer mining Final Cumulative Environmental Impact Statement. Doc. No. BLM-AK-ES-89-022-3809-918.

———. 1989. Minto Flats placer mining final cumulative environmental impact statement. Alaska.

———. 1992. Environmental analysis for a reindeer grazing permit renewal Buckland and Kiwalik river valleys. EA no. AK-070-92-24. BLM case file FF-085605.

———. 1993. BLM manual 8351.3: Wild and scenic rivers – policy and program direction for identification, evaluation, and management; Evaluation. Washington DC.

———. 1996. Partners against weeds: An action plan for the Bureau of Land Management.

———. 1999. Interim guidance- changes to the list of critical elements of the human environment in BLM's National Environmental Policy Act (NEPA) Handbook. Instruction Memorandum No. 99-178. Washington D.C.

———. 2000. BLM strategic plan 2000-2005. Washington D.C.

———. 2001a. BLM manual, 6840 – Special status species management. Washington D.C.

———. 2001b. Documentation of phone conversation with Mr. John Walker regarding his reindeer herd. November 20, 2001. BLM case file FF-087313.

———. 2002a. Determination of plan conformance and NEPA adequacy for renewal of a reindeer grazing permit for the Shaktoolik Allotment AK-025-02-012. BLM case file FF-000839.

———. 2002b. Determination of plan conformance and NEPA adequacy for renewal of a reindeer grazing permit for the Koyuk River Allotment AK-025-02-009. BLM case file F-030387.

———. 2002c. Final Environmental Impact Statement: Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way. BLM/AK/PT 03/005+2880+990. 7 Vols. Anchorage, AK: USDOI, BLM.

———. 2003a. Environmental assessment for a reindeer grazing permit in McCarthy's Marsh. EA no. AK-025-03-029. BLM case file FF-093763.

———. 2003b. Northwest National Petroleum Reserve-Alaska Final Integrated Activity Plan/Environmental Impact Statement. Anchorage, Alaska.

———. 2004a. Alaska Land Health Standards and Guidelines. IM No. AK 2004-023.

———. 2004b. Finding of no significant impact and proposed land use plan amendment environmental assessment for wildland fire and fuels management for Alaska. Alaska Fire Service. AK-313-04-EA-001.

———. 2004c. Kobuk-Seward Peninsula resource management plan scoping report. Northern Field Office, August 24, 2004. 49 pp.

———. 2004d. Management situation analysis for noxious and invasive weeds. Prepared by Jeanie Cole.

———. 2004e. Alpine Satellite development plan final environmental impact statement.

———. 2005a. Alaska Fire Service fire history database. Accessed February 2005.

———. 2005b. BLM Alaska state fire trespass operating plan. Alaska Fire Service. IM AK 2006-005. November 11.

———. 2005c. Decision record for the land use plan amendment for wildland fire and fuels management for Alaska environmental assessment. Alaska Fire Service. AK-313-04-EA-001.

———. 2005d. Draft fire trespass handbook H-9238-1. August 26 (Office of Fire and Aviation Instruction Memorandum 2005-033).

———. 2005e. Final programmatic environmental impact statement on wind energy development on BLM-administered lands in the western United States. June.

———. 2005f. Kobuk-Seward Peninsula resource management plan mineral occurrence and development potential report: locatable and salable minerals. Alaska State Office. Division of Energy and Solid Minerals. May.

———. 2005g. Kobuk-Seward Peninsula resource management plan reasonable foreseeable development scenario locatable and salable minerals. Alaska State Office. Division of Energy and Solid Minerals. February.

———. 2005h Northeast National Petroleum Reserve-Alaska Final Amended Integrated Activity Plan/Environmental Impact Statement. Anchorage, Alaska. January.

———. 2005i. Northeast National Petroleum Reserve-Alaska Final Amended Integrated Activity Plan/Environmental Impact Statement. Appendix J, Subsistence. January.

———. 2005j. Reasonable foreseeable development scenario for oil and natural gas resources in the Kobuk-Seward Peninsula planning area, Alaska. Alaska State Office. Division of Energy and Solid Minerals.

