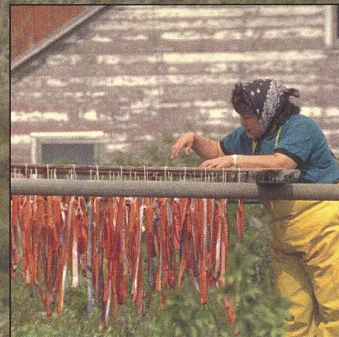


# Bay

November 2008

## Record of Decision and Approved Management Plan

Anchorage Field Office, Alaska





# The Bureau of Land Management Today

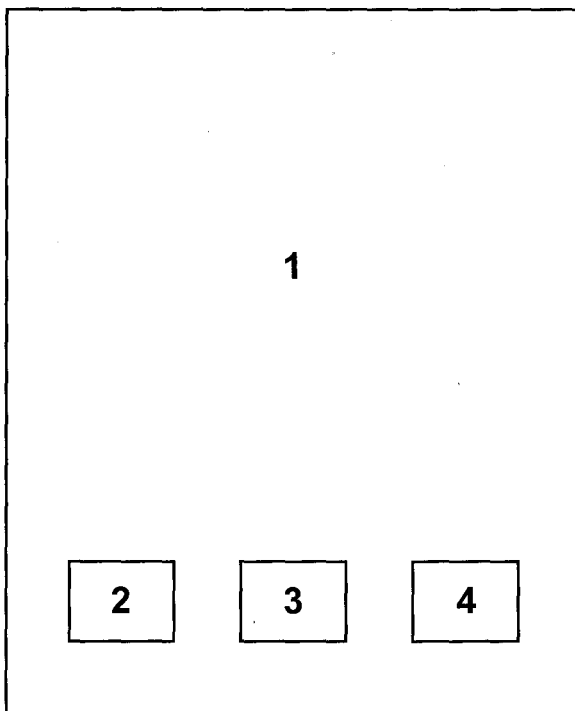
## *Our Vision*

To enhance the quality of life for all citizens through the balanced stewardship of America's public lands and resources.

## *Our Mission*

To sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

BLM/AK/PL-09/001+1610+010



## **BLM Cover Photos:**

1. Goodnews River Middle Fork, Alaska.

2. Berry picking, Port Heiden, Alaska.

Photo by Chris Arend © Bristol Bay Native Corporation

3. Clamming in Port Heiden, Alaska.

Photo by Chris Arend © Bristol Bay Native Corporation

4. Fish camp at Graveyard Point, Alaska.

Photo by Chris Arend © Bristol Bay Native Corporation

**Bay**

**RECORD OF DECISION  
AND  
APPROVED RESOURCE MANAGEMENT PLAN**

**November 2008**

**U.S. Department of Interior  
Bureau of Land Management  
Anchorage Field Office  
4700 BLM Road  
Anchorage, Alaska**

# **Bay Record of Decision and Approved Resource Management Plan**

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# **Bay Record of Decision**

# Bay Record of Decision

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# **BAY RECORD OF DECISION**

## **I. SUMMARY**

This Record of Decision (ROD) approves the Bureau of Land Management's (BLM's) proposal to manage the public lands in the Bay planning area under the Anchorage Field Office's jurisdiction as presented in the attached Resource Management Plan (RMP). This RMP is almost identical to Alternative D in the December 2007 Bay Proposed RMP and Final Environmental Impact Statement (FEIS) (USDI-BLM 2007). This ROD provides the rationale for selecting the management decisions described in Alternative D, and provides clarifications and modifications incorporated into the RMP. The attached RMP describes the program area decisions and mitigation measures approved for BLM lands in the Bay planning area.

The Bay planning area includes lands administered by the State of Alaska (State), Native Corporations, the National Park Service (NPS), U.S. Fish and Wildlife Service (FWS) and private landowners. Of the approximately 23,048,654 acres within the planning area, decisions in the RMP will initially apply to 1,975,966 acres of BLM-managed lands. Approximately 1,024,712 of these 1,975,966 acres are selected by the State or Native Corporations for conveyance. Due to over-selections, not all of these selected lands will actually be conveyed. When conveyances are complete in 2010, approximately 1,163,604 acres are expected to remain under BLM management in the Bay planning area (Map E-1).

## **II. DECISION**

The decision is hereby made to approve the attached Bay RMP for the Bay planning area. The RMP replaces the Southwest Management Framework Plan (MFP) (USDI-BLM 1982) for lands within the Bay planning area.

This plan was prepared under the regulations (43 CFR Part 1600) implementing the Federal Land Policy and Management Act (FLPMA) of 1976. An Environmental Impact Statement (EIS) was prepared in association with this RMP in compliance with the National Environmental Policy Act (NEPA) of 1969. This ROD serves as the final decision establishing the land use plan decisions outlined in the RMP and is effective on the date it is signed. No further administrative remedies are available for these decisions.

The RMP is nearly identical to Alternative D as described and analyzed in the Bay Proposed RMP/FEIS published December, 2007. Specific management decisions for public lands in the Bay planning area under the jurisdiction of the Anchorage Field Office are presented in Section II of the RMP (attached).

The RMP does not contain decisions for the surface or mineral estates of land administered by the State of Alaska, the National Park Service, the Fish and Wildlife Service, or private lands and minerals.



A summary of major decisions in the RMP include:

- The RMP recommends the Secretary of the Interior revoke all ANCSA 17(d)(1) withdrawals as described in Public Land Orders 5174, 5179, 5180, 5181, 5184, and 5186. The revocation of these withdrawals would open approximately 1.1 million acres for mineral leasing or mineral entry on lands retained by BLM, not on State- or Native-selected lands. State- and Native-selected lands would not be open to mineral leasing or locatable mineral entry until conveyance or relinquishment of selection. Revoking the withdrawals would remove large-scale prohibitions on these activities. However, resource protection measures (Appendix A) have been developed in the RMP to minimize impacts to resources.
- Manage public land resources to enhance vegetative communities, fish and wildlife resources, natural, cultural, and geological resources, and recreational opportunities.
- Manage uses to protect and prevent damage to public land resources, and to enhance those resources where feasible.
- Designate areas as 300-foot setbacks and No Surface Occupancy (NSO) for the East and South Fork Arolik River, Faro Creek, South Fork Goodnews River and Klutuk Creek. These water bodies are identified as having sensitive aquatic habitat.
- All BLM lands will be managed as VRM Class IV, except:
  - BLM lands in the full visible foreground up to 1/2 mile from established winter trail/road systems will be managed as VRM Class III, including Goodnews to Quinhagak coastal and Arolik River routes; Goodnews Bay to Dillingham route; Dillingham to Aleknagik; Dillingham to Koliganek; Ekwok to Naknek; New Stuyahok to Levelock; and Naknek to King Salmon.
  - BLM lands in the full visible foreground up to 1/2 mile from main river travel routes will be managed as VRM Class III, including portions of the North Fork Goodnews River; Middle Fork Goodnews River; South Fork Goodnews River; and East Fork Arolik River; Nushagak River; Kvichak River; Lower Mulchatna River; and Alagnak Wild River.
  - BLM lands in the full visible foreground up to one mile from the boundaries of Togiak NWR, Becharof NWR, Katmai NPP, and Lake Clark NPP will be managed as VRM Level III.
  - The Carter Spit ACEC will be managed as VRM Class III.
- All BLM-managed lands (unencumbered, State-, and Native-selected) in the planning area (approximately 1.9 million acres) will be managed for Semi-Primitive Motorized recreation setting.
- Designate all BLM-managed lands (unencumbered, State-, and Native-selected) in the planning area as “limited” to Off-Highway Vehicles (OHVs), where OHVs shall be required to stay on existing trails whenever possible. Snowmachines will be allowed open cross-country travel when adequate snow cover is present – that is, adequate to avoid crushing vegetation or removing ground cover.

