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APPENDIX A

REQUIRED OPERATING PROCEDURES
STANDARD OIL AND GAS LEASE TERMS
STIPULATIONS

A. Introduction

The Alaska Statewide Land Health Standards were developed by the Alaska, BLM Resource Advisory Council and signed by the BLM's Alaska, State Director on March 2, 2004 (I.M. AK 2004-023). They 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, ecological and biological conditions, while considering cultural and local economic needs. The general guidelines under the Alaska Statewide Land Health Standards 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 (ROPs), 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 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 may 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. An 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 incorporated into an application, as well as procedures, practices, and design features that are an integral part of a proposal, do not need to be stipulated to 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

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 distribute oil and gas deposits. 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. Provisions of Federal environmental protection laws such as the Clean Water Act, Endangered Species Act, and Historic Preservation Act govern all 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 development, all work affecting the resource will stop, and the land management agency will be contacted.

2. Oil and Gas Leasing Stipulations

Oil and Gas Leasing 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 were modified to fit the environmental needs of the Mulchatna, Northern Alaska Peninsula and the Nushagak caribou herds. An interdisciplinary team of BLM resource specialists developed additional stipulations. 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 or 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 BLM. Non-compliance is documented in an Incident of Non-Compliance report. Depending on the nature of non-compliance, a time frame may be established to correct the problem. Non-compliance can result in monetary fines or operational shutdown.

Surface stipulations can 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 stipulation, either temporarily or for the term of the lease. A *waiver* permanently exempts the stipulation. A stipulation included in an oil and gas lease is subject to modification or waiver only if the AO determines that the factors leading to its inclusion in the lease have changed sufficiently to warrant enhanced protection or if the protection provided by the stipulation is no longer justified or if proposed operations would not cause unacceptable impacts. If the AO determines, prior to lease issuance, that a stipulation involves an issue of major concern, modification or waiver is 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, modification or waiver is also 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 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

Required operating procedures (ROP) are requirements that BLM will impose as necessary, to achieve 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, are 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 an acceptable best management practice (BMP) to meet

stated resource management objectives. Applicants are encouraged to consider alternative methods, best management practices, and/or design features for BLM's consideration during the permitting process. If an applicant does not include alternatives for agency consideration, the ROPs identified may be incorporated into an approval for a proposed activity.

ROPs have been developed to ensure that the Alaska Statewide Land Health Standards are met in carrying out permitted activities and management practices. The ROPs are based on the best information and science available, institutional and industry knowledge, and the field experience of agency resource specialists. As the interdisciplinary team of BLM resource specialists evaluated potential ROPs, they reviewed guidelines developed by the United States Fish and Wildlife Service and other Federal and State 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 BLM is responsible for monitoring a permittee's or claimant's compliance with a permit or authorization's conditions. In the event of non-compliance with permit or authorization conditions, a notice of non-compliance is sent to the permittee or claimant along with suggested corrective actions. Typically, a notice of non-compliance includes a time frame in which corrective actions are expected to be implemented.

4. Environmental Concern

In keeping with Section 101(c) of the National Environmental Policy Act, the following provisions emphasize Congress' dual recognition that each person should enjoy a healthful environment and each person, corporate or human, also has a responsibility to contribute to preservation of the environment.

In acknowledgement of the need to maintain a healthful environment and in furtherance of BLM's statutory responsibility to prevent unnecessary or undue degradation of the land, its resources or the environment, the following provisions establish a minimal standard of environmental care, which allows for environmentally responsible resource use and development.

5. Adaptive Management

An appreciation for the environmental consequences of human activity is a concern and defining characteristic of modern resource management. Further, there is a growing recognition of ecosystem complexity and uncertainty in achieving a balance between resource use and development and environmental preservation. Adaptive management recognizes these complexities and uncertainties as opportunities to study, learn and develop effective means for achieving that balance. In recognition of the unique characteristics and sensitivities of the Arctic and Sub-arctic environments and the changes occurring in these environments as a result of climate change, it is anticipated that circumstances may arise where the BLM may engage Adaptive Management principles to achieve an acceptable balance between resource use and development and environmental preservation. Applicants, permittees, claimants and resource users, in appreciation of their responsibility to contribute to preservation of the environment, should anticipate the same need.

6. Changes in ROPs between Draft EIS and Final EIS

This section has been moved from the end of Chapter II of the Draft EIS (DEIS) to this Appendix to accentuate the import of the provisions and to provide the reader with an appreciation for their evolution from the Alaska Statewide Land Health Standards.

Subsequent to publication of the DEIS, the ROPs were analyzed for clarity, purpose, practicality and applicability to the planning area. Although there have been changes in structure and presentation, the changes, either individually or collectively, are not intended to raise the level of environmental concern over that of the DEIS. Rather, the intent is to lower it through an enhanced appreciation for the inherent dichotomy between resource use and development and environmental preservation.

As a resource, management planning level document, this EIS is intended to address general provisions for achieving a balance between resource use and development and environmental preservation. The Special Recreation Permitting stipulations that appeared in the draft EIS are program specific and while valid and controlling within that program are too specific for this level of analysis; they have been dropped from this, the final version of the EIS.

The Lands and Realty provisions have been pared down for two reasons. First, to eliminate duplication; second, the provisions are dictated by resource concerns that manifest themselves in Lands and Realty transactions as contract provisions or stipulations.

The Hazardous Materials and Waste Management section has been split between a Required Operating Procedures Section and Stipulation section.

Where available, references are provided to direct an applicant or claimant to academic works or institutional or industry material that provide guidelines or established principles of resource management. The BLM will rely upon such guidance, principles and standards when accessing proposed development scenarios and encourages all applicants, permittees and claimants to consult such references and other pertinent work. The guidance and principles found in such works and evolving principles of resource management, particularly those pertinent to development in an Arctic or Sub-arctic environment, may be incorporated into final BLM approvals of development scenarios. The inclusion of standard or evolving principles of resource management in proposed development plans facilitate application or authorization processing by the agency.

Finally, with an increasing awareness of the effects of climate change, particularly in the Arctic and Sub-arctic environments, there is likely to be an increased emphasis on the need to engage in Adaptive Management and the development of new guidelines, principles and standards of resource management. Hence, the level of environmental concern reflected in the following provisions as well as the provisions themselves may change.

Compliance with all pertinent State and Federal laws and regulations is presumed.

B. Land Health Standards

United States Department of the Interior

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1610 (931) P

March 2, 2004

Instruction Memorandum No. AK 2004-023
Expires: 09/30/2005

To: All Employees

From: State Director

Subject: Alaska Land Health Standards and Guidelines

Program Area: Planning

Purpose: This Instruction Memorandum (IM) provides Alaska Land Health Standards and Guidelines approved by the State Director under regulations contained in 43 CFR 1601.0-4(b).

Policy/Action: Standards and Guidelines will be implemented through the land use planning process following Alaska's ten-year planning schedule.

Timeframe: The Standards and Guidelines are effective immediately.

Budget Impact: N/A

Background: The BLM and the BLM Resource Advisory Council for Alaska cooperatively developed standards and guidelines for Alaska. The BLM is implementing Standards and Guidelines in the contiguous 48 States under regulations contained in 43 CFR 4180. The grazing program regulations do not apply to Alaska. Therefore, the Alaska State Director hereby issues Standards and Guidelines as planning guidance.

Manual/Handbook Sections Affected: None

Contact: If you have questions, or need further information, please call Mike Kasterin, Regional Economist, at (907) 271-3202.

Signed
Peter J. Ditton
State Director, Acting

Authenticated
Rodney Harvey
Records Manager

Attachment:
Alaska Land Health Standards and Guidelines (12 pp)

BUREAU OF LAND MANAGEMENT - ALASKA STATEWIDE LAND HEALTH STANDARDS

Introduction

This document sets forth land health standards that describe the desired ecological conditions and goals that the Bureau of Land Management (BLM) intends to maintain, or attain, in managing lands throughout Alaska. Land health considers the needs and contributions of the affected ecosystem, including water, wetlands, riparian areas, soil, forest resources, taiga and tundra, mountains, coastal regions, glaciers, minerals, fish and wildlife species and habitat, heritage resources, and human uses.

The land health standards establish goals for BLM-managed land and resource conditions in Alaska, and are criteria for land use planning decisions. BLM intends that these standards promote healthy, sustainable ecosystems that support a wide range of public values and uses, reflective of the BLM multiple use land management mission. BLM further intends to provide for a wide variety of public land uses without compromising the long-term health and diversity of the land and without sacrificing significant natural, cultural, and historical resource values. BLM will use the best available scientific and technical information as a basis for land and resource management decisions. These standards, in conjunction with factors such as economic, social, and cultural aspects, create a balanced approach to considering proposed activities on the public lands. Guidelines are also provided to outline practices and procedures that BLM may apply to achieve the standards.

Ecological Functions and the Fundamentals of Land Health

Within each ecosystem there is a hierarchy of ecological functions and processes. An ecosystem consists of four primary, interactive functional components: (1) a physical component, (2) a biological component, (3) a social component, and (4) an economic component. The physical function of an ecosystem supports the biological component—its health, diversity, and productivity. In turn, the interaction of the physical and biological components of the ecosystem provides the resource needs of society and the economy.

A healthy ecosystem, or an ecosystem that is recovering its health, contains the following fundamental physical and biological attributes:

- Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian, wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow.

- Ecological processes, including the hydrologic cycle, nutrient cycle, and energy flow, are maintained or there is significant progress toward their attainment in order to support healthy biotic populations and communities.

- Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving, established BLM management objectives, such as meeting wildlife needs.

- Habitats are, or are making significant progress toward, being restored or maintained, including Federal threatened and endangered, Federal proposed, and other special status species.

Standards and Guidelines and Resource Management Planning

Future BLM land use plans and land management decisions will incorporate statewide standards. Social and economic needs expressed by local communities and individuals will also be considered in the goals of the plans and decisions. Specific terms and conditions/stipulations will be considered to ensure progress is achieved in a way, and at a rate, for the plan goals and objectives. In designing and implementing guidelines, the potential of the site must be identified. Any constraints must be recognized so plan goals and objectives are realistic, and physically and economically achievable. BLM will then use these standard statements to develop specific Resource Management Plan (RMP) objectives and indicators, addressed in the National Environmental Policy Act (NEPA) process for the RMP. The standards will be implemented with appropriate planning decisions after completion of the RMP. The authorized officer will coordinate, consult, and cooperate with interested parties including local, State and Federal agencies, Tribes, Native corporations, and interested publics during all phases of implementing standards and guidelines.

BLM will strive to make use of collaborative approaches involving the various interested publics within an affected area. The Resource Advisory Council may be requested by any party to assist in reaching agreement in resolving disputes.

Some of the criteria the authorized officer will use to prioritize areas in the application of standards and guidelines are as follows:

- Are there situations where legal requirements must be met?
- Is there information to indicate resources are at risk of being lost or that the severity of resource damage demands immediate attention?
- Is use conflict present?
- Is there public concern or interest for possible resources at risk?
- What is scheduled for completion according to the Resource Management Plan implementation schedule?
- Where can efficiencies with limited resources be realized?
- Where are the best opportunities to effect positive change toward public land health?
- Are there permits or resource use authorizations that need action?

Standards

There are five Standards by which the diversity and ecological health of BLM-managed land will be measured:

Watershed Function-Uplands
Watershed Function-Riparian, wetland, aquatic areas
Ecological processes
Water quality and yield
Threatened, endangered, native, and locally important species

Standards are written in a two-part format. A standard is first described in a statement; then indicators that are related to the standard are identified. While statements of standards addressing the needs of healthy physical and biological ecosystem components may be similar across the Nation, the indicators that relate to the standard statements will be specific for each ecosystem. Variability among the indicators will depend on distinctive physical and biological elements of an ecosystem, not on the land use. The indicator should be based upon the potential (or upon the capability where potential cannot be achieved) of individual sites or landforms. Indicators may be qualitative and can be used to monitor whether management is achieving maintenance of, or a trend toward, or away from the standard. In addition, traditional knowledge of an area can provide information on trends, both historic and current.

Watershed Function-Uplands Standard: When functioning properly within its capability, a watershed captures, stores, and safely releases the moisture from normal precipitation events (equal to or less than the 25-year, 5-hour event) that occur within its boundaries.

While all watersheds consist of similar components and processes, each is unique in its makeup. Each watershed displays its own pattern of landform and soil, unique climate and weather patterns, and its own history of use and current condition.

In directing management toward maintaining or achieving this watershed standard, treat each unit of the landscape (soil, ecological site, and watershed) according to its capability and relationship to smaller and larger units of the landscape.

Goal: To ensure that watersheds are in, or are making significant progress toward, a properly functioning physical condition that includes their upland, riparian, wetland, and aquatic areas. The infiltration and permeability rates, moisture storage, and stability of upland soils are appropriate to the watershed's soil, climate, and landform.

Objective 1: Protect the soil surface from erosion; avoid detention of overland flow; maintain infiltration and permeability that is consistent with the potential/capability of the site.

Possible success indicators:

- amount and distribution of plant cover (including forest canopy cover)
- amount and distribution of permafrost
- soil temperature/depth profile
- soil moisture
- amount and distribution of plant litter
- accumulation/incorporation of organic matter
- amount and distribution of bare ground
- amount and distribution of rock, stone, and gravel
- plant composition and community structure
- thickness and continuity of the first layer of soil containing organic matter
- character of micro-relief
- presence and integrity of biotic crusts
- root occupancy of the soil profile
- biological activity (plant, animal, and insect)
- absence of accelerated erosion and overland flow

Objective 2: Promote moisture storage by soil and plant conditions consistent with the potential/capability of the site.

Possible success indicators:

- amount and distribution of plant cover (including forest canopy cover)
- amount and distribution of plant litter
- accumulation/incorporation of organic matter
- plant composition and community structure
- snow depth/moisture content

Watershed Function-Riparian, wetland, aquatic areas standard: "Properly functioning" riparian, wetland, and aquatic areas maintain or enhance the timing and duration of stream flow in the watershed. They do this through dissipation of flood energy, improved bank storage, and groundwater recharge.

Goal: To ensure that watersheds are in, or are making significant progress toward, a properly functioning physical condition that applies to upland, riparian, wetland, and aquatic areas. The riparian, wetland, and aquatic areas are functioning properly at levels appropriate to the watershed's soil, climate, and landform.

Objective 1: Hydrologic, vegetative, and erosion/depositional processes support physical functioning, consistent with the potential or capability of the site.

Possible success indicators:

- frequency of floodplain/wetland inundation
- amount and distribution of aufeis
- amount and distribution of permafrost
- hydrograph time/temperature graph
- plant composition, age class distribution, and community structure
- root mass
- point bars revegetating
- streambank/shoreline stability
- riparian area width
- sediment deposition
- active/stable beaver dams
- coarse/large woody debris
- watershed conditions of adjacent uplands
- frequency/duration of soil saturation
- water table fluctuation

Objective 2: Stream channel, lake bed, shoreline characteristics are appropriate for the landscape position.

Possible success indicators:

- channel width/depth ratio
- entrenchment benthic communities channel sinuosity
- gradient
- rocks and coarse and/or large woody debris
- overhanging banks
- pool/riffle ratio
- pool size and frequency
- stream embeddedness

Ecological Processes Standard: Plants play an important role in soil development and watershed functions. Plants also provide habitat for wildlife and human economic use. Nutrients necessary for plant growth come from the atmosphere, the weathering of rocks, and from insects, bacteria and fungi that metabolize organic matter. The soil transports nutrients through plant uptake, leaching, and rodent, insect, and microbial activity. Conveyance follows cyclical patterns as nutrients are used and reused by living organisms.

The ability of the land to supply resources and satisfy social and economic needs depends upon the buildup and cycling of nutrients over time. Interrupting or slowing nutrient cycling can lead to site degradation because the lands become deficient in the nutrients that plants require.

Consider the role of fire in natural ecosystems, whether it acts as a primary force or as only one of many factors. It may play a significant role in both nutrient cycling and energy flows.

Goal: To ensure that water and nutrient cycling and energy flow support healthy, productive, and diverse natural communities. Water and nutrient cycling and energy flow occur effectively to support healthy, productive, diverse communities at levels appropriate to the potential/capability of the site.

Objective 1: Photosynthesis is effectively occurring throughout the growing season, consistent with the potential/capability of the site.

Possible success indicators:

plant composition and community structure

Objective 2: Nutrient cycling is occurring effectively, consistent with the potential/capability of the site.

Possible success indicators:

- plant composition and community structure

microbial activity

Water Quality and Yield Standard: States are legally required to establish water quality standards and Federal land management agencies are required to comply with those standards. In mixed ownership watersheds, BLM, like any other landowner, has limited influence on the quality of the water yielded by the watershed.

Many forces determine the quality of the water in a watershed: physical and chemical properties of the geology and soils unique to the watershed; prevailing climate and weather patterns; current resource conditions; and land use and land management decisions. Standards 1.1, 1.2, and 2.0 contribute to achieving this standard and the indicators are included here by reference.

Goal: To ensure that surface water and groundwater quality (to the extent that BLM actions can influence water quality in the area) complies with state water quality standards.

Objective 1: Water quality meets state water quality standards.

Possible success indicators:

- water temperature
- dissolved oxygen
- fecal coliform
- turbidity
- pH
- populations of aquatic organisms
- specific conductivity
- water chemistry, including nutrients and metals
- total sediment yield including bed load
- levels of chemicals in bioassays
- change in trophic status

Threatened and Endangered, Native, and Locally Important Species Standard: This standard focuses on retaining natural populations and restoring to viability native plant and animal (including fish) species, populations and communities (including threatened, endangered, and other special status species of local importance).

Goal: To ensure that habitats support healthy, productive, and diverse populations and communities of native plants and animals (including special status species and species of local importance, e.g., those used for subsistence).

Objective: Essential habitat elements for species, populations, and communities are present and available to the extent they are consistent with the potential/capability of the landscape.

Possible success indicators:

- plant community composition, age class distribution, and productivity
- habitat elements
- spatial distribution of habitat
- habitat connectivity
- population stability/resilience (within natural population cycles)
- fire history

Guidelines

Guidelines for land management 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.

Assessment and monitoring are essential to the management of public lands, especially in areas where resource problems exist or issues arise. Monitoring should proceed using a qualitative method of assessment to identify critical, site-specific problems or issues. Monitoring will be done by interdisciplinary teams of specialists, managers, and knowledgeable land users. Once identified, critical, site-specific problems or issues will be targeted for more intensive quantitative monitoring or investigation. Priority for monitoring and treatment will be given to those areas that are ecologically declining or at risk of being impacted. Benefits will be maximized within existing budgets and other limited resources.

General Guidelines

1. Overland movement (where roads are not available) of equipment, materials, and supplies is allowed when soils are frozen and sufficient snow cover is available to prevent soil compaction and loss or damage to vegetation.

2. Roads and trails are engineered, constructed, and maintained in a manner that minimizes the effect on landscape hydrology; concentration of overland water flow, subsurface water flows; minimizes erosion, and minimizes sediment transport.

3. 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:

a. retain or promote infiltration, permeability, and soil moisture storage;
b. contribute to nutrient cycling and energy flow;
c. protect water quality;
d. help prevent the introduction and spread of noxious weeds;
e. contribute to the diversity of plant communities, and plant community composition and structure;
f. support the conservation of threatened and endangered, other special status species, and species of local importance.

4. Seeding and planting non-native vegetation should only be used in those cases where native species are not available in sufficient quantities; where native species are incapable of maintaining or achieving the standards; or where non-native species are essential to the functional integrity of the site.

5. Structural and vegetative treatment and animal introduction in riparian and wetland areas will be compatible with the capability of the site, including the system's hydrologic regime, and maintenance or restoration of properly functioning condition.

6. New structures are located away from riparian or wetland areas if they conflict with achieving or maintaining riparian or wetland function. Existing structures are used in a way that does not conflict with riparian or wetland functions or are relocated or modified when incompatible. (NOTE: This is not intended to preclude activities which by nature must occur within riparian or wetland areas, such as placer mining).

7. Projects affecting water, and associated resources, including development of springs and seeps, will be designed to protect ecological functions and processes.

8. Management practices will consider protection and conservation of known cultural resources, including historical sites, prehistoric sites, and plant and animal populations of significance.

9. In order to eliminate, minimize, or limit the spread of noxious weeds, only certified feed (hay cubes, hay pellets, etc,) will be permitted on BLM lands.

10. Heavy concentration of activities in sensitive wildlife and plant habitats will be avoided.

11. 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.

12. Human use will be managed to achieve and maintain water quality standards and avoid waste management problems and water quality impacts.

13. Fish and wildlife habitat on public lands will be maintained and protected, and the habitat needs of fish and wildlife resources necessary to maintain or enhance such populations will be provided.

14. Fish and wildlife resources 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.

15. 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 timber harvest.

16. Vegetative resources will be managed to provide reasonable protection (particularly near developed areas) from destructive agents, such as fire, insects, and disease.

17. Soil erosion will be minimized by restricting the removal of vegetation adjacent to streams and by stabilizing disturbed soil as soon as possible. (NOTE: This is not intended to preclude activities which by nature must occur within riparian or wetland areas, such as placer mining.)

18. 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. (NOTE: This is not intended to preclude activities which by nature must occur within riparian or wetland areas, such as placer mining.)

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

20. Activities in wetlands will comply with Federal permit requirements related to the fill, removal, and alteration of wetlands.

21. Management practices will consider protection and conservation of biodiversity.

Guidelines for Public or Agency Involvement and Coordination

Public Participation

- Resolve problems and implement decisions in collaboration with other agencies, State, municipalities, Native corporations, and the public.
- Ensure the BLM land users and stakeholders have a meaningful voice in establishing policy and managing BLM land in Alaska.
- Provide the general public with meaningful opportunities to participate in and influence the process of decision making affecting BLM-managed land in Alaska.
- To the extent practical and warranted by local conditions, hold public meetings in the Alaskan community or communities most impacted by proposed decisions affecting BLM land.
- When setting deadlines for public participation, recognize and provide for the extra time it takes mail to reach people in rural Alaska. The seasonality of subsistence dependent communities and the land users will also be considered.

Government, Organization, and Community Participation

- Provide local governments, State and Federal agencies, Native corporations, and other private landowners and interest groups with meaningful opportunities to participate in and influence the process of decision making affecting BLM-managed land in Alaska.
- Consistent with the national policy regarding Government-to-Government consultation and relationships with Tribes, consult as early in the agency's decision making process as possible, to the greatest extent practicable and to the maximum extent permitted by law, with Federally Recognized Tribes in Alaska prior to taking action or undertaking activities that affect Federally Recognized Tribes, their assets, rights, services, or programs. The BLM actions shall favor maximum participation of Federally Recognized Tribes in Alaska with a goal of informed decision making through consultation and collaboration.

- To the extent practicable, ensure that any actions likely to affect any land or water use or natural resource of the coastal zone be consistent with the enforceable policies of the Alaska Coastal Management Program.
- Notify the manager of the appropriate Federal conservation system unit of any proposed activity or use that may affect the unit. An opportunity for comment will also be offered.

DEFINITIONS

Aquatic: Relating to streams, rivers, springs, lakes, ponds, reservoirs, and other water bodies; plants and animals that live within or are entirely dependent upon water to live.

Assessment: A form of evaluation based on the standards of land health, conducted by an interdisciplinary team at the appropriate landscape scale (project area, sub-watershed, watershed, etc.) to determine conditions relative to standards.

Authorized Officer: Any person authorized by the Secretary of the Interior to administer the laws and regulations pertaining to public lands.

Biodiversity or Diversity: The variety of plants and animals that occupy a landscape. Includes species diversity and genetic variations within species.

Crust, Biotic (microbiotic or cryptogrammic crust): A layer of living organisms (mosses, lichens, liverworts, algae, fungi, bacteria, and/or cyanobacteria) occurring on, or near, the soil surface.

Ecosystem: Organisms together with their abiotic environment forming an interacting system.

Energy Flow: The process in which solar energy is converted to chemical energy through photosynthesis and passed through the food chain until it is eventually dispersed through respiration and decomposition.

Erosion: The wearing away of land/soil by water, wind, gravitation, or other geologic agents. Often categorized into sheet erosion (even, overland flow), rill erosion (numerous but small channels), and gully erosion (less numerous, but more major channels). Natural erosion occurs under natural conditions (without the influence of man's activities).

Floodplain: The land area adjacent to a stream which is periodically flooded; an important component function of a riparian area.

Functioning Physical Condition: A characteristic of a component of an ecosystem, usually a portion of a landscape or watershed that indicates the degree of sustainability of that component; a balance between ecosystem components sought in order to assure continued production of desired resources.

Goals: A general description of a desired future condition (e.g., improve watershed conditions, achieve a desired plant community).

Groundwater: Water in the ground in the zone of saturation; water in the ground at or below the water table.

Guideline: Practices, methods, techniques, and considerations used to ensure that progress is made in a way and at a rate that achieves the standard.

Habitat: The natural abode of a plant or animal that provides food, water, shelter, and other biotic, climatic, and soil factors necessary to support life.

Indicators: Parameters of ecosystem function that are observed assessed, measured, or monitored to directly or indirectly determine attainment of a standard(s).

Infiltration: The downward entry of water into the soil.

Interdisciplinary Team: A team of varied land use and resource specialists formed to provide a coordinated, integrated information base for overall land use planning and management.

Interested Public: An individual, group, or organization who submits a written request to the authorized officer requesting an opportunity to be involved in the decision making process.

Landscape: A defined area that forms a management unit or basis of analysis.

Landform: A discernible natural landscape that exists as the result of geological activity, such as a plateau, basin, or mountain. In general, the physical attributes of an area of land, such as slope, exposure, geological origin, soil type, etc.

Litter: Undecomposed or slightly decomposed plant material deposited on the soil surface; a major source of nutrients entering the soil.

Native Species: Any species of plant or animal naturally occurring within a given area of land or body of water; part of the original flora or fauna of the United States; indigenous.

Noxious Weed: An undesirable plant because it is of no forage value (or even toxic) or is capable of invading a community and replacing native species. Also referred to as invasive, non-native species.

Nutrient Cycle: The movement of essential elements and inorganic compounds between the reservoir pool (soil, for example) and the cycling pool (organisms) in the rapid exchange (i.e., moving back and forth) between organisms and their immediate environment.

Organic Matter: Plant and animal residues accumulated or deposited at the soil surface; the organic fraction of the soil that includes plant and animal residues at various stages of decomposition; cells and tissues of soil organisms and the substances synthesized by the soil population.

Permeability: The ease with which gases, liquids, or plant roots penetrate or pass through a bulk mass of soil or layer of soil.

Planning Criteria: The standards, rules, and other factors developed by managers, the public, and interdisciplinary teams for their use in forming judgments about decision making, analysis, and data collection during planning. Planning criteria streamline and simplify the resource management planning actions.

Potential: The ecological condition of an area that is reasonably possible given the physical, biological, social, and economic factors.

Properly Functioning Condition: An attribute of a landform that indicates its ability to produce desired natural resources in a sustained way. When used to refer to a riparian area, expresses the ability of the ecosystem to dissipate energy, filter sediment, transfer nutrients, develop ponds, and channel characteristics to benefit fish production, waterfowl, and other uses, improve water retention and groundwater recharge, develop root masses that improve streambank stability, and support greater biodiversity. In upland landforms, it is an indication of the ecosystem's ability to sustain the natural communities.

Public Lands: Land or interest in land owned by the United States and administered by the Secretary of the Interior through BLM.

Resource Advisory Council: A group of citizens representing a diversity of interests concerned with management of public lands. In Alaska, a statewide body advising the BLM State Director on public land issues and solutions.

Riparian: An area of land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lake shores and streambanks are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not have vegetation dependent on free water in the soil.

Sediment: Soil transported from its point of origin into drainages and streams by water, or relocated from point of origin to other sites by wind.

Sensitive Species: All species that are under status review, have small or declining populations, or live in unique habitats. May also be any species requiring special management. Sensitive species include threatened, endangered, or proposed species as classified by the U.S. Fish and Wildlife Service, or species designated by a State wildlife agency as needing special management.

Significant Progress: When used in reference to achieving a standard: (actions), the necessary land treatments, practices, and/or changes to management have been applied or are in effect; (rate), a rate of progress consistent with the anticipated recovery rate described in plan objectives with due recognition of the effects of climatic extremes (drought, flooding, etc.) fire, and other unforeseen natural occurring events or disturbances.

Soil Moisture: Water contained in the soil; commonly used to describe water in the soil above that water table.

Special Status Species: Species proposed for listing, officially listed, or candidates for listing as threatened or endangered by the Secretary of the Interior under the provisions of the ESA; those listed or proposed for listing by the State in a category implying possibly endangerment or extinction; those designated by each BLM State Director as sensitive.

Species of Local Importance: Species of significant importance to Native American populations (e.g., medicinal and subsistence plant and animals).

Standard: An expression of the physical and biological condition or degree of function necessary to sustain healthy ecosystems.

Threatened and Endangered Species: Plant or animal species listed by the U.S. Fish and Wildlife Service (FWS) pursuant to the ESA as either in danger of becoming extinct or threatened to the degree that their continued existence as a species is in question. Proposed Species: plant or animal species proposed by FWS for listing as Endangered; protected under the ESA. Candidate Species: plant or animal species considered as potentially Threatened but not yet proposed by FWS for listing; not protected by the ESA.

Uplands: Lands above the riparian/wetland area, or active floodplains of rivers and streams; those lands not influenced by the water table or by free or unbound water; commonly represented by tow slopes, alluvial fans, and side slopes, shoulders and ridges of mountains and hills.

Watershed: Land base that contributes to the surface flow of water past a given point. The watershed dimensions are determined by the point past or by runoff flows.

Watershed Function: The principal functions of a watershed include the capture of moisture from precipitation; the storage of moisture within the soil profile; and the release of moisture through subsurface flow, deep percolation to groundwater, evaporation from the soil, and transpiration by live vegetation.

Wetland: Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and which under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Woody: Consisting of wood, such as trees or bushes.

C. Required Operating Procedures

1. Soils

The surface management and site reclamation guidance and principles contained in the following publications, adapted for application in an Arctic or Sub-arctic environment, are applicable to any surface disturbing activity, including but not limited to mining operations, roads, well pads, and other exploration and development activities:

1. United States Department of the Interior and United States Department of Agriculture. 2006. *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development*. BLM/WO/ST-06/021+3071. Bureau of Land Management. Denver Colorado. 84pp.

2. Draft Solid Minerals Reclamation Handbook: 2/9/2001. Bureau of Land Management. 136pp.

a) Objective Soils-1

Minimize soil erosion by avoiding fragile or wet soils that compact easily and by stabilizing disturbed areas as soon as possible. Where permitted operations result in surface disturbance, the soil and vegetation will be returned to its pre-disturbance condition to the extent possible.

Required Operating Procedures

ROP Soils-1a All organic material 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-1f At the conclusion of operations, 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. See ROP Veg-1c for further revegetation guidance.

ROP Soils-1g 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, approved by the BLM prior to construction and maintenance and require “Notices to Proceed” before engaging in development.

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 erosion class (Table A-1).

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

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

ROP Soils-2d Water bars will be placed across reclaimed roads. Spacing will be dependent on road gradient and soil erosion class 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 and alterations of the vegetative composition of a site, such as prescribed burning, seeding, or planting, will be designed to meet objectives based on the ecological 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 invasive non-native plants and noxious weeds; contribute to the diversity of plant communities and plant community composition and structure; and where appropriate support the conservation of threatened and endangered species, other special status species, and species of local importance.

See: *State of Alaska Revegetation Manual*, Stoney Wright, available at http://www.dnr.state.ak.us/ag/pmcweb/PMC_reveg.htm for further guidance.

Required Operating Procedures

ROP Veg-1a Vegetation treatments will be designed to achieve desired conditions expressed as cover types or seral stages within cover types in individual burn, project, or activity plans.

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

ROP Veg-1c In addition to the guidance provided by BLM Manual Section 1745 and Executive Order 13112, site re-vegetation schemes and plans will include the selection of appropriate plant species, seasonal planting considerations, site preparation, planting techniques, temporary site protection methods, monitoring and supplemental actions. Plant species and re-vegetation planning and procedures that foster a moderate to high likelihood of success as determined by project analysis with consideration of the sensitivities associated with the ecoregion (arctic, sub arctic or coastal environments) will be used. Restoration or rehabilitation of site function and minimization of site impacts will be accomplished with the following priority order and preference for re-vegetation:

1. Foster natural re-vegetation where the site will recover naturally and become fully re-vegetated with native species within a reasonable period of time (typically 3 – 5 years). This protocol is appropriate where there is little to no risk of erosion, permafrost degradation or the introduction of invasive non-native plants or noxious weeds.

2. When vegetation recovery is not expected to occur naturally, plant or seed as appropriate.

3. Use locally adapted native plant materials when practicable. See restrictions on the use of non-native material in BLM manual section 1745.

4. Seed used on BLM lands in Alaska will be certified “Noxious Weed Free.” Prior to spreading or releasing seed, seed packages will be tested for weed content at official state seed analysis labs, Manual Section 9015 and EO#13112.

5. Seeding or planting should be repeated until re-vegetation is successful and accepted by the authorized officer.

ROP Veg-1d Seeding and planting of non-native vegetation may be introduced 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; and with environmental analysis and specific approval from the authorized officer.

ROP Veg-1e Operators must prevent and control invasive non-native plant and noxious weed introduction or spread by conducting a pre-disturbance site assessment of the presence of non-native plants or noxious weeds and by cleaning equipment (removing all mud, dirt, oil grease or other material that could carry seed) prior to moving onto BLM-managed lands.

b) Objective Veg-2

Minimize disturbance to vegetation.

Required Operating Procedures

ROP Veg-2a Tree loss shall be kept to a minimum.

ROP Veg-2b Removal of tundra mat and vegetation is prohibited unless necessary (e.g., lode mining) and approved by the authorized officer. Tundra restoration requires extraordinary effort, care and monitoring. Therefore, approval of tundra disturbance requires pre-disturbance restoration considerations, e.g. whether to actively re-vegetate a site or whether to let it re-vegetate on its own, and depending on the scale of disturbance may require the development of a scientifically-based restoration plan using native plants to facilitate long-term recovery.

See, Cargill, Susan M. and F. Stuart Chapin III. 1987. *Application of successional theory to tundra restoration: a review*. Arctic and Alpine Research. 19(4): 366-372; Chapin III, F. Stuart and Melissa C. Chapin. 1980. *Revegetation of an arctic disturbed site by native tundra species.* Journal of Applied Ecology. 17:449-456; Chapin III, F. Stuart and Melissa C. Chapin. 1980. *Revegetation of an arctic disturbed site by native tundra species*. Journal of Applied Ecology. 17:449-456.

ROP Veg-2c Clearing of snow is allowed to the extent that tundra mat is not disturbed.

ROP Veg-2d Where possible use existing roads and trails. In the absence of road or trail access or water or aircraft access, winter is the preferred season of access.

ROP Veg-2e Winter trails or ice roads will be located and designed 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 subsequent years.

ROP Veg-2f Where possible, ground operations, including heavy equipment overland moves, will occur when frost and snow cover are at sufficient depths to prevent long-term damage to tundra or wetland vegetation and soils. Ground operations will be avoided during spring break-up.

ROP Veg-2g When ground operations are required in snow-free months, routes that utilize naturally hardened sites will be selected to avoid trail braiding. Methods and techniques will be employed to minimize vegetation and soil disturbance, e.g. the use of air or watercraft, utilization of existing roads or trails, and/or the use of low ground pressure vehicles and equipment. Ground operations will be avoided during spring break-up.

ROP Veg-2h Mining and oil and gas operations, facilities, and infrastructure will be designed and located to minimize a development's footprint.

ROP Veg-2i Off-highway Vehicle use will comply with OHV designations in the area and may be subject to further restrictions to protect vegetation, soils or wildlife habitat.

ROP Veg-2j Reindeer and livestock grazing will be conducted in a manner that maintains long term productivity of vegetation. Domesticated animals will not be permitted to graze in such a way as to negatively impact riparian zones. In areas of low forage capacity or capability, operators will pack in weed-free animal feed.

ROP Veg-2k Where available, Special Recreation Permit holders, dog mushers, and other BLM permit holders will use certified weed-free products (hay, straw, bedding, feed) on BLM lands.

c) Objective Veg-3
Avoid unnecessary or undue degradation of land health by preventing invasive and noxious weed introduction and spread in all areas.

Required Operating Procedures

ROP Veg-3a All use authorizations involving ground disturbance will include weed prevention stipulations.

ROP Veg-3b Cooperate with state and adjacent landowners to prevent and manage invasive weed infestations.

3. Water, Riparian, and Wetlands

Every effort will be made to preserve fresh water resources, the hydrological, biological and chemical functions of their ecosystems and the ecologic processes that affect fresh water resources. Minimally, all lessees, permittees, claimants, and persons authorized to utilize Federal Public Lands will comply with all Federal, State and local water quality statutes, regulations, and ordinances including but not limited to the Clean Water Act as amended, codified generally as 33 U.S.C. §§ 1251-1387, the Safe Drinking Water Act as amended, 42 U.S.C. § 300f et seq., and Title 18 of the Alaska Administrative Code, Chapter 80.

a) Objective Water-1

Maintain the quality of surface and ground water to support beneficial uses.

Required Operating Procedures

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

ROP Water-1b Human use will be managed to achieve and maintain water quality standards and to avoid management problems and water quality impacts. Specific management practices will include public education and construction of toilet facilities where appropriate

ROP Water-1c All mining operations shall include plans for surface water discharge (Surface Water Pollution Prevention Plans), acid drainage, tailings, and short and long-term containment pond management.

ROP Water-1d With the exception of necessary extraction operations, mining operations and mineral development support facilities and infrastructure, including but not limited to roads, bunkhouses, offices, ore processing facilities and equipment storage and maintenance facilities and other support operations should be sited in upland areas.

ROP Water-1e Streams must be diverted around mining operations using appropriately sized bypass channels.

ROP Water-1f All process water and ground water seeping into the area of a mining operation must be diverted into settling pond systems for treatment prior to re-entering natural water systems.

ROP Water-1g Settling ponds will be cleaned out and maintained at appropriate intervals. Fine sediment captured in settling ponds will be protected from washout.

ROP Water-1h Settling ponds must be stabilized and secured prior to seasonal mine closures.

ROP Water-1i Overburden should be placed on uplands or on the upland side of mine pits.

ROP Water-1j Fuel and other petroleum products and hazardous materials will be stored in containers designed to hold that product. All fuel containers, including barrels, propane tanks, and hazardous material containers shall be marked with the responsible party's name and contact information, product type, and the year filled and purchased.

ROP Water-1k Fueling operations and storage of fuel, chemicals or hazardous materials on the public lands require secondary containment made from a material that is impervious to the chemical stored.

Secondary containment must have sufficient free space to contain 150% of the volume of the largest single container stored within the secondary containment.

ROP Water-1l The storage of fuel drums, the establishment of stationary fuel storage facilities, and the storage of hazardous material will not occur within riparian zones (from the ordinary high water mark to the outer edge of riparian vegetation) or 100 feet of a water body whichever is greater nor within 500 feet of the active floodplain of any fish-bearing water body.

ROP Water-1m With the exception of watercraft or aircraft, fueling operations for motorized apparatus will not occur in riparian zones (from the ordinary high water mark to the outer edge of riparian vegetation) or 100 feet of a water body whichever is greater nor within 500 feet of the active floodplain of any fish-bearing water body.

ROP Water-1n With the exception of watercraft or aircraft, there shall be no servicing or repair of vehicles or equipment within riparian zones (from the ordinary high water mark to the outer edge of riparian vegetation) or 100 feet of a water body whichever is greater nor within 500 feet of the active floodplain of any fish-bearing water body.

ROP Water-1o With the exception of watercraft or aircraft, no vehicles or motorized equipment shall be left unattended within the floodplain or below the ordinary high water mark of any river, lake or stream.

b) Objective Water-2

Preserve sufficient water quantity to support beneficial uses.

ROP Water-2a Projects requiring water withdrawal, diversion or de-watering will be designed to maintain sufficient quantities of surface and contributing ground water to sustain processes that affect fresh water resources, and to support fish, wildlife and other beneficial uses. Water withdrawal, diversion and de-watering regimes are subject to constraints developed through project specific NEPA analysis.

c) Objective Water-3

Maintain wetland soils and vegetation. Protect the hydrological, biological, and chemical functions and ecological processes of watersheds, floodplains, riparian zones, and wetlands.

Required Operating Procedures

ROP Water-3a Activities in wetlands will comply with Federal and State permit requirements.

ROP Water-3b It is preferred that access and human activity in wetlands occur in the winter months with sufficient snow cover and ground frost to avoid wetland vegetation and soil disturbance. Ground operations in wetlands will be avoided during spring break up.

ROP Water-3c In snow free months, vehicle and equipment use in wetlands should be limited to low ground pressure vehicles and equipment.

ROP Water-3d Avoid motorized vehicle use in road less or trail less wetlands.

ROP Water-3e Light vehicle (less than 2,000 lb. GVW) use in wetlands is restricted to established roads and trails in the absence of sufficient snow and frost depth to prevent wetland vegetation or soil damage. Light vehicle (less than 2,000 lb. GVW) use in wetlands, regardless of the presence of established roads and trails, will be avoided during spring break-up.

ROP Water-3f Avoid overland heavy equipment moves through floodplains, riparian zones or wetlands. If alternative routing is not feasible, overland moves of heavy equipment through floodplains, riparian zones or wetlands are subject to constraints developed through project specific NEPA analysis. Overland heavy equipment moves will be avoided during spring break-up.

ROP Water-3g Heavy, commercial or exploratory equipment working in wetlands must be placed on mats, or other measures must be taken to mitigate or prevent vegetation and soil disturbance, e.g. ice roads, ice pads, 24 inches of snow cover and 12 inches of ground frost, use of low ground-pressure equipment, etc. Ground operations will be avoided during spring break-up.

ROP Water-3h New structures will be located away from riparian zones or wetlands if the proposed structures conflict with achieving or maintaining riparian zone or wetland function. Existing structures will be used in a way that does not conflict with riparian zone or wetland functions and should be relocated or modified when incompatible.

ROP Water-3i Avoid new road construction or trail development in floodplains, riparian zones or wetlands. Establishment of permanent or semi-permanent access routes in or through floodplains, riparian zones, wetlands or Federal Public Lands is subject to constraints developed through project specific NEPA analysis and/or application of the provisions of 43 CFR §§ 3802.3-1, 3802.3-2(g), 3802.4-2. Permanent or semi-permanent access routes, regardless of purpose, shall be routed and concentrated to minimize habitat fragmentation.

d) Objective Water-4

Maintain proper functioning condition of streams, rivers, and lakes.

Required Operating Procedures

ROP Water-4a Operations will be conducted in such a manner as not to block any stream or drainage system. See ROP MLA-1h for placer mining guidance.

ROP Water-4b Streams altered by channeling or diversion will be restored to a condition that will allow for proper functioning of stream channels, riparian zones, wetlands and watersheds. Active streams will be returned to their natural watercourse or a new channel will be created that approximates the old natural channel in shape, gradient, and meander frequency using a stable channel design. New channels will be designed to enhance the ecological capabilities of the reclaimed site and watershed.

ROP Water-4c Crossing of water 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.

e) Objective Water-5

Maintain proper functioning condition of floodplains and riparian zones. Reduce the potential for flood damage and loss of life and property. Minimize the impacts of floods on human safety, health and welfare. Preserve the natural resources, ecosystems, and other functions of floodplains, and the other beneficial values served by floodplains. Beneficial processes include maintaining the frequency and duration of floodplain and riparian inundation. For administrative purposes, the 100-year floodplain serves as a basis for floodplain management on public land.

Required Operating Procedures

ROP Water-5a Generally, riparian zones (the areas to the outer edges of riparian vegetation) will be maintained as buffer areas between surface disturbing activities and watercourses to protect the integrity of stream banks, regulate light and temperature conditions, and filter sediment. Where riparian zone disturbance is necessary, it will be kept to a minimum and it will be subject to constraints developed through project specific NEPA analysis. Minimally, NEPA analysis will:

- include analysis of the proposed riparian zone disturbance from a holistic watershed perspective with a focus on the hydrological, biological and chemical functions of the watershed's ecosystems and the ecologic processes that affect fresh water resources;
- identify the most sensitive areas of the affected watershed and the impacts of the proposed riparian zone disturbance on those areas; and
- identify the most vulnerable times of the year for the proposed riparian zone disturbance with regard to fisheries, erosion control, habitat use, etc.

See ROP MLA-1h for placer mining guidance.

ROP Water-5b Riparian vegetation, if removed during operations, will be re-established. See ROP Veg-1c for guidance.

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

ROP Water 5d New structures will be located away from riparian zones or wetlands if their development conflicts with achieving or maintaining riparian zone or wetland function. Existing structures will be used in a way that does not conflict with riparian zone or wetland functions and should be relocated or modified when incompatible.

ROP Water 5e The establishment of permanent mining operations or oil and gas facilities within the area from the ordinary high water mark or the mean high water mark of water bodies to the outer edge of riparian vegetation or 500 feet, whichever is greater, will be approved only if it can be demonstrated to the satisfaction of the authorized officer that impacts to fish, water quality, and aquatic and riparian habitats will be minimal. See ROP MLA-1h for placer mining guidance.

f) Objective Water-6

Reduce the risk of flood loss, minimize the impact of floods on human safety, health and welfare and restore or preserve the natural and beneficial values served by floodplains. Avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains.

ROP Water 6a Development within floodplains will be avoided. The following pre-development actions are required where there is no practical alternative to floodplain development:

- determine whether the proposed development will occur within a floodplain;
- consider alternatives to avoid adverse effects and incompatible development in floodplains;
- design or modify a development proposal to minimize potential harm to or within a floodplain;
- prepare and circulate a public notice containing an explanation of why the development is proposed for location in a floodplain.

See Executive Order 11988.