———. 2005k. Recreation management information system database. Query on dispersed visitor use in northwest Alaska for fiscal years 2003 (journal entry 49138) and 2004 (journal entry 52956).

———. 2005l. Special status species list for Alaska, BLM Alaska state office. Instruction Memorandum AK 2006-003. October 13.

———. 2005m. Wildland fire management plan. Alaska Fire Service. September.

———. 2005n. Kobuk-Seward Peninsula Resource Management Plan Mineral Occurrence and Development Potential Report for Leasable Minerals. Alaska State Office. Division of Energy and Solid Minerals.

———. 2005o. BLM Land Use Planning Handbook. H-1601-1.

———. 2006. Oil spill risk analysis for the Kobuk-Seward Peninsula Planning Area. Prepared by Bureau of Land Management, Anchorage, Alaska, January 2006.

U.S. Department of the Interior. Bureau of Land Management. In prep. Northeast National Petroleum Reserve-Alaska Supplemental IAP/EIS.

U.S Department of the Interior. Bureau of Land Management National Petroleum Reserve-Alaska Subsistence Advisory Panel. 2002. Meeting minutes. 6 June and 22 August.

U.S. Department of the Interior. Bureau of Land Management and Minerals Management Service. 1998. Northeast National Petroleum Reserve-Alaska Final Integrated Activity Plan/Final Environmental Impact Statement. Volumes I and II. BLM/AK/PL-98/016+3130+930. U.S. Department of the Interior, Bureau of Land Management and Minerals Management Service, Anchorage, Alaska.

U.S. Department of the Interior, Bureau of Land Management, and Montana Deptartment of Environmental Quality. 1996. Final environmental impact statement, Zortman and Landusky Mines; Reclamation Plan Modifications and Mine Life Extensios. Document No. BLM/MT/PL-96/005+1990. U.S. DOI, Bureau of Land Mgmt., Lewistown, MT.

U.S. Department of the Interior, Bureau of Land Management, and U.S. Department of Energy. 2003. Assessing the potential for renewable energy on public lands. February.

U.S. Department of the Interior, Minerals Management Service. 2002. Final Environmental Impact Statement. Outer Continental Shelf Environmental Impact Statement/Environmental Assessment MMS 2002-019. Three Volumes. U.S. Department of the Interior, Minerals Management Service, Alaska Outer Continental Shelf Region, Anchorage, Alaska.

———. 2006. Chukchi Sea Planning Area: Oil and Gas Lease Sale 193 and Seismic Activities in the Chukchi Sea Draft Environmental Impact Statement. OCS EIS/EA MMS 2006-060. Department of Interior, Minerals Management Service, Alaska OCS Region. October.

U.S. Department of the Interior, National Park Service. 2004. Coastal influenced ecosystems scoping workshop notebook. November 30-December 2, 2004, Anchorage, Alaska. National Park Service-Arctic Network Inventory and Monitoring Program.

———. 2005. Western Arctic national parklands compendium: Bering Land Bridge National Preserve, Cape Krusenstern National Monument, Kobuk Valley National Park, and Noatak National Preserve, 2005.

U.S. Department of the Interior. U.S. Fish and Wildlife Service. 1995. Habitat Conservation Strategy for Polar Bears in Alaska. Anchorage, Alaska.

———. 1996. Spectacled eider recovery plan. Anchorage, Alaska.

———. 2002. Steller's eider recovery plan. Anchorage, Alaska.

———. 2004a. Kobuk-Seward Peninsula management plan species list. Letter from Fairbanks Fish and Wildlife Field Office, July 12.

———. 2004b. Endangered Species Act, Section 7 Biological Opinion for the Northwest National Petroleum Reserve-Alaska Integrated Activity Plan /Environmental Impact Statement. Memorandum from Field Supervisor, U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Service Field Office, January 6, 2004.

———. 2005. Advisory: Recommended Time Periods for Avoiding Vegetation Clearing in Alaska to Protect Migratory Birds. September 2005.