- The BLM recognizes that the use of off-highway vehicles (OHVs) for subsistence activities is a valid use of BLM-managed public lands in Alaska. This activity is fundamentally different from the use of OHVs for recreational activities, and our management of it is guided by Section 811 of the Alaska National Interest Lands Conservation Act. Section 302(b) of the Federal Land Policy and Management Act gives broad authority to the Secretary of the Interior to authorize uses of public lands through a variety of instruments. In the case of subsistence use of OHVs, this plan and its Record of Decision recognizes and authorizes use of OHVs for subsistence purposes throughout the planning area, unless specified otherwise or such use is excluded by the Authorized Officer.
- Designate the 36,220 acre Carter Spit as an Area of Critical Environmental Concern (ACEC) to provide additional protection to the Steller's eider (protected species under the Endangered Species Act) and its habitat.

### III. ALTERNATIVES

Four alternatives, including a No Action Alternative were analyzed in detail in the Draft RMP/EIS (USDI-BLM 2006) and in the Proposed RMP/FEIS (USDI-BLM 2007). Alternatives were developed to address major planning issues and to provide direction for resource programs influencing land management. All management under any of the alternatives would comply with state and Federal regulations, laws, standards, and policies.

Each alternative emphasizes a different combination of resource uses, allocations, and restoration measures to address issues and resolve conflicts among uses, so program goals are met in varying degrees across the alternatives. However, each alternative allows for some level of support for all resources present in the planning area. The alternatives emphasize certain programs and activities, and whether active or passive management would occur. The alternatives differ in how fast program goals would be met and the degree to which program goals would be met. Management scenarios for programs not tied to major planning issues and/or mandated by law often contain few or no differences in management between alternatives.

#### A. Alternative Description

**Alternative A**, the No Action Alternative, promotes the continuation of current management practices. Land and resource management would continue under the guidance of the existing Southwest Management Framework Plan (MFP) (USDI-BLM 1982) for the Goodnews Block only. Direction contained in existing laws, regulations and policy statements would provide guidance for managing lands within the remainder of the planning area and sometimes override provisions in the Southwest MFP. The current levels, methods and mix of multiple use management of BLM land in the planning area would continue. No lands would be open to mineral leasing and large tracts would remain closed to new locatable minerals activities due to retention of the Alaska Native Claims Settlement Act (ANCSA) 17(d)(1) withdrawals. No Special Designations would be proposed, and lands would remain unclassified for off-highway vehicles (OHVs) and visual resource values. In general, proposed land use would be analyzed on a case-by-case basis. Leasable and locatable mineral activities would be guided by requirements in specific operational plans on a project-specific basis.

**Alternative B** highlights actions and management that would facilitate resource development. All ANCSA 17(d)(1) withdrawals would be revoked, opening all BLM unencumbered lands to leasable and locatable mineral activities. Selected lands whose selection is relinquished would also be open to mineral activities. The BLM-managed lands within the planning area would be designated as “open” to OHV use. No Special Designations would be proposed and visual resources would be managed as Visual Resource Management (VRM) Class IV. Leasable and locatable mineral activities and other permitted activities would be guided by requirements in specific operational plans on a project-specific basis.

**Alternative C** emphasizes actions and management that protect and enhance renewable resources, archaeological, and paleontological values. Leasable and locatable mineral activities would be more constrained than in Alternatives B or D.

Areas of Critical Environmental Concern (ACEC) would be proposed, including the Bristol Bay ACEC (974,970 acres) and the Carter Spit ACEC (61,251 acres). ANCSA 17(d)(1) withdrawals would be retained for the Carter Spit ACEC; this area would remain closed to mineral activities. ANCSA 17(d)(1) withdrawals would be lifted from the Bristol Bay ACEC, opening this area to mineral activities. Both proposed ACECs would be closed to salable mineral activities.

All other ANCSA 17(d)(1) withdrawals would be revoked, BLM unencumbered lands to leasable and locatable mineral activities.

Three eligible river segments, portions of the Alagnak River, and portions of the Goodnews River mainstem and Goodnews River Middle Fork, would be found suitable and recommended for inclusion in the National WSR system. ANCSA 17(d)(1) withdrawals would be maintained for proposed Wild and Scenic Rivers (WSRs) serving as interim protection until Congress has had an opportunity to act on the proposals.

All proposed WSR segments and ACECs would be managed as VRM Class III, and most of the remainder of the BLM-managed lands within the planning area would be managed as VRM Class IV. All BLM-managed lands within the planning area would be designated as “limited” to OHV use and a 2,000-lb gross vehicle weight rating would be enforced. Resource protection measures and additional constraints as identified through project-specific NEPA analysis would be used to protect resources on BLM-managed lands within the Bay planning area.

**Alternative D** provides a balance of protection, use, and enhancement of resources. ANCSA 17(d)(1) withdrawals would be revoked, and the majority of unencumbered lands and any selected lands whose selection is relinquished would be open to leasable and locatable mineral activities. ANCSA 17(d)(1) withdrawals would be revoked within a proposed Carter Spit ACEC (36,220 acres). The Carter Spit ACEC would be closed to salable mineral entry. No eligible WSRs would be found suitable and, thus, not recommended for inclusion in the National WSR system.

BLM lands in the full visible foreground up to one mile from the boundaries of Conservation System Units (CSU) would be managed as VRM Class III. BLM-managed lands up to ½ mile from established winter trail or road systems would be managed as VRM Class III. The proposed Carter Spit ACEC would be managed as VRM Class III, and all other BLM-managed lands would be managed as VRM Class IV.

All BLM-managed lands within the planning area would be designated as “limited” to OHV use and a 2,000-lb gross vehicle weight rating would be enforced. Resource protection measures

and additional constraints as identified through project-specific NEPA analysis would be used to protect resources on BLM-managed lands within the Bay planning area.

## **B. The Environmentally Preferred Alternative**

Alternative D, the agency preferred alternative, is the environmentally preferable alternative. Considering the impacts from the whole suite of decisions in Alternative D, it is the alternative that best protects and enhances the natural (biological and physical) and human (cultural, social and economic) environment.

# **IV. MANAGEMENT CONSIDERATIONS IN SELECTING THE APPROVED PLAN**

The BLM is tasked with the responsibility of multiple use management, as mandated under FLPMA and numerous other laws and regulations that govern the management of public lands for various purposes and values. The diversity of community needs and stakeholders, as communicated through public meetings, government-to-government consultations, written comments, etc. drove the development of the preferred alternative. Recommendations received from the Alaska Resource Advisory Council (BLM's official advisory council) were also incorporated into the preferred alternative.

The BLM heard from the public and stakeholders that the RMP should address both natural resource concerns and social and economic concerns. Alternative D's actions would best improve and sustain natural resource conditions while meeting the needs and demands for resource use and commodities.

Management considerations for State- and Native-selected lands were incorporated into Alternative D. These lands make up 65% of the lands managed by the BLM in the Bay planning area. Diligent effort was made to coordinate and consult with the State of Alaska and Native Corporations. As a result, decisions made in the RMP affecting selected lands are generally consistent with State or Native Corporation land use management. In general, decisions for selected lands avoid a major commitment of resources and are custodial in nature. Designations such as Areas of Critical Environmental Concern are not made on selected lands, but site-specific measures are identified through ROPs or Stipulations (Appendix A) that would protect resource values on selected lands.

The BLM chose Alternative D (with slight modifications and clarifications, see ROD page 9) as the approved RMP to address the diverse needs and concerns of the public and provide a practical framework for managing BLM public lands. The RMP provides a balance between reasonable measures to protect resource values and the public need for use of BLM's public lands.