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.

The planning area may now or hereafter contain plants, animals, or 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 including completion of any required procedure for conference or consultation.

Required Operating Procedures

ROP SS-1a Within the migratory range of Steller's eiders, habitat in the project area will be assessed prior to commencing activity to determine if eiders are likely to use the area. Consistent with U.S. Fish and Wildlife Service recommendations, the following activities will be prohibited within 650 feet (200 meters) of flocking, molting or staging Steller's eiders:

1) ground level activity (by foot or vehicle) from April 15 through October 1;
2) construction of permanent facilities, placement of fill, or alteration of habitat; and
3) introduction of high noise levels, April 15 through October 1. Activities that may also be restricted include but are not limited to blasting, discharge of firearms, and compressor stations. See ROP FW-3c for recommended aircraft operations.

ROP SS-1b Within the breeding range of Kittlitz's murrelet, habitat in the project area will be assessed prior to commencement of the activity to determine if Kittlitz's murrelet's are likely to use the area for nesting. Where nests are found, ground-level disturbance and activity will be minimized from mid May to late August.

ROP SS-1c Where possible, use will be redirected, diminished or avoided to protect Federal and State listed and candidate Threatened and Endangered species or BLM sensitive species or their habitat.

ROP SS-1d Where populations or individual sensitive status plant species are located, measures will be taken 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 on the BLM-Alaska Special Status Species list from direct or indirect impacts associated with development.

At the discretion of the authorized officer and prior to development or establishment of permanent facilities and infrastructure, a mining claim owner, lessee, mineral developer or other authorized user may be required to create an ecological land classification map of the lands and resources to be impacted by development. The map will integrate watershed, geomorphology, surface form, and vegetation detail sufficient in geographic scope and at a scale, level of resolution, and level of accuracy adequate for

analyses of alternative development scenarios. The map will be prepared at the mining claim owner's, lessee's or mineral developer's expense. If required by the authorized officer, the map will also be prepared one year in advance of development to allow for analysis, wildlife and plant surveys.

Required Operating Procedures

ROP SS-2a Development, including mineral exploration, may, at the discretion of the authorized officer, require pre-development surveys to evaluate the presence and habitat use of migratory birds or Listed or sensitive species, including but not limited to Steller's eider and Kittlitz's murrelet. The presence of such species will result in the imposition of constraints established through project specific NEPA analysis.

ROP SS-2b Guy wired apparatus, regardless of purpose, will be marked in accordance with the guidance provided by the United States Fish and Wildlife Service, *Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers,* dated September 14, 2000 or a more current or contemporaneous version of that guidance.

See ROP FW-5a for power line guidance.

5. Fish and Wildlife

a) Objective Fish and Wildlife-1

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

Required Operating Procedures

ROP FW-1a The best demonstrated and available technologies and methods 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 and provide for the habitat needs of fish and wildlife resources necessary to maintain or enhance such populations.

Required Operating Procedures

ROP FW-2a The following provisions apply to river or steam fording:

1. In general, fords should only be considered on small streams for low and infrequent use. A reasonable measure of infrequent use is a level of use that does not cause a noticeable increase in turbidity (i.e. noticeable with the eye) that persists downstream of the crossing.
2. Personnel and equipment (including all terrain vehicles or off highway vehicles) crossings shall be made from bank to bank in a direction substantially perpendicular to the direction of stream flow.
3. Personnel and equipment (including all terrain vehicles or off highway vehicles) crossings shall be made only at locations with gradually sloping banks. There shall be no crossings at locations with sheer or cut banks. Banks shall not be altered or disturbed in any way to facilitate crossings. If stream banks are inadvertently disturbed, they shall be immediately stabilized to prevent erosion.
4. No fill material shall be placed in anadromous streams.
5. Preference shall be given to crossing anadromous streams at existing, historical crossings.
6. To avoid additional freeze-down of deep-water pools harboring over wintering fish, watercourses shall be crossed at shallow riffle areas from point bar to point bar.

7. Compaction or removal of the insulating snow cover from the deep-water pool areas of rivers or streams must be avoided unless approved by the authorized officer and then only on a case-by-case basis if the authorized officer determines the pool is deep enough to prevent complete freeze-down.

ROP FW-2b Vehicular travel up and down streambeds except by watercraft is prohibited unless ice is frozen to a sufficient depth to sustain the activity and the stream banks are a sufficient distance apart to allow for passage without adverse impacts to the banks.

ROP FW-2c Establishment of permanent or semi-permanent access routes into or through Federal Public lands is subject to constraints developed through project specific NEPA analysis and/or application of the provisions of 43 CFR §§ 3802.3-1, 3802.3-2(g), 3802.4-2. Permanent or semi-permanent access routes, regardless of purpose, shall be routed and concentrated to minimize habitat fragmentation.

ROP FW-2d The following provisions apply to the development, construction or use of roads, bridges, and culverts in rivers, streams and wetlands:

1. Bridge and culvert construction shall comply with specifications provided by BLM engineering, hydrology, and fisheries staff, the Alaska Department of Natural Resources and other appropriate agencies.
2. Bridge and culvert design and installation shall incorporate established techniques, modified where necessary for implementation in an Arctic or Sub-arctic environment, such as those found in:
    a. Stream Crossing Design Procedure for Fish Streams on the North Slope Coastal Plain, by G.N. McDonald & Associates, dated June 1994;
    b. Forest Practices Technical Note Number 4: *Fish Passage Guidelines for New and Replacement Stream Crossing Structures*, by the Oregon Department of Forestry, dated May 10, 2002;

   and other pertinent and appropriate guidance.
3. Bridge and culvert designs and installations shall account for the effects of channel scour and constriction.
4. River, stream and wetland crossings and culvert installations shall be designed and constructed to ensure free passage of fish, maintain natural stream bedload movement and sediment transport and minimize adverse affects on natural stream flow.
5. No road crossings shall be permitted in crucial spawning habitat, unless no feasible alternative exists and it can be demonstrated to the satisfaction of the authorized officer that no long-term adverse effects will occur.
6. 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.
7. Roads will cross riparian zones and water courses perpendicular to the main channel.

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

ROP FW-2f Drilling is prohibited in fish-bearing rivers and streams, as determined by the active floodplain, and fish-bearing lakes, unless the claimant, applicant or lessee can demonstrate on a site-specific basis and to the satisfaction of the authorized officer that impacts would be minimal or it is determined that there is no alternative. If there is no alternative, drilling in fish-bearing rivers, streams and lakes is restricted to winter months and prohibited in over-wintering fish habitat.

d) Objective Fish and Wildlife-3

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

Required Operating Procedures

ROP FW-3a Operations requiring vegetation clearing should avoid migratory bird-nesting areas when birds are present and likely to be nesting/fledging. Approximate dates are:

April 10 to July 15 in forest and woodland habitats;
May 1 to July 15 in open and shrub habitats;
May 10 to September 15 in seabird colony habitat; and
April 10 to August 10 in raptor habitat.

If no feasible alternative exists, qualified personnel will conduct a preliminary site survey within two weeks of an activity's projected start date to establish species' presence. If present, short-term activities will be delayed until the species have left the habitat. Approval of long term or permanent activities is dependant upon NEPA analysis, the extent and duration of impacts and the ability to devise appropriate mitigation measures.

(FWS Advisory: Recommended Time Periods for Avoiding Vegetation Clearing in Alaska in order to Protect Migratory Birds. 2007).

ROP FW-3b Minimize human interference with the Mulchatna, Northern Alaska Peninsula or Nushagak caribou herds during the following critical periods:

Calving aggregations (May 15 to June 15),
Post calving aggregations (June 15 to July 15) or
Insect relief aggregations (June 15 to August 31).

If no feasible alternative exists, qualified personnel will conduct a preliminary site survey within the two week period prior to an activity's projected start date to establish caribou presence. No activity will commence prior to May 1 in suspected caribou calving habitat or June 1 in suspected post-calving or insect relief caribou habitat. If caribou are present, temporary activities will be delayed until caribou have left the habitat. Approval of long term or permanent activities is dependant upon NEPA analysis, the extent and duration of impacts, particularly habitat fragmentation and the propensity to displace the animals, and the ability to devise appropriate mitigation measures.

This ROP would not apply under Alternative B.

ROP FW-3c Follow Federal Aviation Administration Advisory Circular No: 91-36D for voluntary practices in wildlife habitat:

a. Avoidance of noise-sensitive areas, if practical; is preferable to over flight at relatively low altitudes.

b. Pilots operating noise producing aircraft (fixed-wing, rotary-wing and hot air balloons) over noise-sensitive areas should make every effort to fly not less than 2,000 feet above ground level (AGL), weather permitting. For the purpose of this AC, the ground level of noise-sensitive areas is defined to include the highest terrain within 2,000 feet AGL laterally of the route of flight, or the uppermost rim of a canyon or valley. The intent of the 2,000 feet AGL recommendation is to reduce potential interference with wildlife and complaints of noise disturbances caused by low flying aircraft over noise-sensitive areas.

c. Departure from or arrival to an airport, climb after take-off, and descent for landing should be made so as to avoid prolonged flight at low altitudes near noise-sensitive areas.

d. This advisory does not apply where it would conflict with Federal Aviation Regulations, air traffic control clearances or instructions, or where an altitude of less than 2,000 feet AGL is considered necessary by a pilot to operate safely.

ROP FW-3d From October 31 through April 1, avoid mineral exploration and prospecting in areas identified by the Alaska Department of Fish and Game as caribou wintering habitat.

If no feasible alternative exists, no activity will commence prior to November 15 and qualified personnel will conduct a preliminary site survey within the two-week period prior to an activity's projected start date to establish caribou presence. If caribou are present, temporary activities will be delayed until caribou have left the habitat. Approval of long term or permanent activities is dependant upon NEPA analysis, the extent and duration of impacts, particularly habitat fragmentation and the propensity to displace the animals, and the ability to devise appropriate mitigation measures.

This ROP would not apply under Alternative B.

ROP FW-3e From May 1 through August 31, avoid human intrusion within one-quarter mile of trumpeter swan nests and rearing ponds.

If no feasible alternative exists, no activity will commence prior to May 15 and qualified personnel will conduct a preliminary site survey within the two-week period prior to an activity's projected start date to establish trumpeter swan presence. If present, short-term activities will be delayed until after nesting trumpeter swans and cygnets have left the habitat. Approval of long term or permanent activities is dependant upon NEPA analysis, the extent and duration of impacts, particularly the propensity to displace the animals, and the ability to devise appropriate mitigation measures.

ROP FW-3f From April 1 to August 31, human intrusion within 200 meters (656 feet) of bald eagle nests is prohibited absent written approval from the United States Fish and Wildlife Service.

See ROP FW-3c regarding aircraft use.

ROP FW-3g Comply with constraints for other nesting raptors as developed through project specific NEPA analysis.

e) Objective Fish and Wildlife-4

Minimize disruption of wildlife movement and subsistence use.

Required Operating Procedures

ROP FW-4a Pipelines and roads will be designed to allow for the free movement of wildlife and the safe, unimpeded passage of the public while participating in traditional subsistence activities.

ROP FW-4b Establishment of permanent or semi-permanent ingress and egress into or through Federal Public lands is subject to constraints developed through project specific NEPA analysis and/or application of the provisions of 43 CFR §§ 3802.3-1, 3802.3-2(g), 3802.4-2. Permanent or semi-permanent access routes, regardless of purpose, shall be routed and concentrated to minimize habitat fragmentation.

f) Objective Fish and Wildlife-5

Minimize the potential for electrocution of raptors.

Required Operating Procedures

ROP FW-5a Power lines will be designed, constructed and installed in accordance with standards outlined in *Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006* (APLIC 2006).

g) Objective Fish and Wildlife-6

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-6a This ROP applies to the East and South Fork Arolik River, Faro Creek, South Fork Goodnews River, and Klutuk Creek.

Any proposal to use or develop the lands, waters, or resources within active stream channels or within 300 feet of the banks of active stream channels must demonstrate to the satisfaction of the authorized officer 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 water courses.

This ROP would not apply under Alternative B.

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 a proposed activity;

2. Permittees may be required to provide information to potentially affected subsistence communities regarding the timing, siting, and scope of the proposed activity;

3. Permittees may be required to consult with potentially affected subsistence communities regarding ways to minimize impacts to subsistence.

ROP Sub-1b Special Recreation Permittees permitted for commercial guiding by the State of Alaska will be granted a Special Recreation Permit only for the guide use areas for which they are licensed by the State.

ROP Sub-1c The permit of a Special Recreation Permittee convicted of trespass or subject to a civil judgment in trespass where the trespass occurred while under a BLM Special Recreation Permit may be suspended.

7. Cultural and Paleontological

a) Objective Cultural and Paleontological-1

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 authorized officer. 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.

b) Objective Cultural and Paleontological-2

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

Required Operating Procedures

ROP C-2a Avoid damage to identified significant paleontological resources.

ROP C-2b Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by an user, permittee or claimant or any person working on their behalf on public land will be immediately reported to the authorized officer. The user, permittee or claimant or any person working on their behalf will suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. This may

include the professional collection and analysis of significant specimens by scientists. After scientific study, appropriate mitigation measures will be developed and implemented.

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 To the extent practicable, 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 To the extent practicable, 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 To the extent practicable, modification or disturbance of landforms and vegetative cover will be minimized.

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

ROP VRM-1f To the extent practicable, 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-1

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

ROP FM-1a Permittees 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 shall not be held responsible for protection of permittees structures or their personal property. It is the responsibility of permittees and lessees 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 shall be equipped with manufacturer approved and functional spark arrestors.

ROP FM-1d To avoid 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 Landmarks,
- 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 should 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, introduction or spread of invasive non-native plants or noxious weeds or contribution to stream channel sedimentation.

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

ROP FM-1g Rehabilitate impacts due to suppression activities as needed, guided by the fire specific rehabilitation plan provided by the Filed Office to the fire protection agency.

ROP FM-1h Burn plans for large burns will prescribe conditions that result in a mosaic of burned and unburned areas within the burn unit.

ROP FM-1i 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 combustibility.

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 harvest and subsequent management of harvested lands will comply with the Alaska Forest Resources and Practices Act (FRPA, AS 41.17). When possible, natural regeneration through proper site preparation will be the preferred means of reforestation. When planting is necessary to meet reforestation objectives, native species compatible with the site potential will be used. When native species will not meet objectives, non-native species may be used following site specific NEPA analysis and authorized officer approval.

ROP Forest-1b Timber harvest plans will include buffers to prevent impacts to fish habitat and possible introduction of 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 zones. *See* the Alaska Forest Resources and Practices Act (FRPA, AS 41.17) for minimum buffers and operational standards.

ROP Forest-1c Wildlife, fisheries, plant conservation, fire and fuels objectives will be considered when planning forest product harvests.

11. Lands and Realty

a) Objective Lands and Realty-1

Use and develop BLM-managed public lands in a responsible manner that benefits the public while preventing unnecessary degradation of the land, its resources or the environment.

Required Operating Procedures

ROP LR-1a A holder of a BLM right-of-way grant shall not allow any use of the right-of-way by another entity without the prior written authorization of the authorized officer.

ROP LR-1b Prior to BLM's authorization of additional uses within a right-of-way, the authorized officer will consult the holder of the right-of-way and determine whether the proposed additional use will interfere with the purposes for which the original right-of-way was granted.

ROP LR-1c Snow ramps may be constructed at stream crossings to accommodate overland heavy equipment moves. Blading of steam or river banks however is not permitted. Any ramps which may cause stream blockages during breakup will be removed after crossings are completed.

ROP LR-1d During an overland heavy equipment move, all motorized equipment shall travel under its own power or be towed on an appropriate sized sled. Broken down equipment will be repaired on-site and not towed unless the break down occurs while crossing a river, lake or pond.

ROP LR-1e During an overland move, new trail segments will be routed to avoid heavy stands of tall shrub or timber.

ROP LR-1f No fuel barrels, waste oil, garbage or equipment are to be abandoned along any trails or on Federal Public Lands.

ROP LR-1g The permittee will notify the authorized officer when starting an overland move and when the move is completed.

12. Mineral Materials

The surface management and site reclamation guidance and principles contained in the following publications, adapted for application in an Arctic or Sub-arctic environment, may be applicable to mineral material development:

1. United States Department of the Interior and United States Department of Agriculture. 2006. *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development*. BLM/WO/ST-06/021+3071. Bureau of Land Management. Denver Colorado. 84pp.

2. Draft Solid Minerals Reclamation Handbook: 2/9/2001. Bureau of Land Management. 136pp.

The guidance and principles contained in the following publications, adapted for application in an Arctic or Sub-arctic environment, are, to the extent they are found appropriate by the authorized officer, applicable to mineral material development:

1. *Placer Mining in Alaska: A Guide to Mitigation and Reclamation*, (Bureau of Land Management publication BLM-AK-GI-89021-3809-918);

2. McCulloch, R.B., Ihie, B., Ciliberti, V., Williams, M., 1993, *Montana Placer Mining BMPs (Best Management Practices): Guidelines for Planning, Erosion Control, and Reclamation*, Montana Bureau of Mines and Geology, Special Publication 106.

3. Packer, D. B., K. Griffin, and K. E. McGlynn. 2005. National Marine Fisheries Service *National Gravel Extraction Guidance*. U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-F/SPO-70, 27p.

At the discretion of the authorized officer and prior to mineral material development a developer may be required to create an ecological land classification map of the lands and resources to be impacted by development. The map will integrate watershed, geomorphology, surface form, and vegetation detail sufficient in geographic scope and at a scale, level of resolution, and level of accuracy adequate for analyses of alternative development scenarios. The map will be prepared at the mining claim owner's, lessee's or mineral developer's expense. If required by the authorized officer, the map will also be prepared one year in advance of development to allow for analysis and wildlife surveys.

a) Objective Mineral Materials-1

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

Required Operating Procedures

ROP MM-1a Upland sources, terraces and inactive floodplains shall be used for mineral material extraction preferentially over active or inactive stream and river channels, deltas, wetlands, riparian zones, active floodplains, or lakes.

ROP MM-1b Mineral material extraction from anadromous streams and fish spawning or rearing habitat is prohibited.

ROP MM-1c Avoid mineral material extraction from habitats critical to wildlife populations (i.e. calving areas, raptor nesting sites, etc.). Sites directly affecting these habitats should not be considered unless alternative sites are not available.

ROP MM-1d Avoid mineral material extraction in vegetated habitats. If mining in vegetated areas, all overburden, vegetative slash, and debris shall be saved for use during site reclamation. This material should be stock piled or broadcast so that it will not be washed away. *See* ROP Veg-1c for re-vegetation guidance.

ROP MM-1e Mineral material extraction from lakes, active floodplains, riparian zones, wetlands, deltas, lakes, and active or inactive stream or river channels should be avoided and is subject to constraints developed through project specific NEPA analysis.

ROP MM-1f Avoid key geomorphic features such as beach barrier dunes, 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-1g When scraping gravel in active or inactive floodplains, maintain buffers that will constrain active channels to their original locations and configurations.

ROP MM-1h All mineral material extraction authorizations, permits and sales shall include stipulations to prevent the introduction and/or spread of invasive non-native plants and noxious weeds.

b) Objective Mineral Materials-2

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

Required Operating Procedures

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

13. Mining Law Administration

The surface management and site reclamation guidance and principles contained in the following publications, adapted for application in an Arctic or Sub-arctic environment, are applicable to mining operations:

1. United States Department of the Interior and United States Department of Agriculture. 2006. *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development*. BLM/WO/ST-06/021+3071. Bureau of Land Management. Denver Colorado. 84pp.

2. Draft Solid Minerals Reclamation Handbook: 2/9/2001. Bureau of Land Management. 136pp.

The guidance and principles contained in the following publications, adapted for application in an Arctic or Sub-arctic environment, are, to the extent they are found appropriate by the authorized officer, applicable to placer mining operations:

1. *Placer Mining in Alaska: A Guide to Mitigation and Reclamation*, (Bureau of Land Management publication BLM-AK-GI-89021-3809-918);

2. McCulloch, R.B., Ihie, B., Ciliberti, V., Williams, M., 1993, *Montana Placer Mining BMPs (Best Management Practices): Guidelines for Planning, Erosion Control, and Reclamation*, Montana Bureau of Mines and Geology, Special Publication 106.

At the discretion of the authorized officer and prior to mine development a mining claimant may be required to create an ecological land classification map of the lands and resources to be impacted by development. The map will integrate watershed, geomorphology, surface form, and vegetation detail sufficient in geographic scope and at a scale, level of resolution, and level of accuracy adequate for analyses of alternative development scenarios. The map will be prepared at the mining claim owner's, lessee's or mineral developer's expense. If required by the authorized officer, the map will also be prepared one year in advance of development to allow for analysis and wildlife surveys.

The owner of a mineral development will employ the best demonstrated and available technologies and best management practices for managing the health of the natural environment. All aspects of environmental management, including but not limited to air quality, surface water discharge management, acid drainage management, tailings management, short and long-term containment pond management, watershed management, site reclamation and the financing of such activities are the sole responsibility of the owner of a mineral development. A person of ordinary prudence should consider the financial costs associated with environmental management and restoration when contemplating the development of a mineral interest.

a) Objective Mineral Development-1

Prevent unnecessary or undue degradation of the land, its resources or the environment.

Required Operating Procedures

ROP MLA-1a It is preferred that ground operations associated with mineral exploration occur in the winter months with adequate snow cover and frost depth.

ROP MLA-1b Use existing access routes during the season for which the route was designed and developed.

ROP MLA-1c Establishment of permanent or semi-permanent ingress and egress into or through Federal Public lands is subject to constraints developed through project specific NEPA analysis and/or application of the provisions of 43 CFR §§ 3802.3-1, 3802.3-2(g), 3802.4-2. Permanent or semi-

permanent access routes, regardless of purpose, shall be routed and concentrated to minimize habitat fragmentation.

ROP MLA-1d Mining Plans of Operation shall include provisions for surface water discharge management (Surface Water Pollution Prevention Plans), acid drainage management, tailings management and short and long-term containment pond management.

ROP MLA-1e All mining operation sites will be rehabilitated to a condition that is ecologically consistent with the site potential and the surrounding undisturbed ecoregion.

ROP MLA-1f Upon closure of mining operations, all tailings, dumps, mining improvements, deleterious materials and substances, contaminants, and hazardous and solid waste, including scrap steel, derelict mining machinery and parts will be disposed of in accordance with applicable Federal and State laws and regulations.

ROP MLA-1g Include stipulations to prevent the introduction and/or spread of invasive non-native plants and noxious weeds in all Plan of Operation approvals.

14. Hazardous Materials and Waste Management

a) Objective Hazardous Materials and Waste-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 shall be left clean of all debris.

ROP Hazmat-1b Hazardous and other regulated wastes shall be properly managed by the generator as required by all applicable Federal and State laws and regulations.

b) Objective Hazardous Materials and Waste-2

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

Required Operating Procedures

ROP Hazmat-2a **P**recautions shall be taken to avoid attracting wildlife to food and garbage.

ROP Hazmat-2b Burial of garbage is prohibited. All putrescible waste shall be incinerated, backhauled, or composted in a manner approved by the Authorized Officer. All unburnable solid waste shall be disposed of in an approved waste-disposal facility in accordance with U.S. Environmental Protection Agency (EPA) and Alaska Department of Environmental Conservation (ADEC) regulations and procedures.

ROP Hazmat-2c Burning of trash, litter, trees brush or other vegetative material must be approved by the authorized officer.

c) Objective Hazardous Materials and Waste-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 shall be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. The plan shall include a set of procedures to ensure prompt response, notification, and cleanup in the event of a hazardous substance spill or threat of a release. The plan shall include a list of resources available for response (e.g., heavy-equipment operators, spill-cleanup materials or companies), and names and phone numbers of Federal and State contacts.

ROP Hazmat-3b The authorized user, claimant or permittee provide BLM with 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 Fuel and other petroleum products and hazardous materials will be stored in containers designed to hold that product. All fuel containers, including barrels, propane tanks, and hazardous material containers shall be marked with the responsible party's name and contact information, product type, and the year filled and purchased.

ROP Hazmat-3d Fueling operations and storage of fuel, chemicals or hazardous materials on the public lands require secondary containment made from a material that is impervious to the chemical stored. Secondary containment must have sufficient free space to contain 150% of the volume of the largest single container stored within the secondary containment.

ROP Hazmat-3e The storage of fuel drums, the establishment of stationary fuel storage facilities, and the storage of hazardous material will not occur within riparian zones (from the ordinary high water mark to the outer edge of riparian vegetation) or 100 feet of a water body whichever is greater nor within 500 feet of the active floodplain of any fish-bearing water body.

ROP Hazmat-3f With the exception of watercraft or aircraft, fueling operations for motorized apparatus will not occur in riparian zones (from the ordinary high water mark to the outer edge of riparian vegetation) or 100 feet of a water body whichever is greater nor within 500 feet of the active floodplain of any fish-bearing water body.

ROP Hazmat-3g With the exception of watercraft or aircraft, there shall be no servicing or repair of vehicles or equipment within riparian zones (from the ordinary high water mark to the outer edge of riparian vegetation) or 100 feet of a water body whichever is greater nor within 500 feet of the active floodplain of any fish-bearing water body.

ROP Hazmat-3h With the exception of watercraft or aircraft, no vehicles or motorized equipment shall be left unattended within the floodplain or below the ordinary high water mark of any river, lake or stream.

ROP Hazmat-3i The Responsible Party shall immediately clean-up all oil or hazardous substance spills, taking precedence over all other matters, except the health and safety of personnel.

ROP Hazmat-3j Use of pesticides will comply with applicable Federal and State laws. Pesticides will be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the authorized user or permittee will obtain from the authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other

information deemed necessary by the authorized officer. The plan should be submitted no later than December 1st of any calendar year to cover the proposed activities for the next fiscal year. Emergency use of pesticides will be approved in writing by the authorized officer prior to such use. Pesticide use is subject to case specific NEPA analysis.

15. Oil and Gas Exploration and Development

The surface management and site reclamation guidance and principles contained in the following publication, adapted for application in an Arctic or Sub-arctic environment, are applicable to oil and gas exploration and development:

> United States Department of the Interior and United States Department of Agriculture. 2006. *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development*. BLM/WO/ST-06/021+3071. Bureau of Land Management. Denver Colorado. 84pp.

At the discretion of the authorized officer and prior to development or establishment of permanent facilities and infrastructure, a mining claim owner, lessee or mineral developer may be required to create an ecological land classification map of the lands and resources to be impacted by development. The map will integrate watershed, geomorphology, surface form, and vegetation detail sufficient in geographic scope and at a scale, level of resolution, and level of accuracy adequate for analyses of alternative development scenarios. The map will be prepared at the mining claim owner's, lessee's or mineral developer's expense. If required by the authorized officer, the map will also be prepared one year in advance of development to allow for analysis and wildlife surveys.

a) Objective Oil and Gas Exploration and Development-1

Prevent unnecessary or undue degradation of the land, its resources or the environment.

Required Operating Procedures

ROP OG-1a It is preferred that ground operations associated with oil and gas exploration occur in the winter months with adequate snow cover and frost depth to avoid vegetation and soil disturbance.

ROP OG-1b Establishment of permanent or semi-permanent ingress and egress into or through Federal Public lands is subject to constraints developed through project specific NEPA. Permanent or semi-permanent access routes, regardless of purpose, shall be routed and concentrated to minimize habitat fragmentation.

ROP OG-1c In fluid mineral development, where mud, cuttings and other wastes are stored on the surface, they must be stored in lined and bermed areas and disposed of before spring break-up to reduce the potential for watershed degradation.

ROP OG-1d All authorizations and leases for oil and gas exploration and development shall include stipulations to prevent the introduction and/or spread of invasive non-native plants and noxious weeds.

D. Oil and Gas Lease Stipulations and Standard Lease Terms

1. Introduction

The following information pertaining to lease stipulations is taken from the booklet, "Uniform Format For Oil And Gas Lease Stipulations," prepared by the Rocky Mountain Regional Coordinating Committee in March, 1989. These guidelines were developed by the Bureau of Land Management (BLM) and the Forest Service.

Stipulations are conditions, promises, or demands that are to be made part of a lease when the environmental and planning record demonstrates the necessity for the stipulations. Stipulations, as such, are neither "standard" nor "special," but rather a necessary modification of the terms of the lease. The stipulation forms, given at the end of this appendix, provide for standardized structure, wording, and usage. In order to accommodate the variety of resources encountered on Federal lands, these stipulations are categorized as to how the stipulation modifies the lease rights, not by the resource(s) to be protected. What, why, and how this mitigation/protection is to be accomplished is determined by the land management agency through land management planning and National Environmental Policy Act (NEPA) analysis.

IMPLEMENTATION

If upon weighing the relative resource values, uses, and/or users it is determined that conflict with oil and gas operations exist which cannot be adequately managed under the BLM Standard Lease Terms (SLTs), a lease stipulation is necessary. Land use/management plans serve as the primary vehicle for determining the necessity for lease stipulations (BLM Manual 1624). Documentation of the necessity for a stipulation is disclosed in planning documents or through site-specific analysis. Land management plans and/or NEPA documents also establish the guidelines by which future waivers, exceptions, or modifications may be granted. Substantial modification or waiver subsequent to lease issuance is subject to public review for at least a 30-day period in accordance with Section 5102.f of the Federal Onshore Oil and Gas Leasing Reform Act of 1987. Stipulations may be necessary if the authority to control the activity on the lease does not already exist under laws, regulations, or orders. It is important to recognize that the authorized officer has limited authority to modify the site location and design of facilities, control the rate of development and timing of activities as well as require other mitigation under Sections 2 and 6 of the SLTs (BLM Form 3100-11) and 43 CFR 3101.1-2. Specifically, the SLTs allow the authorized officer to move a well or other facility site up to 200 meters or delay operations for up to 60 days in a year.

The necessity for individual lease stipulations is documented in the lease-file record with reference to the appropriate land management plan or other leasing analysis document. The necessity for exceptions, waivers, or modifications also will be documented in the lease-file record through reference to the appropriate plan or other analysis. The uniform format for stipulations should be implemented when amendments or revisions of land management plans are prepared or by other appropriate means.

The uniform format for stipulations is designed to accommodate most existing stipulations by providing space to record the local mitigation objectives. The stipulations have been developed for the categories of:

No surface occupancy (NSO)
Timing or seasonal limitations (TL)
Limited surface use (LSU).

This guidance also includes the use of information notices. Also, there is provision for special or unique stipulations, such as those required by prior agreements between agencies when the standardized forms

are not appropriate. In all cases, use of the uniform forms for stipulations require identification of specific resource values to be protected and description of the specific geographical area covered. Stipulations attached to noncompetitive leases require the applicant's acceptance and signature.

DEFINITIONS:

Conditions of Approval (COA): Conditions or provisions (requirements) under which an Application for a Permit to Drill or a Sundry Notice is approved.

Limited Surface Use (LSU): Use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational constraints that may modify the lease rights. LSU is used for operating guidance, not as a substitute for the NSO or timing stipulations.

Exception: Case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply.

Information Notice (IN): Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. An information notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions. Information notices attached to leases should not be confused with Notices to Lessees (NTL). (See 43 CFR 3160.0-5).

Modification: Fundamental change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Therefore, a modification may include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria apply.

No Surface Occupancy (NSO): Use or occupancy of the land surface for fluid mineral exploration or development is prohibited to protect identified resource values. The NSO stipulation includes stipulations that may have been worded as “No Surface Use/Occupancy,” “No Surface Disturbance,” “Conditional NSO,” and “Surface Disturbance or Surface Occupancy Restriction (by location).”

Notice to Lessees (NTL): The NTL is a written notice issued by the BLM authorized officer. NTLs implement regulations and operating orders, and serve as instructions on specific item(s) of importance within a State, District, or Area.

Stipulation: A provision that modifies standard lease rights and is attached to and made a part of the lease.

Timing Limitation (Seasonal restriction): Prohibits surface use during specified time periods to protect identified resource values. This stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the continued need for such mitigation and that less stringent, project-specific mitigation measures would be in sufficient.

Waiver: Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

STIPULATION GUIDANCE:

No Surface Occupancy Stipulation Guidance

The No Surface Occupancy (NSO) stipulation is intended for use only when other stipulations are determined insufficient to adequately protect the public interest. The land management plan/NEPA document prepared for leasing must show that less restrictive stipulations were considered and determined by the authorized officer to be insufficient, i.e. show why the NSO stipulation is needed. The planning/NEPA record must also show that consideration was given to a no-lease alternative when applying an NSO stipulation. An NSO stipulation is not needed if the desired protection would not require relocation of proposed operations by more than 200 meters (43 CFR 3101.1-2).

The legal subdivision, distance, location, or geographic feature, and resource value of concern must be identified in the stipulation and be tied to a land management plan and/or NEPA document. Land description may be stated as:

- The "Entire Lease"
- Distance from resources and facilities such as rivers, trails, campgrounds, etc.
- Legal description
- Geographic feature such as a 100-year floodplain
- Municipal watershed, percent of slope, etc.
- Special areas with identified boundaries—area of critical environmental concern, wild and scenic river, etc.
- Other description that specifies the boundaries of the lands affected.

The estimated percent of the total lease area affected by the restriction must be given if no legal or geographic description of the location of the restriction is given. In other cases the estimated percent is optional.

Land management plans and/or NEPA documents should identify the specific conditions for providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications must be supported by appropriate environmental analysis and documentation, and subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the NSO stipulation form to provide the lessee with information or circumstances under which waivers, exceptions, or modifications would be considered. A waiver, exception, or modification may be approved if the record shows that circumstances or relative resource values have changed or that the lessee can demonstrate that operations can be conducted without causing unacceptable impacts, and that less restrictive stipulations will protect the public interest. Waivers, exceptions or modifications can only be granted by the authorized officer. If the waiver, exception, or modification is inconsistent with the land management planning document, that document must be amended or the change disallowed.

If the authorized officer determines, prior to lease issuance, that a stipulation involves an issue of major concern, modification or waiver of the stipulation will be subject to public review (43 CFR 3101.1-4). The land management plan also may identify other cases when a public review is required for a waiver, exception, or modification. In such cases, wording such as the following should be added to the stipulation form to inform the lessee of the required public review: "A 30-day public notice period is required prior to modification or waiver of this stipulation."

TIMING LIMITATION STIPULATION GUIDANCE

The Timing Limitation Stipulation (often called seasonal restrictions) prohibits fluid mineral exploration and development activities for time periods less than yearlong. When using this stipulation, assure that date(s) and location(s) are as specific as possible. A limitation involves the prohibition of activities described in the stipulation for periods of more than 60 days (43 CFR 3101.1-2).

The land management plan/NEPA document prepared for leasing must show that less restrictive stipulations were considered to be insufficient. The environmental effects of exploration, development, and production activities may differ markedly from each other in scope and intensity. If the effects of reasonably foreseeable production activities necessitate timing limitation requirements, this need should be clearly documented in the record. The record also should show that less stringent, project-specific mitigation may be insufficient. In such cases the stipulation language should be modified on a case-by-case basis to clearly document that the timing limitation applies to all stages of activity.

The legal subdivision, distance, location, or geographic feature, and resource value of concern must be identified in the stipulation and be tied to a land management planning and/or NEPA document. The timing limitations for separate purposes may be written on separate forms or as a combined stipulation. During the review and decision-making process for the Application for Permit to Drill (APD) and Sundry Notices, the date(s) and location(s) should be refined based on current information.

2. Standard Oil and Gas Lease Terms

(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 the Federal Oil and Gas Royalty Management Act (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.

3. Stipulation Forms

Serial Number._____

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

Serial Number._____

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

On lands described below:

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

Serial Number._____

CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints.

On lands described below:

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

4. Oil and Gas Lease Stipulations Specific to the Planning Area

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 fish-bearing water bodies, water quality and aquatic habitats.	Stip-2: The establishment of permanent oil and gas support facilities within the area from the ordinary high water mark or the mean high water mark of water bodies to the outer edge of riparian vegetation or 500 feet, whichever is greater, is prohibited.	Areas open to oil and gas leasing	**Exception:** AO may grant exception if the lessee can demonstrate to the satisfaction of the AO that impacts to fish, water quality, and aquatic and riparian habitats are minimal. **Modification:** None **Waiver**: None
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.

Objective	Stipulation	Areas Where Stipulations Apply	Exception, Modification, Waiver
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
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, gravel storage pads, and gravel 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 15-June 15. Production activities may occur (no work over rigs). This stipulation would not apply under Alternative B.	The Mulchatna, Nushagak, Northern Peninsula, and other caribou herd calving concentration areas. (Map 3.14)	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 post calving and insect relief aggregations and migrations.	Stip-7: No exploration activities from May 20 through August 31. Construction of production facilities and production activities may occur (no work over rigs). This stipulation would not apply under Alternative B.	The Mulchatna, Nushagak, Northern Peninsula, and other caribou herd crucial insect relief areas (Map 3.14)	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.
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.
Protect, maintain, and preserve the condition and ecological function of the aquatic and riparian zones	Stip-9: No surface use or occupancy is allowed within 300-feet of the following rivers: East and South Fork Arolik, Faro Creek, South Fork Goodnews River, and Klutuk Creek	Areas open to oil and gas leasing	Exception: AO may grant exception if the lessee can demonstrate to the satisfaction of the AO that impacts to fish, water quality, and aquatic and riparian habitats are minimal. Modification: None Waiver: None.

E. Hazardous Material Use and Waste Management Stipulations

The following constitute general hazardous material and waste management considerations for all activity occurring on Federal Public lands. They are derived from present State and Federal statutory and regulatory regimes. Appropriate provisions may appear as stipulations to any authorization, permit or approval by the Bureau of Land Management.

1. An authorized user, claimant or permittee will comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated regarding toxic substances or hazardous materials. In any event, the authorized user, claimant or permittee will comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. § 2601, et seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under the right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR § 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 will be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances will be furnished to the authorized officer concurrently with the filing of the reports to the involved Federal agency or State government.

2. No disposal of domestic wastewater is allowed into bodies of fresh, estuarine, or marine water, including wetlands, unless authorized by the National Pollution Discharge Elimination System or a State permit.

3. Wastewater must be managed in accordance with Title 18 Alaska Administrative Code, Chapter 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 Alaska Administrative Code § 72.030 cannot be met, all wastewater must be collected and transported to a state approved disposal facility. Upon closure of a campsite, a pit privy must be completely back-filled with the surface area covered and re-graded to its approximate original appearance.

4. 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 Alaska Department of Environmental Conservation Standards.

5. For oil and gas operations, all pumpable solid, liquid, and sludge waste will be disposed by injection in accordance with Environmental Protection Agency, Alaska Department of Environmental Conservation, and Alaska Oil and Gas Conservation Commission regulations and procedures. The authorized officer 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.

6. For oil and gas operations, produced water will be disposed of into injection wells as approved by the Alaska Oil and Gas Conservation Commission under Environmental Protection Agency regulations and the Underground Injection Control program. The authorized officer 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.

7. For oil and gas operations and mining Plans of Operation, the operator will maintain Material Safety Data Sheet information on all chemical and hazardous substances brought on site by the operator in accordance with 29 CFR § 1910.1200.

8. Before initiating any operation, including but not limited to, field research/surveys, seismic operations, construction of any facility or mine, lessees, claimants or permittees shall develop a Spill Prevention Control and Countermeasures Plan per 40 CFR § 112 if the total cumulative capacity to store, in 55-gallon or larger containers, exceeds 1,320 gallons of oil or hazardous substances.

9. 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. All personnel shall be trained to properly respond to spills.

10. Hazardous materials/toxic substances, as defined by Environmental Protection Agency (i.e., used oils/petroleum products, batteries), will be handled and disposed of in accordance with Environmental Protection Agency and Alaska Department of Environmental Conservation guidelines.

11. Notice of any reportable spill (as required by 40 CFR § 300.125 and 18 Alaska Administrative Code § 75.300) will be given to the authorized officer 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 Alaska Department of Environmental Conservation at (800) 478-9300.

12. Surface discharge of reserve-pit fluids and produced water is prohibited unless authorized by applicable Environmental Protection Agency, Alaska Department of Environmental Conservation, or borough permits and the authorized officer.

Appendix B

Wild and Scenic River (WSR) and Areas of Critical Environmental Concern (ACEC) Justification

A. Wild and Scenic River Eligibility Matrix Ranking

SUMMARY

The three phases of a Wild and Scenic River (WSR) Study are the eligibility determination, classification analysis, and suitability assessment. In this report the Bureau of Land Management (BLM) evaluates the eligibility of 45 waterways within the Bay Resource Management Planning Area for designation as Wild and Scenic Rivers (WSRs). Forty two waterways have been determined to be ineligible and are dropped from further study. Three waterways have met the criteria for eligibility, and tentative classifications of wild, scenic, or recreational have been assigned.

BLM does not manage any of the rivers for the three eligible and tentatively classified waterways. All of the eligible waterways analyzed are lands that are State or Native Priority Selected, and long-term retention of the parcels in Federal ownership is unlikely. None of the three eligible and tentatively classified rivers are considered manageable waterways under BLM, and they are found to be unsuitable for inclusion in the National WSR System.

The purpose of this Eligibility/Suitability study is to provide an analysis for the basis of recommendations for the Bay Resource Management Plan/Environmental Impact Statement (RMP/EIS).

1. Introduction

Planning guidance for BLM suggests that WSR studies be completed for all waterways within the scope of a planning area. This study considers the following 45 waterways for inclusion in the WSR system:

Alagnak River, Alagnak tributary, Arolik River South Fork, Bear Creek, Ben Courtny Creek, Canyon Creek, Chekok Creek, Coffee Creek, Copenhagen Creek, Cranberry Creek, Cripple Creek, Dome Mountain Creek, Faro Creek, Goodnews River, Goodnews River Middle Fork, Goodnews River South Fork, Granite Creek, Graveyard Creek, Iliamna River, Indian River South, Jacksmith Creek, Kashanak Creek, King Salmon Creek, Klutuk Creek, Koggiling Creek, Kvichak River, Kvichak tributary, Levelock Creek, Lower Klutuk Creek, Mulchatna River tributary, Nanachuak tributary, Napotoli Creek, Nautilus Creek, Nushagak River tributary, Nushigak tributary, Ole Creek, Paul's Creek, Pile River, Portage Creek, Puyulik Creek, Squaw Creek, Tivyagak Creek, Upper Talarik Creek, Velvet Creek, and Yellow Creek.

After land conveyances are completed by around 2010, it is expected that the surface land ownership in the planning area will be approximately 5% BLM-managed public land.

This report is a record of the WSR study process associated with waterways within the Bay planning area. It is not meant to be an environmental impact analysis, but rather an examination of the river segments in relationship to the WSR eligibility/classification/suitability criteria. The environmental analysis is discussed in Chapter IV of the Draft RMP/EIS.

Land use controls on private land are a matter of state and local zoning. Although the Wild and Scenic Rivers Act of 1968 includes provisions encouraging protection of river values through state and Federal land use planning, these provisions are not binding on local governments.

The Federal government is responsible for ensuring that management of designated rivers meets the intent of the Act. In the absence of local or state river protection provisions, the Federal government could ensure compliance through acquisition of private lands or interest in lands.

The basic objective of WSR designation is to maintain the existing condition of a river. If a land use or development clearly threatens the outstandingly remarkable values (ORVs) that resulted in designation of the river, efforts would be made to remove the threat through such actions as local zoning, land exchanges, or purchases from willing sellers. Agricultural and livestock grazing activities occurring at the time of designation would generally not be affected.

2. Overview of the Three Phases of the WSR Study Process

The first phase of a WSR study is the eligibility determination, an analysis to see whether the river is eligible to be tentatively considered for WSR designation. To be eligible, the river must meet the criteria of being free-flowing and possessing one or more ORV.

The second phase of the study is the classification analysis, which determines whether the river should be tentatively classified as wild, scenic, or recreational if it were designated by Congress. This tentative BLM classification is based on the level of development present in the river corridor.

The third phase of the study, the suitability assessment, consists of comparing alternative ways of managing the river. The suitability of a river for designation depends on the managing agency's ability to resolve key issues such as public access, long-term protection of resources and traditional resource uses.

a) Phase One: The Eligibility Determination

The purpose of an eligibility study is to determine whether a river meets the minimum requirements for addition to the national system. According to the Wild and Scenic Rivers Act, eligible river segments must be free flowing and, with their immediate environment, possess one or more ORV, such as scenic, recreational, wildlife, fish habitat, cultural (potential), historic, and subsistence resource values. "Free flowing" is defined as "existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping or other modification of the waterway that would encourage future construction of such structures." (Free flowing should not be confused with naturally flowing, a state in which a river flows without any upstream manipulation except by nature). "Outstandingly remarkable values" are defined as natural and cultural resources that are either unique at a regional level or exemplary at the national level.

A determination that a river is eligible for designation does not lead immediately to a recommendation that it should be added to the system. The eligibility study simply determines whether the river should be carried into the classification and suitability phases of the study.

Tables B.1 and B.2 summarize descriptions and the comparative analysis of the scenic, recreational, wildlife, fish habitat, cultural (potential), historic, and subsistence resource values for the rivers within the

planning area. In the analysis, BLM compared resource values of the rivers under study to similar features on other rivers in the region and identified values that are unique or exemplary. To be "unique," a resource or combination of resources must be one of a kind within a region. To be "exemplary," a resource must be one of the better examples of that type of resource at a national level.