———. 2005b. Species Assessment and Listing Priority Assignment Form. Kittlitz's murrelet. October 2005. http://ecos.fws.gov/docs/candforms_pdf/r7/B0AP_V01.pdf

_____. 2006. News Release. Interior Secretary Kempthorne announces proposal to list polar bears as threatened under the Endangered Species Act. December 27, 2006.

U.S. Environmental Protection Agency. 1984. Final Environmental Impact Statement Red Dog Mine Project, Northwest Alaska. Prepared by the U.S. Environmental Protection Agency (Region 10) and U.S. Department of Interior. September 1984.

U.S. Environmental Protection Agency. 1998. Interim air quality policy on wildland and prescribed fire. April 23.

U.S. Geological Survey. 1971. Mineral Land Classification Board, February 22, 1971, Definition of the Pilgram Springs known Geothermal Resources Area, Seward Peninsula, Alaska, 3 pp.

U.S. Department of the Interior. U.S. Geological Survey. 1997. Land cover mapping at 1 km resolution, USGS EROS Data Center, Anchorage, Alaska.

U.S. Department of the Interior. U.S. Geological Survey. 2004. NWIS website. Water Resources Division. http://nwis.waterdata.usgs.gov/ak/nwis.

USGS. *See* U.S. Department of the Interior. U.S. Geological Survey.

Van Vliet, G., and M. McAllister. 1994. Kittlitz's murrelet: The species most impacted by direct mortality from the Exxon Valdez oil spill? Pac. Seabirds 21(2):5-6.

VanStone, James W. 1984. Exploration and contact history of western Alaska. *In* Handbook of North American Indians. Vol. 5: Arctic. Smithsonian Institution, Washington.

Viereck, L. A. and L. A. Schandelmeier. 1980. Effects of fire in Alaska and adjacent Canada: A literature review.

Viereck, L.A., C.T. Dyrness, A.R. Batten, and K.J. Wenzlick. 1992. The Alaska Vegetation Classification. General Technical Report. PNW-GTR-286. U. S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, Oregon.

Wahrhaftig, C. 1965. Physiographic Divisions of Alaska. U.S. Geological Survey Professional Paper 482. U.S. Geological Survey, Anchorage, Alaska.

Walker, D.A. 1996. Disturbance and recovery of Arctic Alaskan vegetation. In: landscape function and disturbance in Arctic Tundra, J.F. Reynolds and J.D. Tenhunen, eds. Berlin, Germany: Springer-Verlag, pp. 35-71.

———, D.D.Cate, J.Brown, and C.Racine. 1987. Disturbance and recovery of Arctic Alaska tundra terrain: a review of recent investigations. CRREL report no, 87-11. Hanover, N.H.

———, P.J. Webber, K.R. Everett and J. Brown. 1978. Effects of crude and diesel oil spills on plant communities at Prudhoe Bay, Alaska, and the derivation of oil spill sensitivity maps. Arctic 31 (3):242-259.

Webb, J. F. 1986. Fisheries field reports, 1977-1986. Unpublished reports on file at the Bureau of Land Management Fairbanks District Office.

———. 1978a. Fisheries inventories of lakes in the Kigluaik Mountains. Field Report. Bureau of Land Management, Fairbanks, Alaska.

———. 1978b. Fisheries inventories of the Buckland River. Final Report. Bureau of Land Management, Fairbanks, Alaska.

———. 1978c. Fisheries inventories of the Shaktoolik River. Final Report. Bureau of Land Management, Fairbanks, Alaska.

———. 1979. Fisheries inventories of lakes in the Kigluaik Mountains. Final Report. U.S. Bureau of Land Management, Fairbanks, Alaska.

———. 1980. Inglutalik River fisheries inventory. Final Report. Bureau of Land Management, Fairbanks, Alaska.

———. 1985. Tubutulik River fisheries inventory. Final Report. Bureau of Land Management, Fairbanks, Alaska.

———. 1986a. Clear Creek fisheries investigations. Final Report. Bureau of Land Management, Fairbanks, Alaska.

———. 1986b. Fish River fish inventory. Final Report. Bureau of Land Management, Fairbanks, Alaska.