## **V. MITIGATION MEASURES**

Measures to avoid or minimize environmental harm were built into the RMP and are presented in Appendix A. Additional measures to mitigate environmental impacts may be developed during subsequent NEPA analysis at the activity level planning and project stages.

## **VI. PLAN MONITORING**

The BLM will monitor the RMP to determine whether the objectives set forth in this document are being met and if applying the land use plan direction is effective. Monitoring for program areas is outlined in the *Management Decision* sections of the RMP. If monitoring shows land use plan actions or mitigation measures are not effective, the BLM may modify or adjust management through plan maintenance. Maintenance is limited to further refining, documenting, or clarifying a previously approved decision incorporated in the plan. Maintenance must not expand the scope of resource uses or restrictions or change the terms, conditions, and decisions of the RMP.

Plan maintenance does not require formal public involvement, interagency coordination, or the NEPA analysis required for making new land use plan decisions. Maintenance actions must be documented in the plan or supporting components.

Where the BLM considers taking or approving actions which will alter or not conform to overall direction of the plan, the BLM will prepare a plan amendment or revision and environmental analysis of appropriate scope.

## **VII. PUBLIC INVOLVEMENT**

One of the BLM's primary objectives during development of the RMP was to understand the views of various publics by providing opportunities for meaningful participation in the planning process. To meet this objective, the BLM implemented a comprehensive public involvement program.

During the scoping phase of the RMP, the BLM conducted public meetings in Dillingham, Anchorage, Soldotna, Homer, Aleknagik, Koliganek, Iliamna, and Naknek, and conducted scoping presentations to the Togiak National Wildlife Refuge, Alaska Peninsula/Becharof National Wildlife Refuge, Katmai National Park and Preserve, Bristol Bay Native Corporation (BBNC), and Calista Corporation. The BLM met with Bristol Bay Native Association management and staff on two occasions, attended a BBNC workshop, met with Choggiung managers and staff on two occasions, contacted and met with BLM Resource Advisory Committee members, met with FWS Anchorage Regional Office planning staff, and visited with King Salmon Native Association managers.

Concurrent with the beginning of the scoping period in January 2005, the BLM developed a RMP website. The website included the schedule of public meetings and general schedule for the Bay planning process. An overview of the Goodnews Block portion of the 1981 Southwest Management Framework Plan was also available on the website. Other Federal agencies and Native village governments with interest and/or special expertise were invited to become Cooperating Agencies. While the U.S. Air Force expressed initial interest, no agencies entered

into formal Cooperating Agency status. However, all of the Federal agencies administering lands within the Bay planning area and most of the traditional village councils expressed great interest in continuing to be involved in a less formal capacity.

The BLM also conducted public meetings in Anchorage, Aleknagik, New Stuyahok, Goodnews Bay and Dillingham, conducted a teleconference with Quinhagak village, and continued meetings with various levels of Native government after publication of the Draft RMP to discuss specific issues in-depth and solicit comments. The BLM used newsletters, media news releases, and website postings to offer information to groups, individuals and agencies. Detailed information on the public involvement efforts is included in both the Draft Bay RMP/EIS (USDI-BLM 2006) and Bay Proposed RMP/FEIS (USDI-BLM 2007) in Chapter 5, *Consultation and Coordination*.

After publication of the FEIS, the BLM received four valid protests. These protests were filed by the Renewable Resources Coalition, Alaska Wilderness League (representing other groups and individuals), Thomas Pebler of Anchorage, and Becky S. Savo of Naknek. These protests, resolved by the BLM Director on September 30, 2008, required minor modifications and clarifications as described in *Modifications to and Clarifications of the Proposed RMP/FEIS* section of this ROD.

Following the publication of the FEIS, the Governor of the State of Alaska was afforded the opportunity to review the Proposed RMP/FEIS to identify any inconsistencies between the RMP and approved state or local plans, policies or programs. The Governor's Consistency Review (GCR), dated February 1, 2008, found the Proposed RMP/FEIS to be consistent with state priorities, policies, and land use plans but requested clarification of certain technical and administrative points. These points of inconsistency are described in the *Modifications to and Clarifications of the Proposed RMP/FEIS* section of this ROD.

Throughout implementation of the RMP, the BLM will continue to actively seek the views of the public, using news releases and mass mailings to ask for participation, and provide information about new and ongoing implementation planning, site-specific or project planning and opportunities and timeframes for comment. The BLM will also continue to coordinate with the numerous state, Federal, tribal, and local agencies and officials interested and involved in the management of BLM lands in Bay planning area.

## **VIII. MODIFICATIONS TO AND CLARIFICATIONS OF THE PROPOSED RMP/FEIS**

As a result of protests on the Proposed RMP/FEIS, response from the State of Alaska Governor's Consistency Review, and additional internal and external review, the BLM made minor modifications to and clarifications of the Proposed RMP/FEIS. Modifications resulted in changes to the RMP, while clarifications are made to the EIS that do not become part of the management described in the RMP. None of these modifications or clarifications have altered the results of the analysis in the FEIS.

## A. Modifications

1. The Wild and Scenic River (WSR) Analysis presented in the Bay FEIS has been modified to remove the Kvichak River from the WSR Analysis as stated in Chapter 2 of the FEIS (FEIS page 2-6). Appendix D of the RMP contains the corrected WSR Analysis. Additional text has been added to the WSR Analysis in the RMP to explain that, "This analysis excludes the Kvichak River because the BLM does not have administrative interest in the water, the submerged lands (Determination of Navigability, 1985), nor the lands immediately adjacent to this water body, due to conveyance of lands. Additionally, a Recordable Disclaimer of Interest finding was issued by the Bureau of Land Management 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."

Additionally, the fish habitat Relative Resource Value for the Kvichak River presented in FEIS Table B.2 (FEIS page B-6) is inconsistent with that presented in the text on FEIS page 3-121. The removal of the Kvichak River from the WSR Analysis remedies the inconsistency of the fisheries resource value for the Kvichak River presented in the FEIS (RMP Appendix D).

2. The WSR Analysis has been modified to include a detailed description of the outstandingly remarkable value ranking criteria for fisheries, scenery, recreation, wildlife/subsistence, and Cultural/Historic (RMP Appendix D).
3. The WSR Analysis has been modified to include all criteria for determining non-suitability of eligible rivers. This inclusion describes the BLM's inability to manage the river and protect identified values because the BLM lacks administrative jurisdiction of these eligible rivers in the Bay planning area. Additionally, though local support for WSR designation was expressed during the planning process, the administrative jurisdiction of eligible rivers is retained by the State of Alaska who has expressed disinterest in WSR designation (RMP Appendix D).
4. Modifications have been made to Required Operating Procedure (ROP) FW-3b to restate the ROP as follows (RMP Appendix A):

"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. Additionally, the presence of caribou at the time of commencement of a temporary activity will result in the delay of temporary activities until caribou have left the area. Approval of long term or permanent activities is dependent 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."

## B. Clarifications

1. Add these two paragraphs to Proposed RMP/FEIS page 1-14, Wilderness Characteristics, to describe the policy of former Interior Secretary Gale Norton regarding wilderness in Alaska:

To clarify, Alaska lands were exhaustively inventoried for their wilderness values when Congress enacted the Alaska Native Claims Settlement Act (ANCSA) in 1971. Subsequently, Congress passed the Alaska National Interest Lands Conservation Act of 1980 (ANILCA). In ANILCA, Congress chose to preserve 57 million acres as formally designated wilderness. Section 1320 of ANILCA exempts BLM lands in Alaska from the wilderness study process required under Section 603 of FLPMA. Section 1320 of ANILCA gives the Secretary of the Interior, in carrying out duties under section 201 and 202 of FLPMA, the discretion to identify areas in Alaska which are suitable as wilderness. Shortly after the passage of ANILCA, the Secretary exercised this discretion to adopt a policy not to conduct wilderness inventory, review, or study as part of the BLM planning process in Alaska.