Table B.1. Summary Description of River Segments

River Segment	Miles (total)	Miles BLM	Comments
*Alagnak River	98.4	0.0	River not under BLM jurisdiction. Originating in Katmai National Preserve's Kukaklek Lake, has abundant wildlife, including brown bear, moose, beaver, river otter, bald eagle, and osprey. Visitors enjoy the fishing along this clear, braided river, as well as the striking changes in landscape, large undeveloped lakes, boreal forest, wet sedge tundra, shrubby islands, and Class I-III rapids. Much of the headwaters are currently a designated Wild component of the National Wild & Scenic River System, managed by NPS. Approximately 0.10 river miles cross through BLM-managed uplands.
Alagnak tributary	32.2	24.9	Moderate BLM jurisdiction. Common recreation resources found in the regional area.
Arolik River South Fork	36.9	13.5	The river has a high quality of several resource values. The upper river has moderate current, but the river is shallow throughout its length. Downstream from the lake the channel is braided for a short duration and a single channel is present. The lower 20 miles of the river has very few exposed banks and gravel bars for camping. The lower ten miles of Arolik is under tidal influence and the banks are comprised of tall grass. Campsites on State lands in the lower third of the river are very difficult to find. This makes the trip complicated and requires close coordination with your air charter service for pick up. Rafts with a rowing frame are recommended. Float Duration: 3-4 days from Arolik Lake to the mouth. Attributes: Seasonally excellent angling opportunities for salmon and Dolly Varden, Arctic grayling, and rainbow trout.
Bear Creek	46.2	20.6	Fisheries, scenic, and recreation resources are common compared to the region.
Ben Courtny Creek	33.2	7.4	Minimum BLM jurisdiction. Common fish habit and scenic resource values to the region.
Canyon Creek	17.7	0.0	Not under BLM jurisdiction. High quality resource values compared to the region.
Chekok Creek	14.8	2.0	Minimum BLM jurisdiction. Fisheries, scenic, and recreation resources are common to the region.
Coffee Creek	35.9	27.0	Most resource values are common to the region.
Copenhagen Creek	24.2	9.2	Moderate BLM jurisdiction. Most resource values are common to the region.
Cranberry Creek	36.0	0.0	Not under BLM jurisdiction.
Cripple Creek	27.6	24.5	Most resources are high quality compared to the region.
Dome Mountain Creek	11.5	5.9	Fisheries and recreational resource values are common to the region.
Faro Creek	13.4	11.0	Fisheries, subsistence, and wildlife resource values are common to the region.

River Segment	Miles (total)	Miles BLM	Comments
Goodnews River	15.1	0.0	Not under BLM jurisdiction. Unique fisheries and subsistence resource values in the regional area. A popular float trip of intermediate duration for the experienced or novice rafter. The upper river has a slow current; the current increases in the middle section, with no obstructions to navigate. Most of the shoreline vegetation is tundra with a few stands of cottonwood and willows. Tidal influence is noticeable 10 miles from the mouth in the multiple channels and sloughs. Watercraft: raft with a rowing frame is recommended. Float Duration: 5-6 days from Goodnews Lake to mouth. Attributes: Seasonally excellent angling opportunities for salmon and Dolly Varden, rainbow trout and grayling. Un-baited single-hook artificial lures in all flowing waters. Access: Aircraft charter services are available from Bethel or Dillingham. Land Mangers: State of Alaska, Togiak National Wildlife Refuge and private ownership.
Goodnews River Middle Fork	38.6	0.0	Not under BLM jurisdiction. Unique fisheries resource values compared to the regional area. The Middle Fork is the main tributary and parallels the mainstem of the Goodnews River for its entire length and joins near the mouth.
Goodnews River South Fork	33.3	9.3	Moderate BLM jurisdiction. High quality of several resource values compared to the region.
Granite Creek	4.6	0.0	Not under BLM jurisdiction. High quality of wildlife resource values compared to the region
Graveyard Creek	18.8	1.8	Minimum BLM jurisdiction. Fisheries, subsistence, and wildlife resource values are common/unknown in the region.
Iliamna River	32.1	0.0	Not under BLM jurisdiction. High quality of several resource values compared to the regional area. Large size Rainbow Trout and Arctic Char and exceptional brown bear viewing.
Indian River South Fork	13.8	0.0	Not under BLM jurisdiction. High to common resource values compared to the region.
Jacksmith Creek	23.5	20.5	Fish habitat common compared to the region.
Kashanak Creek	92.4	69.2	Fish habitat common compared to the region.
King Salmon Creek	28.7	12.4	Fish habitat common compared to the region.
Klutuk Creek	73.9	29.3	Fish habitat, scenic, and recreation resource values are common compared to the region.
Koggiling Creek	82.3	49.4	Fish habitat, scenic, and recreation resource values are common compared to the region.
**Kvichak River	44.4	0.0	Not under BLM jurisdiction. Largest sockeye salmon run in the world. In addition to fisheries, subsistence and wildlife resource values are exemplary to unique compared to the region.
**Kvichak tributary	104.0	20.4	Common scenic and recreation resource values compared to the region.
Levelock Creek	28.8	7.3	Moderate BLM jurisdiction. Fisheries resource values are unknown in the area.
Lower Klutuk Creek	54.0	12.0	Minimum BLM jurisdiction. Fish habitat unknown. Scenic and Recreation resource values common in the local and regional area.
Mulchatna River tributary	9.3	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Nanachuak tributary	67.0	29.6	Moderate BLM jurisdiction. Fish habitat unknown. Scenic resource values common in the region.
Napotoli Creek	36.0	0.0	Not under BLM jurisdiction. Fisheries, scenic, and recreation resource values are common compared to the region.
Nautilus Creek	7.9	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Nushagak River tributary	8.2	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Nushigak tributary	58.7	42.2	Common scenic resource values as compared to the region.
Ole Creek	34.9	24.8	Fisheries resource values are unknown in the area.

River Segment	Miles (total)	Miles BLM	Comments
Paul's Creek	47.8	3.2	Minimum BLM jurisdiction. Fisheries, scenic, and recreation resource values common as compared to the region.
Pile River	29.3	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Portage Creek	11.3	2.9	Minimum BLM jurisdiction. Common to unknown resource values in the area and region.
Puyulik Creek	9.9	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Squaw Creek	8.0	0.0	Not under BLM jurisdiction. Common to unknown resource values in the local area and region.
Tivyagak Creek	30.0	24.1	Fisheries and recreation resource values common compared to the region.
Upper Talarik Creek	34.3	0.0	Not under BLM jurisdiction. High quality of several resources values compared to the region.
Velvet Creek	4.1	0.0	Not under BLM jurisdiction. Fisheries resource values are unknown in the area.
Yellow Creek	30.5	7.3	Moderate BLM jurisdiction. Common fisheries, scenic, and recreation resource values as compared to the region.

* Much of the headwaters of the Alagnak are a designated national wild & scenic river.
** Recently, a Recordable Disclaimer of Interest finding was issued by BLM for the Kvichak River. This Disclaimer clarifies that the Federal government does not have a competing interest (with the State of Alaska) in the submerged lands. Because BLM doesn't have jurisdiction for this river, the waterway was not included in the analysis.
(Note): All river waterways identified above have high quality cultural resource values in their respective regional areas. The potential for the discovery of cultural resources is based on the extent and number of known cultural sites in the area and the type of resources found in the region (e.g. a corridor providing important access and fishery resources, traditional game hunting area, native village, etc.). This would increase the likelihood of a discovery if a survey were conducted. To date, approximately 5% of Alaska has been surveyed for historic or pre-historic sites.

Table B.2. Comparison of Relative Resource Values of River Segments

River Segment	Cultural (potential)	Historic	Fish Habitat	Scenic	Recreation	Sub-sistence	Wildlife
*Alagnak River	3	3	2	3	2	4	3
*Alagnak tributary	3	3	3	3	4	3	3
Arolik River South Fork	3	3	3	3	3	3	3
Bear Creek	3	3	4	4	4	3	3
Ben Courtny Creek	3	3	4	4	3	3	3
Canyon Creek	3	3	5	3	3	3	3
Chekok Creek	3	3	4	4	4	3	3
Coffee Creek	3	3	4	4	4	4	4
Copenhagen Creek	3	3	4	4	4	4	4
Cranberry Creek	3	3	4	3	3	3	3

River Segment	Cultural (potential)	Historic	Fish Habitat	Scenic	Recreation	Sub-sistence	Wildlife
Cripple Creek	3	3	4	3	3	3	3
Dome Mountain Creek	3	3	4	3	4	3	3
Faro Creek	3	3	4	3	3	4	4
Goodnews River	3	3	2	3	3	2	3
Goodnews R.Middle Fork	3	3	2	3	3	3	3
Goodnews R. South Fork	3	3	3	3	3	3	3
Granite Creek	3	3	4	3	3	3	3
Graveyard Creek	3	3	5	3	3	4	4
Iliamna River	3	3	3	3	3	3	3
Indian River South Fork	3	3	4	3	4	3	3
Jacksmith Creek	3	3	4	3	3	3	3
Kashanak Creek	3	3	4	3	3	3	3
King Salmon Creek	3	3	4	3	3	3	3
Klutuk Creek	3	3	4	4	4	3	3
Koggiling Creek	3	3	4	4	4	3	3
**Kvichak River	3	3	3	4	4	3	3
Kvichak tributary	3	3	3	4	4	3	3
Levelock Creek	3	3	5	4	3	3	3
Lower Klutuk Creek	3	3	5	4	4	3	3
Mulchatna R. tributary	3	3	5	3	3	3	3
Nanachuak tributary	3	3	5	4	3	3	3
Napotoli Creek	3	3	4	4	4	3	3
Nautilus Creek	3	3	5	3	3	3	3
Nushagak River tributary	3	3	5	4	3	3	3
Nushigak tributary	3	3	3	4	3	3	3
Ole Creek	3	3	4	3	3	3	3

River Segment	Cultural (potential)	Historic	Fish Habitat	Scenic	Recreation	Sub-sistence	Wildlife
Paul's Creek	3	3	4	4	4	3	3
Pile River	3	3	4	3	3	3	3
Portage Creek	3	3	5	4	4	4	4
Puyulik Creek	3	3	5	3	3	3	3
Squaw Creek	3	3	5	4	4	4	4
Tivyagak Creek	3	3	4	3	4	3	3
Upper Talarik Creek	3	3	3	3	3	3	3
Velvet Creek	3	3	5	3	3	3	3
Yellow Creek	3	3	4	4	4	3	3

Key to Ratings: 1 – Exemplary, one of the better examples of that type at a national level.
2 – Unique, a resource or combination of resources that is one of a kind at a regional level.
3 – High quality at a regional and/or local level.
4 – A common resource at the regional and/or local level.
5 – Unknown.

* Much of the Alagnak headwaters are a designated national wild & scenic river.

** Recently, a Recordable Disclaimer of Interest finding was issued by BLM for the Kvichak River. This Disclaimer clarifies that the Federal government does not have a competing interest (with the State of Alaska) in the submerged lands. Because BLM doesn't have jurisdiction for this river, the waterway was not included in the analysis.

The resource evaluations conducted and documented within Table B-2 above were accomplished by the following BLM resource specialists:

Donna Redding-Archeologist
Mike Scott-Fisheries Biologist
Tim Sundlov-Fisheries Biologist
Jeff Kowalczyk-Recreation Planner
Doug Ballou-Recreation Planner
Bruce Seppi-Wildlife Biologist
Jeff Denton Subsistence Coordinator

In order to be eligible for designation as a component of the National Wild & Scenic River System, a river must be both free-flowing and possess one or more "outstandingly remarkable" characteristics described below. An Outstandingly Remarkable Value (ORV) is defined as a unique, rare or exemplary feature that is significant at a comparative regional or national scale. Thus, those rivers receiving a score of "1" or "2" contain ORVs.

While the spectrum of resources that may be considered is broad, ORVs must be directly river-related. That is, they should:

1) Be located in the river or on its immediate shore lands (within ½ mile on either side of the river);
2) Contribute substantially to the functioning of the river ecosystem; and/or
3) Owe their location or existence to the presence of the river.

Eligibility Evaluations of the 45 Waterways

Table B.3 summarizes the eligibility determinations of the 45 waterways that were screened during the eligibility study. Forty two waterways were found ineligible and dropped from further study. Three waterways were found eligible and were assigned a tentative classification of wild, scenic, or recreational. The table is followed by narrative descriptions providing detailed explanations of the eligibility determinations. The tentative classifications are described in the next section.

Table B.3. Summary of River Segment Eligibility and Tentative Classification

River Segment	Percent BLM	Comments
*Alagnak River	0.0	Found eligible for its fish habitat and recreation resource values; tentatively classified as Wild
Alagnak tributary	77.3	Not eligible-no ORV found
Arolik River South Fork	36.6	Not eligible-no ORV found
Bear Creek	44.6	Not eligible-no ORV found
Ben Courtny Creek	22.1	Not eligible-no ORV found
Canyon Creek	0.0	Not eligible-no ORV found
Chekok Creek	13.5	Not eligible-no ORV found
Coffee Creek	75.2	Not eligible-no ORV found
Copenhagen Creek	38.0	Not eligible-no ORV found
Cranberry Creek	0.0	Not eligible-no ORV found
Cripple Creek	88.9	Not eligible-no ORV found
Dome Mountain Creek	51.3	Not eligible-no ORV found
Faro Creek	81.8	Not eligible-no ORV found
Goodnews River	0.0	Found eligible for its fish habitat and subsistence resource values; tentatively classified as Wild
Goodnews River Middle Fork	0.0	Found eligible for its fish habitat resource values; tentatively classified as Wild
Goodnews River South Fork	27.9	Not eligible-no ORV found
Granite Creek	0.0	Not eligible-no ORV found
Graveyard Creek	9.6	Not eligible-no ORV found
Iliamna River	0.0	Not eligible-no ORV found
Indian River South Fork	0.0	Not eligible-no ORV found
Jacksmith Creek	87.2	Not eligible-no ORV found
Kashanak Creek	74.9	Not eligible-no ORV found
King Salmon Creek	43.2	Not eligible-no ORV found
Klutuk Creek	39.6	Not eligible-no ORV found
Koggiling Creek	34.6	Not eligible-no ORV found
**Kvichak River	0.0	See note at bottom of Table B.1
Kvichak tributary	19.6	Not eligible-no ORV found
Levelock Creek	25.3	Not eligible-no ORV found
Lower Klutuk Creek	22.2	Not eligible-no ORV found
Mulchatna River tributary	0.0	Not eligible-no ORV found
Nanachuak tributary	44.2	Not eligible-no ORV found
Napotoli Creek	0.0	Not eligible-no ORV found
Nautilus Creek	0.0	Not eligible-no ORV found
Nushagak River tributary	0.0	Not eligible-no ORV found
Nushigak tributary	71.9	Not eligible-no ORV found
Ole Creek	71.2	Not eligible-no ORV found
Paul's Creek	6.7	Not eligible-no ORV found
Pile River	0.0	Not eligible-no ORV found
Portage Creek	25.7	Not eligible-no ORV found
Puyulik Creek	0.0	Not eligible-no ORV found
Squaw Creek	0.0	Not eligible-no ORV found
Tivyagak Creek	80.3	Not eligible-no ORV found

River Segment	Percent BLM	Comments
Upper Talarik Creek	0.0	Not eligible-no ORV found
Velvet Creek	0.0	Not eligible-no ORV found
Yellow Creek	23.9	Not eligible-no ORV found
* Much of the headwaters of the Alagnak are a designated national wild & scenic river. ** Recently, a Recordable Disclaimer of Interest finding was issued by BLM for the Kvichak River. This Disclaimer clarifies that the Federal government does not have a competing interest (with the State of Alaska) in the submerged lands. Because BLM doesn't have jurisdiction for this river, the waterway was not included in the analysis.		

Alagnak River

Outstandingly Remarkable Values: Fish Habitat and Recreation
Classification: Wild
Land status of uplands: Native Selected Priority 1, State-selected Priority 1 or 2

BLM manages 0.0 miles of this 98.4 mile waterway, river not under BLM jurisdiction. Approximately 0.10 river miles passes through BLM-managed/Native-selected uplands. Originating in Katmai National Preserve's Kukaklek Lake, has abundant wildlife, including brown bear, moose, beaver, river otter, bald eagle, and osprey. Visitors enjoy the fishing along this clear, braided river, as well as the striking changes in landscape, large undeveloped lakes, boreal forest, wet sedge tundra, shrubby islands, and Class I-III rapids. Much of the headwaters are currently a designated Wild component of the National Wild & Scenic River System, managed by NPS.

Alaska Heritage Resources Survey (AHRS) sites have not been identified in the area. This area has not been surveyed for historic or prehistoric sites, however the river corridor which appears to provide important access and fishery resources suggest a moderate to high potential for the discovery of cultural resources.

Goodnews River (mainstem)

Outstandingly Remarkable Values: Fish Habitat and Subsistence
Classification: Wild
Land status of uplands: Native-selected Priority 1, State-selected Priority 1 or 2

BLM manages 0.0 miles of this 15.1 mile river. Unique fisheries and subsistence resource values in the regional area. A popular float trip of intermediate duration for the experienced or novice rafter. The upper river has a slow current; the current increases in the middle section, with no obstructions to navigate. Most of the shoreline vegetation is tundra with a few stands of cottonwood and willows. Tidal influence is noticeable 10 miles from the mouth in the multiple channels and sloughs. Watercraft: raft with a rowing frame is recommended. Float Duration: 5-6 days from Goodnews Lake to mouth. Attributes: Seasonally excellent angling opportunities for salmon and Dolly Varden, rainbow trout and grayling. Un-baited single-hook artificial lures in all flowing waters. Access: Aircraft charter services are available from Bethel or Dillingham. Land Mangers: State of Alaska, Togiak National Wildlife Refuge and private ownership. Fish habitat was identified as the outstandingly remarkable value and the region was tentatively classified as Wild.

Alaska Heritage Resources Survey (AHRS) sites have not been identified in the area. This area has not been surveyed for historic or prehistoric sites. However, the river corridor, which appears to provide important access and fishery resources, suggests a moderate to high potential for the discovery of cultural resources.

Goodnews River Middle Fork

Outstandingly Remarkable Value: Fish Habitat
Classification: Wild
Land status of uplands: Native-selected Priority 1

BLM manages 0.0 miles of this 38.1 mile river. There are unique fisheries resource values as compared to other rivers in the regional area. The Middle Fork is the main tributary and parallels the mainstem of the Goodnews River for its entire length and joins near the mouth. Fish habitat was identified as the outstandingly remarkable value and the region tentatively classified as Wild.

Alaska Heritage Resources Survey (AHRS) sites have not been identified in the area. This area has not been surveyed for historic or prehistoric sites. However, the river corridor, which appears to provide important access and fishery resources, suggests a moderate to high potential for the discovery of cultural resources.

b) Phase Two: The Classification Analysis

The classification analysis determines whether a river should be tentatively classified as recreational, scenic, or wild. This determination is based on the level of development present in the river corridor as it exists at the time of the study. The determining factors include waterway development, shoreline modification and vehicular access.

The three classification categories for eligible rivers are defined as follows.

Wild River Areas
Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

Scenic River Areas
Those rivers or sections of rivers that are free of impoundments with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Recreational River Areas
Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

A wild river would be an undeveloped river with very limited access. A scenic classification would be applied to a river or river segment that is more developed than a wild river and less developed than a recreational river. A recreational classification would be appropriate in developed areas, such as a river running parallel to roads or railroads with adjacent lands that have agricultural, forestry, commercial or other developments, provided that the waterway remains generally natural and riverine in appearance. Attributes of each category are listed in Table B.4.

It is a common misunderstanding that rivers designated as scenic are managed primarily for scenery, and that recreational rivers are managed to promote recreation use. These labels can be misleading. Regardless of the classification, management is designed to maintain or enhance the river-related values and character of the river.

The Goodnews River mainstem, Goodnews River Middle Fork and Alagnak River best match the classification category of Wild, compared to the classification of other designated Wild, Scenic, and Recreational river segments in Alaska. Refer to Table B.4, which relates attributes of the three river classifications under the national Wild and Scenic River system.

Table B.4. Attributes of the Three River Classifications for Inclusion in the National Wild and Scenic Rivers System

Wild	Scenic	Recreational
Free flowing. Low dams, diversion works, or other minor structures that do not cause flooding of the natural riverbank may not bar consideration. Future construction is restricted.	Free flowing. Low dams, diversion works, or other minor structures that do not cause flooding of the natural riverbank may not bar consideration. Future construction is restricted.	May have undergone some impoundment or diversion in the past. Water should not have characteristics of an impoundment for any significant distance. Future constriction is restricted.
Generally inaccessible by road. One or two inconspicuous roads to the area may be permissible.	Accessible by roads that may occasionally bridge the river area. Short stretches of inconspicuous and well-screened roads or railroads paralleling the river area may be permitted.	Readily accessible with likelihood of paralleling roads or railroads along riverbanks and bridge crossings.
Shoreline is essentially primitive. One or two inconspicuous dwellings and land devoted to production of hay may be permitted. Watershed is natural in appearance.	Shoreline is largely primitive. Small communities are limited to short reaches of the total area. Agricultural practices that do not adversely affect the river area may be permitted.	Shoreline may be extensively developed.
Water quality meets minimum criteria for primary contact recreation, except where such criteria would be exceeded by natural background conditions and esthetics. Capable of supporting propagation of aquatic life normally adapted to the habitat of the stream.	Water quality meets minimum criteria for primary contact recreation, except where such criteria would be exceeded by natural background conditions and esthetics. Capable of supporting propagation of aquatic life normally adapted to the habitat of the stream, or capable of being restored to that quality.	Water quality meets minimum criteria for primary contact recreation, except where such criteria would be exceeded by natural background conditions and esthetics. Capable of supporting propagation of aquatic life normally adapted to the habitat of the stream, or capable of being restored to that quality.

c) Phase Three: The Suitability Assessment

The third component of a WSR study is the suitability assessment. It is designed to identify the impacts of designation and manageability of eligible rivers. The portion of the suitability assessment contained in this report identifies issues to be considered in the environmental consequences section (Chapter IV). In addition, the willingness of county, state and local landowners to participate in river corridor management is considered. These aspects of the suitability assessment are also considered in Chapter IV.

Criteria for Determining Suitability

In considering suitability, the criteria specified in Section 4a of the Wild and Scenic Rivers Act (listed below) provide a basis for assessment.

- Characteristics that do or do not make the river corridor a worthy addition to the WSR system
- Current status of land ownership and uses in the area
- Reasonably foreseeable potential uses of the land and water that would be enhanced, foreclosed or curtailed if the river were designated
- Public, state, local or other interests in designation or non-designation of the river
- Estimated costs of acquiring necessary lands and interests in lands, and of administering the river if designated
- Ability of the agency to manage the river and protect identified values
- Historical or existing rights that would be adversely affected by designation
- Other issues and concerns identified in the land-use planning process

Suitability Findings

Alagnak River: Unsuitable. The 98.4 mile Alagnak River travels through approximately 0.10 miles of current BLM-managed lands. The majority of the headwaters are currently designated as a national wild and scenic river. The BLM-managed uplands are both Native and State priority selected so long-term retention of federal ownership and management of the ORVs by BLM is unlikely.

Goodnews River (mainstem): Unsuitable. BLM manages 0.0 miles of this 15.1 mile river. The uplands are both Native and State priority selected so long-term retention of federal ownership and management of the ORVs by BLM is unlikely.

Goodnews River Middle Fork: Unsuitable. BLM manages 0.0 miles of this 38.6 mile river. The uplands are Native priority selected so long-term retention of federal ownership and management of the ORVs by BLM is unlikely.

The above analyses of river suitability criteria are based on current and future land ownership, foreseeable land conveyance priorities, resource issues and public involvement. Chapter II of the Proposed Plan provides suitability recommendations. Comments on the Draft Plan were considered in arriving at a recommendation on whether these river segments are suitable for inclusion in the National WSR System. Classification categories for various river segments were completed as per direction of the BLM Manual 8351.

Suitability Summary

BLM does not manage any portions of the rivers for the three eligible and tentatively classified waterways. The majority of the waterways analyzed are not managed by BLM or are State- or Native-selected and long-term retention of the parcels in federal ownership and management of the ORVs by BLM is unlikely. None of the three eligible and tentatively classified rivers are considered manageable waterways under BLM, and they are found to be unsuitable for inclusion in the National WSR System.

B. Areas of Critical Environmental Concern (ACEC) Evaluation

1. Introduction

The Code of Federal Regulations at 43 CFR §1610.7-2 provides for the designation of areas of critical environmental concern (ACECs). Areas having potential for ACEC designation and protection management are identified and considered within the context of the resource management planning process. Inventory data were analyzed to identify areas containing resources, values, systems and processes or hazards that would make them eligible for further consideration for designation as an ACEC. Section 202(c)(3) of the Federal Land Policy and Management Act (FLPMA) requires that priority be given to the designation and protection of ACECs. FLPMA Section 103(a) defines ACECs as public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes or to protect life and safety from natural hazards.

This report provides the evaluation of two areas proposed for designation as ACECs, Bristol Bay and Carter Spit, which were evaluated as part of the Bay Resource Management Plan/Environmental Impact Statement.

What are the Criteria for ACEC Designation?

Relevance: An area is considered relevant if it contains one or more of the following:

- A significant historic, cultural, or scenic value (for example, rare or sensitive archaeological resources and religious or cultural resources important to Native Americans)
- A fish and wildlife resource (for example, habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity)
- A natural process or system (for example, endangered, sensitive, or threatened plant species; rare, endemic, or relict plant communities; and rare geologic features)
- A natural hazard (for example, areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs) A hazard caused by human action could meet the relevance criteria if it is determined through the resource management planning process that it has become part of the natural process.

Importance: The value, resource, system, process, or hazard described above must have substantial significance to satisfy the importance criteria, which generally means it is characterized by one or more of the following:

- Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
- Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to change.
- Has been recognized as warranting protection to satisfy national priority concerns or to carry out FLPMA mandates.
- Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.
- Poses a significant threat to human life and safety or to property.

2. The Process

1. Evaluate existing ACECs for modification due to the change of conditions affecting the relevance and importance criteria. No ACECs are currently designated in the Bay planning area.
2. Nominate new areas with relevance and importance.
3. Consider the potential ACECs as Alternatives that are analyzed and addressed in the RMP/EIS.

A matrix was used to evaluate the relevance and importance (R/I) of physical attributes associated with various regions within the Bay planning area. Justification is given for attributes receiving a value of one or two. Two Alternatives are represented due to public comments received after publication of the Bay Draft RMP/EIS. Public comments were reviewed and considered, and modifications have been made.

Table B.5 was used to assess R/I of ACECs proposed within the Draft RMP/EIS. Due to public comments received after publication of the Bay Draft RMP/EIS, an additional evaluation was performed to access the boundary of the Carter Spit ACEC (Table B.6), which was proposed within the preferred alternative (Alternative D) in the Draft RMP/EIS. Designation of ACECs will occur in the Record of Decision (ROD) upon approval of the RMP.

The ACEC evaluations in the Bay Draft RMP/EIS were conducted by the following specialists:

Mike Scott/Tim Sundlov-Fisheries
Jeff Denton/Bruce Seppi-Wildlife and Subsistence
Doug Ballou/Jeff Kowalczyk-Recreation
Donna Redding- Cultural and Historic

Public comment indicated that the boundary of the proposed Carter Spit ACEC should be reevaluated by BLM. This review was conducted by the following specialists:

Tim Sundlov-Fisheries
Bruce Seppi-Wildlife and Subsistence
Donna Redding- Cultural and Historic
Chuck Denton- Hydrologist

a) Alternative C

Table B.5. Areas of Critical Environmental Concern Nomination Matrix (Alternative C)

	Name of BLM Land Block	BLM Land Status	Acres	Wildlife		Cultural		Historic		Fisheries		Scenic		Subsistence	
				*R	*I	R	I	R	I	R	I	R	I	R	I
Bristol Bay Region	Klutuk Creek	U*	129,173	3	3	3	3	3	3	3	3	4	4	3	2
	Yellow Creek	U*	243,689	3	4	3	3	3	3	4	4	4	4	4	3
	Koggiling Creek	U*	159,732	3	4	3	3	3	3	4	4	4	4	4	4
	Kvichak	U*	99,158	3	3	3	3	3	3	3	3	4	4	4	3
	Iliamna West	U*	182,993	3	2	3	3	3	3	3	3	3	4	3	2
	Alagnak	U*	126,023	3	4	3	3	3	3	3	3	4	4	4	3
Goodnews Bay Region	Carter Spit	U*	62,862	1	2	2	2	3	3	3	3	3	3	3	2
	Faro Creek	U*	20,737	3	3	3	3	3	3	2	2	3	3	3	4
	Arolik River	U*	17,022	3	3	3	3	3	3	2	2	3	3	3	4
	Goodnews River South Fork	U*	32,294	3	3	3	3	3	3	2	2	3	3	3	4

* R: Relevance ; I: Importance

U* indicates unencumbered BLM lands. Some lands may be top-filed by the State of Alaska.

The following general rating system used for Relevance and Importance determination is listed below:
1 - Exemplary, one of the better examples of that type of resource at a national level.
2 - Unique, a resource or combination of resources that is one of a kind at a regional level.
3 - High quality at a regional and/ or local level.
4 - Common resource at a regional and/ or local level.

(1) Cultural/Historic

Overall the proposed ACECs within the Bay Plan have few recorded historic or archaeological sites. This is not because these areas are not significant but rather that they are remote, undeveloped and have not been intensively surveyed.

The Carter Spit area is designated priority 2 for cultural resources, not only for its known cultural resources but also because it has high potential for undiscovered resources given its geographic setting on the coast and location within prime hunting areas for marine and terrestrial game as well as fishing areas.

The proposed Bristol Bay ACECs appear to have potential for historic or prehistoric sites and will be designated priority 3 for unknown potential.

(2) Fisheries

Goodnews Bay Region

South Fork of the Goodnews River
The South Fork of the Goodnews River provides spawning and rearing habitat for economically important subsistence, commercial and recreational fisheries in the main stem Goodnews River. The historic average salmon escapement to the main stem Goodnews River is 3,137 Chinook salmon, 36,925 sockeye salmon, 21,284 chum salmon, and 27,897 coho salmon (Linderman 2005a). Stewart (2004) estimates that less than 10% of returning salmon to the Goodnews watershed spawn in the South Fork. Residents of Quinhagak, Goodnews Bay, and Platinum, located along the south shore of Kuskokwim Bay (approximately 220 households), harvest subsistence salmon primarily from Kanektok, Arolik, and Goodnews River drainages (ADF&G 2001). The rainbow trout stocks which inhabit the Kuskokwim Bay streams are considered "world class" with high catch rates and are capable of producing rainbow trout that exceed 25 inches (ADF&G 2004). The stem of the Goodnews River supports the second largest sport fishery in the Kuskokwim Bay Area and angler effort (angler days) has averaged 2,522 from 1983 to 2002 (Lafferty 2004).

Faro Creek and the South and East Fork of the Arolik River
Faro Creek and the South and East Fork of the Arolik River provide spawning and rearing habitat for economically important subsistence, commercial and recreational fisheries in the main stem Arolik River. The headwaters of these tributaries are located within an area of medium to high mineral potential. The Arolik River is a significant salmon producing river that drains into Kuskokwim Bay (Linderman 2005b). Residents of Quinhagak, Goodnews Bay, and Platinum, located along the south shore of Kuskokwim Bay (approximately 220 households), harvest subsistence salmon primarily from Kanektok, Arolik, and Goodnews River drainages (ADF&G 2001). The rainbow trout stocks which inhabit the Kuskokwim Bay area are considered "world class" with high catch rates and are capable of producing rainbow trout that exceed 25 inches (ADF&G 2004). The Arolik River supports the third largest rainbow trout sport fishery in Kuskokwim Bay and angler catch has averaged 1,122 fish from 1997 to 2002 (Lafferty 2004).

Carter Spit and coastal wetlands

Jacksmith Creek

Cripple Creek
Cripple Creek also drains into the Kuskokwim Bay and produces Chinook, chum, pink, and coho salmon, and whitefish. These anadromous fish species use the river for spawning, rearing, and migratory habitat; therefore this river is characterized as EFH by the NMFS, AWC #335-00-10750. Production of salmon from this river also contributes to the subsistence and commercial harvest for the villages of Goodnews and Quinhagak.

(3) Subsistence and Wildlife Resources

Goodnews Bay Region: Carter Spit and coastal wetlands

There are several wildlife related resources that justify essential habitats for maintaining species diversity. Carter Bay and coastal areas provide molting and staging habitat for Steller's Eiders, a threatened species under the Endangered Species Act (Shaw et al. 2004). Many BLM sensitive species use the area for staging and migration in fall including black brant, black scoters, blackpoll warblers bristle thighed curlews, grey cheeked thrush, harlequin ducks, king eiders, long-tailed ducks, red-knot, hudsonian godwit, red-throated loon, surf scoter, white-fronted geese and occasional harbor seals (Seppi,1997). Carter Bay and coastal areas provide molting habitat for white-winged scoters and lesser scaup (Shaw et al. 2004). Several species of rare plants have been documented in the Carter Spit/Goodnews Bay area (Lipkin 1996, Parker 2005). The coastal estuaries and watersheds have concentrations of breeding shorebirds and waterfowl, including several trans-oceanic shorebird species. Beluga whales, Steller sea lions, harbor seals and bearded seals are found in tidal bays and the coastal fringes of the area (NOAA 2003). Subsistence activities serve local communities, through egging and spring waterfowl hunting, and seal and Beluga whale hunting. The area is subject to the effects of global warming in the form of active shoreline modifications from rising sea levels, increased storminess, and reduction of pack ice. Brown bears concentrate in coastal areas in spring to forage on vegetation and marine mammal carcasses, and later concentrate on salmon runs on coastal streams.

The islands in Carter Bay and other associated coastal estuaries are Maritime National Wildlife Refuge managed but their ecosystems are dependent upon the mainland terrestrial watersheds for fresh water sources to maintain estuary tidal flat ecosystems adjacent to BLM lands (NOAA, 2003). The Jacksmith Creek watershed is the fresh water source for the Togiak National Wildlife Refuge Coastal Wetlands and Jacksmith Bay/Carter Spit estuary and mudflats.

Should portions of the Indian River watershed remain in long-term BLM jurisdiction, it may potentially be added to the Carter Spit ACEC.

Bristol Bay Region

The Bristol Bay region holistically provides seasonal habitats for the Mulchatna Caribou Herd and the fisheries forage base for brown bears. The area has concentrations of nesting trumpeter (Gibson and Maley 2003) and tundra swans (Wilk 1988) and widespread wetland habitats, which have moderate productivity. However, cumulatively the area ranks high in statewide waterfowl productivity. Waterfowl produced in Bristol Bay are harvested throughout the Pacific flyway. Sensitive species in the region include trumpeter swans, white-winged and black scoters, black-poll warblers, rusty blackbirds and bald eagles. BLM lands provide movement corridor continuity for caribou movement and crucial seasonal habitats including calving and crucial winter range. Five plant species have been listed as rare by the Alaska Natural Heritage Program (Batten and Parker 2003). Adjacent tidal mudflats in Kvichak Bay and Nushagak Bay are recognized as a shorebird migration stopover site of regional importance, under the Western Hemisphere Shorebird Reserve Network (WHSRN 2005).

BLM planning blocks do not individually rank highly as either relevant or important for wildlife due to the widespread occurrence and use of wildlife resources. Subsistence use of wildlife resources are mostly local and regional importance. Sport harvest is subject to statewide, non-resident and international demand for large game.

b) Alternative D

(1) Bristol Bay ACEC

The Bristol Bay ACEC is not presented in the preferred alternative because it does not meet the relevance and importance criteria as established in 43 CFR §1610.7-2 and resources within this region, though mostly considered a high quality [resource] at a regional and/ or local level, does not warrant special management attention through ACEC designation as defined in FLPMA Section 103(a). Rather, Required Operating Procedures, Stipulations, and site/project-specific requirements will be used to protect the resources.

(2) Carter Spit ACEC

Response to comments concerning Carter Spit ACEC Boundary. Date: 2/9/07

The proposed Carter Spit ACEC boundary, in the Bay DEIS, includes portions of the Jacksmith Creek and Cripple Creek watersheds. This area was suggested as a proposed ACEC due to relevance and importance of its wildlife attributes. The boundary of the Carter Spit ACEC proposed in Alternative C and D of the DEIS was delineated with the perception that these creeks contribute significantly to the marshes and estuaries that compose the lowland area which provide the unique environment that support molting and staging habitat for Steller's eiders, a threatened species under the Endangered Species Act (Shaw et al. 2004). The review of the Carter Spit ACEC boundary consisted of a BLM hydrologist review of the boundary area. This review was absent from the original evaluation of the ACEC boundary.

Jacksmith Creek initiates from unencumbered BLM lands and briefly meanders through the lowlands,

Table B.6. Areas of Critical Environmental Concern Nomination Matrix (Alternative D)

Name of BLM Land Block	BLM Land Status	Acres	Wildlife		Cultural		Historic		Fisheries		Scenic		Subsistence	
			R	I	R	I	R	I	R	I	R	I	R	I
Carter Spit	U*	36,220	1	2	2	2	3	3	3	3	3	3	3	2

* R: Relevance; I: Importance
U* indicates unencumbered BLM lands. Some lands may be Top Filed by the State of Alaska

C. Summary

This boundary adjustment does not affect the relevance and importance criteria of area attributes as

status.

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Appendix C

Recreation Area Designations: Special Recreation Management Areas (SRMA) and Extensive Recreation Management Areas (ERMA)

A. Special Recreation Management Area (SRMA)

A Special Recreation Management Area (SRMA) designation intensifies management of areas where outdoor recreation is a high priority. It helps direct recreation program priorities toward areas with high resource values, elevated public concern, or significant amounts of recreational activity. Areas with a SRMA designation can be expected to see investments in recreation facilities and visitor services aimed at reducing resource damage and mitigating user conflicts (BLM 1990). Implementation-level plans are completed for each SRMA to fully describe management actions and objectives (BLM 2005b).

There are currently no designated SRMAs within the planning area.

B. Extensive Recreation Management Area (ERMA)

An Extensive Recreation Management Areas (ERMA) is an area that emphasizes the traditional dispersed recreation use of Public lands (BLM 1990). ERMAs have an undeveloped character that allows visitors to escape crowds, reply on their own skills and equipment for recreation pursuits, and freedom from stricter regulations (BLM 1990). All lands that are not within a designated SRMA revert to the ERMA category. BLM actions in ERMAs is limited to custodial actions and therefore do not require an implementation-level plan (BLM 2005b).

Table C.1. Bay RMP Extensive Recreation Management Area

Bay RMP Extensive Recreation Management Area		
Management Objectives	The Bay ERMA will be managed to provide opportunities for area residents, visitors, and commercial recreation providers to engage in motorized and non-motorized primitive recreation activities. All BLM managed lands in the Bay planning area will be managed as Semi-primitive Motorized. Primitive areas are managed to be essentially free from evidence of humans and onsite controls. Motor vehicle use within the area is not permitted. Primitive areas are managed to maintain an extremely high probability of experiencing isolation from others and little to no managerial contact. Independence, closeness to nature, self-reliance and an environment that offers a high degree of challenge and risk characterizes this class. Back country use and management of renewable resources are subject to the protection of back-country recreational values. The remaining lands will be managed as Semi-primitive Motorized, which are predominantly unmodified natural environments of large size. Evidence of humans and management controls are present but subtle. Motor vehicle use is allowed, but the concentration of users should be low. Onsite interpretive facilities, low-standard roads and trails, trailheads, and signs will stress the natural environment and will be the minimum necessary to achieve objectives. The consumption of natural resources is allowed. Efforts will be taken to reduce the impact of utility corridors, rights-of-way, and other surface-disturbing projects on the natural environment. The frequency of managerial contact with visitors will be low to moderate.	
Outcomes		
Primary Activities	**Experiences**	**Benefits**
Sport Fishing Sport Hunting Motorized Boating Float Boating Camping Sightseeing Wildlife Viewing Commercial Recreation Activities: (hunting/fishing guides and river outfitters)	Developing skills and abilities Experiencing a greater sense of independence Enjoying exploring on your own Savoring the total sensory experience of a natural landscape Enjoying getting needed physical exercise Feeling good about solitude, being isolated, and independent Enjoying an escape from crowds and people	Personal: -Restored mind from unwanted stress -Improved skills for outdoor enjoyment -Improved outdoor recreation skills -Stronger ties with family and friends -Greater respect for Cultural Heritage -Enhanced awareness and understanding of nature Community/Social: -Greater community involvement in recreation and land use decisions -Enlarged sense of community dependency on public lands Environmental: -Increased awareness and protection of natural landscapes -Greater community ownership and stewardship of park, recreation, and natural resources -Reduced negative human impacts such as litter, vegetative trampling, and unplanned trails

<table>
<tr><th colspan="3">Bay RMP Extensive Recreation Management Area</th></tr>
<tr><td>Traditional Recreation Activities: (berry picking, trapping, subsistence hunting)</td><td></td><td><u>Economic:</u>
-Increased work productivity
-Improved local economic stability
-Maintenance of community's distinctive recreation tourism market niche/character</td></tr>
<tr><th colspan="3">Setting Prescriptions</th></tr>
<tr><td><u>Physical</u>
Landscape is primarily Primitive to Backcountry with established winter trails and limited OHV routes. In general the area is natural in appearance and undeveloped.</td><td><u>Social</u>
Encounters with other users along travel routes and at campsites will be low. Group sizes tend to be small.

Evidence of use will include infrequent observation of foot prints, ATV and snow machine tracks. Noise and litter will be infrequent. There will be slight vegetation trampling at popular campsites and aircraft landing areas.</td><td><u>Administrative</u>
Access is primarily by motorized vehicles including aircraft, motorboat, ATV, and snow machine. Most ATV and snow machine use radiates out of isolated communities such as Goodnews Bay, Dillingham, Koliganek, and Levelock</td></tr>
<tr><th colspan="3">Management and Marketing Implementation Actions</th></tr>
<tr><td colspan="2">Management Actions
- No intensive management.
- No facilities would be developed to enhance visitor use.
- No significant amounts of staffing or expenditures for the area.</td><td>Marketing Actions
-Private sector marketing of recreation opportunities (outfitters/guides, transporters, lodges, area Chambers of Commerce).
-BLM website and brochures describing local recreation opportunities.</td></tr>
<tr><th colspan="3">Administrative and Monitoring Implementation Actions</th></tr>
<tr><td colspan="2">Administrative Actions:
- In limited-use areas all motorized use is limited to existing trails and roads.
- All areas within the planning area will be designated as Limited to recreation off-highway vehicle use.
- Allow Open cross-country travel for snow-machines when adequate snow cover is present.
- Motorized vehicles exceeding 2,000 (GVWR) would be prohibited without written authorization from the BLM.
- Camping associated with Commercial activities will be prohibited without written authorization from BLM. Short term camping will be limited to 14 days within a 28-day period.</td><td>Monitoring Actions:
- Restrict the number of vehicles if visitor conflicts become known and/or if resource damage is observed.
- Though helicopters and -fixed-wing aircraft are <u>not</u> considered OHVs, there use would be allowed to provide for recreation use until user conflicts required mitigation.
-Continued field compliance of authorized Special Recreation Permits.
-Monitor established Visual Resource Management objectives.</td></tr>
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Appendix D

ANILCA Section 810
Analysis of Subsistence Impacts

Appendix D

ANILCA Section 810 Analysis of Subsistence Impacts

On December 6, 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 Anchorage Field 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. The Draft Bay RMP/EIS was made available through publication of the Notice of Availability in the Federal Register on September 29, 2006.

Current management of these lands in part (Goodnews Block) is guided by the Southwest Planning Area Management Framework Plan (MFP) (BLM 1981). Since approval of the MFP in 1981, 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 25 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. Further, the remaining lands in the Bristol Bay portion of the Bay Planning Area are not covered by an existing plan. Through the completion of an RMP/EIS, BLM proposes to provide a comprehensive land use plan that will guide management of the public lands and interests administered by the Anchorage Field Office.

Chapter III: Affected Environment and Chapter IV: Environmental Consequences of the Bay 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 Bay 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 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 ANILCA Sec. 810(a) must be completed for the Bay 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 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 whether a significant restriction of subsistence uses and needs may result from any one of the alternatives discussed in the Bay 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 but not limited to 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 provides information on areas and resources important for subsistence use, and the degree of dependence of affected communities on different subsistence resource 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 Bay 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 Proposed RMP/Final EIS. Finally, the cumulative case, as discussed in Chapter IV: Environmental Consequences, 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 adjacent to or within the Bay planning area. The cumulative case expands the analysis to include lands within and near the Bay planning area sharing subsistence resource populations' seasonal distributions, migratory patterns and key habitats. This would include 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 and seasonal distributions thereof.

In addition to ANILCA, Environmental Justice, as defined in Executive Order 12898 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 Bay Plan, have been reviewed and found to comply with Environmental Justice requirements.

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

The following evaluations are based on information relating to the environmental and subsistence consequences of alternatives A through D, and the cumulative impacts analysis as presented in Chapter IV: Environmental Consequences of the Bay Proposed RMP/Final EIS. The required operating procedures and stipulations discussed in Chapter II of the Bay 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 Findings for Alternative A

Selection of Alternative A would result in management of the planning area as specified in the Southwest Planning Area MFP. Valid decisions contained in the Southwest Planning Area 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 Southwest Planning Area 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, ANSCA 17(d)(1) withdrawals would be maintained, prohibiting new leasable and locatable mineral actions.

The Recreation Opportunity Spectrum classification would remain classified as Semi-Primitive Motorized and both commercial and non-commercial recreation would continue to be managed on a case-by-case basis with no areas identified for use limits. There may be impacts to subsistence resources from both commercial and non-commercial recreation activities, including aircraft overflights, landing in remote areas, camping, and boating. There would be no travel management restrictions and no OHV weight limits. Cross country travel would be allowed everywhere on BLM-managed lands within the planning area. One of the primary impacts to subsistence from recreation activities may be temporary stress and displacement of wildlife. In addition, habitat degradation may result from trampling or removal of plant species. There are a few heavily used areas where these activities may compete directly with subsistence use.