———. 1999. Arctic char of the Kigluaik Mountains of Alaska. *In* Proceedings of the eighth and ninth International Society of Arctic Char Fanatics 1996 and 1997. Information Series No. 7, 1999.

——— and R. F. McLean. 1991. An investigation of coho salmon rearing habitat in selected tributaries of the Nome River. Final Report. Bureau of Land Management, Fairbanks, Alaksa.

Western Arctic Caribou Herd Working Group. 2003. Western Arctic Caribou Herd Cooperative Management Plan. Nome, Alaska. 33 pp.

WesternGeco. 2003. Comments received on draft Northwest National Petroleum Reserve-Alaska Integrated Activity Plan/Environmental Impact Statement. *In:* Northwest NPR-A IAP/EIS. Bureau of Land Management.

White, C. M., N. J. Clum, T. J. Cade, and W. G. Hunt. 2002. Peregrine falcon (*Falcon peregrinus*). No. 660 in *The Birds of North America*, ed. A. Poole and F. Gill. The Birds of North America Inc., Philadelphia, PA.

Wild and Scenic Rivers Act of 1968. P.L. 90-542.

Willeck, D. G. and D. Allan. 1996. Conservation agreement for Barneby's milkvetch, *Oxytropis arctica* var. *barnebyana* between U.S. Fish and Wildlife Service and U.S. Air Force. 611th Air Support Group, Elmendorf AFB and Regional Office, U.S. Fish and Wildlife Service, Anchorage, Alaska.

Winters, J. F. and R. T. Shideler. 1990. An annotated bibliography of selected references of muskoxen relevant to the National Petroleum Reserve-Alaska. Fairbanks, Alaska: Alaska Department of Fish and Game.

Wittwer, D. 1999. Forest insect and disease conditions in Alaska – 1999. General Technical Report R10-Tp-82. USDA Forest Service, Forest Health Protection, Alaska Region.

———. 2001. Forest insect and disease conditions in Alaska – 2000. General Technical Report R10-TP-86. USDA Forest Service, Forest Health Protection, Alaska Region.

———. 2003. Forest health protection report: Forest insect and disease conditions in Alaska – 2002. General Technical Report R10-TP-113. USDA Forest Service, Forest Health Protection, Alaska Region.

———. 2005. Forest health conditions in Alaska – 2004. Protection report R10-PR-3. USDA Forest Service, Alaska Region and State of Alaska, Department of Natural Resources, Anchorage, Alaska.

Wolf, S.A. 2000. Habitat selection by calving caribou of the Central Arctic Herd. 1980-1995. M.S. Thesis. University of Alaska, Fairbanks.

Wolfe, Robert J. 2000. Subsistence in Alaska: A Year 2000 Update, ADF&G, Juneau, Alaska March.

———. 2004. Local traditions and subsistence: A synopsis from twenty-five years of research. Juneau: Alaska Department of Fish and Game, Division of Subsistence.

Woodward-Clyde Consultants. 1980. Gravel removal studies in Arctic and subarctic floodplains in Alaska. Biological Suc. Program, U.S. Fish and Wildlife Service, Anchorage, AK. Technical Report, FWS/OBS-80/08. 403 pp.

———. 1983. Lisburne Development Area: 1983 Environmental Studies. Final Report. Prepared by Woodward-Clyde Consultants, Inc., for ARCO Alaska, Inc., Anchorage, Alaska.

Yarie, J. Forest fire cycles and life tables: A case study from interior Alaska. Canadian Journal of Forestry Research. Volume 11, Number 3. 1981.

Yoshikawa , K. and Hinzman, LD. 2003. Shrinking thermokarst ponds and groundwater dynamics in discontinuous permafrost near Council, Alaska. Permafrost and Periglacal Process 14: 151-160.

Zogas, K. 2005. USDA Forest Service, Forest Health Protection biotechnician. Personal communication with Randy Meyers concerning the biology and chronology of spruce beetle outbreaks on the Seward Peninsula.

Zufelt, W. J. 1973. Forest resources of the Norton Bay Native Reserve, Alaska. U.S. Bureau of Indian Affairs.