The latest direction provided the Secretary in 2003, instructed the BLM to consider wilderness study proposals in Alaska only if there is broad support among Alaska's elected officials and that absent this broad support, wilderness should not be considered in RMPs. During development of this RMP, there has been a lack of broad support from Alaska's elected officials for wilderness proposals.

2. As described in the RMP, Travel Management, Management Actions section, the BLM's management decision for OHV use in the Bay planning area is, "OHVs will use existing trails, consistent with the State's Conditions on Generally Allowed Uses..." and "OHV use will be conducted in a manner that minimizes disturbance of vegetation, disturbance of soil stability, or impacts to drainage systems; changing the character of, polluting, or introducing silt and sediment into streams, lakes, ponds, seeps, or marshes; and disturbance of fish and wildlife." Additionally, all proposals for OHV management under consideration would be consistent with Section 811 of ANILCA, which allows for appropriate use for subsistence purpose.
3. Disregard the following words: "...where there is a demonstrated lack of support by residents using the rivers" (Proposed RMP/FEIS page 2-56, Alternative D). As stated in the Bay RMP scoping report (USDOI-BLM, 2005d) there was some support for WSR designation in some comments.
4. Land comprising the Carter Spit ACEC is subject to the management decisions for OHV use as described on page 2-41 of the Proposed RMP/FEIS, section e. Travel Management, 3(b) management decisions.
5. There are currently no designated trails on BLM-managed lands in the Bay planning area, only existing trails. Trails may be designated through a Comprehensive Trails and Travel Management, planned for completion within five years of signing the ROD for the RMP/FEIS.
6. In the event lands adjacent to the Carter Spit ACEC are relinquished from current selection, the BLM will consider incorporating these lands into the Carter Spit ACEC. As



stated on pages 2-54 and 2-55 of the Proposed RMP/FEIS states, “Should lands adjacent to the ACEC be relinquished from selection, they may be added to the ACEC. This would be performed through a plan amendment at a later date.”

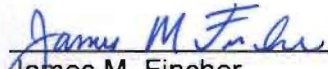
7. The Carter Spit ACEC is recommended as a ROW avoidance area (ROW may be permitted with special restrictions), as written in Chapter 2 of the Proposed RMP/FEIS, page 2-51 Alternative D; page 2-52, Table 2.10 Land Use Authorizations, Alternative D; and page 2-71 Table 2.12, Alternative Summary Table, Land Use Authorizations and Rights-of-Way, Alternative D. This clarifies the discrepancy in text on page 2-83, Table 2.13, Effects to Lands and Realty, Alternative D, stating, “Additional restrictions would include no Land Use Authorizations in the proposed Carter Spit ACEC.”
8. The Proposed RMP/FEIS on page 3-136 references an incorrect definition of State subsistence use. The State does not allocate subsistence resource harvest opportunities based on rural or non-rural residency. See Alaska Subsistence Statute 16.05.258.
9. In Alternative D, the BLM has identified parcels for disposal (Sale) as described in the FEIS, Table 2.10, on page 2-52. Text on page 2-46, Management Common to All Action Alternatives (B, C, and D) describing, “No specific parcels available for sale are identified in this RMP”, is incorrect.
10. As requested from protests, an updated description of the Pebble Partnership can be found at the following website: <http://www.dnr.state.ak.us/mlw/mining/largemine/pebble/>
11. All trails discussed on Proposed RMP/FEIS pages 3-103 and 3-104 are depicted in Map 3.44 rather than Map 3.43 as stated.
12. On Proposed RMP/FEIS page 3-103: Trail EIN 4 C3, C4, D1, D9 crosses lands selected by Kuitsarak, Incorporated rather than Calista Corporation as stated.
13. On Proposed RMP/FEIS page 3-103, fourth paragraph: Section 23, T. 10 S., R. 71 W. and the beginning of the trail referenced, is a priority selection of Kuitsarak, Incorporated rather than Calista Corporation as written in the Proposed RMP.
14. Page 3-103, fifth paragraph, Winter trail EIN 1 C3, C5, D1, D9, M is located on the surface estate reserved in Patent 50-95-0632 to Kuitsarak, Incorporated. The subsurface estate is owned by Calista in Patent 50-95-0633.
15. Page 3-104, first sentence: No regional corporation or state selection priority exist in this section but rather land status is BLM unencumbered.

## IX. AVAILABILITY OF THE PLAN

Copies of the Record of Decision and the Bay Resource Management Plan are available on request from the following locations: BLM Anchorage Field Office, 4700 BLM Road, Anchorage, Alaska 99507, (907) 267-1246 or (800) 478-1263, and on the Anchorage Field Office website at: [http://www.blm.gov/ak/st/en/prog/planning/bay\\_rmp\\_eis\\_home\\_page.html](http://www.blm.gov/ak/st/en/prog/planning/bay_rmp_eis_home_page.html)

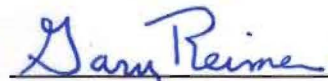
## X. FIELD MANAGER RECOMMENDATIONS

Having considered a full range of reasonable alternatives, associated effects, and public input, I recommend adoption and implementation of the attached Bay Resource Management Plan.

  
James M. Fincher  
Anchorage Field Manager

11/03/2008  
Date

## CONCURRENCE

  
Gary Reimer  
Anchorage District Manager

11/03/08  
Date

## APPROVAL

In consideration of the foregoing, I approve the Bay Resource Management Plan.

  
Thomas P. Lonnie  
State Director

11-4-08  
Date

**Bay**

**Approved Resource Management Plan**

# Bay Approved Resource Management Plan

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# BAY APPROVED RESOURCE MANAGEMENT PLAN

## I. INTRODUCTION

This Approved Resource Management Plan (RMP) replaces the Southwest Management Framework Plan approved in 1981 and is now the land use plan for public lands in southwest Alaska administered by the BLM's Anchorage Field Office. The RMP adopts the management described in Alternative D and the Management Common to All Alternatives section presented in the Proposed Bay RMP/Final Environmental Impact Statement (FEIS) (USDI-BLM 2007), with adjustments as described in the *Modifications to and Clarifications of the Proposed RMP/FEIS* sections of the ROD.

### A. Planning Area and Map

The Bay planning area includes lands adjacent to Bristol, Goodnews, and Jacksmith bays, and extends northerly to the Kanektok River. It includes the headwaters of the Togiak, Tikchik, King Salmon, Nushagak, Mulchatna, Kvichak-Alagnak, and Naknek river drainages. It also includes the east side of Iliamna Lake and Kakhonak Lake, the western portion of the Alaska Range and the Aleutian Range, and the upper portions of the Alaska Peninsula north of Becharof Lake and Egegik Bay (Map E-1). This region consists primarily of broad, level to rolling upland tundra-covered river basins. Residents of the Bay planning area are located in 25 villages. There are two State organized boroughs within the planning area, Bristol Bay and Lake and Peninsula Boroughs, and three ANCSA Regional Corporations have real estate holdings within the planning area; Calista, Incorporated, Ltd., Bristol Bay Native Corporation, and Cook Inlet Region, Incorporated.

People residing within the Bay planning area are heavily engaged in a subsistence economy. Besides the subsistence economy, commercial fishing, commercial guiding, and sports hunting and fishing are the primary pursuits in the planning area.

Transportation is predominantly by air or water. The planning area contains approximately 92 miles of secondary roads, none of which are located on unencumbered BLM lands. Access to public lands is by boat, airplane, or off-highway vehicle (OHV), though a few areas are accessible by automobile.