Over the past 20 years, the Mulchatna Caribou Herd (MCH) has displayed significant shifts in seasonal ranges and migration routes. However, these shifts have not been attributed to any one cause. Many areas such as Iliamna, Naknek, Levelock, King Salmon and other communities in the eastern portion of the planning area that enjoyed abundant caribou 10-15 years ago now do not have MCH animals readily available. The Goodnews, Platinum, Aniak and Bethel areas, which had very few or no caribou present 20 years ago, now have caribou seasonally available from the MCH. During scoping, residents expressed concern over the large number of sport hunters and guiding operations that compete with subsistence users for resources, primarily moose and caribou. Subsistence hunters in the Bristol Bay land blocks believe that air traffic by transporters and guide/outfitters coupled with the presence of sport hunters has caused migrating caribou to move away from traditional use areas.

The current amount necessary for subsistence (ANS) determination made by the Alaska Board of Game for moose in Game Management Units (GMUs) in the planning area ranges between 280-390 moose annually (5 AAC 99.025). These ANS numbers for moose are considered relatively low, considering the declining annual caribou harvest in recent years resulting from a significant decline in the MCH. The declining caribou herd coupled with an increase in moose numbers has caused subsistence users reliance on moose to increase throughout the Bristol Bay Blocks. Over a number of years the moose population in GMU 17A has increased in the distribution and population. This increase is a result of a hunting moratorium, which allowed the moose population time to rebound from a previously low population level. However, the majority of harvest occurs on non-BLM lands along major rivers with adequate boat access. A portion of the Goodnews Bay Block (a portion of GMU 18) is currently under a moose harvest moratorium to restore viable numbers of moose in that block. Restoration may allow for limited moose hunting at some time during the life of the Bay Plan.

The current ANS for caribou in the GMUs in the Bay planning area ranges between 3,600 and 4,800 per year (5 AAC 99.025). Reported harvests indicate a relatively low number of caribou harvested. Although reported harvest may be low, actual subsistence harvest is probably higher due to low reporting rates. Unreported harvest has been estimated to be approximately 5,000 caribou annually (Woolington 2005). The decline of the MCH also adds to the low harvest numbers.

According to ADF&G, the current ANS numbers for brown bear in the GMUs in the Bay planning area range between 45 and 85 annually (5 AAC 99.025),. Actual harvest is probably higher than this number as there may be a lack of adequate reporting of harvest by local residents.

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

Alternative A would continue management of the Bay planning area as specified in the Southwest Planning Area MFP. Valid decisions contained in the Southwest Planning Area 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 Southwest Planning Area MFP. 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. Other BLM lands in the state 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 that are presented and analyzed in Chapters II and IV of the Bay 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) Findings

Alternative A would not significantly restrict subsistence use by communities in the planning area, as impacts to subsistence resources would be negligible. Under this alternative the ANSCA 17(d)(1) withdrawals would be retained, prohibiting new leasable and locatable mineral activities on BLM-managed lands. The current levels, methods and mix of multiple uses would continue. Impacts to subsistence species are expected to be localized and temporary and are not expected to impact resources at the population level. No impacts to access by subsistence users are anticipated.

2. Evaluation and Findings for Alternative B

Alternative B would facilitate resource development on BLM lands in the planning area. ANCSA 17(d)(1) withdrawals would be revoked on lands retained in long-term Federal ownership, increasing the potential for mineral exploration and development. Travel and trail restrictions would be minimized. 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, ANSCA 17(d)(1) withdrawals would be lifted and leasable mineral activities would be

activities.

communities and subsistence resources.

Potential impacts from leasable mineral 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 MCH, or if infrastructure was constructed in such a way as to impede movements of the herd to important seasonal aggregation sites (i.e. calving and post calving aggregations, insect-

relief habitat, and breeding or winter ranges) then there could be large impacts to this important subsistence resource. Stipulations and Required Operating Procedures (Appendix A, Stipulation 6 & 7) will be used to mitigate disturbance. However, for the purposes of this planning effort, the reasonable foreseeable development scenario under this alternative indicates six exploratory wells and one developmental gas field could be constructed in the Koggiling Creek planning block, six exploratory wells (each disturbing approximately six acres) and one seismic survey would occur every five years covering 63 linear miles with a total of 250 miles collected, over the next 20 years. Additionally, roads, docks, and even remote airstrips constructed to aid production may serve as potential inroads for additional local subsistence user accessibility to resources as well as non-local hunters and fishermen, which could lead to increased competition for resources in the area.

Locatable mineral activities would be permitted on 1,102,489 acres of unencumbered lands. Surface disturbance under this alternative is presumed to be a total of 125 acres (BLM 2006) occurring on State-selected and Native (Federal mining claim) lands due to ANILCA 906(e) Top Filings. Impacts to subsistence would be similar to that discussed in Alternative A, but on a slightly larger scale.

The ROS would be designated as Roaded Natural, which provides access by conventional motorized vehicles, roads are maintained on a regular basis, and rustic facilities may be provided for user convenience and safety. Impacts to subsistence would be similar to that discussed in Alternative A, but may be more wide spread with greater intensity in localized areas due to development of facilities providing for improved access or convenience.

Impacts to subsistence resources and practices from travel management would be similar to that discussed in Alternative A.

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

Alternative B would manage BLM lands in the planning area in order to optimize resource development, with fewer restraints on commercial activity. Lands managed by other Federal agencies in the planning area are managed under National Park Service or US 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) Findings

Alternative B would not significantly restrict subsistence use in or near the planning area given the management parameters, and the Stipulations and ROPs found in (Appendix A, Stipulations 6 & 7). Should the amount of gas exploration or anticipated area of potential development expand, this finding may need to be revised to resolve and mitigate additional impacts to: salmon and freshwater fisheries; the Mulchatna Caribou Herd; habitat and other localized resources; 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. In some areas, uses would be excluded to protect sensitive resources. Two Areas of Critical Environmental Concern (ACEC) 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 Rivers Act. Limited areas are proposed for Off-Highway Vehicle use, to protect habitat, soil and vegetation resources. Most ANCSA 17(d)(1) withdrawals would be revoked, however some would be maintained as an interim measure at locations where proposed Wild and Scenic Rivers are located until Congress has the opportunity to take action on the proposals, in order to protect on maintain resource values.

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

Under Alternative C, ANCSA 17(d)(1) withdrawals would be revoked, opening 1,003,130 acres of unencumbered BLM lands to mineral entry. ANCSA 17(d)(1) withdrawals would be retained on eligible/suitable Wild Rivers (12,210 acres) including the Alagnak, Goodnews and Goodnews Middle Fork Rivers and within the proposed Carter Spit ACEC (61,251 acres). The retention of these withdrawals would prohibit mineral leasing within these areas. A No Surface Occupancy designation would be established within 300 feet of the East and South Fork Arolik River, Faro Creek, South Fork Goodnews River and Klutuk Creek. Consequently, under this alternative there is less land available for mineral leasing compared to Alternatives B or D. However, this analysis predicts the development of one gas field in the Koggiling Creek planning block, six exploratory wells (each disturbing approximately 6 acres) and one seismic survey would occur every five years covering 63 linear miles with a total of 250 miles collected, over the next 20 years. Alternative C proposes Stipulations, which would be applied that contain seasonal constraints for protection of caribou (Appendix A, Stipulation 6 and 7).

Alternative C predicts 43 acres of disturbance on State-selected or Native (Federal mining claim) lands from locatable mineral activities. Potential impacts to subsistence resources and practices from such a development would be the same as those discussed under Alternative B but fewer acres would be available for these activities.

Designation of Wild Rivers, ACECs, and No Surface Occupancy designations would prevent encroachment of development activities within these areas, ultimately minimizing disturbance to Subsistence fish and wildlife.

An increase in recreational visitors may result from designation of Wild River segments, which could lead to increased impacts to Subsistence fish and wildlife from disturbance and which may create increased competition for subsistence resources.

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

Alternative C would manage BLM lands in the Bay 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 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) Findings

Alternative C would not significantly restrict subsistence use of or access to fish and wildlife resources by communities in the Bay planning area. Some impacts to subsistence resources would be beneficial, and any impacts from the limited development allowed under this alternative would be minimized by ROPs and Stipulations found in Appendix A.

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

The Proposed RMP (Alternative D) emphasizes a moderate 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 one Area of Critical Environmental (Carter Spit ACEC). No rivers would be recommended as suitable for designation under the Wild and Scenic Rivers Act. This alternative would revoke ANCSA 17(d)(1) withdrawals.

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

Under Alternative D, ANCSA 17(d)(1) withdrawals would be revoked and 1,104,468 acres of unencumbered BLM lands would be open to leasable mineral activities. A 300 foot “No Surface Occupancy” area on either side of the East and South Fork Arolik, Faro Creek, South Fork Goodnews River, and Klutuk Creek would be proposed. There would be slightly less land available for mineral leasing compared to Alternative B, but more than Alternatives A and C. However, this analysis predicts the development of one gas field in the Koggiling Creek planning block. Potential impacts to subsistence use and resources from leasable mineral activities would be similar as those discussed under Alternative B, with the exception that under Alternative D, Stipulations that contain seasonal constraints for protection of caribou would be applied (Appendix A, Stipulation 6 and 7).

This analysis predicts potential mining development and disturbance on 115 acres from both placer and lode mining (BLM, 2006). This disturbance is expected to occur entirely on State-selected lands, due to ANILCA 906(e) Top Filings, and Native (Federal mining claim) lands.

Impacts to subsistence and subsistence resources from this level of development would be the same as for Alternative B. At this level of anticipated development and with the application of ROPs in mining Plans of Operations, impacts to subsistence uses and subsistence resources may be considerable in the immediate area associated with locatable mineral activities. Within the Carter Spit ACEC, Plans of Operation would be required for any operation (even those less than five acres). This would have the effect of minimizing small-scale exploratory or development activities and would enable BLM to work with the operator in the Plan of Operation to apply ROPs for protection of resources.

Under Alternative D, the entire recreation area setting would be managed as ROS classes semi-primitive motorized. Impacts to subsistence resources would be the same as those described under Alternative A. All lands would receive a “limited” designation for OHV use, which would require vehicles to stay on existing trails whenever possible. A vehicle weight limit of 2000 pounds would be proposed. Impacts would be similar to that discussed in Alternative C.

The primary impact to subsistence fish species as a result of the 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. The primary activities that can lead to increased erosion and subsequent sedimentation are: recreation, OHV use, gravel and mineral mining, and fire management. Most of the potential impacts from these activities would be mitigated by the Stipulations and Required Operating Procedures (Appendix A, Stipulation 9 & ROP FW 6a), and the 300-foot no surface occupancy area along certain rivers and creeks.

The primary impact to wildlife, especially large mammals (e.g., caribou, moose), as a result of Proposed RMP is the temporary displacement and disturbance of animals, and the degradation of habitat in areas of permitted activity, including leasable and locatable mineral activities. These may be reduced by the application of Stipulations, Required Operating Procedures, (Appendix A) and additional constraints determined through project specific NEPA process. In addition, the designation of the Carter Spit ACEC (36,220 acres) provides additional protection of key habitat for wildlife resources.

The Proposed RMP provides for increased activities within the planning area while providing constraints to protect subsistence fish and wildlife. The Proposed RMP is not anticipated to result in population-level declines to subsistence fish and wildlife in the planning area.

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

The Proposed RMP would manage BLM lands in the planning area following the BLM mission of multiple use, while at the same time protecting 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 include the three action alternatives 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 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 main document.

d) Findings

The Proposed RMP (Alternative D) would not significantly restrict subsistence use in the planning area. Most of the impacts to subsistence resources would be negligible. Any impacts from the limited amount of development allowed to occur under this alternative would be minimized by the stipulations and ROPs discussed in Chapter II. Impacts to subsistence resources are expected to be localized and temporary, and are not envisioned to have impacts at the population level. No impacts to access by subsistence users are expected to occur.

Competition for subsistence resources, primarily fish, caribou and moose, occurs due to non-local users entering the planning area, especially those using the services of transporters and outfitters. Under the Proposed RMP, there would be no set limits on the number of: guides, outfitters, transporters, local hunters, non-local hunters not using guides, or non-consumptive user groups. However currently there are only four special recreational permits (SRP) for the entire area and it is predicted that over the life of the plan a maximum of only 10 SRPs would be issued. This low number of SRPs would keep competition for resources below a level where there would be significant impacts to subsistence use. Due to a decline of the MCH, increased hunting restrictions for caribou have occurred since 2002 and are likely to continue for a number of years. Currently, moose harvest levels are adequate, given the abundance and accessibility of moose. However, if the MCH is impacted by management actions to the extent that subsistence users require more moose to offset the shortage in caribou, then significant impacts to subsistence use may result and revision to this finding may be required.

5. Evaluation and Findings 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:

History of Oil and Gas Exploration

To date, oil and gas exploration has been limited to 26 onshore wells and 2 offshore wells in the Bristol Bay region, an area comprising about 40,000 square miles (Magoon et al. 1996). None of the wells produced oil or gas.

First Lease Sales – The State of Alaska first made land available for oil and gas leasing in the Bristol Bay area in the 1960s. Sales #2 and #5 resulted in the leasing of five isolated tracts in Nushagak Bay and on the Alaska Peninsula (State of Alaska 2005). A total of 476,824 acres were leased. In 1961 Pure Oil Company received a contract from the State of Alaska to drill three wells

in the Nushagak Bay area. The project was abandoned when Pure Oil Company failed in an attempt to land a drilling rig in the area due to icing conditions (State of Alaska 1961).

Historic Wells – The North Aleutian COST #1 well (1983) and the Amoco Becharof #1 well (1985) were drilled in the Aleutian Islands region. The North Aleutian COST #1 well was drilled offshore by ARCO into the Bear Lake Formation, which exhibited good reservoir properties. Approximately 33 feet of coal was also found (Reifenstuhl and Finzel 2005).

Becharof #1, the nearest well on the Alaska Peninsula to the planning area boundary is located approximately 30 miles south of the boundary. It was drilled in 1985 by the Amoco Petroleum Company. Significant gas shows were encountered in Tertiary rocks (Reifenstuhl and Brizzolara 2004).The strata lying between 6,700 and 8,000 feet are considered mature (hydrocarbon generating)(Haga and others 2005). The exploratory well was abandoned.

Cook Inlet Basin Oil and Gas – Alaska's first commercial oil production came from discoveries in Cook Inlet. In 1959, the State of Alaska established a competitive leasing program. Since then over 5.6 million acres of State land have been leased in 40 State oil and gas lease sales in the Cook Inlet region. Prior to Statehood in 1959 the Federal government conducted non-competitive lease sales. About 67,000 acres of the non-competitive Federal leases remain active in the Cook Inlet basin. One competitive Federal lease has been issued to date: a 400-acre parcel. In 1960, annual production rose to 600,000 bbls, and peaked at 83 million bbls in 1970. Industry-related developments include a Unocal ammonia-urea plant in Nikiski, the first oil refinery developed by Tesoro in 1969 near Kenai, and a liquid natural gas (LNG) plant in Nikiski in 1969.

History of Locatable Mineral Production

Known mineral deposits within the Bay planning area that have seen historical production include one deposit of placer platinum, placer gold, and one small mercury lode deposit. Placer platinum mining has historically occurred on the Salmon River near the Goodnews Mining Camp and associated side drainages including Dowery Creek, Squirrel Creek, and Clara Creek. Between 1928 through 1982 an estimated 646,312 troy ounces of platinum were mined from these drainages. Early open cut mining was conducted by draglines/sluice-boxes in the side drainages. In 1937 a large bucket-line dredge was brought in to mine the Salmon River which operated through 1982.

Placer gold mineralization has been identified and mined in the past but these operations were small and have been inactive for many years. Placer gold mining has occurred in the headwaters of the Arolik River and the Wattamuse/Slate Creek area, north of Goodnews Bay; at Trail Creek, a tributary of the Togiak River; at American Creek, north of Naknek Lake; and at Portage Creek and Bonanza Creek, north of Port Alsworth. The largest gold placer operation occurred around Wattamuse Creek and associated drainages, where between 1917 through 1947 an estimated 30,041 troy ounces of gold were mined (BLM 2005, AMS).

Mercury was discovered at the Redtop Mercury Mine, located on Marsh Mountain north of Dillingham. Production occurred from 1952 to 1959 with a total of approximately 100 flasks (Hudson, 2001a OFR 01-192). Several abandoned mine projects have been conducted at the Redtop Mercury Mine during the last decade, including hazardous waste removal of the retort and contaminated soil at the Redtop Millsite along the Wood River. Additionally, dynamite demolition and a closure of the main underground adit have occurred at the associated mine site on top of Marsh Mountain (BLM 2005).

Omnibus Roads – Three Omnibus roads were constructed in the Bay planning area.

Commercial Fishing – Commercial fishing in Bristol Bay continues as the key economic driver in the region. Residents in every village in the region participate in the fishery, with members of every community holding set net and drift net limited entry permits.

The Oil Industry – Oil provides approximately 85% of the State of Alaska income, Permanent Fund Dividends to residents, and has resulted in infrastructure development in the Bristol Bay Region.

Oil and Gas in Bristol Bay Basin – Offshore drilling is currently off limits following a 1996 presidential moratorium; however, directional drilling from onshore is authorized (State of Alaska 2004). The moratorium on offshore drilling is in effect until June 30, 2012, but can be revoked by the President prior to that date (Sherwood et al. 2006).

Alaska Peninsula and Nushagak Peninsula Oil and Gas Leasing Program – On March 17, 2004, ADNR, Lake and Peninsula Borough, Bristol Bay Borough, and Aleutians East Borough signed a Memorandum of Understanding (MOU) in support of oil and gas lease sales and licensing of State land in the Bristol Bay and Alaska Peninsula regions. Similar MOUs were already in place between the ADNR and the Aleut Corporation and the Bristol Bay Native Corporation (State of Alaska 2004).

Oil and Gas Exploration Licensing Near Dillingham
The multi-agency coordination resulted in the State of Alaska initiating an Exploration Licensing area near Dillingham, which originally totaled 329,113 acres, only applicable for lands owned by the State (State of Alaska 2004). Bristol Shores, LLC, the primary interested licensee, was granted a license but let it lapse. In June 2005, Bristol Shores applied for a new license application for a reduced area consisting of 20,154 acres on the east side of Nushagak Bay, south of Dilllingham (Petroleum News 2005) with the intent of conducting initial exploration. Currently there is no proposed or pending license in the Bristol Bay license area. Commercial oil finds are unlikely, but the area may contain up to 1 trillion cubic feet (tcf) of natural gas (Loy 2004).

Oil and Gas Lease Sales - ADNR held an oil and gas lease sale October 26, 2005, offering 1,047 tracts of 5.8 million acres within the Alaska and Nushagak peninsulas (Decker 2005). Lands offered within the planning area include the lower Nushagak Peninsula and the southern portion of land extending from south of Ekuk eastward to the Kvichak River delta (State of Alaska 2005). About 510,000 acres lie within the Bay planning area boundary, none of which are BLM administered lands. At that time, 213,120 acres were leased, none of which were within the planning area. Interested was limited to Port Moller and vicinity, on the lower Alaska Peninsula approximately 200 miles south of the planning area. According to ADNR the next sale for the Alaska Peninsula is scheduled for February 2007 (State of Alaska 2006).

Cook Inlet Basin Leasables – The Cook Inlet basin is currently the only commercially producing oil and gas region in southern Alaska. Between 1997 and 2001 Cook Inlet natural gas production remained relatively stable at an average of 213 billion cubic feet (bcf) per year.

Locatable Mineral Exploration in the Bay Planning Area
During 2005, the last complete year of information, 7 Annual Placer Mining Applications (APMA) and Annual Hardrock Exploration Application (AHEA) were submitted for Locatable Mineral projects located within the Bay planning area. Four lode exploration applications and 3 placer mining applications were filed (AK DNR 2005). APMAs are currently being submitted for 2006.

Lode and Placer Exploration – Lode exploration projects include the Big Chunk, Kamishak Project, Pebble Copper, and Shotgun/Mose projects located on State land. One placer mining project on the Arolik River is located on Native-selected land and one location at Salmon River Bench is located on Native land. One placer mining operation on State land includes the Syneeva Creek (Northern Bonanza). There are no lode or placer mining activities on BLM unencumbered land at this time.

Pebble Mine Project – State lode mining claims are located on the Big Chunk (BC), FUR , GDH, KAK, Pebble Copper, Pebble South, 25 Gold: Sill, 37 Skarn, and 38 Porphyry properties. The Pebble copper-gold-molybdenum-silver deposit is located in the Lake and Peninsula Borough, just north of Frying Pan Lake and 18 miles northwest of Iliamna. The exploration and planning phase of this project is likely to continue for several years, and provides income for lodge and hotel owners in Iliamna as well as jobs for locals.

In 2004, Northern Dynasty Minerals, Ltd. began a program to collect engineering, environmental, and socioeconomic data required for completion of a Bankable Feasibility Study and submission of permit applications for the Pebble Mine. New finds in 2005 have delayed the permit application submission timeline. Production is not expected to begin before 2010 (Northern Dynasty Minerals Ltd. 2005).

In conjunction with the mining project, the Alaska Dept. of Transportation and Public Facilities (ADOT&PF) is examining the feasibility of constructing a 75 mile road from the Pebble mine site to a port site at Iniskin Bay or Williamsport. Draft reconnaissance engineering started in July 2004, and final reconnaissance engineering was to be completed in 2005 (ADOT&PF 2004).

Big Chunk Project – Liberty Star conducted a comprehensive exploration project to evaluate copper-gold deposits on state mining claims adjacent to the Pebble deposit (Alaska Minerals Commission 2005).

Locatable Mineral Claim Staking – Mining claims have been staked throughout the Bay planning area for both lode and placer deposits. Extensive claim staking has historically occurred in the Bonanza Hills, Kemuk, Kvichak, Pebble Copper, Shotgun Hills, Sleitat Mountains, Snow Gulch, and Red Top areas. As of January 2005 there were a total of 257 Federal claims covering approximately 10,280 acres and as of December 2005 there were a total of 5,824 State claims and no State prospecting sites covering a total of approximately 232,960 acres (BLM 2005).

Bonanza Creek Area – State placer mining claims are located on Bonanza Creek and Syneeva Creek. State lode mining claims are located on the Bonanza Hill and Bonanza property.

Goodnews Bay/Snow Gulch Area – State placer mining claims are located on the Arolik River.

Iliamna/Kvichak Area – Federal and State lode mining claims are located on the Iliamna Project, H Block property. State lode mining claims are located on the Iliamna Project, D Block and LSS properties.

Kemuk Mountain Area – State lode mining claims are located on the Kemuk and NAP properties.

Platinum Area – Federal placer mining claims are located on the Salmon River Bench property.

Shotgun Hills Area – State lode mining claims are located on the Shot, Shotgun/Mose, and Win properties.

Exploration and Development Activities Bonanza Creek Area – There are no identified exploration projects reported in the Bonanza Creek area as of 2004 (Szumigala and Hughes, 2005). One APMA placer mining project was submitted for Syneeva Creek for 2005 (AK DNR, 2005).

Exploration and Development Activities Goodnews Bay/Snow Gulch area – There are no identified exploration projects reported in the Goodnews Bay/Snow Gulch area as of 2004 (Szumigala and Hughes, 2005). One APMA placer mining project was submitted for the Arolik River for 2005 (AK DNR, 2005).

Exploration and Development Activities Iliamna/Fog Area – There are no identified exploration projects reported in the Iliamna/Fog area as of 2004 (Szumigala and Hughes, 2005). No APMA or AHEA exploration projects were submitted for 2005 (AK DNR, 2005).

Exploration and Development Activities Iliamna/Kvichak Area – Detailed geophysical survey and core drilling was completed in 2004 on the Iliamna Project H Block by Geocom Resources Inc. Over 3,303 feet of core drilling was completed at four locations outlining a 2,296 by 4,921 foot gold, copper, and molybdenite mineralized zone. At their Iliamna Project, D Block additional geophysical studies were conducted to delineate drill targets (Szumigala and Hughes, 2005). No APMA or AHEA exploration projects were submitted for 2005 (AK DNR, 2005).

Exploration and Development Activities Kasna Creek Area – There are no identified exploration projects reported in the Kasna Creek area as of 2004 (Szumigala and Hughes, 2005). No APMA or AHEA exploration projects were submitted for 2005 (AK DNR, 2005).

Exploration and Development Activities Kemuk Mountain Area – There are no identified exploration projects reported in the Kemuk Mountain area as of 2004 (Szumigala and Hughes, 2005). No APMA or AHEA exploration projects were submitted for 2005 (AK DNR, 2005).

Exploration and Development Activities Kijik Lake Area – There are no identified exploration projects reported in the Kijik Lake area as of 2004 (Szumigala and Hughes, 2005). No APMA or AHEA exploration projects were submitted for 2005 (AK DNR, 2005).

Recent Exploration and Development Activities Pebble Area – Three properties had extensive exploration activities conducted during 2004; Pebble Copper, Big Chunk (BC), and Pebble South. Northern Dynasty Minerals, LTD. conducted comprehensive drilling, base-line environmental and socioeconomic studies to support Federal and State project permit applications. Also, Northern Dynasty conducted site testing and engineering studies for a bankable feasibility study which will be started in 2005. In-fill drilling to upgrade resources to measured and indicated status and to finalize pit design as conducted. During 2004, more than 157,614 feet of core drilling in 227 holes was completed, in-fill drilling totaled 101,539 feet in 122 holes, metallurgical and process drilling totaled 21,335 feet in 26 holes, geotechnical drilling totaled 32,502 feet in 70 holes, and exploration drilling totaled 13,815 feet in 9 holes. A new higher-grade, laterally extensive gold, copper, and molybdenite “East Zone” was discovered on the east side of the “Central Zone” of Pebble Copper. Mineralization has been discovered to a depth of 2,379 feet, and extends beyond to an unknown depth. More extensive drilling will be conducted during 2005. This deposit would be mined by underground methods and is richer than the Central Zone (Szumigala and Hughes, 2005).

Liberty Star Gold Corp. conducted exploration activities on the Big Chunk (BC) property, abutting the northwest corner of the Pebble Copper claims. Airborne magnetic survey, geologic, geochemical, space imagery, and aeromagnetic studies identified 21 anomalous areas. Geological sampling, mapping, and diamond drilling activities were conducted during 2004 (Szumigala and Hughes, 2005).

Full Metal Minerals, Ltd. conducted exploration activities on the Pebble South property, abutting the south side of the Pebble Copper claims. A geological sampling program, geophysics and ground magnetic studies were completed in 2004. Eleven anomalous areas were identified with two high priority targets identified; the Boo and TYP properties (Szumigala and Hughes, 2005).

Two AHEA exploration projects were submitted for the Big Chunk (BC) and Pebble Copper projects for 2005 (AK DNR, 2005).

In 2006 Northern Dynasty Minerals, LTD. conducted comprehensive drilling, base-line environmental and socioeconomic studies to support Federal and State project permit applications. A total of 74,000 feet of core drilling was done with emphasis on determining the

overall size and grade of the Pebble East deposit discovery made in 2004. This drilling extended the north-south strike length to over 7,000 feet in which the grades consistently exceed 1% copper *equivalent. The deposit is still open ended to the north and south across a width exceeding 4,000 feet. The discovery of the Pebble East has boosted the inferred mineral resource at the deposit by nearly 90%. This deposit is richer than the Central Zone, but lies at depth would be mined by underground methods.

As of February 2007, the Pebble Project has inferred resources, at a 1.0% copper equivalent cutoff, of:

1.4 billion **tonnes grading 1.29% copper equivalent containing 24.6 billion pounds of copper, 20.9 million ounces gold, and 1.2 billion pounds of molybdenum.

Northern Dynasty has stated that the combined resources at the Pebble Deposit constitute one of the most significant metal accumulations in the world. In 2007 the company plans to focus efforts on Pebble East with an estimated 250,000 feet of drilling to further expand the resource and upgrade the classification of known mineralization (Northern Dynasty news releases, January 23 and February 20, 2007).

*Copper equivalent (CuEQ = Cu% + (Au g/t x 12.86/22.05) + (Mo% x 132.28/22.05)
**tonnes = metric tons.

Exploration and Development Activities Platinum Area – There are no identified exploration projects reported in the Platinum area as of 2004 (Szumigala and Hughes, 2005). One APMA placer mining project was submitted for the Salmon River for 2005 (AK DNR, 2005).

Exploration and Development Activities Shotgun Hills Area – TNR Gold Corp. conducted geological and geochemical exploration programs during 2004. This resulted in acquiring 14,080 acres of new State mining claims. The claims follow a north-south trend from the Main Shotgun Zone and are called the Shot, King, and Winchester areas. New drill targets for 2005 were identified along this zone as well as more extensive drilling of the Main Zone. One AHEA exploration projects were submitted for the Shotgun/Mose project for 2005 (AK DNR, 2005).

Sleitat Mountain Area – There are no identified exploration projects reported in the Sleitat Mountain area as of 2004 (Szumigala and Hughes, 2005). No APMA or AHEA exploration projects were submitted for 2005 (AK DNR, 2005).

Construction of the Wood River Bridge – The ADOT&PF, with the Federal Highway Administration, have made an Environmental Assessment and Finding of No Significant Impact for the proposed construction of the Wood River Bridge in Alaknagik. The bridge is currently in the design phase, with construction to begin in late 2007 or in 2008 (ADOT&PF 2005).

Iliamna Airport Improvements – The ADOT&PF began study of ways to improve the Iliamna airport in 2005, including identifying improvement options, preparing engineering and environmental reports, and completing a master plan that outlines short-term (5 years), intermediate (10 years), and long-term (20 year) airport improvements (ADOT&PF 2005).

Manokotak Airport Improvements – The ADOT&PF with the Federal Aviation Administration is proposing improvements to Manokotak Airport in Manokotak. Improvements include expanding the runway, surfacing the entire facility, providing adequate area for snow storage, constructing an apron and taxiway system, installing an airport lighting system and precision approach path indicators and runway end identification lighting, adding two snow removal equipment storage building bays, and extending overhead electrical lines to the new facility. A draft Environmental Assessment was published in July 2005 (ADOT&PF 2005; FAA 2005).

Proposed Naknek River Bridge and Aviation Operations Improvements – The proposed ADOT&PF project would entail a bridge spanning the Naknek River and connecting the three communities of the Bristol Bay Borough, South Naknek, Naknek, and King Salmon. The bridge would tie into the existing Omnibus road that connects Naknek and King Salmon. A bridge would influence aviation use patterns and the priority of aviation operations and improvements at the individual airport facilities, some of which had been identified by 2005 and were awaiting funding (ADOT&PF 2005).

Near-Term Recommendations for Community Linkages – In its Transportation Plan, the ADOT&PF recommends five community linkage projects, three of which are in or immediately adjacent to the Bay planning area: Williamsport-Pile Bay roadway improvements; Iliamna-Nondalton road improvements and bridge construction connection; and Dillingham-Aleknagik road improvements and bridge construction connection (ADOT&PF 2005).

ADOT&PF Recommendations for Port and Harbor Improvements – One recommended set of port improvements is Williamsport navigation improvements and dock facility and Pile Bay dock and boat launch facility. While this is outside the Bay planning area, it is seen as providing an intermodal complement to key transportation infrastructure, some of which would probably be within the planning area (ADOT&PF 2005).

ADOT&PF Marked Winter Trail System – Provides a system of trail markers that permits safe travel by snowmachine between Bristol Bay communities during the winter months (ADOT&PF 2005).

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

According to the fish and wildlife analyses in Chapter IV of the Proposed RMP/Final EIS, the combination of ongoing oil and gas development occurring in or adjacent to the planning area, and possible solid mineral exploration and development in the same region, would have cumulative impacts to the MCH. In addition, the privatization or mineral exploration and development of State or Native Corporation lands could lead to additional development. Depending on the location, extent, intensity, and duration of development, these impacts could include: short or long-term disturbance to: caribou calving habitat; post calving aggregations; winter ranges; insect relief habitat; 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 other seasonal aggregation habitats or insect relief habitat, impacts could be significant to subsistence.

Development of regional roads and trails infrastructure within the planning area would have the potential to negatively affect fish and wildlife and thus affect subsistence. These impacts could include; habitat fragmentation and degradation; increased access into wildlife habitats; proliferation of unauthorized or uncontrolled OHV use; 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/trail corridors, thus depleting resources from the area, and potentially altering harvest from currently used traditional harvest areas. Increased competition for subsistence resources would likely result if smaller communities were linked to the existing road system within the State, as non-resident and non-local 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.

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 use 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) Findings

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 MCH. Currently, the MCH is a primary subsistence resource for communities in the Bristol Bay and Goodnews Bay regions of Alaska, as well as a significant number of communities adjacent to and well beyond the Bay planning area boundaries, with between 4,700 to 11,700 animals harvested annually. Moose provide a similar source of food and include a harvest of approximately 425-745 annually. Fish resources, primarily salmon, are the major subsistence resource used in the Bay Planning area. As discussed above; increasing exploration and development activities and the potential for improved access (i.e. airport improvements and major road projects), could lead to increased impacts on subsistence resources, including the MCH, moose, fish and their habitat in the planning area. These potential impacts, contribute to the finding of “may significantly restrict subsistence use.”

C. 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). 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 RMP/ EIS met the "may significantly restrict" threshold. As a result, public hearings were held in the potentially affected communities of Goodnews Bay, Dillingham, Alegnagik, New Stoyahok, Naknek, and Newhalen. One additional public meeting was held in Anchorage and comments were taken via conference call from residents of Quinhagak. The determinations presented below are based on the results of the Hearings held after the release of the draft RMP/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.

D. Subsistence Determinations Under the 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 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)].

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

Determinations under the requirements of ANILCA Sec. 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 December 6, 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 Anchorage Field 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 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 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 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 in part (Goodnews planning block only) is guided by the Southwest Planning Area Management Framework Plan (MFP) (BLM 1981). Since approval of the MFP in 1981, 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 25 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. Further, the remaining lands in the Bristol Bay portion of the Bay Planning Area are not covered by an existing plan.

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.

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 BLM and the public on how BLM lands and resources in the Bay 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 Bay RMP, it internally identified subsistence uses 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, 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:

- The establishment of an Area of Critical Environmental Concern, which will serve to protect important habitat and subsistence resources.
- The establishment of Required Operating Procedures (Appendix A) for all permitted activities within the Planning Area.
- on BLM lands.

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

Appendix F

17(b) Easements

Goodnews Planning Block 17(b) Easements

Within this area there are five easements reserved for public access (Map 3.44). Table F.1 below provides information regarding each easement within this planning block.

Table F.1. Goodnews Planning Block 17(b) Easements

Easement I.D.	Administrative Agency	Land Owner IC/Pat#	Land Access	Easement Type	Location Information
EIN 1 C3,C5, D1, D9 M	BLM	Arviq Inc. 50-95-0437	Public Lands	Existing 25 foot trail Seasonal use Winter	U.S.G.S. Kuskokwim Bay D-1 Current to date: 12/15/2003
EIN 3 C3, C4, D1, D9	BLM/TNWR	Calista Corp. IC 1660	SOA	Existing 25 foot trail	U.S.G.S. Goodnews A-8 Current to date: 02/02/2006
EIN 3a C3, C4, D1, D9	BLM/TNWR	Calista Corp. IC 1660	SOA	Existing 25 foot trail Winter	U.S.G.S. Goodnews B-7 Current to date: 02/13/2006
EIN 3b C3, C4, D1, D9	BLM/TNWR	Calista Corp. IC 1660	SOA	Existing 25 foot trail Summer	U.S.G.S. Goodnews B-7 Current to date: 02/13/2006
EIN 4 C3,C4, D1, D9	BLM	Calista Corp. IC 1660	Public Lands	Existing 25 foot trail Winter	U.S.G.S. Goodnews B-6 Current to date: 02/13/2006

Alagnak Planning Block 17(b) Easements

Within this area there are four easements reserved for public access (Map 3.43). Table F.2 below provides the information regarding each easement within this planning block.

Table F.2. Alagnak Planning Block 17(b) Easements

Easement I.D.	Administrative Agency	Land Owner IC/Pat#	Land Access	Easement Type	Location Information
EIN 29d C5	BLM	50-91-0600 Paug-vik Inc. Ltd	Public Lands	Existing 25 foot trail	U.S.G.S. Naknek D-3 Current to date: 10/14/2005
EIN 14 C3, D1, D9	BLM	50-91-0600 Paug-vik Inc. Ltd	Public Lands	Existing 25 foot trail Winter use	U.S.G.S. Naknek D-3 Current to date: 10/14/2005
EIN 8b C6, D9	BLM	IC 193 Levelock Natives Limited	Public Lands	1 acre site	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 8c C4	BLM	IC 193 Levelock Natives Limited	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003

Koggiling Creek Planning Block 17(b) Easements

Within this area there are nine easements reserved for public access (Map 3.47). Table F.3 below provides information regarding each easement within this planning block.

Table F.3. Koggiling Creek Planning Block 17(b) Easements

Easement I.D.	Administrative Agency	Land Owner IC / Pat #	Land Access	Easement Type	Location Information
EIN 1 D1, N	BLM	BBNC IC 1658	Public Lands	1 acre site	U.S.G.S. Dillingham A-5 Current to date: 04/15/2003
EIN 1a D1, N	BLM	BBNC IC 1658	SOA	Proposed 25 foot trail	U.S.G.S. Dillingham A-5 Current to date: 04/15/2003
EIN 2 D1, N	BLM	BBNC IC 1658		1 acre site	U.S.G.S. Dillingham A-5 Current to date: 04/15/2003
EIN 2a D1, N	BLM	BBNC IC 1658	SOA	Proposed 25 foot	U.S.G.S. Dillingham A-5 Current to date: 04/15/2003
EIN 29c C5	BLM	Paug-vik Inc. 50-91-0600	SOA	Existing 25 foot trail	U.S.G.S. Naknek D-4 Current to date: 06/22/2005
EIN 8b C5	BLM	Choggiung Limited 50-93-0519	SOA	Proposed 25 foot trail	U.S.G.S. Naknek D- 6 Current to date: 12/15/2003
EIN 8a C5	BLM	Choggiung Limited 50-93-0519	N/A	1 acre site	U.S.G.S. Naknek D-6 Current to date: 12/15/2003
EIN 2 D1, C5	BLM	BBNC 50-88-0370	Public Lands	1 acre site	U.S.G.S. Naknek D-5 Current to date: 12/15/2003
EIN 2a C5	BLM	BBNC 50-88-0370	BLM	Proposed 25 foot trail	U.S.G.S. Naknek D-5 Current to date: 12/15/2003

Iliamna East Planning Block 17(b) Easements

Within this area there are 40 easements reserved for public access (Map 3.45). Table F.4 below provides the information regarding each easement within this planning block.

Table F.4. Iliamna East Planning Block 17(b) Easements

Easement I.D.	Administrative Agency	Land Owner IC / Pat #	Land Access	Easement Type	Location Information
EIN 24 C5, D1 N	BLM/NPS	Nondalton Native Corporation IC 300	State Conveyed	1 acre site	U.S.G.S. Lake Clark A-6 Current to date: 08/08/2002
EIN 25 C5, D1 N	BLM/NPS	Nondalton Native Corporation IC 300	State Conveyed	Proposed 25 foot trail	U.S.G.S. Lake Clark A-6 Current to date: 08/08/2002
EIN 12b D9	BLM/NPS	Nondalton Native Corporation IC 300	State Conveyed	1 acre site	U.S.G.S. Lake Clark A-6 Current to date: 08/08/2002
EIN 4a D1	BLM/NPS	Kijik Corporation 50-94-0485	State Conveyed	Existing 25 foot trail	U.S.G.S. Lake Clark A-6 Current to date: 08/08/2002
EIN 12b D9	BLM	Nondalton Native Corporation IC 300	Public Lands	1 acre site	U.S.G.S. Lake Clark A-6 Current to date: 08/08/2002
EIN 12e C5	BLM	Nondalton Native Corporation IC 300	Public Lands	Proposed 25 foot trail	U.S.G.S. Lake Clark A-5 Current to date: 08/08/2002
EIN 13a D9	BLM	Nondalton Native Corporation IC 300	Public Lands	1 acre site	U.S.G.S. Lake Clark A-5 Current to date: 08/08/2002
EIN 20 C5, D1, N	NPS	Kijik Corporation 50-94-0485	Public Lands	Proposed 25 foot trail	U.S.G.S. Lake Clark A-5 Current to date: 08/08/2002
EIN 22 C5, D1, N	NPS	Kijik Corporation 50-94-0485	Public Lands	Proposed 25 foot trail	U.S.G.S. Lake Clark A-5 Current to date: 08/08/2002
EIN 10k E	NPS	Nondalton Native Corporation IC 300	Public Lands	Proposed 25 foot trail	U.S.G.S. Lake Clark A-5 Current to date: 08/08/2002
EIN 16a L	NPS	Nondalton Native Corporation IC 300	Public Lands	Existing 50 foot trail	U.S.G.S. Lake Clark A-5 Current to date: 08/08/2002

Easement I.D.	Administrative Agency	Land Owner IC / Pat #	Land Access	Easement Type	Location Information
EIN 16 L	NPS	Nondalton Native Corporation IC 300	Public Lands	Existing unimproved bush airstrip, 250' width and 1500' length	U.S.G.S. Lake Clark A-5 Current to date: 08/08/2002
EIN 16b L	NPS	Nondalton Native Corporation IC 300	Chulitna River	1 acre site	U.S.G.S. Lake Clark A-5 Current to date: 08/08/2002
EIN 102 C5	NPS	Kijik Corporation IC 1337	Lake Clark NP	½ acre site	U.S.G.S. Lake Clark A-4 Current to date: 12/08/2004
EIN 27 C5	NPS	Kijik Corporation IC 1337	Lake Clark NP	½ acre site	U.S.G.S. Lake Clark A-4 Current to date: 12/08/2004
EIN 100 C4	NPS	Kijik Corporation IC 1337	Lake Clark NP	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 26b C5, D1, N	NPS	Nondalton Native Corporation IC 300 **(X- not in IC)**	Lake Clark NP	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 27a D1	NPS	Iliamna Natives Ltd IC 1341	Lake Clark NP	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 27 D1	NPS	Iliamna Natives Ltd. IC 1339	Lake Clark NP	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 17a D1	NPS	Applicant AA6685-0	Lake Clark NP	Proposed Size(?) trail	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
17 D1	NPS (?)	**(X- not in IC or patent)**	Lake Clark NP (?)	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 11a C5	NPS	Iliamna Natives Ltd. 50-94-0481	Lake Clark NP	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 12a C5	NPS	Iliamna Natives Ltd. 50-94-0481	Lake Clark NP	½ acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004

Easement I.D.	Administrative Agency	Land Owner IC / Pat #	Land Access	Easement Type	Location Information
EIN 15c D9	BLM	Iliamna Natives Ltd. 50-94-0481	Public Lands	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 11d D1, D9	BLM	Iliamna Natives Ltd. IC 402	Public Lands	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 22 E	BLM	Iliamna Natives Ltd. IC 402	State Conveyed	1 acre site	U.S.G.S. Iliamna D-6 Current to date: 07/16/2002
EIN 4a C4	BLM	Newhalen Native Corporation IC 283	Public Lands	1 acre site	U.S.G.S. Iliamna C-6 Current to date: 12/15/2003
EIN 3e D9	BLM	Newhalen Native Corporation IC 283	Public Lands	1 acre site	U.S.G.S. Iliamna C-6 Current to date: 12/15/2003
EIN 5b D1, D9, L	BLM	Newhalen Native Corporation IC 283	Public Lands	1 acre site	U.S.G.S. Iliamna C-6 Current to date: 12/15/2003
EIN 6a D9	BLM	Iliamna Natives Ltd. IC 402	Public Lands	1 acre site	U.S.G.S. Iliamna C-5 Current to date: 08/25/2003
EIN 24a D3	BLM	Iliamna Natives Ltd. IC 649	Public Lands	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 24b D3	BLM	Iliamna Natives Ltd. IC 649	Major Waterway – Slopbucket Lake	1 acre site	U.S.G.S. Iliamna D-5 Current to date: 11/29/2004
EIN 12b D9	BLM	Alaska Peninsula Corporation IC 357	Navigable Water	1 acre site	U.S.G.S. Iliamna C-5 Current to date: 08/25/2003
EIN 12k D9	BLM	Alaska Peninsula Corporation IC 357	Public Lands	1 acre site	U.S.G.S. Iliamna C-4 Current to date: 05/13/2004
EIN 23 E	BLM	Alaska Peninsula Corporation IC 357	Public Lands	1 acre site	U.S.G.S. Iliamna B-4 Current to date: 10/26/2004
EIN 8a D9	BLM	Alaska Peninsula Corporation IC 357	Public Lands	1 acre site	U.S.G.S. Iliamna B-5 Current to date: 08/13/2002

Easement I.D.	Administrative Agency	Land Owner IC / Pat #	Land Access	Easement Type	Location Information
EIN 22 E	BLM	Alaska Peninsula Corporation IC 357	State Conveyed	1 acre site	U.S.G.S. Iliamna B-5 Current to date: 08/13/2002
EIN 24 C5	BLM	Alaska Peninsula Corporation IC 357	State Conveyed	1 acre site	U.S.G.S. Iliamna B-5 Current to date: 08/13/2002
EIN 25 C5	BLM	Alaska Peninsula Corporation IC 357	State Conveyed	1 acre site	U.S.G.S. Iliamna B-5 Current to date: 08/13/2002
EIN 4a D9	BLM	Alaska Peninsula Corporation IC 357	Public Lands	1 acre site	U.S.G.S. Iliamna B-5 Current to date: 08/13/2002

Iliamna West Planning Block 17(b) Easements

Within this planning block there six easements reserved for public access (Map 3.46). Table F.5 below provides the information regarding each easement within the planning block

Table F.5. Iliamna West Planning Block 17(b) Easements

Easement I.D.	Administrative Agency	Land Owner IC / Pat#	Land Access	Easement Type	Location Information
EIN 19b C4	BLM	Igiugig Native Corporation 50-89-0710	Public Lands	1 acre site	U.S.G.S. Iliamna B-8 Current to date: 08/27/2002
EIN 19a C4	BLM	Igiugig Native Corporation 50-89-0710	Public Lands	Proposed 50 foot trail	U.S.G.S. Iliamna B-8 Current to date: 08/27/2002
EIN 6c D9	BLM	Igiugig Native Corporation 50-89-0710	Public Lands	1 acre site	U.S.G.S. Iliamna B-8 Current to date: 08/27/2002
EIN 11 D9	BLM	Igiugig Native Corporation IC 302	Public Lands	Existing and Proposed 50 foot trail	U.S.G.S. Iliamna B-8 Current to date: 08/27/2002
EIN 11a C4	BLM	Igiugig Native Corporation 50-89-0710	Public Lands	Proposed 50 foot trial	U.S.G.S. Iliamna B-8 Current to date: 08/27/2002
EIN 18a C4	BLM/NPS	Igiugig Native Corporation 50-89-0710	Public Lands	Proposed 50 foot trail	U.S.G.S. Iliamna A-7 Current to date: 08/27/2002

Kvichak Planning Block 17(b) Easements

Within this area there are 12 easements reserved for public access (Map 3.49). Table F.6 below provides information regarding each easement within the planning block.