In addition to BLM-managed lands, the planning area includes lands administered by the State of Alaska (State), Native Corporations, the National Park Service (NPS), U.S. Fish and Wildlife Service (FWS) and private landowners.

Of the approximately 23,048,654 acres within the planning area approximately 5% of the total acreage is expected to remain under BLM management (Map E-2). Table 1 summarizes land status within the Bay Planning Area.

**Table 1. Land Status within the Bay Planning Area**

<b>Land Category</b>	<b>Acres</b>	<b>Percent of the Planning Area</b>
<b>BLM-managed lands</b>		
BLM public lands (unencumbered)*	1,163,604	5.05%
State-selected**	348,388	1.51%
Native-selected	411,268	1.78%
Dual-selected***	265,056	***
Mineral Estate	52,705	0.23%
<b>BLM-managed lands subtotal</b>	<b>1,975,965</b>	<b>8.57%</b>
<b>National Park Service managed lands</b>	<b>4,193,427</b>	<b>18.19%</b>
<b>U.S. Fish and Wildlife Service managed lands</b>	<b>4,400,956</b>	<b>19.09%</b>
<b>Military</b>	<b>10,832</b>	<b>0.06%</b>
<b>State of Alaska</b>	<b>9,731,275</b>	<b>42.2%</b>
<b>Private****</b>	<b>2,788,904</b>	<b>12.1%</b>
<b>Total lands within the planning area</b>	<b>23,048,654</b>	<b>100.0%</b>

\*Includes a portion of the Neacola Block, in the northeastern most corner of the planning area, comprising 21,419 acres, which was addressed in the Ring of Fire RMP/EIS and will not be addressed in this plan.

\*\*State-selected lands according to BLM Land Status.

\*\*\* Intersection of State priority selection with Native-selected lands (according to BLM Land Status). Dual-selected acres are already included in the State-selected and Native-selected totals, and are not included in the total lands within the planning area acreage.

\*\*\*\*Private lands include ANCSA lands, Native allotments, and all other privately owned lands. The vast majority of this acreage is comprised of Native Corporation land.

## **B. Relationship to BLM Policies, Plans, and Programs**

The following BLM plans and standards relate to or govern management in the planning area:

- Alaska Interagency Wildland Fire Management Plan (Alaska Department of Natural Resources et al. 1998)
- Land Use Plan Amendment for Wildland Fire and Fuels Management – Environmental Assessment (BLM 2004d) Decision Record (BLM 2005d)
- BLM's Alaska Statewide Land Health Standards (2004a)
- BLM-Alaska Fire Management Plan (BLM 2005g)

In the event there are inconsistencies or discrepancies between previously approved plans and this RMP, the decisions contained in the RMP will be followed. All future resource authorizations and actions will conform to, or be consistent with the decisions contained in the RMP. However, this plan does not repeal valid existing rights on BLM-managed lands. A valid existing right is a claim or authorization that takes precedence over the decisions developed in this plan. If such authorizations come up for review and can be modified, they will also be brought into conformance with the plan.

While the FEIS for the RMP constitutes compliance with National Environmental Policy Act (NEPA) for the broad-scale decisions made in this RMP, the BLM will continue to prepare Environmental Assessments (EAs) or Environmental Impact Statements (EISs) where appropriate as part of implementation level planning and decision-making.

### C. Related Plans

Plans previously developed by Federal, State, local and Tribal governments that relate to management of lands and resources within and adjacent to the Bay planning area were reviewed and considered as the RMP/EIS was developed. Table 2 provides a list of major regional plans that have been reviewed in preparation of this RMP/EIS.

**Table 2. List of Plans for lands within and adjacent to the Bay Planning Area**

Management Plan	Agency
Ring of Fire Resource Management Plan/Environmental Impact Statement	BLM 2008
Alaska Peninsula/Becharof National Wildlife Refuge Complex Final Public Use Management Plan	USFWS 2004
Alaska Maritime National Wildlife Refuge Comprehensive Conservation Plan EIS/Wilderness Review Draft	USFWS 2006
Alaska Department of Fish and Game Habitat Protection Section State Game Refugees Critical Habitat Areas & Game Sanctuaries	ADNR 1981
Alaska Interagency Fire Management Plan, Kuskokwim-Illiamna Planning Area	Multiple, 1983
Alaska Interagency Fire Management Plan, Yukon-Togiak Planning Area	Multiple, 1984
Alaska Interagency Fire Management Plan, Kodiak-Alaska Peninsula Planning Area	Multiple, 1986
Alaska Statewide Land Health Standards	BLM 2004
Becharof National Wildlife Refuge Comprehensive Conservation Plan EIS/Wilderness Review Final	USFWS 1985
Bureau of Land Management Finding of No Significant Impact and Environmental Assessment for the Proposed Land Use Plan Amendment for Wildland Fire and Fuels Management for Alaska	BLM 2004
Bristol Bay Area Plan For State Lands	ADNR 1984
Bristol Bay Area Plan	ADNR 2004
Bristol Bay Borough Comprehensive Plan	ADNR and ADF&G 1985
Fire Management Plan for Western Arctic National Parklands, Alaska	NPS 2004
Integrated Natural Resources Management Plan King Salmon Airport	U.S. Air Force 1999-2003
Integrated Natural Resources Management Plan South coastal Long Range Radar Sites, Alaska	U.S. Air Force 2000-2003
Integrated Natural Resources Management Plan Southwestern Inactive Sites, Alaska	U.S. Air Force 2001-2005
Katmai General Management Plan Wilderness Suitability Review Land Protection Plan	NPS 1986
Lake Clark General Management Plan National Park and Preserve/Alaska Environmental Assessment	NPS 1984
Lake Clark National Park and Preserve Resource Management Plan	NPS 1999



Management Plan	Agency
Bureau of Land Management Decision Record for the Land Use Plan Amendment for Wildland Fire and Fuels Management for Alaska	BLM 2005
McNeil River State Game Refuge and State Game Sanctuary Management Plan	ADNR 1996
Nushagak & Mulchatna Rivers Recreation Management Plan Resource Assessment	ADNR Draft 2004
Southwest Planning Area Management Framework Plan Anchorage District Office	BLM 1981
Togiak National Wildlife Refuge Comprehensive Conservation Plan EIS/Wilderness Review	USFWS 1985
Wood-Tikchik State Park Management Plan	ADNR 2002

U.S. Fish and Wildlife Service (USFWS), Alaska Department of Natural Resources (ADNR), Alaska Department of Fish and Game (ADF&G)

## II. MANAGEMENT DECISIONS

This section of the RMP presents the decisions (i.e., goals and objectives, land use allocations, and management actions) established for public lands in the Bay planning area managed by the BLM's Anchorage Field Office. These decisions are presented by program area. *Goals* are broad statements of desired outcomes and usually not quantifiable. *Desired Future Conditions* for several programs are included in the RMP as *Objectives*. Most of the identified objectives are long range in nature and will not be achieved immediately, but rather are assumed to require a period of 20 to 50 years to achieve. *Management Actions* guide program activities and projects usually described in terms of applicable laws, regulations, and policies. *Allocations* describe specific areas where programmatic goals and objectives are to occur when not applicable planning area wide. *Monitoring* describes plans for meeting goals and objectives. Not all types of decisions were identified for each program.

This section is organized alphabetically by program area with the following titles:

- Air Quality
- Areas of Critical Environmental Concern (ACECs)
- Cultural and Paleontological Resources
- Fire and Fuels Management
- Fish
- Floodplains
- Forest and Forest Products
- Lands and Realty
- Grazing (Livestock and Reindeer)
- Minerals
  - Fluid Leasing
  - Locatable
  - Salable/Mineral Materials
- Public Safety: Abandoned Mine Lands/Hazardous Materials
- Recreation
- Renewable Energy
- Soils
- Special Status Species: Fish, Plants, and Wildlife

Subsistence  
Travel Management and OHV Use  
Vegetation, Wetland, and Riparian Habitat  
Visual Resources  
Water  
Wild and Scenic Rivers  
Wildlife

Some management actions refer to specific Required Operating Procedures (ROPs) or Stipulations. These ROPs and Stipulations are described in Appendix A, Resource Protection Measures.

Maps depicting the management decisions are provided in Appendix E for reference.

## **A. AIR QUALITY**

### **A-1: Goal**

The BLM will protect and enhance the quality of air resources associated with BLM-managed lands in the planning area as well as consider, if practicable, minimizing the impacts of smoke to human health, communities, recreation and tourism from wildfire and prescribed burns. Smoke and its public health impacts are a parameter in fire suppression decisions.

### **A-2: Objectives**

- All actions that may impact air quality will comply with local, State, and Federal requirements.

### **A-3: Management Actions**

- The BLM will stipulate that all direct or authorized emission-generating activities occurring on BLM-managed lands within the planning area comply with the Federal and State air quality laws and regulations.
- The BLM will also implement interagency wildland fire smoke mitigation measures adopted by the Alaska Wildland Fire Coordinating Group and consider public health and safety in all fire management activities.

### **A-4: Monitoring**

Monitoring will be performed as required as identified in project-specific NEPA analysis.

## **B. AREAS OF CRITICAL ENVIRONMENTAL CONCERN**

### **B-1: Goal**

ACECs are designated to highlight areas where special management attention is needed to protect and prevent irreparable damage to important historic, cultural, and scenic values, fish and wildlife resources or other natural systems or processes.

### **B-2: Allocations**

Designate approximately 36,220 acres in the Goodnews planning block as an ACEC, including Carter Spit and adjacent coastal wetland habitat (Map E-3).

### **B-3: Carter Spit ACEC**

#### **B-3-a: Objectives**

Protect coastal areas associated with molting and staging habitat for Steller's eiders, a threatened species under the Endangered Species Act.

#### **B-3-b: Management Actions**

- OHVs would be limited to existing trails.
- The ACEC would be open to leasable mineral entry subject to resource protection measures and additional provisions determined through project-specific NEPA analysis.
- The ACEC would be opened to locatable mineral subject to Required Operating Procedures and project-specific requirements as determined through project-specific NEPA analysis.
- The ACEC would be closed to salable mineral development.
- The area would be designated as a Rights-of-Way (ROW) avoidance area (ROW may be permitted with special restrictions).
- Livestock grazing would be managed on a case-by-case basis.
- Inventories and assessments of biological and habitat resources (particularly Steller's eider) is a field office priority. The timing and scope of inventory efforts will be determined by available funding.
- An inventory of cultural and paleontological resources would be a field office priority for the proposed Carter Spit ACEC dependent upon available funding.
- Carter Spit ACEC will be managed as VRM Class III.

#### **B-3-c: Monitoring**

Inventories and assessments of biological, habitat, cultural and paleontological resources will be a field office priority determined by available funding.

## **C. CULTURAL and PALEONTOLOGICAL RESOURCES**

### **C-1: Goal**

- Identify, protect, and preserve significant cultural resources.
- Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resource uses (FLPMA Sec. 103(c), NHPA 106, 110 (a) (2)) by ensuring that all authorizations for land use and resource use will comply with the NHPA Section 106.
- Manage cultural and paleontological resources for a variety of uses, including scientific use, conservation for future use, public education and interpretation, traditional use (in the case of Cultural Resources), and experimental use.
- All actions that may impact cultural resources will comply with the National Historic Preservation Act (NHPA) Sections 106 and 110, and with the Native American Graves Protection and Repatriation Act (NAGPRA), as well as laws governing the protection or consideration of cultural resources.

### **C-2: Objective**

- Develop partnerships to achieve goals.

### **C-3: Management Actions**

- When any Federal undertaking, including any action funded or authorized by the Federal Government with the potential to directly or indirectly affect any archaeological or historic site is planned, a consultation shall occur with the State Historic Preservation Officer (SHPO) under the 1997 National Cultural Programmatic Agreement and the 1998 State Protocol that stands in place of 36 CFR 800.
- All cultural properties on BLM-managed lands in the Bay planning area would be managed for their scientific use (preserved until their research potential is realized).
- The BLM will notify the State of Alaska State Historic Preservation Officer (SHPO) when archaeological or historic sites are identified.
- An inventory of cultural and paleontological resources would be a field office priority for the proposed Carter Spit ACEC dependent upon available funding.

### **C-4: Monitoring**

- Continue to conduct non-Section 106 related inventories as funds are available.
- Monitor cultural and paleontological resource sites in danger of alteration or destruction from natural or human-made causes, including wildland fires and the effects of fire suppression
- A periodic review of the cultural resource program will be conducted to ensure that the program is meeting the established parameters for proactive cultural resources inventory under Section 110 of the National Historic Preservation Act.

## **D. FIRE MANAGEMENT and ECOLOGY**

### **D-1: Goals**

- Protect human life and property.
- Provide appropriate management response on all wildland fires, with an emphasis on firefighter and public safety.
- Management of wildland fires and fuels will focus on maintaining intact and functioning key ecosystem components.
- Reduce adverse effects of fire management activities.
- Base fire and fuels management activities on land use and resource objectives.
- Continue interagency collaboration and cooperation.

### **D-2: Management Actions**

- Manage vegetation adjacent to populated areas to reduce risk of wildfires.
- Use wildland fire and fuel treatments as management tools to meet land use and resource objectives.
- Reduce risk and cost of uncontrolled wildland fire through wildland fire use, prescribed fire, manual or mechanical treatment.
- Reduce adverse effects of fire management activities.
- Prescribed burn plans will contain ROPs to prevent the introduction and spread of invasive non-native plants and noxious weeds.
- Continue interagency collaboration and cooperation.

### **D-3: Monitoring**

- Monitor the number and size of wildland fires for cumulative impacts on wildlife habitat, particularly caribou winter range.

- Monitor vegetative communities for cumulative effects of wildland fire and suppression actions.
- Monitor cultural resources for effects of wildland fire and suppression actions.
- Vegetative communities would be monitored for cumulative effects of wildland fire and suppression activities as funding permits.

## **E. FISH**

Note: for Special Status Fish, refer to Special Status Species.

### **E-1: Goal**

- Work in conjunction with other programs and agencies to manage riparian areas.
- Achieve fish habitat stability and manage the aquatic and riparian habitat for all life stages of anadromous and resident fish.
- Provide for the continuing availability of fish habitat that contributes to the social, scientific, and economic aspects of the local communities and the Nation.
- Determine and maintain or restore the fisheries potential of the aquatic and riparian habitat in BLM jurisdiction in the Bay planning area.
- Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation Act (MSA) requires all Federal agencies to consult with the Secretary of Commerce on all actions or proposed actions authorized, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). EFH as defined in the MSA means those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity and can include fresh and saltwater habitats. For Alaska, EFH includes all streams, lakes, ponds, wetlands, and other water bodies that have been historically accessible to salmon.

### **E-2: Objectives**

A detailed description of desired land health conditions and objectives are described in Land Health Standards (Appendix A, section B). Specific objectives for obtaining desired conditions pertaining to fisheries include:

- Water quality meets state water quality standards.
- 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.

### **E-3: Management Actions**

- Additional site-specific objectives and habitat management actions for priority species will be established by application requests of proposed activities.
- Comply with provisions of the MSA to protect Essential Fish Habitat (EFH). If land use activities are likely to adversely affect EFH, consult with the Secretary of Commerce through National Marine Fisheries Service (NMFS) to mitigate these effects. Adverse effect is defined in 50 CFR 600.910(a) as any impact that reduces the quality and/or quantity of EFH. For Alaska, EFH includes all streams, lakes, ponds, wetlands, and other water bodies that have been historically accessible to salmon.
- BLM Alaska has a Master Memorandum of Agreement with the State of Alaska for management of fish and wildlife (Appendix B).