Table F.6. Kvichak Planning Block 17(b) Easements

Easement I.D.	Administrative Agency	Land Owner IC / Pat #	Land Access	Easement Type	Location Information
EIN 1b D9, C6	BLM	Levelock Natives Ltd. IC 193	Public Lands	1 acre site	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 1f D9, C6	BLM	Levelock Natives Ltd. IC 193	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 1c D9, C6	BLM	Levelock Natives Ltd. IC 193	Public Lands	1 acre site	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 1d D1, D9, L	BLM	Levelock Natives Ltd. IC 193	Public Lands	1 acre site	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 1g C6, D1, D9, L	BLM	Levelock Natives Ltd. IC 193	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 1h D1, D9, L	BLM	Levelock Natives Ltd. IC 193	Public Lands	Proposed 25-ft trail	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 2e C4	BLM	Levelock Natives Ltd. IC 193	Public Lands	Proposed 25-ft trail	U.S.G.S. Dillingham A-3 Current to date: 12/15/2003
EIN 12b E	BLM	Levelock Natives Ltd. IC 193	Public Lands	Proposed 25-ft trail	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 13 E	BLM	Levelock Natives Ltd. IC 193	Public Lands	Existing 5-ft trail winter?	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 14 E	BLM	Levelock Natives Ltd IC 193	Public Lands	Existing 5-ft trail winter?	U.S.G.S. Dillingham A-3 Current to date: 12/15/2003
EIN 15a C5	BLM	Levelock Natives. Ltd IC 193	Public Lands	1 acre site	U.S.G.S. Dillingham A-2 Current to date: 12/15/2003
EIN 16 C5	BLM	Levelock Natives Ltd. **(X-not in IC)**	Public Lands	1 acre site	U.S.G.S. Dillingham A-3 Current to date: 12/15/2003

Yellow Creek Planning Block 17(b) Easements

Within this area there are 10 easements reserved for public access (Map 3.50). Table F.7 below provides the information regarding each easement within the planning block

Table F.7. Yellow Creek Planning Block 17(b) Easements

Easement I.D.	Administrative Agency	Land Owner IC / Pat #	Land Access	Easement Type	Location Information
EIN 10 C4	BLM	Ekwok Natives Ltd. IC 177	Public Lands	1 acre site	***Not found on easement quad**
EIN 11 C4	BLM	Ekwok Natives Ltd. IC 177	Public Lands	1 acre site	U.S.G.S. Dillingham B4 Current to date: 12/15/2003
EIN 11a C4	BLM	Ekwok Natives Ltd. IC 177	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham B4 Current to date: 12/15/2003
EIN 37 E	BLM	Ekwok Natives Ltd. 50-92-0738	Public Lands	1 acre site	U.S.G.S. Dillingham B4 Current to date: 12/15/2003
EIN 38 E	BLM	Ekwok Natives Ltd. 50-92-0738	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham B4 Current to date: 12/15/2003
EIN 10a C4	BLM	Ekwok Natives Ltd. 50-92-0738	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham B5 Current to date: 12/15/2003
EIN 10b C4	BLM	**(X-not in IC of Patent)**	Public Lands	1 acre site	U.S.G.S. Dillingham B5 Current to date: 12/15/2003
EIN 13 E	BLM	Levelock Natives Ltd. 50-89-0751	Public Lands	Existing 25 foot trail	U.S.G.S. Dillingham A3 Current to date: 12/15/2003
EIN 119 D1, M	BLM	Stuyahok Limited 50-92-0709	Public Lands	1 acre site	U.S.G.S. Dillingham C3 Current to date 07/27/2004
EIN 119a D1, M	BLM	Stuyahok Limited 50-92-0709	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham C-3 Current to date: 07/27/2004

Klutuk Creek Planning Block 17(b) Easements:

Within this area there are 18 easements reserved for public access (Map 3.48). Table F.8 below provides the information regarding each easement within the planning block.

Table F.8. Klutuk Creek Planning Block 17(b) Easements

Easement I.D.	Administrative Agency	Land Owner IC / Pat #	Land Access	Easement Type	Location Information
EIN 30 C4,	BLM	Koliganek Natives Ltd. IC 228	Public Lands	1 acre site	U.S.G.S. Dillingham D-4 Current to date: 11/23/1993
EIN 30a,C4	BLM	Koliganek Natives Ltd. IC 228	Public Lands	Proposed 25 foot	U.S.G.S. Dillingham D-4 Current to date: 11/23/1993
EIN 29 C4,	BLM	Koliganek Natives Ltd. IC 228	Public Lands	1 acre site	U.S.G.S. Dillingham D-4 Current to date: 11/23/1993
EIN 29a,C4	BLM	Koliganek Natives Ltd. IC228	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham D-4 Current to date: 11/23/1993
EIN 28, C4,	BLM	Koliganek Natives Ltd. IC 228	Public Lands	1 acre site	U.S.G.S. Dillingham D-4 current to date: 11/23/1993
EIN 28a, C4	BLM	Koliganek Natives Ltd. IC228	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham D-4 Current to date: 11/23/1993
EIN 25, C4	BLM	Koliganek Natives Ltd. IC 228	Public Lands	1 acre site	U.S.G.S. Dillingham C-3 Current to date: 07/27/2004
EIN 25a,C4	BLM	Koliganek Natives Ltd. IC 228	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham C-3 Current to date: 07/27/2004
EIN 33, C4	BLM	Stuyahok Ltd. IC 290	Public Lands	1 acre site	U.S.G.S. Dillingham C-3 Current to date: 07/27/2004
EIN 33a,C4	BLM	Stuyahok Ltd. IC 290	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham C-3 Current to date: 07/27/2004

Easement I.D.	Administrative Agency	Land Owner IC / Pat #	Land Access	Easement Type	Location Information
EIN 32 C4	BLM	Stuyahok Ltd. IC 290	Public Lands	1 acre site	U.S.G.S. Dillingham C-4 Current to date: 01/13/1993
EIN 32A, C4	BLM	Stuyahok Ltd. IC 290	Public Land	Proposed 25 foot trail	U.S.G.S. Dillingham C-4 Current to date: 01/13/1993
EIN 119 D1, M	BLM	BBNC 50-92-0709	Public Lands	1 acre site	U.S.G.S. Dillingham C-3 Current to date: 07/27/2004
EIN 119a D1, M	BLM	BBNC 50-92-0709	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham C-3 Current to date: 07/27/2004
EIN 16 C4	BLM	Ekwok Natives Ltd. 50-92-0738	Public Lands	1 acre site	U.S.G.S. Dillingham B-5 Current to date: 12/15/2003
EIN 16a C4	BLM	Ekwok Natives Ltd. 50-92-0738	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham B-5 Current to date: 12/15/2003
EIN 14 C4	BLM	Ekwok Natives Ltd. 50-92-0738	Public Lands	1 acre site	U.S.G.S. Dillingham B-5 Current to date: 12/15/2003
EIN 14a C4	BLM	Ekwok Natives Ltd. 50-92-0738	Public Lands	Proposed 25 foot trail	U.S.G.S. Dillingham B-5 Current to date: 12/15/2003

Appendix G

Master Memorandum of Understanding Between ADF&G and BLM

ADF&G/BLM - 1

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 H

Generally Allowed Uses on State Land
Alaska Department of Natural Resources

Alaska Department of Natural Resources
Division of Mining, Land and Water, May 2006

As provided in 11 AAC 96.020, the following **uses and activities are generally allowed on state land** managed by the **Division of Mining, Land and Water** that is not in any special management category or status 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. **You may need other state, federal, or borough permits for these uses or activities.** Permits can be required from the Army Corps of Engineers, Department of Environmental Conservation, the Environmental Protection Agency, or other divisions within the Department of Natural Resources, such as the Office of Habitat Management & Permitting for activities within fish bearing streams. A Coastal Project Questionnaire may also be required by these agencies. 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 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 or cattle, or other domestic 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

[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/

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.

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 goldpanning; hard-rock mineral prospecting or mining using light portable field equipment, such as a hand-operated pick, shovel, pan, earthauger, or a backpack powerdrill 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 redesigning fishbearing 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 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 that 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 project sidelines of the contiguous upland parcel and is buried to the extent possible or, where it crosses bedrock, is secure 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 nonprofit 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 a 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 and not under oil or gas lease)
- Is not for geophysical exploration for minerals subject to a 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 is 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, damages, and associated costs, or arrest and persecution for criminal trespass in the second degree. The department may seek damages available under a civil action, including restoration damages, compensatory damages, 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 camp at a specific site, or by a "special use land" designation (fir 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 for 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 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, waterholes, seeps, and marshes
    c) Disturbance of fish and wildlife resources
4. cuts, fills, and other activities 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 onsite unless the department has closed the area to fires during the fire season
6. survey monuments, witness of corners, reference monuments, mining location posts, homestead entry cornerposts, and bearing trees must be protected against destruction, obliteration, and damage; any damaged or obliterated markers must be re-established as required by the department under AS 34.65.020 and AS34.65.040
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 lease hold 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.

[2] Register 164, January 2003

List of Special Use Land Designations Excluded from Generally Allowed Uses

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

Appendix I
Response to comments

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Response to comments

A. Introduction

On September 29, 2006, a BLM notice was published in the Federal Register announcing the availability of the Bay Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) (Federal Register 2006a). This notice was followed on October 13, 2006 by an additional notice by the Environmental Protection Agency also announcing the availability of the Bay Draft RMP/EIS. The September 29, 2006 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), BLM hosted eight public meetings and/or subsistence hearings to gather testimony on the Draft RMP/EIS and to answer questions. The comment period was later extended until February 5, 2007 resulting in a 130-day comment period. For a more complete description of the public involvement efforts see Chapter V.

Approximately 13,000 letters were received on the Draft RMP/EIS during the public comment period. Of these, approximately 12,800 were submitted as five different 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, which comprises the bulk of this appendix. It mostly 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 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 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 2005a). 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). 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 section D of this appendix.

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 I.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 both as verbatim either as they were submitted in letters or email, or as they were recorded at public meetings or hearings or paraphrased to capture the essence of the comment in a more condensed format.

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), 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:

"The purposed Pebble Mine is a threat to fish and wildlife."
"I support Alternative C."
"These resources should not be locked up."
"BLM has the responsibility to allow access to as much of its land as possible so that resources…can be developed"

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 a form letter was received 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 I.1. Summary of Substantive Comments Received by Category

Subject or Resource	Number of Substantive Comments	Percent of Substantive Comments	
Resources			
General Resources Protection	16	5.0	5.0
Water	26	8.1	8.1
Fisheries	13	4.1	6.9
Other Wildlife	9	2.8	
Cultural Resources	2	0.6	3.1
Visual Resource Management	7	2.2	
Wilderness	1	0.3	
Resource Uses			
Forestry	2	0.6	0.6
Leasable Minerals	1	0.3	5.7
Locatable and Salable Minerals	12	3.8	
General Minerals	5	1.6	
General Recreation	1	0.3	4.3
Special Recreation Management Area (SRMA)	1	0.3	
Off Highway Vehicle	8	2.5	
Travel Management	3	0.9	
Recreation Opportunity Spectrum	1	0.3	
Renewable Energy	3	0.9	6.3
Lands	4	1.3	
ANCSA (d)(1) withdrawals	4	1.3	
Honor "no more" principle of ANILCA	9	2.8	
Proposed Pebble Mine	8	2.5	2.5

Subject or Resource	Number of Substantive Comments	Percent of Substantive Comments	
Special Designations			
General Special Designations	3	0.9	0.9
ACEC	12	3.8	5.6
Wild and Scenic Rivers	3	0.9	
Subsistence Only Areas	3	0.9	
Social and Economic			
Social and Economic	19	5.9	9.6
Environmental Justice	2	0.6	
Subsistence	10	3.1	
General / Other			
Process	17	5.3	13.5
Public Outreach	4	1.3	
NEPA Adequacy	22	6.9	
General	6	1.9	27.8
Maps	10	3.1	
Climate change	9	2.8	
ROPs and Stips	12	3.8	
Abandonment, Removal, & Reclamation	2	0.6	
Editorial Changes	50	15.6	
TOTAL	**320**	**100**	

1. Resources

a) Water/Hydrology

Twenty-six comments concerning water resources were received throughout the public comment period and, besides editorial changes, accounted for the highest percentage of comments by topic. The majority of comments on water resources focused on adding some additional discussion and information to the EIS pertaining to current water quality condition, groundwater, and resource protection plans resulting from revocation of ANSCA 17(d)(1) withdrawals. Many comments demonstrated concern for water resources from potential mining practices.

b) Fish and Wildlife

About 7% of the comments focused on fish and wildlife. More than half of these comments concerned fisheries. Many comments mentioned data is lacking or false information was used concerning fisheries within the DEIS. Three comments addressed the 300-foot setback, suggested within the DEIS as protection of riparian areas and stream channels from surface disturbing activities. One of these comments suggested that the 300-foot setback serve as a minimum, and BLM should address the rational for this setback in the FEIS. In general, the nine substantive wildlife comments concerned Steller's eiders or the Mulchatna caribou heard. Two comments provided information concerning the importance of Carter and Jacksmith Bays and Carter Spit as staging areas for waterfowl, geese, and shore birds as well as migrating Steller's eiders. One comment suggested that the Required Operating Procedure (ROP) to conduct breeding eider surveys prior to oil and gas development is meaningless considering eiders are not known to breed within the planning area. One comment suggested rights-of-way exclusion areas include critical habitat for Mulchatna caribou. Another comment suggested the FEIS consider the authoritative findings and habitat management requests of the Western Artic Caribou Heard Committee be included within the Bay FEIS.

c) Special Status Species

Comments on special status animals focused on spectacled and Steller's eiders. Most of the comments regarding eiders identify the importance of Carter Spit, Jacksmith Bay, and Goodnews Bay.

d) Fire Management and Ecology

One comment was received, concerning managing fire to protect lichen rich habitats for caribou.

e) Cultural and Paleontological Resources

Only two substantive comments were received on cultural resources. One comment provided information concerning the historical villages of the Carter Spit, Jacksmith Bay, and Snow Gulch and the traditional way of life. The other requested identification of historical and grave sites.

f) Visual Resource Management (VRM)

BLM received seven substantive comments on VRM. Three comments requested editorial changes, clarifications of concepts, or maps. One comment suggested VRM should be removed from the resource management plan and addressed by individual project, while another comment suggested only VRM Class I is suitable. Another comment suggested VRM buffers should not be used altogether.

g) Wilderness

One substantive comment concerning wilderness was received, urging BLM to ascertain the extent of wilderness as a resource value in the Bay planning area.

2. Resource Uses

a) Minerals

About 6% of the substantive comments received concerned minerals management. These were broken down among locatable minerals, leasable minerals, salable materials, and general mineral related comments. Twelve comments pertained to locatable and salable minerals, while one comment

concerned leasable minerals and four additional comments concerned general mineral management. Three comments expressed the importance of mineral development with respects to Alaska's economy or national security. Eight comments concerned additional mineral potential mapping not referenced in the DEIS. One comment expressed that salable mineral development may be required to support other development activities. General mineral comments included two comments which support mineral development within the planning area, one editorial comment, and one requested more information pertaining to the proposed opening of lands to mineral development within the planning area.

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 to caribou, restoration requirements, and clean up of past mining activity. These comments have not been grouped within mineral management but rather to the specific resources perceived impacted.

b) General Recreation

General recreation, including Recreation Opportunity Spectrum (ROS) and Special Recreation Management Area (SRMA) received three comments. One comment requested clarification of "enhanced or excessive harvest," referring to ADF&G policy. One comment requested an editorial change to the ROS. Another comment requested SRMA to be included within the FEIS.

c) Travel Management

Approximately 4% of the total substantive comments received concerned recreation and travel management, including management of off-highway vehicles (OHV). Eight comments pertained to OHV. Four comments recommended alternative methods for gross weight vehicle restrictions. Two comments expressed that BLM should address the potential for increased OHV use within the planning area. One comment suggested BLM not use the State's "Generally Allowed Uses" policy. One comment required an editorial change. Three substantive comments were made regarding General Travel Management. One comment requested a source citation for R.S.2477 and 17(b) easements. One comment requested clarification within the document for managing travel by aircraft to BLM managed lands.

d) Renewable Energy

BLM received three substantive comments on renewable energy. One of the comments indicated that the Bay planning area would support geothermal energy. Another comment requested more information on renewable energy use be included within the FEIS. Another comment stated that BLM did not provide an adequate discussion of renewable energy potential within the DEIS.

e) Lands and Realty Actions

BLM received 17 substantive comments related to lands and realty. Subcategories for Land and Realty include: Lands, ANCSA withdrawals, and ANILCA concerns. Nine comments referenced the "no more" pledge of ANILCA for administrative or legislative set-asides of Federal lands. Four comments referenced ANSCA 17(d)(1) and the lifting of these withdrawals. Three comments requested BLM to provide more information or perform additional studies before lifting 17(d)(1) withdrawals, while another comment suggested it was poor timing for lifting 17(d)(1) withdrawals due to the proposed Pebble Mine. Two comments mentioned 17(b) easements requesting additional surveys. Another comment requested clarification of Recreation and Public Purposes (R&PP) within the FEIS. One comment preferred land leases over land sales.

f) Proposed Pebble Mine

Eight comments were received concerning Northern Dynasties proposed Pebble Mine. One comment suggested "the DEIS does little or nothing to stop the Pebble Mine." Another comment suggested BLM

"should develop special designation for Bristol Bay that would recognize threats posed by the Pebble Mine," which would provide protection for fish and wildlife. Other comments suggested that the FEIS contain updated information which can be used to provide an improved analysis of the impacts of the proposed mine.

g) Special Designations

About 7% of the comments regarded special designations. Of these, nearly 4% related to Areas of Critical Environmental Concern (ACEC). The remaining 3% were related to Wild and Scenic Rivers, Subsistence Only Areas, and general comments. This section is further broken down to ACECs, General Special Designations, and Wild and Scenic Rivers.

1. General Special Designations

General special designations included comments about two or more specific special designations within the same comment, i.e. WSRs and ACECs. One comment recommended the FEIS identify specific management goals, and the ROD commit to the development of future management plans for ACECs, RMAs, and WSRs. One comment recommended special designations as a method to close lands to mining, while another comment suggested that 40% of lands within the planning area currently are set aside by some special designations.

2. Areas of Critical Environmental Concern (ACEC)

Additional comments indirectly concerning ACECs were grouped in the Realty section through comments regarding the "no more" set-asides of land addressed in ANILCA. Six comments on ACECs included editorial and clarification suggestions. One comment suggested the name of the Carter Spit ACEC is misleading. Another comment suggested the eastern boundary of Carter Spit ACEC follow section lines rather than the watershed boundary. One comment requested 17(d)(1) withdrawals remain within ACECs.

3. Subsistence Only Areas

Three comments suggested BLM establish subsistence only areas adjacent to Native corporation lands in the Bristol Bay region.

4. Wild and Scenic Rivers (WSR)

One comment requested editorial changes to tables regarding WSR. One requested additional information concerning the process for designation of WSRs. One comment requested BLM defer the suitability determination of WSR until the land conveyance process is complete.

h) Social and Economic

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

1. Social and Economic

Nineteen substantive comments were received on this topic. One comment provided information concerning increases in population resulting from increased development opportunities within the Bay planning area. Several comments 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 in the region. A couple of comments questioned economic data and analysis of effects.

2. Environmental Justice

Two comments were received involving environmental justice. One comment 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. The other comment suggested the FEIS analyze potential impacts to low income and minority populations resulting from land management decisions.

3. Subsistence

Three percent of the total substantive comments pertained to subsistence. In addition, many comments under the Fish and Wildlife, Recreation, Climate Change, and Special Designation 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. Another comment recommended an overview study be performed on subsistence species within the Bristol Bay area before completion of the FEIS. One person noted that subsistence should be the top consideration within for all alternatives. Another comment suggested the demise of subsistence species resulting from increases in development and population would ultimately result in degradation to the Native lifestyle. Other substantive comments recommended adding more data concerning subsistence to the FEIS, while other comments were editorial.

i) RMP/EIS Process

Approximately 13% of the total comments were on process. This category is further broken down into: Process, Public Outreach, and NEPA Adequacy.

1. Process

These seventeen comments covered a wide variety of topics. Several comments related to the RMP/EIS process in general. Other comments requested further consultation with adjacent land managers and challenged BLM to be “compatible with those neighboring land managers.” Three comments requested extensions to the public comment period. Other comments suggested creating two RMPs rather than one RMP within the Bay RMP. Another comment suggested that Alternative B provides an “open door” for oil and gas exploration within the Bay planning areas without the benefit of the NEPA process. One comment explained that Congress specified the first purpose of regional management would be “to conserve the fish and wildlife and other natural and cultural resources within the region,” providing citation to ANILCA. Another comment requested that BLM clarify whether it would rely on the Bay RMP/EIS for future land management decisions.

2. Public Outreach

Three substantive comments were received on this topic. One comment suggested active citizens and community leaders were unable to attend the Bay DEIS public comment meeting held in Naknek, King Salmon, and Dillingham due to a conflict in schedule. Another comment suggested that public comment meetings be held in all villages within the Bay planning area. Two comments explained that most advertising methods for Bay comment meetings were ineffective.

3. NEPA Adequacy

Twenty-two comments concerned the NEPA adequacy of the analysis in the Draft RMP/EIS. About half of these related 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 concern 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). 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.

j) General

Approximately 28% of the total comments fall under general. The General category is further broken down into: General, Maps, Climate Change, ROPs and Stipulations, and Editorial.

1. General Comments

This topic encompasses many comments that did not fit under other categories, ranging from rewording or reorganizing the document for clarification to requesting additional information concerning regulations and policies. One comment requested reducing the use of acronyms within the document.

2. Maps

Ten comments concerned maps. A majority of comments focused on 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 installing vicinity maps, changing color scheme, or correcting errors. Two comments recommended the addition of new maps, including a map showing easements and combining Native patent lands with private lands on maps.

3. Climate Change

Nine 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 subsistence resources, wildlife habitat, soils and hydrology. Several comments generally note that BLM needs to address the potential impacts of climate change more thoroughly. 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.

4. Required Operating Procedures (ROP) and Stipulations and Abandonment, Removal, & Reclamation (ARR)

Twelve substantive comments related to this topic. Several recommended changes to specific ROPs and stipulations, or encouraged the development of strong ROPs to protect habitat. One comment suggested BLM has not analyzed the effectiveness of proposed ROPS/Stipulations, while another comment questioned how BLM would enforce its ROPS/Stipulations. One comment suggested stipulations are more effective than ROPS. One comment expressed concerns regarding the limited number of special designations, questioning the effectiveness of ROP/Stipulations especially with an Alternative that proposes the opening of lands to mineral exploration. In addition to comments

regarding ROPS/Stipulations, two comments were received regarding Abandonment, Removal, & Reclamation (ARR). Both comments requested that BLM consider requirements for removal of facilities once mineral development operations cease.

5. Editorial

Fifty 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 I.2. Response to Individual Comments

Resources

General Resource Protection

Letter-Comment#	Comment	Response
15-1	Instead of recognizing the Bristol Bay watershed as an asset integral to Alaskan's economy in its natural state, BLM's draft seems to promote industrial development that would put an end to that natural asset.	The Alaska Land Health Standards set forth land health standards that describe the desired ecological conditions and goals that the Bureau of Land Management (BLM) in managing lands throughout Alaska. This includes the Kvichak, Mulchatna, Nushagak, and Goodnews watersheds. Land health considers the needs and contributions of the affected ecosystem, including water, vegetation, soil, fish and wildlife habitat, heritage resources. Many sections in Chapter III identify the planning area as pristine (Air and Soils Resources) and having good [water quality] (Water Resources). Chapter III also identifies the importance and abundance of fish, caribou, and several types and species of bird, including special status species. Please refer to the Executive Summary which describes BLM's mandate by Congress to manage the land for multiple use and sustained yield.
50-1	The Kvichak, Mulchatna, Nushagak, and Goodnews watershed are all vitally important to a resource that is renewable. The habitat surrounding them can not withstand any form of degradation. If these areas are not fully protected, much more than just those plants and waterways will be affected. The potential impact could be harmful far down the Alaska Peninsula. Should anything go wrong in the future mineral development, the years that may take to re-establish what we already have as natural resources could be beyond our ability to calculate.	Please see response to comment 15-1. Future mineral development on BLM managed lands, if any, will be regulated and monitored through the NEPA process, other Federal agency environmental policies and regulations, mineral development regulations, etc. Also, please refer to Chapter III, section B.4.a) Mineral Development. Comments received concerning potential impacts resulting from alternatives proposed within the Bay DEIS were used to modify the effects analysis in Chapter IV within the Bay FEIS. Please refer to Chapter IV regarding potential impacts from surface disturbing activities.
46-3	The development or disposal of these Federal Lands could result in adverse impacts on the local environment including water and air quality, fish, and wildlife resources.	Please see response to comment 50-1.
69-5	Congress specified that the first purpose of management of the region would be “to conserve the fish and wildlife and other significant natural and cultural resources within the region.”	In addition to ANILCA 1203(b)(1), BLM's multiple use mandate also includes the provisions described in 1203(b)(2); 16 U.S.C. 3183 (b)(2) "to provide for the rational and orderly development of

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	ANILCA § 1203(b)(1); 16 U.S.C. § 3183 (b)(1). According to a 1979 Senate Report: Bristol Bay is one of the most biologically productive marine areas in the world. It is a feeding area for millions of seabirds, thousands of marine mammals and countless other marine species. The estuaries that line its shores serve as staging areas for millions of migrating waterfowl. The many rivers and streams that flow into the Bay provide the spawning grounds for 16% of the world's red salmon, a fish of national and international significance as well as one of great value to the Alaskan economy. The red salmon alone would justify refuge status for much of the Bristol Bay drainage, but the lands are rich in other wildlife as well..." Senate Report 96-413, Nov. 14, 1979 at 252. We are very disappointed that the preferred alternative (Alt. D) of BLM's draft Bay RMP/EIS, fails to acknowledge the significance of BLM's undeveloped lands to maintaining healthy ecosystem function and to respond favorably to the public's request for "special management attention to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes" in the Bristol Bay watershed.	economic resources within the region [Bristol Bay] in an environmentally sound manner." Several areas within the document highlight the characteristics of the planning area (see response to comment 15-1). In addition, ROPS (Appendix A) have been developed in consultation with "permittees or lessees, public land users, and the interested public" to achieve plan objectives, meet standards, and fulfill the fundamentals of land health per BLM's Alaska Statewide Land Health Standards.
69-9	According to the draft Bay RMP/EIS, little is documented or known about fisheries resources and wildlife habitat present on the BLM lands in the Bristol Bay watershed. The list of references on page A-12 of the draft RMP identifies 6 academic and/or scientific resources specific to the Goodnews Bay and Carter Spit region. However, no specific references appear to describe Bristol Bay's resources. Likewise, Chapter III is vague and lacking in specific information regarding resource values on BLM's Bristol Bay lands. This chapter should be revised and expanded to include more comprehensive description of the lands' natural resource values, as well as the importance of their contribution to the proper functioning condition of the region's ecosystem. Additional on the ground research should be conducted by BLM specialists to fill gaps in this critical knowledge, and adequate funding should be allocated to ensure that this work is completed as soon as possible.	References pertaining to biological resources within the Bristol Bay area are found throughout Chapter III in the document. For example, please refer to Chapter III, sections B.5.a-e and 6c with references in the appropriate sections. Additional Information pertaining to water resources in the Bristol Bay area has been added to the Bay proposed RMP in Chapter III, section B.4. Future data collection efforts on BLM lands in the Bay planning area will be based on the magnitude and intensity of expected disturbance from proposed or permitted projects and the available of funding.

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69-36	As part of an analysis of cumulative impacts under NEPA, BLM is required to consider reasonably foreseeable actions and discuss the cumulative impacts of both the proposed action, actions in the past, and those reasonably foreseeable actions in the future. 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.	Chapter IV, section B1 identifies BLM's inability to predict which selected lands will be passed over and remain within BLM jurisdiction. The Reasonable Foreseeable Development Scenario (RFD) for Leasable Minerals and the RFD for Locatable Minerals was used to determine impacts from these actions and others to BLM-managed lands and resources. This includes State- and Native-selected lands. Anticipated impacts to resources can be found in sections C, D, and E of Chapter IV.
3-15	Page 2-5 Detailed Description of Alternatives, Goals-BLM should emphasize avoidance of destruction, loss, or degradation of wetlands, air quality, water quality, soil quality, and natural resources, not simply minimizing that destruction, loss or degradation.	BLM's multiple use mandate includes the provisions described in 1203(b)(2); 16 U.S.C. 3183 (b)(2) "to provide for the rational and orderly development of economic resources within the region in an environmentally sound manner." In upholding these provisions degradation of resources can not always be avoided. As stated in Appendix A (ROPs and Stipulations), BLM will adhere to the BLM Alaska Statewide Land Health Standards and in doing so "minimize" or ensure "undue or unnecessary" degradation will occur from permitted activities.
31-1	BLM fails to recognize the impossibility by the very nature of the type of development that the extractive minerals industry can not possibly exist without the massive destruction, elimination, or disruption of vital habitat for the fish and wildlife of the region. The BLM further neglects to realize the massive negative environmental cumulative affects of a mining “district” that could easily be formed in the region should the infrastructure for the first mine be allowed to be constructed.	Please see the responses to comments 50-1 and 4-3.
14-1	The draft fails to value the natural resources of the unspoiled Bristol Bay watershed. These include a world-class fishery, important mammal populations on land and in the water, many resident and migrant birds. To Alaskans these are an outstanding part of their state. BLM should recognize these values as a great national asset worthy of preservation.	Please see the discussion of resources in Chapter III, section B. References pertaining to biological resources within the Bristol Bay area are found throughout Chapter III and can be found in the reference section.

Water/Hydrology

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2-1	Groundwater Resources: The document doesn't describe the groundwater resources in the planning area (Section 4, Water Resources) and assess the potential effects of the proposed alternative on these resources (Chapter IV beginning on page 4-18).	Text has been added in Section B4 of Chapter III stating that no groundwater data has been collected on BLM lands in the Bay planning area. A reference to internet available USGS groundwater data has also been added. Potential impacts to groundwater resources are briefly discussed in Chapter III, section E.1.b. Hazardous Material Management and Chapter IV, section B, sub-sections 1.c.1, 3.a.1, and 4.a.5.
5-5	Page 2-7, b) Soil Water and Air,(1) goals, and (3) Management Common to All Action Alternatives (B,C, and D)These sections generally describe goals and management of soil, water, and air. No resources in the Bay Area are specifically identified. The goals and "Management Common to All Actions" sections intertwine the discussion of water resources with air and soil. Since the desired outcomes of this section are tied to the standards and goals of the Clean Water Act, mixing these three resources does not provide an effective discussion. A separate discussion of water resources would be beneficial and provide a better foundation for management decisions. The major watersheds and surface water bodies in the Bay Area should be discussed separately from air and soil. Specifically identifying watersheds that may need special protection from the standpoint of human health concerns, ecosystem health, or other public concern would enhance this section of the RMP. Additionally, please consider adding a reference to a Quality Assurance Project Plan in the following goal. (a) Management Excellence promote program financial efficiency and improve data quality and availability through a Quality Assurance Project Plan.	Chapter II, sections D.1.b.1 and D.1.b.3 provide an overarching description of programmatic resource goals. Specific identification of resources in the Bay planning area is in Chapter III of this document. The grouping of air and soil resources with water resources is a programmatic grouping of similarly managed resources, as is the grouping of fish with wildlife resources. The desired outcomes for each of these resources are defined in BLM Alaska Statewide Land Health Standards (Appendix A) as stated in Chapter II, section D.1.b.1. For water quality, this outcome is ultimately tied to the standards and goals of the Clean Water Act. ROPs and Stipulations (Appendix A) will be used to achieve these desired outcomes. BLM believes this grouping is appropriate within this section of the document. In addition a reference to Quality Assurance Project Plan has been added to Chapter II, section D.1.b.3.a.

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5-6	Page 2-7 (3) Management common to All Action Alternatives (B, C and D) (a) "Inventory and Monitoring: Develop a water quality sampling protocol step down plan and determine baseline water quality values in areas having critical aquatic habitats or have potential for significant impacts due to permitted activities. Monitor for significant alterations to water quality value and water flow in accordance with State and Federal regulations." This paragraph indicates that the BLM will develop a water quality sampling protocol to determine baseline water quality values for areas with critical aquatic habitats or have the potential for significant impacts from permitted activities. A Quality Assurance Project Plan (QAPP) that meets applicable State and or EPA requirements listed on the following web sites should be developed to ensure the quality of collected data: http://www.dec.state.ak.us/water/wqsar/pdfs/qappelements.pdf EPA Requirements for Quality Assurance Project Plans are addressed at: http://www.epa.gov/r10earth/offices/oea/epaqar5.pdf To clarify, a Quality Assurance Project Plan describes the activities of an environmental data operations project involved with the acquisition of environmental information and describes the necessary QA/QC procedures and other technical activities to be implemented for a specific project.	References to ADEC Quality Assurance Project Plan elements, EPA Requirements for Quality Assurance Project Plans, and U.S. Geological Survey, National Water Quality Assessment (NAWQA) have been added to Chapter II, section D.1.b.3.a in the Bay FEIS.
5-16	Table 2.13, Required Operating Procedures Page 2-62, ROP Water -5b We request that Water -5b be modified to provide consideration for spill prevention and control measures as well as terrain constraints that may be encountered in specific areas along a stream.	Please refer to Appendix A, section E: Hazardous Material Use and Waste Management, Stipulations 11 and 13-24, which deal with spill prevention and fluid storage. Also, specific spill prevention requirements for each individual proposed project will be addressed within project-specific NEPA analysis and mitigation measures.

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5-27	Chapter IV-ENVIRONMENTAL CONSEQUENCES Page 4-4 (3) Water Resources (a) "Demand for clean water will increase should recreation use, population, commercial development, or infrastructure development increase. Water quality requirements would be achieved through the use of the Required Operating Procedures (ROPs)." This section identifies Required Operating Procedures as the method for achieving water quality requirements. Please clarify how all of these methods will be used to protect water quality. We suggest including a section in chapter II (page 2-58) following the discussion of Required Operation Procedures, Stipulations, and Standard Lease Terms that explains when mitigation measures, use restrictions, and other conditions can be attached to a project, permit, or other BLM authorized activity.	Please see Appendix A, Introduction, and sections 1-3.
2-2	Page 3-29, Section III.B.4 Water Resources, second paragraph: Where natural resource data and information are available for the planning area, such as for the two USGS streamflow gaging stations mentioned in the paragraph, it would benefit the public if the document included a summary of the available data or references/Internet links accessing for the information.	Website references to USGS stream gages and groundwater information has been added to Chapter III, section B.4.
29-1	Hard Rock mining, in particular, poses a very high risk to the water quality necessary for the region's abundant salmon runs. According to the EPA, it has polluted 40% of western watersheds in the continental US.	Though we are unaware of the 40% figure, ROPs will be placed on mining operations to prevent impacts to water quality. In addition, please see response to comment 4-3.
32-1	According to the EPA, it has polluted 40% of western watersheds in the continental US.	Please see response to comment 29-1
38-2	All watersheds need to be protected from mixing zones	Alaska Department of Environmental Conservation (ADEC) is tasked with permitting pollutant discharge in Alaska. Please see response to comment 4-3
43-1	Stuyahok Limited hereby requests the State of Alaska, DEC, EPA, or any other entity not allow any type of dumping or mixing zones into the rivers and lakes of Alaska and opposed to mixing zones in the pebble mine	Please see response to comment 38-2

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2-4	Page 4-27, Section IV.C.3.c(3), Water Resources, last paragraph on page 4-27 continuing on page 4-28: The paragraph provides two contradictory interpretations of the effects of a large spill-the first from the Northeast NPR-A study that predicts toxicity would persist for days to weeks, and the second from research after the Exxon Valdez oil spill, that found pockets of toxicity persisting for ten to fifteen years. It would benefit the reader if this document would explain which of these studies is more likely to reflect conditions in the planning area.	Based on your comment, BLM has removed this comparison from the FEIS. Impacts associated with spills are addressed in Effects to Fisheries and Aquatic Habitat, located in Chapter IV, section C.4.c.2.
5-1	Water Resources: We request that BLM consider additional in-depth, specific discussion of water resources in the area. A complete inventory of water bodies would enhance the discussion on water resources as would a thorough analysis of the impact on water quality anticipated from the proposed alternatives and current resource uses. This use analysis should include water quality impacts associated with exploration and development of natural resources, infrastructure development and use of off highway vehicles.	Initial inventory of water resources is conducted in conjunction with project demand (development). ANSCA 17(d)(1) precluded development within much of the Bay plan boundaries. Please refer to Chapter II, section D.1.B.3.a and Chapter III, section B.4. for information concerning water resources inventory in the planning area.
5-2	Executive Summary Page V, Page VI, Alternative C and Alternative D: Please consider adding "water quality" to this description as indicated below in italics as an additional benefit of the OHV limited designation is protected water quality. "All BLM-managed lands within the planning area would have a "limited" OHV designation, allowing for limitations to be placed on OHV use to protect habitat, water quality, soil and vegetation resources, and/or recreation experiences."	Your suggestion has been incorporated in section E.3 and E.4 of the Executive Summary

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5-4	Chapter II-Alternatives Page 2-7 b) Soil, Water, and Air: Although goals and management decisions related to water quality are included on page 2-7, the following goals for water resources identified in the Kobuk-Seward Peninsula Draft RMP are more concise and cover key non-point source water quality concerns regarding stream banks, wetland vegetation and prevention of soil erosion. (a). "Air and Water quality should meet or exceed local, State, and Federal requirements." (b). "Ensure that watersheds are in or are making significant progress toward a properly functioning physical conditions that includes steam banks, wetlands and water quality." (c). "Minimize negative impacts to soils and wetland vegetation and prevent soil erosion." In addition, the actions to achieve the goals, objectives and desired future conditions are not fully articulated in the Bay Area plan. Further discussion of actions would be beneficial.	Chapter II, section D.1.b.1 identifies the use of BLM Alaska Statewide Land Health Standards (Appendix A) to "Maintain desired ecological conditions" to include water resources. The "actions" to achieve goals, objectives, and desired future conditions, established in the BLM Alaska Statewide Land Health Standards, are to, first, establish and then enforce ROPs and Stipulations (Appendix A) that protect soil, water, and air resources. In addition, inventory, monitoring, and analysis of these resources will be conducted as required.
7-1	Not only is this an area of legendary volcanic activity, putting dams at risk, but in other parts of the country where this type of mining takes place, it is well known that the mining byproducts leeching out of these newly formed lakes invariably pollute the surrounding water table. The EPA has, in fact, labeled the hard rock mining industry as the largest source of pollution in the entire country. I would urge you take a close look at the dismal track record and folly of these foreign mining interests, at the acid and cyanide runoff that have devastated streams throughout the west and left taxpayers holding the bag for astronomical cleanup costs.	BLM does not have influence concerning activities (proposed Pebble Mine) occurring on State managed lands. In addition, please see the response to comment 50-1 and 4-3.
8-1	Even minute quantities of leached toxins associated with hardrock mining are deadly to juvenile salmon and trout. According to the US Environmental Protection Agency, the hardrock mining industry is the biggest toxic polluter in the country, which does not bode well for the health of the Bristol Bay wild salmon-based economy.	Please see the response to comments 50-1 and 4-3.
9-1	Any hard rock mining using cyanide heap leaching to extract gold is a 1-way ticket to a superfund site. Just a few drops of cyanide on the water will kill fish downstream several miles away within a couple of hours.	Please see the response to comments 50-1 and 4-3.
60-4	The draft also notes that adequate water data is lacking regarding instream flows and the related need for flow reservations. Yet the RMP fails to propose sufficient measures to obtain such vital data. Critical baseline data about stream flows is absolutely necessary if the Draft RMP's conservation goals are to be achieved.	Please see response to comment 5-1. Inventory, monitoring, and data requirements for water resources is discussed in Chapter II, section D.1.b.

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60-17	…the document concludes that "groundwater drawdown and associated impacts to surface waters and nearby wetlands can be a serious concern in some areas." The impacts resulting from groundwater drawdown could last for several decades. Unfortunately, these conclusions are not reflected in other elements of the draft RMP creating a substantial disconnect between the fact and the policy proposal to facilitate mining activity on over 1 million acres of public land in the Bristol Bay drainages.	ROP Water 6a (Appendix A) has been developed to mitigate environmental and biological impacts associated with water withdrawal. Proposed projects would need to show that beneficial uses would be supported. Impacts to resources from the alternatives proposed within this document are analyzed in Chapter IV. Municipal and industrial use of groundwater and surface water are regulated by Alaska DNR and applications concerning impacts to wetlands seek approval from the Army Corps of Engineers under Section 404 of the Clean Water Act. Also, see response to comment 4-3.
5-7	Page 2-7, (a) Inventory and Monitoring: The inventory of water resources in the Bay Area is minimally addressed in this section. Please refer to 4) Water Resources on pages 3-15-3-19 of the Kobuk-Seward Peninsula Draft RMP/EIS. This discussion of water resources along with Table 3-1 Water Resources Data for Selected Rivers in the Planning Area (2004-05) includes specific information about water resources that will effectively guide management decisions. In addition, please consider including the following inventory and monitoring item. (a) Assess impacts from OHV trails especially in high use areas where riparian and wetland resources are at risk.	Please see response to comments 5-1and 5-4. Currently there are very few permitted activities occurring on unencumbered BLM lands within the planning area. Implementation of the preferred alternative may result in increased permitted activities on BLM-managed lands within the Bay planning area. Increased inventory and monitoring of soil, water, and air resources will be addressed within project-specific NEPA analysis resulting from any application for permit. ROPs and Stipulations (Appendix A) will be used to achieve desired ecological outcomes as defined in the BLM Alaska Statewide Land Health Standards (Appendix A). Please refer to Chapter II, section D.1.a.4 for inventory and monitoring of riparian and wetland resources from OHV use.
69-35	We also request that BLM consider “Comparison of Predicted and Actual Water Quality at Hardrock Mines” (Maest, Kuipers, 2006). A summary of the report is attached to this document and the full study is available at http://www.mine-aid.org/	Thank you for the suggestion. Please see response to comments 4-3 and 5-4.
70-5	…the plan does not adequately assess the magnitude of the risk to this watershed [Bristol Bay] of hard rock mining. The geology of the region indicated the high presence of sulfites in the rock to be disturbed in hard rock mining operations.	Chapter IV: Environmental Consequences, has been revised in the FEIS compared to that offered in the DEIS. In addition, please see response to comment 4-3.
4-3	Concentrated groups of eider feeding at the mouth of Goodnews Bay in Spring when the head of the Bay is still frozen, to avoid risk of secondary exposure of Steller's eiders to contaminants via their intertidal forage, good water quality must be maintained in Goodnews Bay.	Permitted activities on BLM-managed lands will comply with all State and Federal regulations, including water quality. ROPs and Stipulations (Appendix A, ROP: Special Status Species) have been developed and will be used to protect Steller's eiders.

Fish and Wildlife (Including Special Status Species)

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	Fish	
38-1	There are no baseline studies of fresh water fish spawning times. These studies will be required.	A reference to ADF&G data concerning anadromous run timing has been added to the document. Please see Chapter III, section B.6.i.
60-9	Pg. 3-134-"Lack of detailed baseline data" regarding fisheries on BLM lands in the Bristol Bay region is identified as a problem. Given the insufficient data exist regarding these critical fisheries, BLM is in no position to open over 1 million acres to mining claims and development before it can assess the adverse of negative impacts of such actions on Bristol Bay's fisheries.	The ADFG is charged with monitoring fish population in Alaska. BLM will use ADFG data (where applicable) to asses project-specific impacts to fisheries. ROPs, stipulations, and standard lease terms will be used to protect fish habitat. Please see response to comment 4-3.
60-13	Pg. 4-41. These references to "fisheries impacts" are way off. First, it equates the impacts of opening over 1 million acres to mining (Alt. D) with the impacts associated with Alt. C…A contrary conclusion is presented at pg. 4-10. It also contends to a variety of stipulations, operating requirements, etc. will offset the adverse impacts associated with opening over 1 million acres to...mining. It is impossible....to assess the accuracy and efficiency of these conclusions until the agency resolves the status of lands within the ACEC. IF the lands are closed, than the differences between Alts. C and D are substancially contrary to the representations is this crucial section. If those lands are open, then C is akin to D and the DEIS fails to include a reasonable range of alternatives.	Chapter IV within the FEIS has been modified compared to that offered within the DEIS, including effects to fisheries. The effects analysis from mineral development presented in the FEIS predicts impacts based of the proposed alternatives and development assumptions and methods, section B. The use of ROPs, Stipulations, and standard lease terms, along with project-specific NEPA analysis, can prevent undue or unnecessary degradation of resources. Please see response to comment 27-1.
26-2	The State of Alaska's Board of Fisheries Policy for Management states that "in the aggregate, Alaska's salmon fisheries are healthy and sustainable largely because of abundant pristine habitat and the application of sound, precautionary conservation practices" (5AAC39.222 (a) (1)). If the BLM is truly consistent with the policy and goal of the State of Alaska, mining operations are disqualified from the regions of our world class fisheries by their nature.	Please see response to comment 69-5.

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69-8	…if the Alaska Board of Fisheries (BOF) recommends the establishment of a fish refuge for the Kvichak and Nushagak drainages, we request that BLM lands be included in the designation, and management objectives adapted to ensure consistency. Therefore, this expresses additional justification for our belief that the designation of BLM's Bristol Bay lands as an Area of Critical Environmental Concern (as described in Alternative C) is an appropriate and necessary action that will establish pro-active special habitat conservation and sustainable use measures for these federal public lands and promote cooperative, compatible future management according to enhanced State standards and refuge status within the Bristol Bay watershed.	In the event the State of Alaska designates a fish refuge within the Bay planning area, BLM will reevaluate decisions made within this RMP concerning lands adjacent to said refuge within a plan amendment or revision (BLM Manual H-1601-1, section VII).
Wildlife		
46-1	The Carters Spit, Jack Smith Bay area is an important nesting ground to different species of water fowl, Geese, and shore birds.	Chapter III, section D.1.b. describes the Carter Spit area and the Carter Spit ACEC proposed under Alternatives C and D. Also, refer to Chapter III, section B.6.h, which describes bird species in the Carter Spit area.
4-5	Carter and Jacksmith Bays are important to migrating Steller's eiders, which have been observed during aerial surveys in the hundreds (Dau and Mallek 2002, Larned 2002).	Thank you for your comment, please see the response to comment 4-2 and 46-1.
5-9	Page 2-30, Table 2.7, Fluid Leasable Minerals-Summary of Alternatives: Please check the acreage figures for Alternative C. in Areas Open to Fluid Mineral Leasing Subject to Standard Lease Terms. It is unclear how 1,176,629 acres can be State-or Native-selected in alternatives B and D but no acreage is selected in alternative C. Also, please include the additional seasonal restrictions for migratory birds, shorebirds, and raptors in the table consistent with the text.	These changes have been made to the FEIS. Seasonal restrictions have been added to the ROPs (Appendix A, Special Status Species) in recognition of federally-listed migratory bird species.
69-24	…right of way exclusion areas should include all critical habitat for the Mulchatna caribou herd as designated by ADF&G, including important migratory pathways.	Accommodation of caribou migration patterns is addressed on a case by case basis as those patterns are dynamic, very much dependent on range health, and unpredictable as described in Chapter III, sections B.6.b and B.6.d1.
4-1	Endangered Species Act of 1973 (16U.S.C. 1531 et seq:87 stat884, as amended; Act). Steller's eiders, listed as threatened under the Act in 1997, migrate and stage within the Bay Planning Area. Additionally, nesting Kittlitz's murrelets, a candidate species, have been observed within the Bay Planning Area.	Your concerns have been recognized within this document. Please refer to Chapter III, section B.7.c and Table 3.11 which identifies the status of Steller's eider and the Kittlititz murrelet. Also, refer to ROPs and Stipulations (Appendix A) for mitigation measures for these species and their habitat.
4-2	In spring, Steller's eiders migrate from their wintering grounds in the Aleutians and Alaska Peninsula, up the coastline to their breeding grounds that begin at the mouth of the Kuskokwim River and	Please refer to Map 1.1. Though Goodnews Bay is important to migratory birds, few acres of unencumbered BLM land exist near the coast with the exception of lands at and north northeast of

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	continue north. Goodnews Bay is a very important migration and staging area for Steller's eiders. Disturbance to Steller's eiders during the spring and fall migration may result in "take", defined as to harass, harm, pursue, hunt, shoot...	Carter Spit. BLM has proposed an ACEC for Carter Spit. Please refer to Chapter II, section D.3.a.5.a and Chapter III, section D.1.b.1. Unencumbered BLM lands within the proposed Carter Spit ACEC have been acknowledged for their importance to migratory birds. ROPs, Stipulations, and Standard Lease Terms (Appendix A) will be used to protect undue impacts to resources, including eiders.
4-4	Since Steller's and spectacled eiders are not known to breed within the Bay planning area, conducting aerial surveys of eiders on the breeding ground prior to oil and gas development is not a very meaningful Required Operating Procedure.	ROPs, Stipulations, and Standard Lease Terms (Appendix A) have been changed based on this information.
69-34	Since there is not a coordinated “working group” for the Mulchatna herd, the authoritative findings and habitat management requests of the Western Arctic Caribou Herd Working Group should be reviewed by BLM’s Anchorage Field Office and consistently applied to the Final Bay RMP/EIS.	Text has been added to Chapter III, section B.6.d.1 describing efforts to develop a coordinated working group for the Mulchatna Caribou Herd.
69-42	The draft EIS acknowledges that waterfowl populations have been dropping in the area for decades, but does not predict future drops or provide strategies for dealing with the decline.	The ADFG and USFWS are both more formally charged with monitoring and protection of wildlife populations on State and Federal lands. BLM does address impacts to wildlife and wildlife habitat as required by NEPA for specific land use proposals. Please refer to Chapter IV, Effects to Wildlife, for anticipated impacts to wildlife resulting from the Alternatives proposed in the FEIS.
1-3	300' setback is not adequate protection for riparian habitat along the East and South Forks of the Arolik River, Faro Creek, and South Fork Goodnews River (p. 2-81 and 2-85) stringent standards for all applicable major waterways in the planning area, rather than just these four streams.	Thank you for your comment.
5-20	Oil and Gas Leasing Stipulations Page 2-81, Stip-10: We assume this should be corrected to read: "…provide a 300 foot buffer from drilling operations on BLM-administered lands…"	This Stipulation in the FEIS has been altered compared to that offered in the DEIS. Please refer to Appendix A for these changes.
20-1	Particularly when 80 percent of the gold produced in the US is used for something as frivolous as jewelry, it would seem senseless to destroy a world renown fishery, both sport and commercial and unique natural area and resources to construct a massive dam system on a major earthquake fault. Also, copper dust that would infiltrate streams has been shown to destroy salmon's natural ability to return to spawning rivers and streams.	Thank you for comment.

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55-29	Pg. 4-34, (4) Effects to Fisheries, 4th paragraph, last sentence. This statement needs to be clarified. Existing regulations and the permit process provide significant protection for the riparian habitat. Modern placer mining impacts are mitigated and of short time duration. The last sentence of the next paragraph also needs clarification. New stream channels developed prior to and/or during the reclamation process, can be designed according to permit requirement so that the natural stream gradient and habitat diversity is maintained or improved. These facts should also be included as part of this discussion.	Thank you for your comment.
60-7	Page 3-24, This section relates that soil conditions north of Iliamna and near the Kvichak River pose "slight to very sever drawbacks" to road location and construction. Although we agree, this section fails to adequately address the adverse consequences of road construction, maintenance, and heavy traffic on fish and fish habitat.	Chapter III describes the affected environment or current characteristics of the region. Please see Chapter III, section A.1. Currently, there are few roads on BLM-managed lands with in the Bay planning area. Please reference Chapter IV, Environmental Consequences, section C.4 for a description of impacts to fisheries and aquatic habitat from soil erosion, including road construction.
60-16	Pg. 4-119 - The widely, and legally deficient, uneven nature of the Draft RMP is revealed by these references to fisheries impacts. Here, at the end of the document, there is belated acknowledgement that mining and related infrastructure cased "unavoidable direct disturbance to aquatic and riparian habitat would require many years (20-50+) to rehabilitate to healthy functioning condition." RRC agrees and urges BLM to rewrite other sections of the RMP/DEIS to be consistent with this conclusion.	Chapter IV provides a description of the predicted consequences on the biological environment resulting from the proposed alternatives, section A. These consequences are predicted using an interdisciplinary team, including a fisheries biologist. See response to comment 60-13
69-7	Presently, a sub-committee of the Alaska Board of Fisheries (BOF) is considering the need for higher standards for conservation of fish and wildlife habitat and related habitat in the Bristol Bay region. It is expected that the Alaska BOF will ultimately recommend that stronger measures are established by the Alaska Legislature in the form of a fish and game refuge or other similar designation. If established, prospecting mining operations will likely be required to demonstrate an ability to ensure conservation of water quality, in-stream flows and protection of fish and wildlife habitat and public uses, especially subsistence activities.	Thank you for your comment.

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69-33	All proposed/recommended 300-foot riverbank setbacks (for both locatable and leasable mineral management) should be “minimum” setback distances and that in the Final RMP the BLM explain how they arrived at 300 feet for an adequate riverbank setback.	The 300-foot buffer also has origins in the Forest Ecosystem Management Assessment Team (FEMAT), 1993, Forest ecosystem management: An ecological, economic, and social assessment. (USDA Forest Service, National Marine Fisheries Service, Bureau of Land Management, Fish and Wildlife Service, National Park Service, and Environmental Protection Agency. Portland, OR and Washington, D.C). Information regarding the development of ROPs and Stipulations can be found in the Introduction of Appendix A.
25-1	Trout Unlimited has submitted written testimony on the Bay RMP Draft EIS and included with it the report entitled "Economics of Wild Salmon Watersheds: Bristol Bay Alaska", by Duffield, Patterson, Neher, and Goldsmith written for Trout Unlimited and dated July 2006. It has come to the attention of the authors that the report contains an error in the estimation of the number of sportfishing visitors to Southwest Alaska, and that the error invalidates the conclusions regarding the total economic impacts of sportfishing on the regional economy. Consequently the report and any conclusions stemming from it in the Trout Unlimited testimony should be disregarded.	Data from this work was not used in the development of this plan.

Vegetation

Letter-Comment#	Comment	Response
23-2	Once the natural environment is destroyed it will take hundreds, if not thousands of years for Nature to grow back to the way it was. This is due to the fact that Bristol Bay is in a Northern Biosphere, and all you have to do…. Some trees are so old, that you have to take a microscope to count the tree rings. A tree in Bristol Bay might be only 2-4 inches wide, but might be over 100 years old.	Thank you for your comment.

Cultural/Paleontological Resources

Letter-Comment#	Comment	Response
39-2	Historical and grave sites should be identified.	Though we understand your concern, section 9(a) of the Archeological Resource Protection Act restricts access to information concerning the nature and location of any archeological resources.
46-2	The Carters Spit, Jack Smith Bay area, Snow Gulch, also has historical villages that were located in the region in which our ancestors practiced the traditional way of life by hunting, fishing, gathering and sharing this harvest with our families, community, and our Elders.	This information has been recognized in Chapter III, section B.9.a, Cultural Resources, within the FEIS.

Visual Resource Management

Letter-Comment#	Comment	Response
5-8	Page 2-20. Table 204, Visual Resource Management-Summary of Alternatives. It would be useful, if possible, to include in Table 2.4 the percentages of land that would be Class III and Class IV for each Alternative, for comparison.	Percentages of VRM class have been added to Chapter II, section D.1.h.4.
5-32	Page 4-78, Summary of Effects to Visual Resource Mgt. (Alternative A) / Page 4-79, Summary of Effects to Visual Resource Mgt. (Alternative B) / Page 4-80, Summary of Effects to Visual Resource Management of Alternative C /Page 4-81, Effects of Visual Resource Management Summary of Alternative D This is an extremely handy inclusion and we recommend that a similar summary follow the effects evaluations for each Alternative in each resource management category, not just Visual Resource Management. The summary usefully goes over the main points of each effects evaluation and assists the reader with framing the overall effects on that resource for each Alternative.	A summary of effects is found in Chapter II, Table 2-13.
5-33	Page 4-78, Effects to Visual Resource Management from Leasable, Locatable, and Saleable Minerals (Alternative B): The first sentence speaks to the localized adverse effects to OHV use through Stips and ROPs but it appears to be out of context. Please review.	Chapter IV has been revised in the FEIS compared to that offered in the DEIS.

Letter-Comment#	Comment	Response
24-1	Visual Resource corridors should be a general guide used by permitting agencies and not part of a Resource Management Plan. Buffers are included in reserves and adding additional buffers significantly enlarges reserves without regard to the factors used to establish them. Corridors along transportation routes would result in a patchwork of withdrawals which would add unnecessary complexity to resource use and land management. Again, the permitting agencies should evaluate each project and have the flexibility to apply visual resource management as they determine best suited for that particular situation.	As described in Chapter I, section A, the Bay RMP will "provide a comprehensive framework for managing and allocating uses of public lands and resources" within the Bay planning area. This includes Visual Resource Management (VRM). BLM is responsible for designating VRM classes to unencumbered lands as part of this document. VRM classifications are not reserves but rather provide a threshold for planning and subsequent permitting purposes. Descriptions of VRM classifications are found in Chapter II, section D.1.h.1. BLM will evaluate impacts of proposed permitted activities through process established by NEPA.
44-2	Your draft resource management plan lists classes of VRMs. VRM classes III and IV are totally unacceptable from our perspective, they allow too much development. VRM class III could be acceptable depending on more details of this class. At this time, VRM class I is the only acceptable plan that will preserve our way of life.	BLM's multiple use mandate also includes the provisions described in ANILCA 1203(b)(2); 16 U.S.C. 3183 (b)(2) "to provide for the rational and orderly development of economic resources within the region [Bristol Bay] in an environmentally sound manner." Impacts to resources from proposed permitted activities will be evaluated through the NEPA process. ROPs will be applied to permitted activities to prevent unnecessary impact to resources on unencumbered BLM lands within the Bay planning area.
60-5	Pg. 2-18....Once again, it is inconceivable that the visual resource conservation goals articulated in the Plan can be achieved given the industrial consequences of two to four new lode mines in the region predicted to arise from adoption of Alternative D.	Please see response to comments 4-3, 29-1, and 44-2. Effects from mineral development are discussed in Chapter IV.
58-2	Visual Resource "buffers" should not be used. ANILCA specifically included very large areas of land which include buffers. No added "buffers" are justified.	ANILCA, section 1326 does not refer to buffers but rather conservation system units, national recreation areas, or national conservation areas. Please see response to comment 24-1.
1-2	Possible mineral development in the Goodnews Bay block has the potential to alter the wilderness character of the adjoining federally-designated Togiak Wilderness Area.	Regulations require that BLM plans be consistent with officially approved or adopted resource related plans of other agencies to the extent those plans are consistent with Federal laws and regulations applicable to public lands as described on page 1-22 (43 CFR 1610.3-2(a)). Please refer to Chapter II, section B.4. BLM has proposed a one mile VRM III buffer where its lands border the Togiak NWR. Please also see response to comment 4-3.

Resource Uses

Minerals

Letter-Comment#	Comment	Response
23-1	The mineral laws have not been updated hardly at all since they were created in the 1870's. The current laws do not put any burden on the mining companies to clean up after they've destroyed the natural ground cover or polluted the water systems. It's easier for the mining companies to go and declare that they're bankrupt rather than clean up their mess. The mine owners then don't have to pay anything to clean up; they take no financial responsibility to clean up after the minerals are mined.	To ensure maximum protection of public lands that are open to mineral entry under the mining law, BLM has developed regulations found in 43 CFR 3809 and 3715. 43 CFR 3809 deals with Surface Management of the mining site and 43 CFR 3715 which deals with Use and Occupancy of the mining site. Of particular importance is the requirement in both sets of regulations that surface disturbing activities can not create undue or unnecessary degradation of public lands. These activities must also meet all applicable Federal and state laws or regulations (for example COE, EPA ESA etc). In addition, 43 CFR 3809 stipulates when financial guarantees (bonds) are required.
55-8	Pg. 3-181, (1) Mineral Terranes. " Unmapped areas are generally evaluated as having poor to only moderate mineral potential." This is a dangerous assumption, especially in an under explored region such as the Bay planning area, and should be changed to reflect the great opportunity that may exist.	BLM's assignment of mineral potential is made to facilitate planning and not as "notice" to the public of value. For example, an assignment of low potential indicates that BLM anticipates low exploration and/or development activity during the life of the plan. Assignment of potential is made on the basis of presently available geologic information.
60-6	It is impossible to obtain bonds of sufficient size and value to cover the full cost of cleaning up and restoring land, river, stream and groundwater in the wake of massive open pits, huge tailings dams and toxic sediment dumps.	Reclamation and bonding is addressed through Plans of Operation and Notices of Intent prior to approval of mining operations, 43 CFR 3809.
58-1	Alternative B would allow maximum access to mineral resources, thus fulfilling the promise of Alaska's statehood.	Thank you for your comment.
58-3	"The Promise of Statehood." The intent of Congress in 1959 was for the New State of Alaska to become self sufficient. This was to be accomplished in part through the selection of 105 million acres of Federal land. …most Federal land in Alaska at that time were available for resource development to help provide jobs that would positively impact economic development of Alaska. This land was closed to development by ANCSA in 1971 and ANILCA in 1980. BLM manages only 27% of Federal land in Alaska. Only a small portion of that land is currently open to resource development. As a multiple use agency, BLM should have its goal, the opening of all possible lands to resource development. (Para)	Please refer to the Executive Summary, which describes BLM's mandate by Congress to manage the land for multiple use and sustained yield.

Letter-Comment#	Comment	Response
51-1	I can't underscore the importance of not locking away the platinum resources in the Goodnews Bay area – it's a matter of national security because our energy security will one day be closely linked to our access to platinum for catalysts for fuel cells. A new generation of integrated circuits are currently under development that require platinum. This vilal metal is in short supply world wide, and it would be very short sided to lock this resource away.	Thank you for your comment.
55-9	Pg. 3-181, (2) Geologic Units. The first paragraph in this section provides a strong argument for opening the Bay planning area to modern mineral exploration. "The area is not as well mapped as other parts of the state…. Many of the geologic maps for this region are old..."	Thank you for your comment.
55-11	Pg. 3-182, (3) Minerals Occurrence, Figure 3.80. The region in the vicinity of LSS 1-3 (including Illiamna Project D and H Blocks) should be shown as having high potential for locatable mineral potential based on the relatively recent exploration efforts, including drilling, conducted by TNR Gold Corp. (www.tnrgoldcorp.com). TNR's findings are clear proof that the area has high potential for locatable minerals.	Maps depicting mineral occurrences are created using data from Bristol Construction Services, LLC, 2006. Mineral Occurrence and Development Potential Report Locatable and Salable Minerals. Please see response to comment 55-8.
55-16	TNR Gold Corp's work in the Illiamna Block is recognized here. Again, this area should have high potential for locatable minerals. The findings by TNR Gold Corp. are clear proof of that fact.	Please see response to comments 55-11 and 55-8.
55-27	Pg. 4-10, (3) Salable Minerals, 4th bullet. Mineral material sales will likely also occur in association with mining activities and with any local community construction. For example, limestone may be needed for milling processes and sand, gravel, and rock may be needed for construction.	This has been addressed in Chapter IV (salable minerals section) in the FEIS.
55-32	Pg. B-14 & 15, Exploration and Development Activities Illiamna/Kvichak Area. The appendix recognizes the drilling completed in the Illiamna D Block by Geocom resources. This is evidence in support of identifying the areas near the D and H Blocks as having high locatable mineral potential on Figure 3.81.	Please see response to comments 55-8 and 55-11.
56-2	It is premature for the BLM to open lands in this area to large scale mineral exploration while the state is reviewing habitat protections for areas within the Bristol Bay watershed. Federal and State managers must coordinate their efforts to protect the renewable resources found within the Bay planning area and State controlled lands, as per MOUs and the BLM's stated mission: "To sustain the health, diversity, and productivity of the public land for the use and enjoyment of present and future generations.	See response to comment 69-8. Upon re-classification of adjacent lands, BLM can consider changing decisions made in this document through plan amendment or revision BLM Manual H-1601-1, section 7 and Chapter I, Table 1.2 step 9).

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69-10	However, maps depicting the magnetic signatures of underground minerals within the Nushagak River watershed were presented by Billy Johnson at December 2006's Alaska Board of Fish meetings in Dillingham, Alaska, and are attached to this report. Slides 7-10 of Mr. Johnson's presentation shows underground minerals located west and east of the communities of Ekwok, New Stuyahok, and Koliganek. These subsurface minerals appear to be located below unencumbered BLM lands, yet they are not shown on Figure 3.80. Also, the magnetic signatures of these minerals appear to be the same (or similar to) the subsurface minerals located at the Pebble deposit (Slide 6).	See response to comments 55-8 and 55-11. Also, refer to Chapter IV, section E.2.a, which shows other exploration activities within the Bay planning area.
69-11	We are very concerned that BLM's locatable mineral potential/occurrence map (Figure 3.80) does not depict the subsurface minerals shown in Mr. William's magnetic signature graphics, and located below BLM lands. Therefore, we have sincere doubts about the accuracy of Figure 3.80, BLM's analysis of mineral potential on these lands, and BLM's assertion that the likelihood of mineral development on BLM lands in the Bristol Bay watershed is low. We request that BLM conduct a re-evaluation of mineral potential and occurrence on the Bristol Bay lands, particularly in the vicinity of New Stuyahok, Ekwok, and Koliganek, and revise Figure 3.80, as well as all related references in the RMP/EIS, to clarify that subsurface minerals are present below BLM-managed lands and that potential for their development does indeed exist if current withdrawals are revoked and the BLM lands made available for exploration and development.	See response to comments 55-8 and 55-11. Also, refer to Chapter IV, section E.2.a, which shows other exploration activities within the Bay planning area.
69-21	It is apparent from Figure 3.80 that little to locatable mineral potential exists on BLM-managed lands within the Bristol Bay watershed. Although BLM claims that mineral development on these lands would be unlikely, we find that there is insufficient information presented within the draft RMP/EIS to justify Alternative D's proposed management change which would open these currently closed lands to mineral development.	See response to comment 15-1.
5-21	Page 2-89, Summary table Fluid leasable Minerals Alternative B, Areas Open to Fluid Mineral Leasing Subject to Standard Lease Terms. We recommend removing the paragraph in alternative B referring to "Existing withdrawals of 3,999 acres would remain w/drawn from fluid mineral leasing." from this section. This information is covered in the section that describes areas Closed to Fluid Mineral leasing and the duplication is confusing.	Your suggestion has been incorporated into Table 2.13 within the FEIS.

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5-34	Page 4-86, Effects to Leasable Minerals for Alternative A The premise in the concluding sentence that if no oil and gas exploration and/or development occurs, the resources are unavailable to future generations seems illogical. The resources would in fact remain in the ground, unused, and be available for future development and use. However, they would not be available for consumption in the interim.	Your suggestion has been incorporated within the FEIS.
5-35	Page 4-86, Effects to Leasable Minerals for Alternative C. Please review the first sentence and confirm or correct the number of acres and corresponding percentage of acres where withdrawals would be maintained.	Your suggestion has been incorporated into the plan. Many tables and text referring to acreages have been changed within the FEIS to account for land conveyance and alterations in special designations.
69-1	As a reasonably foreseeable future action, Pebble Mine would dramatically and permanently affect all of the lands, resources and people of Southwestern Alaska. Therefore, we believe that it is extremely poor timing for the BLM Bay plan to introduce its Alt. D recommendation to open yet another million acres of public lands in this threatened watershed to hard rock mining, and oil and gas leasing.	Thank you for your comment.
27-1	Your plan does a good job of describing many of the negative impacts that are certain to come with mineral development. However, it does a poor job of explaining how those impacts will be avoided, and in many cases states clearly that they will occur.	ROPs, stipulations, and standard lease terms have been developed and will be used to meet the goals and objectives of the Alaska Statewide Land Health Standards and to prevent undue or unnecessary degradation as identified within 43 CFR 3809.2-2. Impacts will also be mitigated through project-specific environmental analysis and in accordance with the provisions of 43 CFR 3715. In addition, please see response to comment 4-3.

Subsistence/Social and Economic Conditions

Letter-Comment#	Comment	Response
1-8	Increased oil, gas, and mineral development is likely to result in increases in numbers of both permanent and short-term residents in the planning area. Need an analytical plan of expected population growth and impact for each alternative. The Red Dog Mine is another good model to use for illustrating potential economic benefits to a region. Additional information could be incorporated in this section. The 2005 PILT to the Northwest Arctic Borough increased to $6.3 million (from $5.9 million in 2004). In addition to this payment, the Red Dog Mine paid $10.9 million in net smelter return royalties to the NANA Corp. in 2004. Of this 5.9 million was redistributed to the 11 other native regional corporations as part of its 7(i) payment (McDowell update of the preceding report, January 2007). These facts should be included to illustrate how mineral development can benefit local residents. The McDowell report also points out that the mining industry has a relatively high Alaska resident hire rate (82.3% in 2004) when compared to other key Alaska industries such as oil and gas (72.6%) and seafood processing (27.4%).	A general discussion of employment related to mineral development in Alaska and percentage of regional hire is presented in Chapter III section E.2.d. Chapter IV, section B.5 projects potential employment related to anticipated mineral development, by Alternative.
5-28	Page 4-10, Recreation 1st bullet: We request the Bureau revise the text in this bullet and elsewhere in the document from "sport hunting" to just "hunting." The State subsistence law currently includes all residents as subsistence users in areas where State regulation authorizes subsistence uses. Federal agencies frequently mischaracterize hunters who are not federally qualified subsistence users to be "sport hunters". Non-federally qualified subsistence users often qualify as subsistence users under the State regulations. It is also important to clarify that State regulations only classify hunters as being "resident" or "non-resident" hunters. The State no longer authorizes "sport hunting."	The term "sport hunting" has been replaced with hunting in the Bay RMP.
46-4	That Bureau of Land Management/Bay Resource designate Jack Smith Bay, Carter Spit Area, Snow Gulch Area, as Subsistence Use Areas.	BLM develops its management plans under the authority of FLPMA, 43 CFR 1610 and other regulations. These implementing authorities do not provide a means to identify the "subsistence use only areas" proposed. The primary means BLM uses to identify a special area while it is planning is to designate it an Area of Environmental Concern (ACEC). Please refer to Chapter I, section E.2.k and Chapter II, section C.3.

Letter-Comment#	Comment	Response
1-5	Mineral development throughout the planning area has the potential to negatively impact the Mulchatna caribou herd.	If proposals for mineral development are received by BLM, site specific impacts to caribou would be analyzed under NEPA. The ROPs and Stipulations (Appendix A) would apply as appropriate to protect the Mulchatna caribou herd. Impacts to caribou and other wildlife species are discussed throughout Chapter IV.
1-26	Page 3-311, Table 3.42: This table presents subsistence harvest data derived from the ADF&G Division of Subsistence computerized database, which is now the Community Subsistence Information System (CSIS), and indicates that data are not available for Togiak and Twin Hills. Subsistence harvest data for these two communities are in the CSIS and in the following report: Both the CSIS and this technical paper can be accessed on the Division of Subsistence website. Additionally, updated subsistence harvest data from the following communities appears in Division of Subsistence Technical Paper 302, which will soon be published: Illiamna, Newhalen, Nondalton, Pedro Bay, and Port Alsworth. These data can be obtained from the Division of Subsistence office in Anchorage.	The information presented in the recommended database does not provide the same information presented in Table 3.40. The web site has been added to the Table informing the reader that supplemental data is available. Please see Table 3.40 in the FEIS.
5-42	*Appendix* B: ANILCA Section 810 Analysis of Subsistence Impacts Page B-5, 4th full paragraph: We recommend replacing the first sentence with the following language: "The current amount necessary for subsistence (ANS) determination made by the Alaska Board of Game for moose in Game Management Units (GMUs) in the planning area ranges between 280-390 moose annually." The authors suggest that this ANS determination seems low given the "significant increase in the distribution and population of moose in GMU 17A" and low caribou harvests due to a decline in the Mulchatna Caribou Herd. While it is possible that the ANS findings may need to be revisited, a growth in the moose population resulting in an increasing moose harvest does not necessarily mean that the ANS is inaccurate.	Your suggestion has been incorporated into Appendix D of the Bay FEIS.
5-43	Page B-5, final paragraph: We suggest replacing the first sentence with the following language: "The current amount necessary for subsistence determination made by the Alaska Board of Game for caribou in the GMUs in the Bay planning area (5 AAC 99.025) ranges between 3,600 and 4,800 per year." The final sentence in this paragraph estimates the unreported harvest of caribou in this area to be between 3,200 and 7,200 caribou annually, but does not indicate the source(s) of information used for this estimate. The source(s) of this unreported harvest estimate should be cited.	Your suggestion has been incorporated into Appendix D of the Bay FEIS.

Letter-Comment#	Comment	Response
12-1	Our people depend on the renewable fishery resources. A disruption of this symbiotic relationship would not only spell the eventual demise of the salmon, moose, caribou, bears and other wild animals of the region, but would also leased to the eventual death of the culture of our region. Our people have depended on the subsistence resources of this region for thousands of years. If our food source is driven away or exterminated by pollution, an influx of workers, and loss of habitat, the subsistence lifestyle the Bristol Bay native culture will be dealt a devastating blow.	BLM is required by Title VIII of ANILCA to be mindful of the impacts of proposed actions on subsistence uses. Utilizing NEPA, every Federal action in Alaska is subjected to a subsistence analysis and impacts on the Native community are analyzed under the concept of Environmental Justice.
13-1	Our people depend on the renewable fishery resources. A disruption of this symbiotic relationship would not only spell the eventual demise of the salmon, moose, caribou, bears and other wild animals of the region, but would also lead to the eventual death of the culture of our region. Our people have depended on the subsistence resources of this region for thousands of years. If our food source is driven away or exterminated by pollution, an influx of workers, and loss of habitat, the subsistence lifestyle the Bristol Bay native culture will be dealt a devastating blow.	Please see response to comment 12-1.
56-4	Alt. D is deficient in ensuring protections for streams and wildlife habitat within the planning area. Projected impacts to soil, water, and vegetation due to losable, locatable, and salable mineral materials would be virtually the same as under Alt b. with the exception of the Carter spit ACEC, where more vigorous operating procedures would be in effect, at least seasonably, On close examination of the various alternative details, it is apparent that the difference between potential effects due to mineral development for Alt B, which facilitates maximum resource development, and D is negligible. This suggest that Alt D., which is virtually the same as B with regards to mineral development could adversely affect subsistence activities over time, and so effectively degrade subsistence lifestyles in the future.	Please see reference to Alaska Land Health Standards, goals for Vegetation, Wetland, and Riparian Habitat and Soil, Air, and Water in Chapter II and ROPs, Stipulations, and Standard Lease Terms in Appendix A. Alternative D also incorporates the designation of a Carter Spit ACEC and 300-foot setbacks to specific rivers within the Bay planning area as described in Alternative C, incorporated into Alternative D. Chapter IV of the FEIS has been modified from that offered within the DEIS, providing an improved analysis of impacts associated with the proposed Alternatives. In addition, please see response to comment 12-1.
69-18	The Draft RMP/EIS provides a fairly detailed analysis of the subsistence patterns of the 25 villages in the planning area. Unfortunately, the section of the Draft RMP/EIS that explained the direct and indirect effects on subsistence common to all alternatives was less detailed. It predicted that Alternative A may significantly restrict subsistence use and needs in the planning area. Draft RMP/EIS at B-6. Oddly, although Alternatives B, C and D would open more than 99 percent of the planning area to mining and oil and gas exploration, and development, BLM found that	Please see response to comment 12-1. In addition, Chapter IV within the FEIS has been improved from that offered within the DEIS, providing an improved analysis of impacts associated with the proposed Alternatives. Your concerns were used during the reassessment of Chapter IV for the FEIS.

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	these activities would not significantly restrict subsistence use in or near the planning area, and even that most of the impacts would be negligible, given the management parameters BLM proposed. Id. at B-8, 10, 11. Unfortunately, we object to this conclusion and request that BLM conduct a more realistic analysis of the potential impacts to subsistence resources from the proposals to allow oil, gas, and hard-rock minerals development under Alternatives B, C and D.	
69-19	To comply with its ANILCA mandates and to allow informed decision-making and public participation, BLM must discuss in further detail how its ROPs and Stipulations would adequately protect resource values, including subsistence, as well as its plans for incorporating and enforcing any additional enhanced Bristol Bay habitat conservation standards, as introduced by the Alaska Board of Fish and/or Alaska Legislature. Perhaps the most striking flaw in BLM's logic is that for Alternatives B, C, and D, BLM identifies the other alternatives that would reduce or eliminate the Use, Occupancy, or Disposition of Public Lands Needed for Subsistence Purposes as being Alternatives B, C, and D. Since each of these alternatives proposes a nearly identical level of oil, gas and mining development, BLM would be hard pressed to show that one provides any more protection for subsistence resources than another. We believe that this represents yet another failure in the agency's obligation to provide a full range of alternatives in the RMP/EIS.	Please refer to Appendix A and Introduction sections 1-3. ROPs and Stipulation are developed and attached to permits or leases for protection of targeted resources while utilizing another. In addition, Chapter IV of the FEIS has been improved from that offered within the DEIS, providing an improved analysis of impacts associated with the proposed Alternatives. Also, see response to comment 56-2.
71-1	…BLM should use the findings under ANILCA's 8.a. I believe it was for subsistence to make subsistence their priority when it comes to deciding what permits should be given out to whom and to where, that subsistence uses should be considered number one in all determinations.	Your comment refers to ANILCA, section 802(2), which states "nonwasteful subsistence uses of fish and wildlife and other renewable resources shall be the priority consumptive uses of all such resources on the public lands of Alaska 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 such population, the taking of such population for nonwasteful subsistence uses shall be given preference on the public lands over other consumptive uses." BLM will continue to administer the Federal subsistence program in the Bay planning area consistent with ANILCA, as described in Chapter II of the FEIS, in section D.4.b.

Letter-Comment#	Comment	Response
5-38	Page 4-117, Irreversible and Irretrievable Commitment of Resources, Minerals. There is a concern that the statement under locatable minerals that "extraction may produce a short-term positive impact to a few residents of the region by providing them with a cash income" is an understatement of the overall benefits of mineral development. Although the development of a specific small mineral deposit (the extent of anticipated development on BLM lands) would be short-lived, it would contribute to the creation of job skills, additional investment in mineral development and contribute to the economy of the State, all of which have longer-term benefits.	Please refer to Chapter IV, sections E.4.b. and E.4.f.
17-1	Even if the mining operations exercise reasonable care, the probability of contaminants reaching the many streams and rivers of the affected area is quite high. The risk isn't worth it. The economic cost to the state in lost revenue from sport fishermen would be catastrophic.	Please see response to comments 15-1 and 4-3. Effects from locatable mineral development on water quality and fisheries are addressed in Chapter IV, sections C.3 and C.4 and cumulative effects in Chapter IV, sections E.3.a and E.3.c will be expanded to include a discussion of the current Pebble Mine proposal.
31-2	The BLM also makes the assumption that the potential job opportunities will allow local native people to become employed. The facts do not support this assumption. As our Governor has recently pointed out, our rural unemployment was 80% prior to the pipeline and associated North Slope industry came to our state. Today, some 30 years later, our rural unemployment rate is still at 80%. The conclusion could be argued that the rural residents and the culture in which they have been raised for thousands of years are not compatible with what would be considered normal employment by other cultures. It further could be argued that since subsistence opportunities would be taken from the rural people in the region that the negative affects on mineral development will have a dramatic negative affect on the rural population.	The analysis presented in Chapter IV has been modified compared to that presented in the DEIS. Please see Chapter IV, section D.8.c.1, this analysis anticipates 15% of workers coming from the local area, based on comparisons drawn from the North Slope oil industry. Please see response to comment 12-1.
39-1	Consider these lands as subsistence use areas only	As a multiple use agency, BLM has considered a mix of resource uses in the Draft RMP/EIS. BLM develops its management plans under the authority of FLPMA, 43 CFR 1610 and other regulations. These implementing authorities do not provide a means to identify the "subsistence use only areas" proposed.
39-3	Identify: an over view of study finding of harvest and uses of caribou, moose, bear, and Dall sheep, subsistence fisheries of Bristol Bay Management Area, and a summary of Bristol Bay sockeye salmon harvests (Para)	Please refer to Chapter III, section B.6 and Table 3.40 for an overview of wildlife and subsistence values.
41-1	designate these Federal Lands adjacent to Native corporation lands in the Bristol Bay region as Subsistence Use Only Areas	Please see response to comment 46-4.

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44-1	Although our people need employment, they choose only be employed so they can maintain their subsistence way of life. If any jobs were created from the development of the lands that are adjacent to our lands, a vast majority of these jobs would be taken by non-watershed residents. The influx of people would also add competition to our subsistence way of life, greatly affecting our traditional way of life.	Please see response to comment 12-1.
52-1	Much of Alaska suffers from a depressed economy and this mineral-rich area has potential to improve dramatically the local economy by adding high-value jobs and tax revenue. Additional ACECs and other restrictions that have potential to affect adversely mineral development will exacerbate economic problems. There are few alternatives locally to such a high-value industry, and few areas are fortunate enough to possess such mineral wealth as found at the Pebble deposit. Other rich deposits likely exist undiscovered, providing long-term economic benefits to the region.	43 CFR 1610.7-2 requires that areas having potential for ACEC designation be identified and considered throughout the resource management planning process (Appendix B). Proposed mineral activities in the ACEC, as well as all other areas within the Bay planning area, would be subject to Required Operating Procedures and stipulations specifically designed to protect the resource values identified.
53-1	A decline in the Bristol Bay fishery, will result in a loss of recreation related income to a broad section of the economy that will surly surpass the narrow benefits accrued through the interests of the extraction industries.	Please see response to comment 15-1. The effects analysis presented in Chapter IV of the Draft RMP/EIS describes anticipated impacts to resources resulting permitted activities on BLM managed lands, including aquatic habitats (section C.4) and economic condition (section D.8).
54-1	When it comes down to economics, fish always get the least consideration. In Montana, the mining track record is abominable and the continued impact on a couple rivers is everlasting. I can't see that it would be any different in Alaska. At risk is a salmon fishery that would continue to generate income forever if not destroyed by the one-time extractive effort of a major gold mine. We have effectively lost the salmon of the lower 48 because of short sighted management. Now that we have the benefit of hindsight, it is even more mindboggling that a similar proposal is being made for Alaska. With six billion people on the planet, the need to eat will eventually outweigh our need for gold, and still that consideration seems to be conveniently ignored by the short term money interests willing to sacrifice a major existing economic treasure for short term boom.	Please see response to comments 15-1 and 53-1.
55-19	Pg. 3-299, 1st paragraph. We disagree with the statement. "These industries," (re: mining, oil, and gas) "which may be expanding presence in southwest Alaska, are likely to provide jobs to Alaskan, however, they will be primary out of region residents." The evidence does not support this statement and the very opposite is	Please see response to comment 31-2.

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	true and the correct facts should be included in the RMP/EIS. Mining companies currently working in remote areas of Alaska such as at Donlin Creek and Pebble have implemented local hire policies that have resulted in training and hiring local residents from many of the communities in western and southwestern Alaska. Bill Bieber, Donlin Creek project at the Alaska Miners Association's Convention in November 2006. Barrick and NovaGold, working closely with Calista Corp., and a workforce that was mostly local. Donlin Creek Employment in 2006 included 350 Calista shareholders which was 86%of total workers on the project site. A total of 23 villages represented in the workforce. Over the past 11 years local shareholders have worked at the project and many are now supervisors and managers of the work on site. Northern Dynasty is doing the same and in 2006 15 villages from Southwest Alaska were represented in the workforce at the Pebble exploration project. The Red Dog Mine is another good model to use for illustrating potential economic benefits to a region. Additional information could be incorporated in this section. The 2005 PILT to the Northwest Arctic Borough increased to $6.3 million (from $5.9 million in 2004). In addition to this payment, the Red Dog Mine paid $10.9 million in net smelter return royalties to the NANA Corporation in 2004. Of this 5.9 million was redistributed to the 11 other native regional corporations as part of its 7(i) payment (McDowell Group, An Economic Impact Profile of Alaska's Mining Industry, January 2006). The 2005 royalty payment was $17million with a redistributed 7 (i) payment of $9.9 million (McDowell update of the preceding report, January, 2007). These facts should be included to illustrate how mineral development can benefit local residents.	
60-10	Pg 3-200…the Bristol Bay region support world class sport fishing and sport hunting opportunities found no where else… This coupled with other forms of eco-tourism in the region contribute tens of millions of dollars annually to the local, regional, state, and national economies. Until these facts are incorporated into the Draft RMP/EIS, it will remain a legally deficient document.	Please refer to Chapter III, section C.4. Recreation and Tourism in the Bay planning area is recognized in Chapter III but it doesn't necessarily occur on BLM-managed lands. Chapter III, section C.4.b describes that only four SRPs are currently issued by the Anchorage Field Office.

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60-11	Pg. 3-289-Discussion of the draft Bristol Bay ACEC similarly understates the value of the renewable resources and how these support a sustainable local economy based primarily on commercial, recreational, and subsistence fishing. Failure to spell out….the existing reliance on these resources prevent BLM from engaging in a reasonable assessment if impacts on the present economy.	Please see response to comments 4-1, 15-1, 60-10, 69-9, and Chapter III, section E.2.
62-1	…While BLM alternatives except A encourage exploration and development, it would come at a cost to taxpayers with small to non-existent chance for a return. In contrast, the sport and subsistence economies that could be upset by exploration and development have a proven value that does not cost the taxpayers.	See response to comment 15-1 and 69-5.
69-12	Finally, we request that BLM consider The Economics of Wild Salmon Watersheds, Bristol Bay, Alaska (Duffield, et al. 2006) an economic study by the University of Montana and the University of Alaska (ISER). This study quantifies the economic production from the Bristol Bay watershed for commercial, subsistence and recreational use. It can be located at: http://www.iser.uaa.alaska.edu/Publications/sg_bb0706.pdf	The Bay RMP/EIS acknowledges the importance of salmon in the regional economy of the area in terms of total value (Chapter III section B.6.b), the main industry in the area (Chapter III, section E.2.a), and source of local employment (Chapter III, section E.2.d).
63-1	…This region is the world's largest supplier of wild salmon, employing thousands of workers and generating close to $300 million of revenue annually, through commercial fisheries...Thousands of people travel to and recreate in the Bristol Bay region…most coming for the fishing. These sportspersons deliver another $61 million of revenue annually. Why risk the renewable resources of this region and the habitats ...to support mineral development which will benefit ...few people for a..short time.	Please see response to comments 69-5 and 69-12.
70-1	It would be beneficial if the plan would reflect the current data that's out there presently, the current impact that salmon has on the area, like the [Institute for Social and Economic Research] ISER [UAA] research information.	Please see response to comment 69-12.
70-4	... the comment about the [Institute for Social and Economic Research] ISER [UAA] study that values our resource at $175 million a year in terms of commercial value needs to be reflected in the plan.	Please see response to comment 69-12.

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3-7	The principles of Environmental Justice (EJ) should not be assumed to be applicable to Native populations alone. Currently there is no socioeconomic information in the document that supports that these populations are one in the same. Additionally, there is no clear analysis of potential impacts to low income and minority populations to reach the conclusion that they will not be disproportionately impacted. Such an analysis should be undertaken and incorporated into the Final EIS.	Within the FEIS the Environmental Justice section has been modified compared to that presented within the DEIS. Your comment was considered.
18-1	Many tribes still do use only natural teas and uses other's to cure our sick. I know and use those myself. Destruction of our lands by invading predator industries will forever remove growing fields and swamp land where much of our natural plants grow.	See response to comment 12-1.
69-20	If non-local 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.	Changes in hunting and fishing regulations are controlled by the Boards of Game and Fish and the Federal Subsistence Board and are beyond the scope of this plan. Additionally, the State of Alaska's administration of guides, outfitters, and transporters is beyond the scope of this plan (Chapter I, section E.2.c). Currently, the BLM Anchorage Field Office issues four SRPs for big game guides in the Bay planning area (Chapter III, section C.4.b).
69-45	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 Bay management plan must recognize the disruption of subsistence activities in the region and incorporate those impacts into its planning efforts. (Arctic Climate Impact Assessment. 2004. Hinzman, et. al. 2005.), (Callaway, Don. 1999. Effects of Climate Change on Subsistence Communities in Alaska), (Callaway. 1999. p 19; Hinzman, et. al. 2005. p 282.)	The Draft RMP/EIS discusses climate change within the region and considers expected trends (Chapter III, section B.1.b). These expected trends are taken into account in assumptions used in Chapter IV. Please see response to comments 22-1, 69-37, 69-39, and 69-40.
58-3	The Bay planning area is depressed economically and would benefit from diversification through the development of employment and a local tax base provided new mines.	See response to comment 52-1.