#### **E-4: Monitoring**

- Inventory and monitor fish habitat in cooperation with the Alaska Department of Fish and Game (ADF&G), other Federal agencies, private non-profit corporations and tribal agencies.
- In cooperation with ADF&G, monitor priority species population trends where issues exist or are pending and populations may be impacted.

### **F. FLOODPLAINS**

#### **F-1: Goals**

- Reduce flood damage and loss of life and property.
- Minimize the impacts of floods on human safety, health and welfare.
- Sustain, restore and preserve the natural resources, ecosystems, and other functions of the floodplain, and the other beneficial values served by floodplains. Beneficial processes include maintaining the frequency and duration of floodplain/wetland inundation.

#### **F-2: Objectives**

Floodplain management guidelines are defined within Executive Order 11988 (Floodplain Management). For administrative purposes, the 100-year floodplain serves as a basis for floodplain management on public land. If available, floodplain boundaries are based on the Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (FEMA). If FEMA maps are not available, floodplain boundaries will be based on the best available information.

#### **F-3: Management Actions**

Proposed permitted or authorized uses would be analyzed through the appropriate NEPA document. Based on NEPA analysis, the BLM would develop mitigation to minimize impacts from proposed activities to floodplains. The resulting mitigation measures would be included in the permit that authorized the use. The BLM will continue to comply with applicable legislation, Federal regulations, and policy pertaining to floodplains.

The following are steps to be taken in order to determine whether an activity will be allowed in the floodplain.

- Before taking any action, determine whether the proposed action will occur within a floodplain.
- Provide for public review.
- Identify and evaluate practicable Alternatives for locating in the floodplain.
- Identify the impacts of the proposed action.
- Minimize threats to life, property and to natural and beneficial floodplain values, and restore and preserve natural and beneficial floodplain values.
- Re-evaluate Alternatives including no action.
- Issue findings and a public explanation.
- Implement the action (or no action).



In addition, the BLM may undertake projects as required to restore and preserve the natural and beneficial values served by floodplains. Resource protection measures would be applied based on the proposed activity.

#### **F-4: Monitoring**

Monitoring methods will be determined based on results of project-specific NEPA analysis.

### **G. FORESTS AND FOREST PRODUCTS**

#### **G-1: Goals**

- Manage forests and woodlands to sustain their health, productivity, and biological diversity.
- Consistent with other resource values, provide opportunities for personal and commercial use of timber and other vegetative resources.

#### **G-2: Objectives**

- 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.
- Promote moisture storage by soil and plant conditions consistent with the potential/capability of the site.
- Hydrologic, vegetative, and erosion/depositional processes support physical functioning, consistent with the potential or capability of the site.
- Nutrient cycling is occurring effectively, consistent with the potential/capability of the site.
- 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.

#### **G-3: Management Actions**

- The natural range of variation in plant composition and structure and the high value of natural resources will be sustained.
- Issue permits to authorize sale of forest products consistent with 43 CFR 5400.
- Assess the feasibility of fuel reductions, prescribed fire, or salvage logging in localized areas of insect and disease killed trees.
- Issue free use permits to harvest forest products for personal use consistent with 43 CFR 5500.
- Further restrictions on harvest of forest products would apply in the Carter Spit ACEC, including but not limited to seasonal restrictions. Additional restrictions may be determined through project-specific NEPA analysis.

#### **G-4: Monitoring**

The BLM will identify potential commercial harvest areas and high interest personal use areas as requests to harvest forest products are received. If any of these areas are identified within the Carter Spit ACEC, management will be consistent with the objectives of the ACEC.

## **H. GRAZING (LIVESTOCK AND REINDEER)**

### **H-1: Goals**

- Avoid conflicts between livestock grazing uses, fisheries and wildlife habitat, and subsistence uses.
- Determine range suitability for livestock, and the potential allocation of forage for livestock in the planning area ecosystems.
- Maintain habitat needed to support healthy populations of wildlife to meet population viability and human use demands, as required by FLPMA and the Land Health Standards.

### **H-2: Management Actions**

Livestock grazing will be considered and administered on a case-by-case basis as permits are received.

- Avoid conflicts between grazing, habitat requirements of fish and wildlife, and other human uses.
- If proposals for grazing are received, develop allotment management plans that include grazing systems and fire management and allows for maintaining long-term native vegetative communities, composition, diversity, distribution and productivity.
- Allow incidental grazing of pack animals associated with special recreation permits on a case-by-case basis consistent with the permitting process for special recreation use permits, Required Operating Procedures and the Alaska Statewide Land Health Standards.
- Special recreation permits and casual use of grazing animals require evaluation for suitability and compatibility before authorizing use.
- Grazing permits would be subject to Required Operating Procedures and project-specific requirements, to maintain habitat needed to support healthy wildlife populations.

### **H-3: Monitoring**

- The BLM would consider cooperative monitoring with adjacent landowners and agencies to assess range conditions and use and to provide the necessary information to manage all aspects of grazing activities.
- The BLM would inventory habitat to ensure priority for wildlife species, and that conflicts or threats are adequately addressed.

## **I. LANDS AND REALTY**

### **I-1: Goals**

- Meet public needs for use authorizations while minimizing adverse impacts to other resource values.
- Adjust land ownership to consolidate public land holdings, acquire lands with high public resource values, and meet public and community needs.
- Identify disposal areas based on specific disposal criteria and other evaluation factors identified in this plan.
- Assist with Alaska goal of completing the Alaska Lands Transfer program by established timeframes.
- Satisfy State and local government land use needs as well as public and/or private demonstrated needs as they arise.

- Revoke BLM-held withdrawals deemed inappropriate and restore them to the public domain.
- Revoke withdrawals for other agencies at their request, provided that the lands are suitable to be restored to the public domain.

## **I-2: Land Use Authorizations**

Land use authorizations include various authorizations and agreements to use BLM lands for special purposes under several different authorities; leases, permits, and easements under section 302 of the Federal Land Policy and Management Act of 1976 (FLPMA); airport leases under the Act of May 24, 1928; and leases under the Recreation and Public Purposes (R&PP) Act as amended.

### **I-2-a: Land Use Authorizations (Unencumbered Lands)**

**A. FLPMA leases:** All FLPMA leases would be at market value rental, or determined according to a rental schedule. Cabins or permanent structures used for private recreation cannot be authorized under this authority. Proposals for leases for commercial use cabins, special use cabins, or subsistence use cabins would be considered on a case-by-case basis.

Currently there are no commercial use cabins, special use cabins or subsistence use cabins located on BLM lands in the Bay planning area. 43 CFR 2920.1-1 clarifies when a lease, permit, or easement is required.

Required Operating Procedures would apply, and NEPA compliance is necessary for approving FLPMA Leases.

**B. Recreation and Public Purposes (R&PP) Act Leases:** R&PP leases will follow requirements in 43 CFR 2740. Should lands leased under the R&PP authority be authorized for sale, the land would be removed from Federal ownership via a patent with a reversionary clause.

R&PP leases would not be issued for projects that may include the disposal, placement, or release of hazardous materials (i.e., sanitary landfills). In the case of an existing lease where the purpose of the lease is to dispose, place or release hazardous materials, the land must be converted to patent without a reversionary clause, thereby preventing the land from returning to Federal ownership.

**C. FLPMA Permits:** Permits are issued at market value rental, or determined according to a rental schedule. According to 43 CFR 2920.2-2, they may be granted for a land use if the BLM determines that the use is in conformance with the agency plans, policies, and programs, local regulations, and other requirements, and will not cause appreciable damage or disturbance to the public lands, their resources, or improvements.