Recreation

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5-31	Page 4-45, Effects to Wildlife from Recreation Management (Common to all) It is not clear whether "enhanced or excessive harvest" is referring to more game being legally taken, which does not constitute an impact, or taking game beyond what is legally allowed, which constitutes an impact from illegal activity, which would more appropriately be categorized as an enforcement issue. The State Board of Game and ADF&G regularly monitor harvested populations to insure against "excessive harvest"	The ADFG is responsible for managing game populations and allocating harvest allotments. This reference to enhanced or excessive harvests has been removed from the FEIS.
5-22	Page 3-197, ROS Class Setting: It may be helpful to include common examples for both Semi-primitive non-motorized and Primitive as well as the Semi-Primitive Motorized	Comments to the Bay DEIS came from other U.S. states and a few from other countries. Unfortunately, examples of ROS classifications may not necessarily be common. BLM believes the descriptions in Chapter II provide an adequate understanding of ROS classifications.
69-50	Wilderness is a multiple use under the Federal Land Policy and Management Act of 1976 (43 U.S.C. § 1701(a)(8), 1702(c)). It is imperative at this point in the planning process for BLM to ascertain the resource values on the public lands in Southwestern Alaska, and one of those resources must include wilderness quality before the Draft Bay RMP/EIS is finalized.	The Federal Land Policy Management Act (FLPMA) directs BLM to manage lands for a variety of resource values under a multiple use mandate. See 43 U.S.C. 1701 and 1702. Under FLPMA, BLM has discretion in determining which resource values it considers and how it will manage those resources through the land use planning process. Although “wilderness” is not explicitly included as a multiple use resource value in FLPMA, BLM has the discretion to consider whether lands within a planning area have wilderness characteristics. In the Bay planning area, there are no Congressionally-designated Wilderness Areas or Wilderness Study areas, and BLM has not ascertained the extent to which lands with wilderness characteristics exist, they are addressed in Chapter III, section C.4. “Recreation Management.”
60-3	Page 2-5 -Rejection of Special Recreation Management Areas (SMRA's) is an arbitrary and capricious action given the enormous recreation values associated with the renewable fish and wildlife resources of the Bristol Bay region. In multiple other instances, the RMP notes the outstanding recreational values in the region yet the document flatly rejects any SRMA designations.	Chapter II, section C.2 states: "BLM Anchorage Field Office (AFO) considered SRMA status for each block of BLM unencumbered land within the Bay planning area. However, the use patterns and types of recreation opportunities to justify SRMA status were not found." Please see Appendix C.

Travel Management

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5-23	Page 3-201, Travel Management. We appreciate the inclusion of a source citation for language in the R.S. 2477 and 17(b) Easement sections (page 3-201).	43 CFR §1864, has been added to the citation concerning R.S. 2477 routes in Chapter III, section C.5.b.1.
5-29	Page 4-11, Travel Management, Bullets 2 and 4. The second bullet mentions increases in OHV technology allowing off-road users to access previously inaccessible parcels. It may also be worth noting that increases in available technology can also contribute to reductions in potential resource impairment. Please review the fourth bullet and clarify BLM's intent with this assumption. We understand that BLM is required to designate areas as open, limited or closed to OHV use and have found the limited designation to be consistent with the State's Generally Allowed Uses. However, the second sentence in this bullet to mean that use is being restricted to a specific type of user. Since the plan does not introduce various "classes" of OHV users in the document and there are no restrictions in the plan that limit OHV use by user type, we recommend BLM revise the bullet to reflect actual intent.	Information pertaining to increased technology reducing potential resource impairment is noted, none the less, a GVWR of 2,000 lbs. will be used as the threshold for OHV limits. These bullets are embedded within the Resource Assumptions section of this document. Bullet four merely states existing trails on BLM lands are classified as limited and use for subsistence hunting is allowed. Please note, OHV use for subsistence purposes is not recreation, especially considering the importance of subsistence resources to the people that live within this region. No data has been collected concerning the various type of OHV users.
33-2	If BLM considers other alternatives, I do not agree with the use an absolute maximum weight for OHV as a limit, a "pounds per square inch (PSI) of footprint" on the ground should be used. The idea is to limit degradation of the ground from OHV use. Please don't limit industry and others from using an new technology, or idea, developed now or in the future that may allow a vehicle which is heavier than 2000 lbs have less impact than lighter vehicles with out such technological advances.	The 2,000-lb GVWR weight limit allows continued access by commonly used OHVs loaded to manufacturer's maximum loads and prevent undue and unnecessary degradation of BLM-managed lands. Common vehicles frequently operating on trails within the Bay planning area that weigh less than 2,000-lb GVWR include: three, four, and six wheel all-terrain vehicles and amphibious six-to-eight wheel Argos. In addition, a vehicle weight limit is easier to inspect since the GVWR is normally affixed to a vehicle or is easily obtained from the manufacturer.
35-1	Rather than use an absolute maximum weight for OHV as a limit, BLM should consider a "pounds per square foot (psi) of foot" on the ground. The intent is to limit degradation of the ground from OHV use. Don't limit the creative minds from using technology or creativity to utilize something with minimal ground degradation but is heavier than 2,000 lbs.	Please see response to comment 33-2.
66-1	Rather than use an absolute maximum weight for OHV as a limit, BLM should consider a "pounds per square foot (psi) of foot" on the ground. The intent is to limit degradation of the ground from OHV use. Don't limit the creative minds from using technology	Please see response to comment 33-2.

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65-1	..in the Bay RMP draft the definition of "Limited" is also limiting gross vehicle weight ratings to 2000 lbs. on unencumbered lands, and 1500 lbs. on encumbered BLM managed lands. While the Alaska Administrative Code AAC 96.025, ..states recreational-type vehicles up to 1500 lbs., may be used, it also allows for the use of highway vehicles with a curb weight of up to 10,000 lbs consistent with the State's "Generally Allowed Uses"...we request the all-terrain vehicle weight limit to be 2,000 lbs. for all lands, to avoid confusion for users traveling across encumbered and unencumbered lands.	Please refer to Chapter II, section D.2.e.3. The 2,000-lb GVWR weight limit will be applied for all BLM-managed lands within the Bay planning area. This will provide a greater level of consistency for both users and enforcement until conveyance of selected lands.
47-1	We believe the emphasis on resource development will result in substantial increases in OHV use, regardless of the suitability of the terrain, and consequent environmental damage.	Alternative D designates "Limited" for OHV use on all BLM-managed lands within the Bay planning area. The restrictions applied to OHV travel will prevent undue or unnecessary impacts to resources, especially in areas of moderate to high use. In addition, ROPs (Appendix A) will be applied to all permitted activities to maintain desired conditions established in BLM Alaska Land Health Standards (Appendix A).
47-2	We do not believe that using the state's " Generally Allowed Uses" policy to guide BLM, will result in significant regulation of OHVs unless and until trails are identified and marked and there is routine, systematic and very public enforcement in place	Please see response to comment 65-1. A Comprehensive Trails and Travel Management (CTTM) plan, which will be produced within five years of plan approval (BLM manual H-1601-1, Appendix C, page 17) will include further public involvement and recommendations for individual roads and trails within the Bay planning Area.
56-1	We also suggest amending Alt A to address increases in OHV use and the potential for gravel mining in active stream channels. By incorporating more rigorous ROPs for the planning area under Alt A, damage from possible gravel mining could be minimized, and limited restrictions on OHVs will prevent damage to important fish habitat.	Alternative A is the no action alternative which suggests a continuation of current management practices (Chapter II, section B.1). it is assumed that there would not be an increase in gravel mining on BLM lands since current gravel mining operations within the Bay planning area are located on private lands near population centers (Chapter IV, section B.3.c.3). ROPs (Appendix A) will be applied to all future permitted activities and additional mitigation measures will be identified in a project-specific NEPA analysis, further preventing impacts to fish habitat. Impacts to aquatic habitat are discussed in Chapter IV.
22-11	Determine how access will be provided to BLM managed lands for various purposes, including, aircraft access to BLM Lands. Are you addressing aircraft access to BLM lands. Please explain. Who and how is this regulated?	Current condition travel management for the Bay planning area, including Air Routes and Air Strips (Chapter III, section C.5.b.2). Authorized landings on BLM-managed lands are regulated through special recreation permit (SRP) process. Unfortunately, due to the remote location of most BLM managed lands within the Bay planning area and the lack of human resources, many unauthorized landings go undetected.

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5-24	Page 3-211, OHVs 5th full paragraph. This paragraph inappropriately combines Sections 811 and 1110(a) of the Alaska National Interest Lands Conservation Act (ANILCA, P.L. 96-487) which may confuse the reader trying to determine which provisions apply to Bureau lands. It is important that the Bureau develop the plan in accordance with the appropriate ANILCA provisions for Conservation System Units where applicable and on all public lands in Alaska. Section 811 of ANILCA states that: "the Secretary shall permit on the public lands appropriate use for subsistence purposes of snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes by local residents, subject to reasonable regulation..." (emphasis is added) ANILCA Section 1110(a) mandates that: "... the Secretary shall permit, on conservation system units, national recreation areas and national conservation areas, and those public lands designated as wilderness study, the use of snowmachines (during periods of adequate snow cover...), motorboats, airplanes, and non-motorized surface transportation methods for traditional activities...and for travel to and from villages or homesites. Such use shall be subject to reasonable regulations by the Secretary to protect the natural and other values of the conservation system units... and shall not be prohibited unless, after notice and hearing in the vicinity of the affected unit or area, the Secretary finds that such use is detrimental to the resource values of the unit or area." (emphasis added) We recommend the Bureau cite these provisions separately to avoid confusion.	These changes have been made within the FEIS. Please see Chapter III, section C.5.c.

Renewable Energy

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3-17	Page 2-43 Since hydropower (Tazimina Hydroelectric Plant) and other renewable and alternative power projects do exist in the planning area, BLM, in concert with local communities, should closely examine whether areas for renewable energy facilities should be identified. As information is collected on this subject, it may be used to enhance the energy supply description on p. 1-6.	Please refer to Chapter III, section C.6: Renewable Energy. There is currently no demand for renewable resources on unencumbered BLM lands in the Bay planning area, but BLM will consider proposed actions on a case-by-case basis. Practical economics suggest that renewable and alternative energy facilities be constructed near population centers. BLM-managed

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		lands are located a considerable distance from most population centers, making development of these facilities unlikely within the life of the plan.
69-48	In 2003, the Alaska Energy Authority, with the assistance of Department of Energy (DOE) and its contractors, completed an assessment of geothermal resources in Alaska. That assessment followed up on work performed in the 1980s. It identified two geothermal sites that have a high potential for development as energy sources.	Information within the Mineral Occurrence Report for leasable minerals pertaining to geothermal resources in the planning area has been added to the FEIS, Chapter III, section C.3.a.1.

Lands and Realty

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5-13	Page 2-49, (6) Alternative D, also affecting (5) Alternative C, Table 2.11 & 2-52, 2nd bullet and Table 2.15, page 2-110. The Bristol Bay Area Plan for State Lands (BBAP, 2005) contains a map on page 2-37 that illustrates the abundance of mineral resources that lie to both the east and south of the proposed Carter Spit ACEC. By categorizing the ACEC as an avoidance area for Land Use Authorizations, opportunities for mineral resource development on lands containing these prospects would be unduly hindered primarily by affecting access. We request elaboration on what is meant by the term "avoidance area." We appreciate new language that was applied in Chapter IV (pages 4-79 and 4-80) subsequent to our previous comments, but request additional clarification that access proposals will be considered within the ACEC context and not entirely excluded.	Within the FEIS, the boundary of the Carter Spit ACEC has been altered, in Alternative D, from that proposed within the DEIS (Maps 2.32 and 2.33). Avoidance area is explained in BLM handbook H-1601-1. This designation provides for right-of-way "under special stipulations." Please refer to Appendix B. The Carter Spit ACEC is proposed to provide additional protection to federally-listed migratory bird species.
5-14	We also request that Table 2.15 on Page 2-110, Alternative D, for Lands and Realty be changed so that it is consistent with Table 2.11. Table 2.15 currently states that no Land Use Authorizations will be considered in the Carter Spit ACEC area, whereas the intent and the previous Realty summary table indicate that the Carter Spit ACEC is an "avoidance area."	This suggestion has been incorporated within the FEIS.

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5-25	Page 3-213-3-287 Lands and Realty: We find the Lands and Realty section in Chapter III to be very well done, with an appropriate amount of detail to describe the withdrawal, easement, or permit and extensive mapping which is very helpful and well done. However, we suggest that in the final draft BLM review the location of maps relative to the corresponding text and perhaps make some adjustments to the location and titles of the included maps.	The maps are located within a separate volume for the FEIS and all maps are appropriately titled and in proper sequence.
5-30	Page 4-13, 5th full bullet, 2nd to last sub-bullet. We appreciate the additional information given to elaborate on this bullet. However, we still recommend using the analogous bulleted list given in Chapter II (pp. 48-49), which addresses this issue with the language "where landowners have made a request" instead of "where landowners support the activity allowed by the easement." This will avoid the impression that the preferences of the adjacent landowner in any way supersedes the intent of 17(b) easements, which is to maintain the right of access to public lands and waters. It will also resolve the need for the explanation in parentheses, while still addressing similar priority situations.	This suggestion will be incorporated within the FEIS. Please see Chapter IV, section B.3.g.
5-44	Appendix E. This appendix of 17b easements is very useful. Is it possible to provide a map depicting these easements in this section, or perhaps refer back to the maps in Chapter III that do depict these easements, or as an alternative, move the 17(b) maps to this section?	Maps depicting 17(b) easements are referenced in Chapter III of the FEIS. See response to comment 5-25.
28-1	Alternative B of the document will best accommodate future multiple use of the remaining lands within the planning area. At the same time we should recognize that over 40% of this planning area has already been set aside for State and Federal parks and other withdrawals. Keeping this in mind the proposed addition of ACEC's and VCM's to the planning area does not appear warranted nor in conformance with the No More clause specified in ANILCA.	Alternative D incorporates portions of both Alternatives B and C providing a mix of development and conservation objectives. Please refer to response to comment 58-2.
34-1	ANILCA states in part that " No further studies of Federal lands in the State of Alaska for the single purpose of considering the establishment of a conservations system unit, national recreation area, national conservation areas or for related or similar purposes shall be conducted unless authorized by this Act of Congress." Not only does your proposed action violate the provisions of ANILCA, it goes against the spirit of the law as well. There are currently 154 million acres of land that is set aside in one type of federal conservation unit or another.	Section 1326(b) of ANILCA is often referred to as the "no more" clause which states that no further studies for the single purpose of considering the establishment of CSU, national rec areas, etc shall be conducted. The RMP is a comprehensive planning document assessing various resource values and recommendations incorporate a combination and balance of diverse resource uses. The planning document adheres to BLM's multiple-use policy as mandated by FLPMA and strives for a combination of uses that will best meet present and future needs of the resource values.

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69-15	BLM has failed to conduct the Public Interest Analysis of d-1 withdrawals required by ANCSA. The clear message of Section 17(d)(1), the subsequent PLOs, and Section 207 of ALTAA is that the Secretary is required to identify the public values of the d-1 lands and to consider the public interest in these lands when making decisions about lifting withdrawals. In order to carry out this duty, the Secretary must conduct some sort of analysis of the withdrawn lands that identifies the public values of the various lands so that protective actions can then be taken as warranted. Unfortunately, this analysis is entirely missing from the draft Bay RMP, even though the RMP is the mechanism by which the Secretary proposes to eliminate virtually all of the d-1 withdrawals in this region. The draft RMP provides a description of the lands within the Bay planning area, in Chapter III, "Affected Environment," but it does not state which of the lands described are subject to d-1 withdrawals. The draft RMP also mentions studies and assessments of the d-1 withdrawals done in the 1980s, but it provides neither citations nor any detail about the results of these studies and assessments.1 RMP at 3-214. Most importantly, although the "Affected Environment" section strongly suggests that many lands within the RMP area possess wildlife, subsistence, and other public values that are worthy of continuing protection, the draft RMP fails to draw a connection between these values (and the public interest in them) and its proposal to lift virtually all of the d-1 withdrawals in the three action alternatives.	Chapter III describes resources of BLM-managed lands within the Bay planning area, including biological, physical, cultural, and mineral values. The impacts to these resources resulting form each Alternative (Chapter II) have been addressed within Chapter IV. Table 3.19 describes the various PLO and Map 3.37 shows BLM lands withdrawn under ANSCA 17(d)(1) by the various PLOs. In addition, ROPs, Stipulations, and Standard Lease Terms have been created through the planning process to protect Bay planning area resources. These ROPs, Stipulations, and Standard Lease Terms will be applied to all authorized activities occurring on unencumbered BLM lands on an as needed basis to protect resources as identified through project-specific NEPA processes.
69-47	The Draft RMP/EIS did not provide an adequate discussion of the potential for renewable energy within the planning area. If this plan is to serve for 10-20 years, it should include in its scope a discussion of renewable energy.	Chapter III, section C.6 provides a discussion of renewable energy. There has not been nor is there currently any proposed projects concerning renewable energy on BLM unencumbered lands within the Bay planning area. Chapter IV discusses the desire for communities in the Bay planning area to capture renewable energy resources but the proximity of BLM unencumbered lands does not support development of these facilities.
5-12	Page 2-45, (d) Recreation and Public Purposes (RP&P) Act Sales, 5th bullet If the land proposed for RP&P sale is first leased to the potential buyer pending the completion of construction, please clarify what would become of the lease income (i.e., placed in escrow for the buyer, subtracted from the purchase price, etc.). If retained by BLM, the financial burden of leasing in addition to construction and purchase may be excessive.	A reference to the BLM Handbook H-2740-1, Chapter VI Paragraph B has been added to Chapter II, section D.2.g.3.d. The monies are deposited in the General Fund. The monies paid are applied against the value of the leasehold (rent) and not the purchase price of the property. Rental rates range from 90% of rental value to a nominal amount of $2.00 an acre.

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37-3	Land sales often result in construction of hunting and fishing tourism facilities. Proliferation of these facilities had an impact on subsistence, and more facilities will mean more competition for resources. We prefer that if land is developed for this purpose, that it be done through leases, so that a much higher degree of control is maintained. BBNC fully supports land exchanges that benefit community infrastructure development.	FLPMA Sec. 102(a)(1) states that [BLM] lands will be retained unless disposal serves in the national interest. Impacts associated with any land disposal action will be assessed through NEPA analysis.
37-4	17B Easements: As tourism, fishing and hunting activity and resource development activities grow, there is greater incidence of trespass and greater potential for damage to BBNC lands. The draft RMP indicates that 17B easements will be defined and surveyed "as budget allows". BBNC thinks that BLM should assign a higher priority to resolution of 17B easements, survey them, mark them, and maintain them.	BLM understands the importance of identifying 17(b) easements. As budget and staffing allow, BLM may enters into cooperative arrangements with the dominant landowner to locate and mark these easements. The ability for this to occur greatly depends on staffing and financial resources.
57-1	BLM and the rest of the federal government should abide by the "No More" pledge of ANILCA: "No More" administrative or legislative set-asides of federal lands in Alaska. Alternative D, by heaping additional restrictions to resource development on BLM-managed lands, violates that promise.	See response to comment 34-1.
64-1	ANILCA Mandated that no new conservation areas would be created in Alaska, specifically to enable Alaska to sustain a growing economy for its citizens. The proposed ACEC and Level III VRM areas, as envisioned in Alternative D, violate the intent of ANILCA and should not be implemented	See response to comment 34-1.
68-1	BLM should honor the "no more" principle of ANILCA	See response to comment 34-1.
58-2	BLM should honor the "no more" principle of ANILCA	See response to comment 34-1.
58-1	BLM should honor the "no more" principle of ANILCA	See response to comment 34-1.
59-1	BLM should honor the "no more" principle of ANILCA	See response to comment 34-1.
33-1	It is also important to remember the ANILCA has a "No More" clause in it and should be honored.	See response to comment 34-1.
35-2	The spirit of the "No More" clause of ANILCA should be honored.	See response to comment 34-1.

Pebble Mine

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55-12	Pg. 3-191, Pebble Copper… This section is out of date. Updated info should be obtained and included in the Final RMP/EIS to accurately reflect the current level of knowledge in the region. This info. Can be found at www.ndmpebblemine.com.	New information concerning the proposed Pebble mine has been included within the FEIS. Please refer to Chapter I, section E.2.j.
16-1	There is a big gap in the draft RMP. It does little or nothing to stop the Pebble Mine project, a proposed open-pit gold and copper mine that would be the largest open pit in North America. Exploration drilling has been allowed in the Bristol Bay watershed for this mine, and Alaska residents are gravely concerned because the mine would use the cyanide heap-leaching process, potentially contaminating the clean waters of Bristol Bay. BLM should be taking steps against the mine to the full extent of your authority.	BLM has no jurisdiction concerning activities occurring on State lands.
19-1	There should be a special management designation for Bristol Bay that would recognize the threats posed by the proposed Pebble Mine, and apply protections to the area's fish and wildlife habitat.	BLM has proposed a range of alternatives from conservation to development in the Bay RMP, some of which address fish and wildlife habitat. See Chapter II. The alternatives include designations of Areas of Critical Environmental Concern (ACECs) that recognize and protect important resource values. Chapter IV, section E, analyzes the impacts upon BLM lands from development on adjacent lands including the proposed Pebble Mine on State land.
30-3	I recommend full consideration and analysis of the possibility of the development of a large scale open pit mine in the Pebble Mine project area. Northern Dynasty Mines has provided a wealth of information on their plans, including filing for water rights, consulting extensively with state and federal agencies, including BLM, conducting environmental baseline studies and publishing annual reports in 2004 and 2005. Northern Dynasty Mines has stated that it expects to file applications for operating permits in 2008. The Plan states that until applications are received, it cannot analyze the potential impacts from this mine in light of the alternatives considered here. I disagree with this, and urge you to fully consider the reasonably foreseeable impacts from that project as Northern Dynasty Mines has described so far. Their project, if approved, will unquestionable result in additional cumulative effects to the Bristol Bay region.	Impacts analysis from the proposed Pebble Mine can be found in Chapter IV, section E of the FEIS.
60-11	Pg.4-5…the document proceeds to understate…the effects of industrial development in the region. The Draft refers only to "potential impacts" from "infrastructure development". However,	ANSCA 17(d)(1) precluded mineral development within much of the Bay plan boundaries. Chapter IV analyzes "potential impacts" resulting from implementation of this plan in concert with

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	four pages later it outlines some of the development associated with the Pebble proposal including roads, bridges, power lines open pits, mills, tailing dams, employee housing, etc. A DEIS must do a better job of accurately depicting the consequences of industrialization on fish and wildlife resources and the present regional economy. Failure to provide such information misleads and misinforms the public and destroys the public's ability to participate meaningfully in the NEPA process.	the Reasonable Forseeable Development Scenarios. In addition, since the Pebble mine is currently a proposal, only potential impacts can be analyzed at this time. Please refer to Chapter IV, section B for assumptions and methods and Chapter IV, sections C, D, and E for impacts analysis.
60-14	Pg.4-103 - After listing three pages of perspective mining and related activities that may be triggered or facilitated by this RMP, the DEIS identifies only ONE cumulative impact arising from the Pebble proposal: "The exploration and planning phase of this project is likely to continue for several years and provides income for lodge and hotel owners in Illiamna as well as jobs for locals." Id. This "one" impact conclusion is demonstrably incorrect and utterly fails to satisfy NEPA requirements regarding the reasonable identification of cumulative impacts. 40 CFR 1508.25 (a)(2). Grand Canyon Trust v. FAA., 290 F.3d 339, 341 (D.C.Cir.2002); Found. of Econ. Trend v. Heckler, 756 F.2d 143, 159 (D.C.Cir. 1985).	Please refer to response to comment 60-11. The cumulative impacts analysis in Chapter IV of the FEIS has been revised to include a discussion of the latest Pebble mine proposal and how the reasonably foreseeable impacts of this proposal would cumulatively impact resources on BLM-managed lands.
60-15	Pg.4-108 - In the same vein, there is a failure to recognize the impacts of the extensive industrial infrastructure associated with the Pebble proposal as well as the other one to three mines predicted to occur as a result of adoption of Alt. D.	See response to comment 60-14.
69-1	According to the National Environmental Policy Act (NEPA), BLM is required to analyze the cumulative impacts of all “past, present, and reasonably foreseeable future actions”. We believe that BLM has failed to conduct an adequate analysis of the cumulative impacts the proposed Pebble Mine and reasonably foreseeable mining district on State of Alaska lands, as well as the potential cumulative impacts that may be caused by BLM’s own preference to make the Bay planning area’s public lands available to mineral development.	See response to comment 60-14.
60-8	Pg. 3-29.....BLM should be aware the Pebble mine proponent has filed with the State to withdraw 29 cfs from the upper reaches of the Upper Talarik Creek despite the fact that the Creek's median flow is only 27 cfs. This is precisely the kind of "discontinuity of river flow" that alarms RRC and all fisheries interested in Bristol Bay.	Thank you for your comment.

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10-1	The hard rock mining technique that would be employed by the proposed Pebble Mine uses cyanide and toxic chemicals that inevitably end up in the water supply. Even minute concentrations of these obvious poisons are fatal for the salmon and trout which spawn in the downstream BLM-managed rivers, not to mention other wildlife and people that consume the water.	Please see the response to comments 50-1 and 4-3.

Special Designations

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69-3	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.	Please refer to BLM Manual No. 1613, Section 2.21.E. ANCSA 17(d)(1) withdrawals are in place under current management practices and will remain in place "until the area is fully evaluated through the RMP process". In addition to mineral withdrawal, BLM Manual No. 1613, Section 33.C (Provision for Special Management Attention) goes on to state that "establishing special stipulations to be attached to authorizing actions" or additional methods are also appropriate management prescription for protecting ACEC values.
3-18	Figures 2-9 and 2-10 should be associated with Alternative C, since Alternative C is the only alternative that includes WSR nomination.	Please see Maps 2.34 and 2.35 in the FEIS.
5-36	P. 4-92, Carter Spit ACEC & Bristol Bay ACEC/ pp. 4-93, Carter Spit ACEC: Please see our comments from Chapter II, concerning the post-planning, post-conveyance additions to the ACECs.	Please see response to comment 5-15.
3-2	We recommend that the Final RMP/EIS identify specific management goals and objectives for each ACEC, RMA and WSR (if applicable) to ensure compatible uses and protection of these areas. The ROD should commit to the development of future management plans for each ACEC, RMA, and WSR, as appropriate.	Please refer to Chapter II, section D.3.a.5.a. Also, throughout Chapter II, management objectives for each resources per the various alternatives are described. Where applicable, resource management for special designations is described.
5-15	Page 2-51 through 2-52, Special Designations: Please reference Appendix A as containing pertinent information regarding the rationale for designation. Although the plan generally describes these lands for the Carter Spit ACEC, the plan is unclear as to how such lands would be included in the ACEC following resolution of selections. Please include a section explaining how this will be accomplished. Is an amendment to the RMP anticipated?	A reference to Appendix B has been added in Chapter II, section D.3. Additional information pertaining to expectations of ACEC and selected lands not conveyed has been added to Chapter II, section D.3.a within the FEIS.

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40-1	The great portion of the proposed Carter Spit ACEC covers unencumbered federal lands centered on Twin Mountain, within the separate Jacksmith Creek and Cripple Creek watersheds, and a one to two mile reach of the Indian River which passes into and outside the proposed ACEC southern boundary. We find the name of the proposed ACEC to be extremely misleading. The entire proposed ACEC might be split into two separate ACEC's reflecting the names and geographic areas they include.	Please refer to Maps 2.32 and 2.33. The boundary of the Carter Spit ACEC within the FEIS has been altered from that proposed within the DEIS. Though BLM appreciates your concern, the name of the Carter Spit ACEC will not change.
40-2	The nature and extent of the proposed eastern boundary of the proposed ACEC appears to be a watershed boundary and as such, runs along the divide separating these watersheds from the tributary streams of the Arolik River. This sort of boundary has several management problems. It divides mountains and ridges, with resulting differing management regimes and potential ROP's on either side of the mountain or ridge. The boundary line is meandering and difficult to ascertain on the ground. A section line could form the eastern boundary of the proposed ACEC. We recommend that the western half of the Township 9 South, Range 73 West be included in the proposed ACEC, and the eastern half of the township be excluded from the ACEC. Mitlak Mountain, a prominent bedrock feature with some mineral resource potential, should not be partly within and partly outside the ACEC. Sections 30, 31, and 32 of Township 8 South, Range 72 West should be included in the ACEC.	Please refer to Maps 2.32 and 2.33. The proposed boundary for the Carter Spit ACEC as been altered from that proposed within the Bay DEIS. This boundary change completely removes Mitlak Mountain from the Carter Spit ACEC. This new proposed ACEC boundary more closely matches characteristics described in Appendix A of the Bay RMP and criteria established within 43 CFR 1610.7-2 for ACEC designation.
22-1	Should eligible rivers be recommended for inclusion in the National Wild Rivers system? The RMP can recommend select rivers or river segments. However only congress may designate rivers to the system. How is this process continued from RMP to designation. Why is this included with this RMP?	Please see inset in Chapter II, section D.3.b.1. Additional information concerning WSR within this RMP/EIS can be found in Appendix B. In addition, rivers considered for designation are addressed under Alternative C. The process for WSR nomination is described within the Wild and Scenic Rivers Act (16 U.S.C. 1271-1287) or The Wild and Scenic Rivers Study Process (Diedrich,1999).
69-49	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...The Glennallen Field Office made this change in the final RMP/EIS due to substantive public comment and we request that the Anchorage Field Office act accordingly.	Though land status is currently evolving throughout the Bay planning area, is was decided that a suitability determination (Appendix B) would not be deferred for the Bay RMP/EIS. Land status within the Bay planning area is more certain compared to the lands status of the East RMP during its development. Consequently, three substantive comments concerning WSRs were received during the public comment period of this draft document.

RMP Process

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22-3	My questions are why are we commenting on alternatives ABCD when BLM can modify these alternatives after the Public Comment Period. The statement does not explain if in fact a second public comment period would be held (90 days & please to review the modified alternative)	As per 43 CFR 1610.5-2(a) any individual that participates in the planning process may file a protest on the Proposed RMP/Final EIS. A protest must be filed 30 days after publication of the Notice of Availability for the Proposed RMP/Final EIS in the Federal Register.
22-4	Who can participate in the 30 day protest period after the governor's consistency review?	Anyone who participated in the planning process by sending written comments, making oral comments (at a hearing or meeting), attending a public meeting, calling the BLM field office, and/or discussing the project with BLM employees in the field.
22-5	Who resolves the protests?	As per 43 CFR 1610.5-2(3) the BLM Director shall render a decision on any protest.
22-6	Who can protest?	Please see response to comment 22-3.
22-9	What land tenure would allow BLM to consolidate disincontiguous blocks of land to benefit land management for the people of the US	FLPMA section 205, 43 USC 1715
22-10	Who made this assumption that public land would/should be made available for this use?	Public lands are managed and used in accordance with the intent of congress as stated in the Federal Land Policy and Management Act (43 USC 1701) and under the principles of multiple use and sustained yield. Proposals considered within the Draft RMP/EIS are consistent with the Planning Criteria and Legislative Constraints listed in Chapter I, section F of the Final RMP/EIS.
56-3	The BOF recently recommended that a special panel review current protections for fish habitat in the entire Bristol Bay area, and is continuing study on the proposal that many lakes and streams in the area be included in fish refuge. This designation would provide for increased habitat protection aimed at water quality in salmon spawning streams. In addition, there is a new administration taking control of state functions, and there may be legislative efforts in the new year aimed at reviewing the status of Bristol Bay streams, with the hope of strengthen protection of these world-heritage class fisheries. A memorandum or understanding between the BLM and ADF&G in 1983 states the following with regards to BLM management plans of fish and wildlife habitat. BLM agrees to : "Incorporate ADF&G's fish and wildlife management objectivities and guidelines in BLM land use plans unless such provides are not consistent with multiple use management principles established by FLMPA, ANILCA and applicable federal laws." (dRMP pg 1-24) And: "BLM plans must be consistent with officially approved or	Please see page 1-22 of the RMP which provides: BLM planning regulations require that BLM plans be consistent with officially approved or adopted resource-related plans of other agencies to the extent those plans are consistent with Federal laws and regulations applicable to public lands. The BLM will honor existing MOUs with ADF&G. Also, see response to comment 69-8.

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	adopted resource-related plans of other agencies to the extent those plans are consistent with Federal laws and regulations applicable to public lands." (dRMP, pg. 1-24). BLM must coordinate the Bay plan with any new information and management objectives provided by the state.	
60-1	Congress went on to specify that the first purpose of region management would be "to conserve the fish and wildlife and other significant natural and cultural resources within the region." ANILCA 1203 (b)(1); 16 U.S.C. 3183 (b)(1). This backdrop of Departmental and Congressional recognition of Bristol Bay's extraordinary resources must inform BLM actions and decision-making.	The Federal Land Policy Management Act (FLPMA) clearly states that during land use planning, the Secretary will "use and observe the principles of multiple use and sustained yield set forth in this and other applicable law." This guidance and ANILCA's policy for Federal land management in Alaska are not mutually exclusive. The Draft RMP/EIS recognizes both laws in its Planning Criteria listed in Chapter I, section F. The goals and management actions stated in Chapter II express BLM's intent to allow responsible development of resources while providing measures for resource protection.
61-3	The BLM would be contradicting it's stated purpose to be "compatible with those of neighboring land managers" if it were to arrive at a Record of Decision regarding the Bay RMP before the State sorts out what its position is on protecting fish and wildlife habitat in the Bristol Bay areas.	The most current information available was used to develop this RMP. BLM will continue to be consistent with officially approved or adopted resource-related plans of other agencies to the extent those plans are consistent with Federal laws and regulations applicable to public lands as stated in Chapter I, section G.3.b.
67-1	The BLM may have some idea of intended uses for State lands, but its draft EIS shows no significant understanding of intended uses on adjacent Native corporation lands.	Please see "Tribal Consultation" in Chapter V, section C.3.
67-2	The Land Trust, along with the Nushagak-Mulchatna Watershed Council and the Nature Conservancy, have been gathering information from the regions residents and recreational users on the areas within the Nushagak watershed importance for subsistence and recreation. Currently, being mapped. In addition, the Alaska Department of Fish and Game has recently completed studies of fish habitat in the Nushagak watershed. Currently, being mapped. The two data sets will be combined into a recommended Traditional Use Area Conservation Plan for the Nushagak watershed and should be available within the next few months.	See response to comment 61-3.

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69-22	Hard-rock mining is practiced in a manner inherently threatening to human health to people living near, downstream or downwind from mines. Therefore, we object to the revocation of ANCSA d-1 withdrawals from the sensitive fish, bird and wildlife habitat, subsistence use areas, and otherwise remarkable resources that are discussed throughout this document. Managing for the preservation of these unique and irreplaceable public resources should be the priority of the Bay RMP.	The Bureau is mandated by Congress to manage the land for multiple use, FLPMA section 102 (a) (7), 43 USC 1701(a) (7). Additionally, the Final RMP/EIS analyzes the maintenance of the ANCSA 17(d)(1) withdrawals within the range of alternatives considered, Chapter II.
70-2	I'd like to start off urging the [BLM] to extend the comment period, and to make the opportunity for comment a little broader than it is right now. Sixty or 90 days extension would certainly be appropriate.	BLM extended the 90-day comment period by 30 days, September 29, 2006 to February 5, 2007.
70-7	…you have basically added the unencumbered BLM land in the Nushagak/Mulchatna drainage into this planning document, because it is unencumbered. What you should have done is separated out these two areas into separate management plans rather than putting them into one document.	Thank you for your comment.
1-1	With respect to lands included in the plan that adjoin the Togiak NWR, we are concerned that the draft document's range of alternatives appears to be quite narrow. The plan would benefit if a fuller set of alternatives was developed to include more options relative to mineral development than is displayed in the draft plan	Please see response to comment 30-1.
70-3	I think the range of alternatives that are present in the plan is not broad enough in scope. I think the critical element in the minds of the residents of Bristol Bay region is the issue of hard rock mining. While the plan spends considerable time addressing the issues of hard rock mining, one of the alternatives is not, but should be, one that completely rules out hard rock mining altogether.	Alternative A would retain all existing ANCSA 17(d)(1) withdrawals; the Draft RMP/EIS analysis assumes no mineral leasing and very limited mineral location under this alternative. See response to comment 30-1.

Concerns with NEPA Adequacy

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1-6	Under the Findings Section for Alternatives B, the plan states that if "the amount of oil and gas exploration or anticipated area of development expand, this finding may need to be revised." This provides an open door to increasing the levels of resource development without the benefit of the NEPA process.	All permitted activities occurring on BLM-managed lands are subject to the provisions of NEPA, 42 USC 4332. If the amount of actual oil and gas development exceeded the maximum amount predicted by the analysis presented in the Draft RMP/EIS, a plan amendment to the Bay RMP would be prepared. This would include more public participation.
3-6	In addition to communication required under the National Historical Preservation Act (NHPA) of 1966, BLM is subject to Executive Order 13175 Consultation and Coordination with Indian Tribal Governments. If tribal consultation has occurred with all interested federally-recognized tribal governments in the planning area, it should be discussed in more detail. If not, BLM should immediately invite tribal governments in and adjacent to the planning area to initiate consultation with the agency. These consultations should be documented in the Final EIS.	Please see Tribal Consultation, Chapter V, section C.3 in the FEIS.
30-1	First, I don't think you've fully considered all reasonable alternatives. Two of the alternatives are located at one extreme (virtually no oil and mineral development) and the other two, including the preferred alternative, are at the opposite extreme (opening all or almost all BLM lands to mineral development). I find that this is a predecisional selection of opening these lands to mineral development, virtually forcing the decision maker to select one of the development alternatives. Instead, I ask that you consider various incremental increases in development as alternatives rather than the two extremes.	The Final RMP/EIS analyzes a reasonable range of alternatives. Please see Chapter II, section B. Alternative D strikes a balance concerning these alternatives.
49-1	We are writing to inform you of BLM's potential violations of the National Environmental Policy Act in providing inaccurate and misleading information in public meetings for the Draft Bay Resource Management Plan and Environmental Impact Statement (RMP/EIS). We are concerned that a chart depicting the draft plan's Range of alternatives, presented at the Anchorage public meeting on November 28, 2006, poses a significant contradiction to the alternative published in the draft Bay RMP/EIS on September 29, 2006. The Range of Alternatives chart (Slide 6 of your PowerPoint presentation), states that in BLM's Preferred Alternative, "all lands except 67,000 acres open to leasable and locatable minerals." You identified these lands as the proposed 63,000 acre Carter Spit Area of Critical Environmental Concern	A direct mailing was conducted which explained this error to all participating attendees of public comment meetings prior to the December 8, 2006 for the Bay DEIS. A handout was provided with the corrected information. Also, the public comment period was extended to February 5, 2007 to provide adequate time for public response to this matter. No additional comment was received regarding slide 6 of the Bay DEIS Anchorage public meeting on November 28, 2006. Chapter II and Chapter IV have been modified within the Bay FEIS to account for this error. Modifications to this document have been made in response to internal and external suggestions and comments received during the public comment period of the DEIS. This process is keeping with procedures established by the NEPA.

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	(ACEC) and an additional 4, 000 acres. You also explained that maintaining current mineral withdrawal restrictions is "necessary to manage and protect resources", and that an additional level of planning will be conducted to determine which specific lands within the Carter Spit ACEC will be opened to mineral entry in the future. However, according to Tables 2.7, 2.8, and 2.12 of the draft Bay RMP/EIS, the Carter Spit ACEC will be OPEN to fluid mineral leasing "subject to seasonal and other minor constraints", and OPEN to locatable mineral entry "subject to more stringent Required Operating Procedures." Furthermore, the draft RMP/EIS contains no discussion of either maintaining current mineral withdrawals within the Carter Spit ACEC, or of the agency's alleged intention to defer the decisions regarding which of these ACEC lands should be opened or remain closed to mineral entry until a future level of planning.	
60-2	On one hand, the Draft RMP indicates that 982,000 acres of public land in Kvichak and Nushagak drainages would be incorporated into a Bristol Bay Area of Critical Environmental Concern (ACEC) and that these lands would be closed to mining claims. Id. At 2-92, 4-98. Other sections of the Draft state just the opposite specifying that public lands in the ACEC "would be OPEN to locate mineral entry" (emphasis added). Id. at 2-52; 4-92. this is a fundamental inconsistency which must be resolved clearly and presented to the public. These diametrical y opposed prescriptions for Alternative C render it useless as an alternative and mean that the DEIS fails to provide a sufficient range of reasonable alternatives as required by applicable Council on Environmental Quality rules. 43 C.F.R. Part 1500>	This inconsistency has been resolved in the FEIS. Please refer to Chapter II, specifically section B.
61-1	Although "the Bay RMP/EIS [is supposed] to provide a comprehensive framework for managing and allocating uses of the public lands and resources within the Bristol Bay and Goodnews Bay area of southwest Alaska," we do not see where it articulates what criteria will be followed when the uses of one resource conflicts with another.	Use restrictions and other measures are developed and employed to achieve a balance in the beneficial use of all resources under BLM's multiple use mandate. The criteria for resolving resource conflicts is based on the application and compliance with planning criteria listed in Chapter I, section F of the FEIS. This criteria allows BLM to designate ACECs that recognize and protect resource values, yet allow for responsible mineral exploration or development within those ACECs, as long as resource values are protected. This can be done through application of Required Operating

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		Procedures, stipulations, and standard lease terms (Appendix A), or project-specific measures identifies in additional NEPA analysis.
69-14	Regarding locatable minerals, Alternatives B, C, and D all propose to revoke existing d-1 withdrawals throughout the vast majority of the planning area. Under Alternatives B and D, BLM would also open virtually the entire planning area (2,499,823 acres) to locatable mineral entry. Alternative C identifies a sum of 1,071,189 acres that would be closed to mineral entry, although the administrative or Congressional authority by which these lands would be withdrawn is not specified. Id. at 2-35. This figure represents most all of the unencumbered lands in the planning area, except approximately 26,499 acres, and the reader is left to assume that the selected lands in the planning area would be opened to locatable mineral entry if the selections are relinquished. ... the draft Bay RMP fails to offer a reasonable range of alternatives for locatable mineral entry. BLM is required in the RMP/EIS to present a valid range of alternatives, not simply two extreme options which propose either opening or closing lands to mining. BLM should develop alternatives that provide a full range of proposed land uses, as required by NEPA. This would require BLM to develop alternatives that provide a true spectrum of development and preservation. It has failed to do so in the draft Bay plan. The alternatives in the Draft RMP/EIS are almost identical in allowing oil, gas and mining development on over 99 percent of the planning area. Such a narrow range of alternatives violates the letter and the spirit of NEPA.	See response to comment 30-1.
69-16	Under Alternative A, no oil and gas or mining would occur, except BLM may approve such activity on a case by case basis. Id. at 2-24, 33. Under Alternatives B, and D, BLM would open virtually the entire planning area (2,499,823 acres) to oil and gas development. This constitutes approximately 99.8 percent of the planning area. Id. at 2-26, 35. Alternative C would open only slightly fewer lands (2,484,696 acres) to oil and gas development. A 15,127 acres difference between Alts. B/D and Alt. C does NOT constitute a reasonable range of alternatives for oil and gas development in the Bay planning area, since each of these alternatives essentially propose to open all BLM-managed lands to leasable mineral entry.	See response to comment 30-1.

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69-17	the draft Bay RMP fails to offer a reasonable range of alternatives for locatable mineral entry. BLM is required in the RMP/EIS to present a valid range of alternatives, not simply two extreme options which propose either opening or closing lands to mining. The impacts to subsistence resources and uses stand to be significantly impacted by proposed changes to management of mineral resources and in the draft plan's preferred alternative, and the draft plan has failed to give the subsistence users a full spectrum of options for development and preservation of resources.	Please see response to comment 30-1.
69-27	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.	Please see response to comment 60-11.
69-6	Conflicting information is presented throughout the draft plan regarding the status of existing d-1 withdrawals in this area. On one hand, the Draft RMP indicates that 982,000 acres of public land in the Kvichak and Nushagak drainages would be incorporated into a Bristol Bay Area of Critical Environmental Concern (ACEC) and that these lands would be closed to mining claims. Id. at 2-92, 4-89. Other sections of the Draft state just the opposite specifying that public lands in the ACEC "would be OPEN to locate mineral entry" (emphasis added). Id. at 2-52; 4-92. This is a fundamental inconsistency which must be resolved clearly and presented to the public. These diametrically opposed prescriptions for Alternative C render it useless as an alternative and means that the DEIS fails to provide a sufficient range of reasonable alternatives as required by applicable Council on Environmental Quality rules.	Please refer to response to comment 60-2.

Public Involvement

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6-1	Please extend time to comment. Can you make sure animal protection groups get this plan-please reach out so that we can have voices for these poor animals that are treated as if they are non existent by your agency? It is also clear that in all cases such animal protection groups are completely excluded by design and purpose.	Please see response to comment 70-2. A notice of availability was published in the Federal Register regarding the availability of the Bay DEIS. The DEIS was available in electronic format via the world wide web or as a hard copy or on compact disk sent through regular mail upon request.
12-2	May I also suggest that your meetings be advertised on Bay Cablevision's "Reader Board" so the public is aware of your presence. I have personally reminded people about your meeting today since they had no idea you were here for public comments.	Thank you for your comment.
21-1	I do not think 90 days is adequate review time. I would like to request an extension of the comment period. I feel that the public has not had adequate access to the EIS study or time to review the proposed land use designations. Considering the scale of this land use area, 90 days is not much review time. The review period was further complicated by being held over the holiday season. Many people in rural Alaska travel over Thanksgiving (November) and Christmas (December)	Please see response to comment 70-2.
21-2	The public meeting held by BLM in NakNek, King Salmon, and Dillingham was scheduled in conflict with a regional fisheries conference many of the active citizens and community leaders were attending the fisheries conference unable to attend the BLM informational meeting	Please see response to comment 70-2. The comment period was extended to allow for any potential conflicts that may have occurred.
21-3	Public Meetings should be held in all villages within the Bay/EIS boundaries. Public Meetings should be rescheduled in Dillingham, Illiamna, New Stuyahok, Aleknagik, King Salmon and NakNek.	Meetings were held in most villages you have mentioned. Chapter V within the FEIS will be updated to reflect the latest information.
21-4	The most effective advertising for meetings should be used. The prior public meetings did not even make the front page of the Bristol Bay Times no follow up story appeared after the presentations. The most effective advertising would be the Bristol Bay Times, (not the back page), KDLG Radio, notices on community bulletin boards, and notice to all village councils and municipalities.	Thank you for your comment.

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30-2	The plan clearly recognizes the common theme among commenter's of the importance of protection of the habitats of moose, caribou, fish, and other subsistence resources (p. 1-15 through 1-16). However, those concerns were dismissed, using the rationale that the Plan will not affect subsistence or hunting and fishing regulations, and thus these concerns will be adequately addressed under the regulatory responsibility of ADFG and Federal Subsistence Board.	Potential impacts to subsistence are discussed in Chapter IV, section D.10 and in the ANILCA 810 analysis (Appendix D). Chapter IV in the FEIS has been revised from that offered in the DEIS using your suggestions.
49-2	Range of Alternatives chart (powerpoint slide 6 from Anchorage public meeting 11/28/06). BLM must revise the Range of Alternatives chart, provide proper public notice of the erroneous information, and widely distribute a corrected explanation of the plan's alternatives to the public. BLM also should extend the public comment deadline by at least 60 days to provide the public adequate time to analyze and comment upon the new information. If BLM fails to do so, it likely will be found to have violated its NEPA obligations.	Please refer to response to comments 48-1 and 49-1.
69-13	an inaccurate chart of the draft Bay plan's Range of Alternatives was displayed at the Anchorage public meeting on November 28, 2006, was in direct contradiction of the draft RMP/EIS. We are concerned that BLM may have complicated, and possibly discouraged, public comment on this issue by distributing misleading information.	Please see response to comments 48-1 and 49-1.
70-6	I'd like to see the comment period extended in order to give the other landowners, the native allotment landowners an opportunity to give their comments.	Please see response to comment 21-1.

General

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4-6	BLM should give further consideration to the potential indirect effects of oil and gas development and mining with respect to a change in the marine vessel transportation pattern in and around Goodnews Bay, as well as direct and indirect effects to Steller's eiders from contamination of marine waters and marine	Chapter IV within the FEIS has been revised from that offered in the DEIS. As described in the Reasonably Foreseeable Development (RFD) Scenario, oil and gas development would likely occur only in the Koggiling Creek planning block (Nushagak Bay). See Chapter IV, section B.3.c.1.

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	invertebrates. BLM's management actions are on land, the interrelated and interdependent effects to the marine environment that would not occur "but for" BLM's actions must be considered.	
26-1	It is apparent that the BLM has not studied the relationship and affect that industrial mining, and particularly large scale mining has on salmon, other resident fishes, and all local interdependent living organisms….	Chapter IV of the plan addresses the effects to fisheries from mining, section C.4. The plan implements a number of Required Operating Procedures, which will be applied to surface disturbing activities, including mining, and oil and gas Stipulations to mitigate impacts identified in the plan. All proposed activities occurring on BLM-managed lands will be further analyzed for effects to fisheries within project-specific NEPA analysis.
69-4	In the RMP/DEIS, BLM states that it is likely that industrial activities could cause irreparable damage to the planning area. We are left to wonder how BLM can propose to open up lands for mineral development within the Bay planning area, in direct contrast to public opinion, particularly within proposed ACECs, and remain in compliance with its own guidance. To do so appears to violate BLM's Federal Land Policy Management Act (FLPMA) mandate to provide "special management attention . . . to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes." For this reason we request BLM to include the modifications outlined in our comments, and adopt them into the Final RMP/EIS.	Please see response to comment 44-2.

Required Operating Procedures (ROPs) and Oil and Gas Leasing Stipulations

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3-4	The Final RMP/EIS should identify and evaluate the types of research, monitoring, and compliance activities being conducted in the Bay 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 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.	A monitoring plan will be developed and submitted in the Record of Decision for the Bay RMP. A monitoring plan is required by 43 CFR 1610.4-9. Monitoring and mitigation will also be included in NEPA documents for any development activities when they are proposed. In addition, Appendix A, section A.3, states that the Authorized Officer (AO) or their representative is responsible for seeing that the permittee is complying with the conditions [ROPs and Stipulations] of the permit.

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42-1	Stipulations, required operating procedures, buffers, and Area of Critical Environment Concern designation are not sufficient protective tools for the mitigation of mining impacts upon BLM lands.	Use restrictions and other measures are developed and employed to achieve a balance in the beneficial use of all resources under BLM's multiple use mandate. Please see response to comments 44-2 and 4-3.
40-3	We recommend analysis by BLM engineering and economic mineral specialists to determine appropriate, effective and feasible ROPs for any contemplated development in the proposed ACEC, including appropriate criteria required for any potential development project. Such criteria might include technical, environmental and financial capability within any company proposing development projects, of any kind, in the ACEC.	The ROPs presented within the FEIS were developed by geologists, hydrologists, and fisheries and wildlife biologists using criteria within the Alaska Land Health Standards (Appendix A). ACEC designation and planning, together with project-specific environmental analysis and regulatory compliance, will result in controlled development and maintenance of other resource values.
48-1	I was confused by a portion of your presentation at the Anchorage meeting which addressed plans for the Carter Spit ACEC. I hope you can help me understand.. According to Slide 6 - Range of Alternatives - "All lands except 67,000 acres open to leasable and locatable minerals". You identified these lands as the Carter Spit ACEC (63k) and an additional 4,000 acres, and explained that future step-down level planning will determine which lands within the ACEC will be opened to mineral entry. However, in the draft RMP/EIS, it appears that this ACEC will be open to fluid mineral leasing "subject to seasonal or other minor constraints", and open to locatable mineral entry "subject to more stringent Required Operating Procedures". Also, I did not see any discussion of plans to postpone and address these decisions in the ACEC planning stage.	A direct mailing was conducted which explained this error to all participating attendees of Bay DEIS public comment meetings prior to December 8, 2006. A handout was provided with the corrected information. Also, the public comment period was extended to February 5, 2007 to provide adequate time for public response to this matter. No additional comment was received regarding slide 6 of the Bay DEIS Anchorage public meeting on November 28, 2006. Chapter II and Chapter IV have been modified within the Bay FEIS to account for this error. Modifications to this document have been made in response to internal and external suggestions and comments received during the public comment period of the DEIS. This process is keeping with procedures established by NEPA. Chapter II describes management objectives for proposed ACECs in accordance with BLM Manual No. 1613, Section 33.C (Provision for Special Management Attention).
61-2	The Draft RMP/EIS recognizes the cornucopia of renewable resources that exist in the Bristol Bay region and provides extensive information regarding each. The report also elaborates on four alternatives, discusses the environmental consequences of each lists Required Operating Procedures to mitigate impacts. However, these factor are discussed from such a generic perspective that there isn't a clear picture of the problem resulting from the principal motive of this exercise; which is to open BLM lands in the Bristol Bay area to mineral leases and mining claims. It is not apparent how this land may look in one or two decades.	Please see Chapter IV. This chapter has been modified within the FEIS compared to that offered within the DEIS using comments and suggestions received during the public comment period for the Bay DEIS.

Letter-Comment#	Comment	Response
1-4	Plan does not provide sufficient protection regarding Arolik River and its resources.	Please see reference to Alaska Land Health Standards, goals for Vegetation, Wetland, and Riparian Habitat and Soil, Air, and Water in Chapter II. Also, ROPs, Stipulations, and Standard Lease Terms (Appendix A) designates a 300-foot setback of no surface occupancy for the East and South Fork Arolik River.
5-19	Page 2-74, ROP Rec-1m: Please clarify that commercial guides are also required to register with the Dept of Natural Resources.	Commercial guides are required to obtain a State of Alaska business license as a condition of receiving a Special Recreation Permit. BLM does not require guides operating solely on Federal lands to register with DNR. Refer to Appendix A, Special Recreation Permit Conditions and Stipulations.
3-5	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 mineral/coal 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.	Details of abandonment, removal, and reclamation are described within project-specific notices or plans of operations. Reclamation, Bonding requirements, unnecessary degradation, and requirements for environmental protection are described within 43 CFR 3809, referenced in Chapter III, section C.3.b.6.
1-11	If the miners have any legal right at the site, BLM should insist that the most stringent environmental conditions be met throughout the project.	Thank you for your comment. Please see response to comments 3-5 and 4-3.
14-2	We ask BLM to approve Alternative C with stronger elements added. Everything within BLM's authority should be done to block mining from the Bristol Bay watershed, including the Pebble mine. The added mining district should be rejected and the existing withdrawal should be kept in effect, both against Mining Law activities and all forms of mineral leasing. We favor ACECs as proposed for more than a million acres, with conditions added strictly barring mining and mineral leasing. Wild & Scenic River segments should be established to protect the crucial rivers, such as the Kvichak, Nushagak and Mulchatna, which are essential to the rich fishery of Bristol Bay.	Please see comment 15-1. BLM has no authority concerning permitted activities occurring on State managed lands (i.e. proposed Pebble mine). Alternative D (preferred alternative) within the FEIS recommends lifting ANCSA 17(d)(1) withdrawals and establishing a Carter Spit ACEC. Please see response to comments 44-2 and 4-3.

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58-4	Existing large mines in Alaska have demonstrated that responsible mining and other land use activities can peacefully co-exist.	Thank you for your comment.
69-25	Fully protective stipulations attached to leases for resource are far superior to ROPs as described in the Draft RMP/EIS. BLM was over-reliant on ROPs. BLM must impose fully protective measures as stipulations.	Please refer to Appendix A, section D describing Stipulations. Stipulations apply to oil and gas leasing and ROPs apply to all permitted activities. Please see response to comments 4-3 and 50-1.
69-25	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.	Please refer to Appendix A, sections 1-3.
69-29	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 Authorized Officer should not be allowed to waive Required Operating Procedures or stipulations. An additional public process should be conducted if industry asks BLM to change their ROPs and Stipulations 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.	Please refer to the Executive Summary, sections A and B; Chapter I, section G; and Table 1.2. In addition, every action taken by the BLM requires compliance with current resource management plans and will be subjected to project-specific analysis under NEPA.
69-30	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.	See response to comment 3-5. Also, DR&R requirements are identified within project-specific NEPA processes and stipulated within permits.
5-17	Page 2-64, ROP FW-1a: While we appreciate the edit including ADNR in this ROP, please consider rewording the first portion of this statement as follows: *"The Alaska Department of Fish and Game and Natural Resources* should be consulted…."	This change has been made to ROP Fish and Wildlife - 2a.
5-18	Page 2-65, ROP FW-3b, 3c: Please review this ROP. We found it to be confusing and possibly unnecessarily restrictive. It appears that the text "ROP FW-3c" (not bolded) could be deleted. Additionally, the fourth line identifies those uses that would not be permitted unless a field evaluation has been conducted by qualified personnel. We assume that BLM's intent is that these individuals can then advise the AO that certain activities are permittable or that accommodations in the permit can be made based upon the actual location of the caribou. Clarification of BLM's intent and practical review of the activities prohibited would be beneficial.	ROPs proposed within the Bay FEIS have been altered compared to those proposed within the Bay DEIS. These ROPs will help protect the Mulchatna, Northern Alaska Peninsula, and Nushagak caribou herds. The importance of this wildlife resources within the Bay planning area are described in Chapter III.

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69-31	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. These ROPs 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 Mulchatna caribou herd.	ROPs have been improved within the Bay FEIS compared to that offered within the DEIS and can be found in Appendix A. Your comments were taken into account for development of ROPs.
69-32	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. This ROP should identify how it will be enforced. These ROPs 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 Mulchatna caribou herd.	ROPs have been modified within the Bay FEIS compared to that offered in the DEIS and can be found in Appendix A. Please refer to section A.3 of Appendix A, which describes the AO's authority to enforce ROPs and Stipulations. The ROP you are referencing is now ROP FW-3a which references Federal Aviation Administration Advisory Circular No: 91-36D.

Maps

Letter-Comment#	Comment	Response
5-56	Page 3-229, Figure 3.39 D(1) Withdrawals We suggest moving the map of 17(d)(1) withdrawals forward so that it is located closer to the text describing the (d)(1) withdrawals on page 3-215. Currently it immediately follows page 3-227 discussing 17(b) easements. We found the mapping of all withdrawals to be very useful.	Thank you for your suggestion. All maps, previously found spread throughout the DEIS, are now located within a single volume of the FEIS. These maps are situated in order as referenced within the text.
5-57	Page 3-239, Alagnak Planning Block 17(b) Easements Please recheck the associated figures for the 17(b) easement descriptions. Only figure 3.47 has a legend that describes 17b easements, figures 3.43 (this figure is referenced in a discussion of 17 (b) easements), .44, and .45 and .48 on a subsequent map page appear to be missing the easement information described in the text or are missing an appropriate title. Figures 3.53, 54, 55, 56, do have easement information.	This inconsistency will be corrected in the Proposed RMP/Final EIS.
5-66	Maps General Comments It would be helpful if the maps, particularly those focusing on small subsets of the planning area, contained a vicinity map indicating the subject area's relative location in the planning area or the state.	Within the FEIS, vicinity maps have been included on maps addressing areas small in scale.

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3-8	Page iii Provide definition for FLMPA acronym.	This suggestion will be incorporated within the FEIS
3-9	• Figure 1-1 Indicate by color those lands are dual-selected (state and ANCSA corporation).	Please see Map 1.2. Your suggestion has been incorporated into the FEIS.
55-13	Pg. 3-191, Lode Deposits. Several geographic place names, such as Kasna Creek, Shotgun, and Johnson River, are referenced but not shown on a map in the DRMPEIS.	Please see Map 3.30. The place names indicated within the text have been added to maps within the FEIS.
55-14	There should be a space above Gold Placer Deposits.	This change has been made within the FEIS.
5-50	Chapter III-Affected Environment Figure 3.8a Landcover: Lowland/Upland Herbaceous Tundra. It would be helpful if the gray background lands were identified in the Legend. In addition or alternatively, clarify on page 3-32 that the land cover maps depict the location of various land cover types on a gray background.	See Map 3-8a. This change has been made within the FEIS.
5-51	Figure 3.14 Moose Habitat We suggest changing the direction of cross-hatching for rutting habitat on this map.	See Map 3.16. The legend on maps within the FEIS will have more disguisable characters.

Climate Change

Letter-Comment#	Comment	Response
69-37	...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 Southwestern Alaska. (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.). The draft Bay plan makes only a few passing references to climate change and the warming of the arctic—and seems to refer to a non-peer reviewed paper completed with data from the winter of 2000-2001 to suggest that it may not be occurring at all. That paper's author, John Papineau of the National Weather Service in Anchorage, confirms that a global rise in temperature is occurring (Conversation with John Papineau, August 29, 2006) and assumes as much in a paper completed in 2005. (Papineau, John. 2005. Winter Temperature Variability Across Alaska During El Nino Events.) Regardless, there is no credible scientific debate at this point about the warming of the arctic, and the BLM has a responsibility to acknowledge that reality.	Climate change is a matter of growing concern that spurs much debate. Please see the response to comment 22-1. References pertaining to global warming also include US Forest Service and University of Alaska. In addition, effects to resources from climate change is discussed in throughout Chapter IV.

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69-38	The draft Bay plan makes only a few passing references to climate change and the warming of the arctic—and seems to refer to a non-peer reviewed paper completed with data from the winter of 2000-2001 to suggest that it may not be occurring at all. That paper's author, John Papineau of the National Weather Service in Anchorage, confirms that a global rise in temperature is occurring (Conversation with John Papineau, August 29, 2006) and assumes as much in a paper completed in 2005. (Papineau, John. 2005. Winter Temperature Variability Across Alaska During El Nino Events.) Regardless, there is no credible scientific debate at this point about the warming of the arctic, and the BLM has a responsibility to acknowledge that reality.	Please see the response to comment 69-37.
69-40	While climate change is complex, recent research has helped line out some recent trends for Alaska. First, 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.)	Please see the response to comment 69-37. In Chapter III, section B.1.b, the plan states the following: "Regional environmental warming is affecting areas traditionally underlain by permafrost, melting frost wedges, changing drainage patterns, and drying up small lakes and wetland complexes within the Bay planning area. (UAF 1999)"
69-46	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. (See, e.g., Arctic Climate Impact Assessment. p 106.) In order to protect wildlife populations, the Wildlife Society recommends reducing "nonclimate stressors on ecosystems." (Wildlife Society Technical Review 04-2. 2004. p 18.)	Impacts to wildlife from climate are discussed in Chapter IV. Please see the response to comment 69-37. If climate change continues to impact BLM-managed resources or use changes for a particular area is identified, then land management status will be re-evaluated and permitted activities will be adjusted accordingly. Adjustments to permitted activities may be made through the use of ROPs or seasonal restrictions to protect resources. Refer to Appendix A, Introduction.
22-1	I also feel that new information specifically relating to global warming has bearing on your analysis. It is unpractical to discuss subsistence and other land uses in light of drastic climatic and migration changes that can be attributed to global warming. These impact are not addressed in the RMP.	As understanding for the phenomena and its causal factors develops, it is likely that the issue will be addressed in project-specific environmental analysis. Please see the discussion on environmental change in Chapter III, section B.1.b. and throughout Chapter IV.

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69-41	Because permafrost underlies so much of Alaska, its thawing will have an important impact on ecosystems and activities on the BLM-managed lands. For instance, as the permafrost which underlies the Bay area's ponds and lakes thaws it allows surface water to drain underground. (Yoshikawa and Hinzman. 2003. Shrinking Thermokarst Ponds and Groundwater Dynamics in Discontinuous Permafrost near Council, Alaska. Permafrost Periglac. Process. 14: 151–160.) As a result, ponds and lakes may dry up. Although Dr. Hinzman's research has not focused on the Bristol Bay and Goodnews Bay watersheds, he suspects the same drying is generally taking place there.	Please see the response to comment 69-40.
69-43	Indeed, the plan's refusal to acknowledge climate change impacts the BLM's ability to address some very clear infrastructure issues immediately. For instance, climate change in the artic is resulting in increased run-off in glacially-fed rivers and more intense storm events. (Hinzman, et. al. 2005. pp 263-264, 258.) This suggests that culvert standards, which are essential for ensuring fish passage, need to be revised to provide for higher water flows.	Please see response to comment 69-37 and ROPs FW-2f, FW-2g, and FW-2h (Appendix A).
69-39	The Wildlife Society places the simple recognition "of global climate change as a factor in wildlife conservation" first in its list of recommendations for land managers working to protect wildlife in the face of climate change. (The Wildlife Society Technical Review 04-2. 2004. p 18.)	Please see the response to comment 69-37. Further, in Chapter III, section B.1.b the plan acknowledges the following: "There are likely to be changes in the range of vertebrate animals and changes in productivity of aquatic ecosystems (UAF 1999). As the boreal forest intrudes further north at the expense of tundra and shrub communities, there will be changes in habitats and the distribution and density of a number of wildlife species on land (UAF 1999)."
69-46	Mature conifer forests provide a variety of important ecosystem functions. 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, and as a result, the destruction of forage lichens by fire or mechanism may have an immediate effect on the winter range of caribou.5 (Matthews, Robin F. 1993. Cetraria islandica. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2006, September 4].)	Wildland fire management options recognize fire as an essential ecological process and natural change agent of many Alaskan ecosystems. Please refer to Chapter III, section B.8 for additional discussion concerning fire management. The importance of lichen is discussed in various section in Chapter III, including sections B.5.c and B.6.d.1.

Editorial

Letter-Comment#	Comment	Response
3-16	Page 2-8 Currently (2) Alternative A is separated out under Floodplains discussion, yet (3) Management Common to All Alternatives includes management under Alternative A. Please include some statement why (B) covers all alternatives, or combine the two paragraphs. Similarly, this occurs under Subsistence discussion on page 2-56.	In the FEIS, Floodplain management has been incorporated into Management Common to All Alternatives, Chapter II, section D.1.c.2.
1-7	Need specific mitigation actions in Chapter IV	The purpose of BLM's Resource Management Plans are to determine allowable uses, goals, objectives, and management actions. Chapter IV predicts potential effects to resources within the Bay planning area from implementation of the four proposed alternatives. Mitigation measures from specific activities are provided through the use of Required Operating Procedures, Stipulations, and Standard Lease Terms (Appendix A).
2-3	P. 3-292, Section III.E.1.b.1., Red Top Mine and Mill Site, first paragraph, fifth sentence: With a density of 13.6 grams per cubic centimeter, a quart of mercury would be expected to weigh about 28 pounds (rather than the reported 72 pounds), using, for example, the table at: http://www.allmeasures.com/formulae/static/materials/63/density.htm.	Thank you for pointing out this error. This change has been made within the FEIS.
5-3	Chapter I-Introduction Page 1-25 Please consider adding the Wood-Tikchik State Park Management Plan, ADNR, October 2002 to the list of related planning documents.	This plan will be added within the FEIS
5-10	**Page 2-35, In Table 2.8, Locatable Minerals, Alternative C,** To further clarify, we recommend moving the discussion regarding ANCSA 17(d)(1) withdrawals for these river segments to immediately follow the Exceptions associated with the proposed wild river segments it references.	The description of ANCSA 17(d)(1) withdrawals has been added to Chapter II, section A.
5-11	**Page 2-40, (5) Alternative C, (6) Alternative D** Add "water quality"	This edit has been made within the FEIS.
5-37	**Page 4-104, Recent Exploration and Development Activities Pebble Copper Area** Please note that the permitting for the Pebble project and the final (bankable) feasibility study will not be started until 2008.	Information regarding the proposed Pebble mine will be updated in Chapter IV of the FEIS.
5-39	**Appendix A Wild and Scenic River Eligibility Matrix:** We suggest including a section explaining the column in the spreadsheet entitled Class. We assume that Class refers to Wild, Scenic or Recreational but the footer associated with this column uses letter designations and the column in the table uses numbers. It is unclear as to which number corresponds to which letter. It may also help to include a paragraph that describes what constitutes a Recreational, Scenic, or Wild River.	The Wild and Scenic River Eligibility/Suitability determination has been revised and can be found in Appendix B in the FEIS. Your suggestion have been considered for this revision.

Letter-Comment#	Comment	Response
5-40	We suggest including additional information at the bottom of the summary analysis table that describes the relative importance of the numerical values associated with each planning block and attribute. While this information is adequately presented in the text on page A-2 including this in the table allows the table to stand alone if need be.	The Wild and Scenic River Eligibility/Suitability determination has been revised and can be found in Appendix B in the FEIS. Your suggestions have been considered for this revision.
5-41	**Table 1.2 Areas of Critical Environment Concern Nomination Matrix** We suggest including a footer that describes the numerical values applied to each attribute for relevance and importance for the various planning blocks. In other words, is a one better than a three? What does a one represent? This information would allow this table to stand alone. A description of the table could also be included in a concluding paragraph on page A-10 to provide further clarification.	The relevance and importance evaluation for ACEC determination has been revised and can be found in Appendix B in the FEIS. Your suggestions have been considered for this revision.
5-45	Chapter I-Introduction Page 1-15 Please note that there is orphaned header b)Subsistence	This edit will be made within the FEIS
5-46	Page 1-16 Please note that a reference to Table 1.1 in a sentence discussing specific rivers and streams appears to be inappropriately referenced, Please check.	This edit will be made within the FEIS
5-47	Chapter II-Alternatives Page 2-35, In Table 2.8, Locatable Minerals, Alternative C, Please check spelling for ANCSA.	This edit will be made within the FEIS
5-49	Pp. 2-94, 95: The title bar on the left hand side of the page is difficult to read. Aligning the text to read vertically or merging the title cell with the blank cell to the right may make it easier for the reader to understand the table.	Thank you for your suggestion, this change has been made within the FEIS.
5-52	Page 3-144, last sentence Please review this sentence. We believe "wildland" should be wildland fire suppression.	Thank you for your suggestion, this change has been made within the FEIS.
5-53	Page 3-164 5th paragraph Please review the second sentence. It should most likely read: "These define the visual objectives that BLM intends to achieve for its lands."	This edit will be made within the FEIS
5-54	Page 3-195, next to the last paragraph: Please review and edit the first two sentences. Should this not read: "Guided tourism for fishing and hunting during the peak season (June-September) in this region of Alaska is primarily limited by the number of accommodations and guides many of whom are booked years in advance."	This edit will be made within the FEIS
5-55	Page 3-213 -3-287 Lands and Realty It was difficult to work through this section and tie the appropriate text to the appropriate maps even though the information is well described and mapped.	Maps are placed together in a separate volume within the FEIS and in order as they are introduced.
5-58	Page 3-216 Trespass Abatement, last paragraph. Please review the first sentence and edit the last phrase: or sell (sale) of the land to the trespasser.	This edit will be made within the FEIS

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5-59	Chapter IV-Environmental Consequences Page 4-26, First line, trailing sentence. Please review the first line and edit.	This edit will be made within the FEIS. Chapter IV has been considerably revised in the FEIS.
5-60	Page 4-45, Effects to Wildlife from Recreation Management (Common to all)/ Page 4-45, Effects to Wildlife from Travel Management (Common to all)/ Page 4-46, Effects to Wildlife from Land and Realty Actions (Common to all) {note the inconsistencies in capitalization in the titles}	This edit will be made within the FEIS. Chapter IV has been considerably revised in the FEIS.
5-61	Page 4-78, Summary of Effects to Visual Resource Management (Alternative A)/Page 4-79, Summary of Effects to Visual Resource Management (Alternative B)/Page 4-80, Summary of Effects to Visual Resource Management of Alternative C/ Page 4-81, Effects of Visual Resource Management Summary of Alternative D/ We recommend a consistent topic heading, such as "Summary of Effects on____(Alternative___)."	This edit will be made within the FEIS. Chapter IV has been considerably revised in the FEIS.
5-62	Page 4-77 (3) Effects to VRM by OHV (Alt A) Please review and edit the second sentence in this section. "The numbers of OHV trails throughout the planning area may stay the same or increase slightly within the next ten years."	This edit will be made within the FEIS. Chapter IV has been considerably revised in the FEIS.
5-63	Page 4-85, Effects to Grazing from Fish and Wildlife Management (Common to All) Please review the last sentence in this section. "Insects from both standpoint of harassment and disease transmission may also require greater measures (of control, management?) to insure successful livestock grazing..."	This edit will be made within the FEIS. Chapter IV has been considerably revised in the FEIS.
5-64	Page 4-102. last sentence. Please review: 1) "non" should be "none" 2) "Interested" should be "Interest"	This edit will be made within the FEIS. Chapter IV has been considerably revised in the FEIS.
5-65	P. 4-115, Cumulative Effects to Subsistence to Subsistence. Please review and edit the first sentences (line two, would be the three most…)	This edit will be made within the FEIS. Chapter IV has been considerably revised in the FEIS.
3-3	As part of the cumulative effects analysis, the RMP/EIS should evaluate the past, present and reasonably foreseeable future actions associated with the Bay Planning Area. The geographic boundary for consideration of the reasonably foreseeable future actions should include areas within and adjacent to the greater Bristol Bay and Alaska Peninsula, as well as adjacent mineral districts. The Draft RMP/EIS identifies specific examples of reasonably foreseeable future actions. We recommend that the Final RMP/EIS include additional information regarding climate change effects on the region, as well as the proposed off-shore oil and gas leasing in the Bristol Bay, and proposed mineral development in areas adjacent to the planning area. Resource exploration and development will noticeably increase air and water transportation, and may cause the development of additional roads. This increased transportation will inevitably impact air and water quality.	Please see response to comment 22-1. Climate change has been addressed in Chapter IV of the FEIS.

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3-10	Page 1-4 Consider incorporating Native Corporations/ANCSA lands section into Private lands section (Page 1-5) since technically corporation lands are private lands. This will allow for consistency with definitions presented in Table 1-1.	Your suggestion will be incorporated within the FEIS.
3-11	Page 1-5 Bethel is not incorporated as a Borough but rather a second-class municipality. Please correct.	This edit was made within the FEIS
3-12	Page 1-5 In the text box, move creation of Wood-Tikchik State Park to fit in timeline, between ANCSA and Alaska National Interest Lands Conservation Act (ANILCA).	The text box in Chapter I, section c.2 describes the major congressional action which resulted in the land management of the region. See Alaska Statehood Act in text box. This edit will not be made within the FEIS
3-13	Page 1-6 In first paragraph, include statement about village corporations to complete discussion about ANCSA corporations in the planning area.	Your suggestion has been incorporated within the FEIS. See Chapter I, section C.2.
3-14	Throughout the document, several terms are used to define federally-recognized tribal governments. These terms should be standardized to reflect the appropriate legal definition, and to clearly distinguish tribal governments from physical communities/villages or state-chartered ANCSA corporations.	This edit will be made within the FEIS
15-2	We ask BLM to approve Alternative C, which keeps the lands closed to mining. We urge you to establish Areas of Critical Environmental Concern to protect these wild lands, keeping them closed to oil and gas drilling, mining, and any developments that would jeopardize the rich fish populations and terrestrial wildlife of Bristol Bay. The rivers should be protected with Wild and Scenic River status as proposed in Alternative C.	Thank you for your comment.
22-2	The excessive use of acronyms makes the RMP hard to understand for Non-BLM personnel.	Please see the Acronym and Abbreviation section in the Appendices.
22-7	Since the approval of the MFP in 1981 new regulations and policies have created additional considerations that affect the management of public lands. What are these regulations and policies? What are the new issues and concerns?	Please see Chapter I, section G.2 for policies, plans and programs that relate to management within the planning area, Purpose and Need, Chapter I section B, and Issues, Executive Summary, section D.
22-8	Which lands should/would be made available for oil and gas and hard rock mineral development and how should these lands be managed to sustain natural resources.	Land management strategies are summarized Chapter I, section F. ROPs, Stipulations, and Standard Lease Terms (Appendix A) will be applied to permitted activities to protect natural resources.
36-2	On behalf of the Native Village of Quinhagak the City of Quinhagak, Qanirtuuq, Inc., and the residents of Quinhagak we are requesting an extension for the public comment period for at least three more weeks in order to meet with BLM representatives.	Please see response to comment 6-1
55-1	Pg. vi,. Alternative D, line 11. CSU is not defined here or in the glossary.	Your suggestion will be incorporated within the FEIS.

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55-2	Pg. 2-33, c. 3-goals: "Maintain and enhance…" Insert and salable after locatable on second line.	This edit will be made within the FEIS
55-3	Pg. 2-36, Table at top of page. There are no column headings for the alternatives. It appears that either Alternative A or B is missing entirely.	This edit will be made within the FEIS
55-4	Pg. 3-157, Table 3.14. The dates in the date column should be listed consistently. Normally B.C. dates are written old to young such as 9500 -7000 B.C. and A.D. dates are also written older to younger such as 1000-1800 A.D.	This edit will be made within the FEIS
55-5	Pg. 3-162, 1st paragraph, 3rd line should read "resident seal population."	This edit will be made within the FEIS
55-6	Pg. 3-177, 1st paragraph, last line should read "the justification for exploration…"	This edit will be made within the FEIS
55-7	Pg. 3-177, (2) Local Dependence…, 2nd paragraph. 1st line should read "…. Area to date". Delete up.	This edit will be made within the FEIS
55-10	Pg. 3-182, 3rd paragraph, 7th line. Cretaceous is misspelled.	This edit will be made within the FEIS
55-15	Pg. 3-192-194, (5) Resource Allocation and (6) Mining Claims…sections. …that the section on mining claims should be labeled 6, not 5.	This edit will be made within the FEIS
55-17	Pg. 3-195, c) Salable Minerals…, 2nd paragraph, last line should read "…statewide and the trends indicate…"	This edit will be made within the FEIS
55-18	Pg. 3-214, ANCSA 17 (d) (1), 5th line should be rewritten. "…resources and assessment of values would (delete then) meet future public needs…)	This edit will be made within the FEIS
55-20	Pg. 4-2, 2nd paragraph, 2nd sentence. Spelling correction- "…adverse, and may result".	This edit will be made within the FEIS
55-21	Pg. 4-8, second solid bullet, 3rd sentence. Two should be changed to three.	This edit will be made within the FEIS
55-22	Pg. 4-8, (2) Locatable Minerals. The APMA is used to permit hard rock related exploration activities such as drilling. The APMA is not used to permit actual hard rock-related mining activities. We suggest that the end of the first sentence read "…for both placer mining and exploration for hard rock deposits".	This edit will be made within the FEIS
55-23	Pg. 4-9, 3rd bullet, last sentence. We suggest that this sentence be rewritten to "Hard rock exploration is up…largely due to the increasing price of metals and increased…"	This edit will be made within the FEIS
55-24	Pg. 4-9, 4th bullet. Delete has from first sentence. Reword the third sentence to read "near Goodnews Bay rather than "in Goodnews Bay".	This edit will be made within the FEIS
55-25	Pg. 4-9, last bullet re: the Pebble area. This paragraph is mostly speculation and does not reflect the current status of the Pebble project and should be rewritten. The Pebble project is currently in the advanced exploration phase. A bankable feasibility study has not yet been	Impacts to resources on BLM lands from development on adjacent lands are analyzed in Chapter IV, section E. This section has been revised from that offered in the DEIS. Your comment was taken into account.

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	completed. Therefore, the decision of whether or not to apply for permits to develop the deposit has not yet been made. Realistically, a ball park employment figure to fully staff an operating a mine at the Pebble prospect would be closer to 100 than 100. The construction phase could require a work force in excess of 2000. If it can be permitted, this project has the opportunity to provide these 1000 jobs for more than 50 years,	
55-26	Pg. 4-10, 1st bullet. This paragraph is difficult to follow and needs a rewrite. At the very least delete the extraneous "… occur activity would…" in line 6 and the "…activity would occur…" from line 9.	This edit will be made within the FEIS. Chapter IV has been considerably revised in the FEIS.
55-28	Pg. 4-19, (7) Effects to Soils.., 1st sentence. Change "…mining exploration…" to "mineral exploration…" Also, the statement made in the last sentence of this paragraph-"Current soil storage handling stipulations do not prevent damage to soil health and viability and this reduces the soil's capability to support vegetation."-is not accurate. This same statement is made elsewhere (see pg. 4-22, (3), paragraph 3). Such stipulations are part of the final permits and the State Dept. of Natural Resources has broad authority to require that specific steps be taken.	This edit will be made within the FEIS. Chapter IV has been considerably revised in the FEIS.
55-29	Pg. 4-23, last paragraph last sentence. "Indirect impacts caused.." This sentence duplicates the first sentence of the next page.	This edit will be made within the FEIS
55-31	Pg. B-14, Pebble Copper Mine Project. The description lists this as a "gold-copper-molybdenum-silver" deposit. Normally the most valuable metal in the deposit is named first. The deposit would better be classified as a copper-gold deposit. The jury is still out on how much of the molybdenum and silver are recoverable and whether they would contribute significantly to the economics of the property. Note also that is not a mine but rather an exploration project. Even if it can be permitted, it will be another five or more years before a two year long mine construction period could begin.	This edit will be made within the FEIS. The ANILCA 810 analysis in located in Appendix D in the FEIS.
69-23	As planning, exploration and potential future development of Pebble Mine and the Bristol Bay mining district pushes forward, BLM should adequately describe the cumulative impacts of potential future transportation infrastructure within the entire region, including the Bay planning area lands.	Your suggestion has been incorporated into the FEIS. See Chapter IV, section E.
69-28	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. This includes review of draft documents, such as Environmental Assessments.	43 CFR 1610.5-3(a) requires that "all future resource management authorizations and actions…shall conform to the approved plan." 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 environment.

E. Index of Comment Letter Numbers

Below is a list of names of those who commented on the Bay Draft RMP/EIS and their assigned comment number. Also shown are the page numbers where responses to their specific comments can be found. Organizations and government entities are listed by the organization or the government agency rather than by the signature to the submission. Form letters and variations on form letters with no additional substantive comments were all given the same comment number, and are listed only once, rather than listing the names of all those who submitted the form letter.

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Kathaber@aol.com	151	No Substantive Comment
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151	Kathaber@aol.com
152	Ganguli, Rajive
153	Hoekzema, Robert B.
154	Steitz, Martin
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175	Burggraf, Roger C.
176	Glavinovich, Paul S.
177	Cleveland, Annie
178	Archibald, Robert
179	Hesse, Chris
180	Milne, Clark
181	Gumlickpuk, Sally
182	Matthews, Guy
183	Reinwand, Debbie
184	Story, Robert
185	Peterson, Billy
186	Webb, John
187	Chambers, Izetta
188	AK Inter-Tribal Council, Erlich, Ian
189	Nunamta Aulukestai, Akelkok, Luki
190	Ekwok Village Council, Akelkok, Luki
191	Nondalton Tribal Council, Nondalton, AK
192	New Stuyahok, AK City of & Traditional Council
193	Mazoyer, Brian
194	Potter, Doyle
195	Lyon, Nanci A. Morris
196	Damon, Doug
197	Tweet, Douglas
198	Easley, Paula
199	Rachmaninoff, JP

Letter #	Name of Commenter
200	Alaska Forest Assoc., Inc. Graham, Owen
201	Abrams, Jeff
202	Hearing- BLM Aleknagik, AK
203	Hearing- BLM Naknek, AK
204	Hearing- BLM Newhalen, AK
205	Hearing- BLM Goodnews Bay, AK

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Acronyms and Abbreviations

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
AFO	Anchorage Field Office
AIWFMP	Alaska Interagency Wildland Fire Management Plan
ANCSA	Alaska Native Claims Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
ARPA	Archaeological Resource Protection Act
ATV	All Terrain Vehicle
BLM	Bureau of Land Management
CAA	Clean Air Act
CBNG	Coalbed Natural Gas
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
CL	Cinder Land
COA	Conditions of Approval
CSU	Conservation System Unit
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act

FCLAA	Federal Coal Leasing Amendments Act
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulation Commission
FIRM	Flood Insurance Rate Maps
FLPMA	Federal Land Policy and Management Act
GIS	Geographical Information System
GMU	Game Management Units
GVWR	Gross Vehicle Weight Rating
HUC	Hydrologic Unit Code
IAP	Integrated Activity Plan
KGRA	Known Geothermal Resource Area
MFP	Management Framework Plan
MLA	Mineral Leasing Act
MOU	Memorandum of Understanding
MCH	Mulchatna Caribou Herd
NAGPRA	Native American Graves Protection and Repatriation Act
NAAQS	National Ambient Air Quality Standards
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPS	National Park Service
NEPA	National Environmental Policy Act
NRCS	Natural Resource Conservation Service
NSO	No Surface Occupancy
OHV	Off-Highway Vehicles
ORV	Outstandingly Remarkable Value

PLO	Public Land Order
ROD	Record of Decision
RMP	Resource Management Plan
R&PP	Recreation and Public Purposes
ROPS	Required Operating Procedure Stipulations
ROS	Recreation Opportunity Spectrum
ROW	Right-of-Way
SHPO	State Historic Preservation Officer
SPA	Southwest Planning Area
SRAC	Subsistence Regional Advisory Council
SRMA	Special Recreation Management Areas
SRP	Special Recreation Permit
UCU	Uniform Coding Units
USC	United States Code
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
VRM	Visual Resource Management
WHSRN	Western Hemispheric Shorebird Reserve Network
WSR	Wild and Scenic Rivers

Glossary

17 (b) easement
A public easement across native lands to access public land and waters established under section 17(b) of the Alaska Native Claims Settlement Act (ANCSA) in 1971.

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.

Ahtna
Regional language dialect shared by Athabaskans living in the Copper River Basin of Alaska.

Alaska National Interest Lands Conservation Act (ANILCA)
The Alaska Native Claims Settlement Act (ANCSA), was legislated in response to the need for a fair and just settlement of aboriginal land claims in Alaska. As compensation for extinguished claims of aboriginal title based on use and occupancy, Alaska Natives would receive 44 million acres of land and $962.5 million.

Alternative
One of a number of possible options for responding to the purpose and need for action.

Ambient
Environmental and surrounding conditions.

Anadromous
Ascending rivers form the sea for spawning. Salmon are an anadromous species.

Aquatic
Living or growing in or near water.

Archaeology
The study of pact 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.

-B-

Back Country Byway
The BLM contribution to the national By way Program. A Back Country Byway is a designation for a road that has unique scenic and historical significance. These roads provide the public with recreational opportunities while informing them about natural and cultural resources and multiple use activities on the public domain.

Before Present (B.P.)
A term used to describe the time periods before the present.

Best Management Practices
A set of practices which, when applied during implementation of management actions, ensures that negative impacts to natural resources are minimized. BMPs are applied based on site specific evaluation and represent the most effective and
practical means to achieve management goals for a given site.

-C-

Cache
A place to store something temporarily.

Cairn
Stones piled up as a landmark, monument, or memorial.

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.

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 that represent broad areas subject to Federal regulation. Each volume of the Code is updated once each calendar year and is issued on a quarterly basis

Collaboration
Any cooperative effort between and among governmental entities (as well as with private partners) through which the partners work together to achieve common goals.

Commercial use
Any use of public lands where money is paid for services provided.

Conservation System Unit (CSU)
A Conservation System Unit, or CSU, as defined by ANILCA Section 102(4), is any unit in Alaska of the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers Systems, National Trails System, National Wilderness Preservation System, or a National Forest Monument including existing units, units established, designated, or expanded by or under the provision of this Act, additions to such units, and any such unit established, designated or expanded hereafter.

conveyed
Land where the title has been transferred to the selecting organization.

cumulative effects

cygnet
A young swan.

- 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.

decomposition
The breakdown of matter by bacteria and fungi. Decomposition changes the chemical makeup and physical appearance of materials

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.

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.

Executive Order
A rule or order having the force of the law.

existing trail
A trail that is on the ground but has not been inventoried and evaluated by the managing agency to determine designation.

- F -

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.

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.

- 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").

- H -

haul-out site
A specific out-of-water substrate site such as a particular area with a beach, rock, or iceberg component onto which marine mammals (e.g., sea lions or seals) hoist themselves for purposes of gaining solar warmth, physical rest and relaxation, safety from underwater predators (sharks), pup nursing and care, more efficient molting, and more energetic efficiency than remaining in frigid waters.

Holocene
The most recent geologic era; from about 10,000 years ago to the present.

housepit
The depression left by a lodging structure after it has burnt down or decomposed.

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.

hydrophytic vegetation
Plant species that live in water or very wet soils.

- I -

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.

Leave No Trace (LNT)
A set of ethics used to minimize damage to the environment while recreating on public lands. Developed by the National Outdoor Leadership School (NOLS 2005).

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 gold, silver, copper, gypsum, and other hard rock minerals. See also *leasable minerals*.

- M -

macroinvertebrate
An animal having no backbone or internal skeleton, large enough to be seen without magnification.

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.

mean high water
The average elevation of the high tides.

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.

metaliferous
Yielding or containing metal.

microblade
A small prismatic parallel-sided flake struck from a prepared core. Microblades were probably inserted end-to-end in a slotted bone or antler shaft to provide a continuous cutting edge for points or knives.

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
BLM authorizes disposal of mineral materials such as gravel and sand 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.”

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.

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).

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 nonnative, new, or not common to the United States. See also *invasive species*.

nunatak
An isolated hill or peak which projects through the surface of a glacier. A hill or peak which was formerly surrounded but not overridden by glacial ice. An Eskimo word meaning “lonely peaks.”

- 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)).

ordinary high water mark
(1) In the non-tidal portion of a river, lake or stream: the portion of the beds and banks up to which the presence and action of the non-tidal water is so common and usual, and so continuous in all ordinary years as to leave a distinctive natural line or mark impressed on the bank or shore and indicated by erosion, shelving, changes in soil characteristics, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation or other distinctive physical characteristics.
(2) In a tidally influenced portion or a river, lake or stream, stream setbacks shall be taken from mean high water elevation or from the ordinary high water mark, as defined above in (1), whichever offers greater protection to the creek.

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.

oxidation
The chemical process of oxygen combining with an element or compound

- P -

paleontological
Of or relating to past geological periods. Paleontological resources include fossils of shellfish, swamp forests, dinosaurs, and other prehistoric plants and animals.

paleontology
The study of ancient plants and animals now known only from fossil remains.

palisades
A line of bold cliffs.

particulates
Fine liquid or solid particles such as dust, smoke, mist, fumes or smog, found in the air or emissions.

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.

photochemical
Any chemical reaction that is initiated by light. Such processes are process important in the production of ozone and sulfates in smog.

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.

Pleistocene
A geologic period, usually thought of as the Ice Age, which began about 1.6 million years ago and ended with the melting of the large continental glaciers creating the modern climatic pattern about 11,500 years ago.

pollutants
Any substance introduced into the environment that adversely affects the usefulness of a resource or the health of humans, animals, or ecosystems.

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.

primary trumpeter swan breeding habitat
Those slow-moving bodies of water and associated wetland habitats where concentrations of trumpeter swans are found during breeding/cygnet-rearing season due to the quality of available habitat.

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.

pump station
A facility that serves as a base of operations, maintenance, and monitoring of the Trans-Alaska Pipeline System. There are 12 pump stations along the entire length of the Trans-Alaska Pipeline.

- 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.

radiocarbon dating
A chemical analysis used to determine the age of organic materials based on their content of the radioisotope carbon-14; believed to be reliable up to 40,000 years

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 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.

right-of-way (ROW)
The legal right to pass over another owner's land, or the area over which a right-of-way exists.

riparian zones
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 -

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 Status 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.

smog
Generic term used to describe mixtures of pollutants in the atmosphere.

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)).

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.

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.

stipulations
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 III are example 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 -

Tangle Lakes Archaeological District (TLAD)
An area rich in historic and prehistoric remains located between mileposts 17 and 37 on the Denali Highway. TLAD was accepted to the National Register of Historic Places in 1971 and encompasses 226,660 acres. The boundary was revised in 1993 to follow natural features and more closely contain the archaeological resources for which the district was designated.

terminal moraine
An accumulation of earth and stones formed across the course of a glacier at its farthest advance, at or near a relatively stationary edge, or at places marking the termination of important glacial advances.

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.

transportation and utility corridor
A specific corridor along the Richardson Highway that is used for purposes of concentrating transportation and utility facilities within a specified area. The Trans-Alaska Pipeline is located within the corridor. Shown on Map 41, this corridor was withdrawn from mineral entry by PLO 5150, as amended by PLO 5151. The corridor consists of an inner and outer corridor that are often referred to within this document as separate areas with different management strategies. However, unless otherwise specified, the term "transportation and utility corridor" refers to both the inner and outer corridors.

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.

- 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.

- V -

viewshed
A region or area that can be seen from a particular location.

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 -

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*.

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."

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.