In general:

- Cabins or permanent structure permits would not be issued for private recreation purposes.
- Commercial use cabins, special use cabins, or subsistence use cabins may be authorized with short-term (maximum three year) permits renewable at the discretion of BLM. Once the permittee demonstrated conformance to policies and regulations, the Authorized Officer could reissue the authorization as a lease or renew as a permit.

(Trapping shelters would be authorized by short-term (three years maximum) FLPMA sec. 302 permits renewable at the discretion of the BLM and tied to the applicant's ability to show actual use for profitable trapping purposes).

- Shelters, tent platforms, and other temporary facilities and equipment used for hunting and fishing are allowed on BLM lands under Section 1316 of ANILCA.

**D. FLPMA Easements:** Each proposal for an easement would be considered pursuant to 43 CFR 2920.7. Authorized easements would contain terms and conditions protecting the environment, public health, and safety.

### **I-2-b: Land Use Authorizations (Selected Lands)**

A land use authorization is an authorization issued by the BLM to use public lands in accordance with section 302 of FLPMA. The two most commonly issued authorizations in the planning area are leases and permits.

The State of Alaska and ANCSA Native Corporations have selected BLM-managed lands in the Bay planning area for conveyance. State and Native selections affect BLM's processing of land use authorizations.

- **Native-selected lands.** Prior to issuing a use authorization the views of the Native Corporation shall be obtained and considered. Monies received for most use authorization on Native-selected lands would go into an escrow account to be disbursed to the Native Corporation upon conveyance.
- **State-selected lands.** In accordance with 906(k) of ANILCA, the BLM must receive a letter of concurrence from the State of Alaska prior to issuance of any use authorization. The BLM may then incorporate State terms and conditions in the use authorization if they comply with Federal laws and regulations. Money received for most use authorization on State-selected lands would go into an escrow account to be disbursed to the State upon conveyance. If the State objects to the use authorization, the BLM would not issue it. If the proposal is for an authorization on land that has been top filed by the State, pursuant to 906(e) of ANILCA, a letter of concurrence is not required because the top filing is not yet a valid right, but a future interest in the land.

### **I-2-c: Monitoring**

Land use authorizations will be monitored through field examinations to ensure compliance with the terms and conditions of the authorizing document. On-the-ground monitoring will occur periodically throughout the life of the authorization.

### **I-3: Land Tenure Adjustments**

Land tenure adjustments could consist of a sale or an exchange. The BLM may identify disposal areas by parcel or by specific areas that would be subject to disposal based on the application of the specific disposal criteria (FLPMA, Section 203 or 206) and other evaluation factors (e.g. resource values and concerns, accessibility, public investment, encumbrances, and community needs) identified in this plan. A goal of future adjustments would be to exchange identified isolated parcels of land for those which would help the BLM to consolidate its unencumbered lands.

Lands withdrawn under the public land laws or segregated by State or Native selection would not be offered for disposal until such time as the State and Native Corporations reach full entitlement.

### I-3-a: Disposal

**Entitlement and Settlement:** The BLM Anchorage Field Office will assist in the conveyance of lands pursuant to legislative mandates. These mandates include the Alaska Statehood Act (1958), ANCSA (1971), and the Native Allotment Act (1906). Refer to section I-6 Withdrawal Review for a detailed description of management action.

**Airport and Airway Improvement Act of September 3, 1982:** The BLM would continue to process airport conveyances as requested by the Federal Aviation Administration. Each conveyance must contain appropriate covenants and reservation requested by the Federal Aviation Administration. As a condition to each conveyance, the property interest conveyed must revert to the Federal government in the event the lands are not developed for airport or airway purposes or are used in a manner inconsistent with the terms of the conveyance.

**Sales:** Public lands meeting one or more stated criteria could be disposed of through FLPMA Section 203 (43 CFR 2710). Table 3 shows parcels the BLM has identified for disposal through land exchange or sale (Map E-4). The preferable method for disposal of these lands is through sale.

**Table 3. Parcels Identified for Disposal Preferably through Sale**

Parcels Identified for Land Exchange or Disposal (sale):		
Aleknagik Vicinity, T10S R55W Sec. 32, U.S. Survey 12403, lots 1 and 2, (5 acres)	Clarks Point Vicinity, T14S R55W Sec. 8, (46 acres)	Clarks Point Vicinity, T15S R55W Sec. 6,7,18, (25 acres)

**Recreation and Public Purposes (R&PP) Act Sales:** Lands identified for disposal under this authority that are selected by either the State or Native Corporations would have to be fully adjudicated before the BLM would entertain a sale. In order to be analyzed for disposal under the R&PP Act (43 CFR 2740, as amended, 2001), applicants must meet conditions as described in BLM Handbook H-2740-1.

No lands in the Bay planning area have been identified for disposal under this authority.

### I-3-b: Exchanges

The BLM would seek to put in place mutually beneficial public interest land exchanges, which are authorized in Alaska by FLPMA, ANCSA, and ANILCA. Where feasible, the BLM will consider land exchanges to resolve issues of split estate ownership of surface and subsurface interests. When considering public interest, full consideration must be given to efficient management of public lands and to secure important objectives including protection of fish and wildlife, cultural resources, and aesthetic values; enhancement of recreational opportunities; consolidation of mineral holdings for more efficient management; expansion of communities;

promotion of multiple use values, and fulfillment of public needs. Exchanges would not be pursued until State and Native entitlements are fulfilled. Table 4 shows parcels of land in the Iliamna East and Iliamna West planning blocks and two sections east of Aleknagik identified for potential exchange (Map E-4).

**Table 4. Parcels Identified for Potential Exchange**

Parcels Identified for Land Exchange						
Chekok Creek, T2 and 3S, R30W. (5,749 acres)	Chulitna River, T1N, R32W Sec. 21, 22, 23, 28, 31, 32 (3,840 acres)	Katmai Boundary T11S R35W Sec. 1. (323 acres)	T11S R37W Sec. 2, 3, 4, 9, 10; Sec. 16, 21 portions. (3,533 acres)	T11S R44W Sec. 5, 6, 7, 8, 17, 18, 19. (4,415 acres)	Aleknagik Vicinity, T10S R53W Sec. 7, 18 (1228 acres)	T9S R72W Sec. 18 (605 acres)

### **I-3-c: Acquisitions**

The BLM Anchorage Field Office (AFO) does not anticipate acquiring lands within the Bay planning area during the life of this plan except perhaps through exchange or donations.

**Conservation Easements:** The BLM would continue to manage conservation easements for the specific purpose for which they were acquired. Currently there are no conservation easements on BLM-managed lands in the Bay planning area.

### **I-4: Monitoring (Disposals, Acquisitions, Exchanges)**

Land ownership adjustment actions will be monitored through the BLM accomplishment tracking process. Management, realty personnel, and other key staff members in the Anchorage Field Office will meet periodically to review program status. Changes in land ownership affecting BLM lands or interests in lands will be posted to the Anchorage Field Office's official land ownership coverage in a timely manner.

### **I-5: Access**

#### **I-5-a: Goal**

Manage routes to provide access to public lands, recreation, and subsistence opportunities.

#### **I-5-b: Management Actions**

**ANCSA 17(b) Easements:** The BLM is responsible for identifying and reserving these easements during the conveyance process in accordance with 43 CFR § 2650.4-7. The management of these easements lies with the BLM or, under a Memorandum of Understanding, the appropriate Federal land manager. The BLM does not have an agreement for transferring easement management to the State of Alaska. Consequently, the BLM retains management responsibilities for easements reserved to access State lands.

The BLM would continue to administer ANCSA Section 17(b) easements that have been reserved in patents or interim conveyances to ANCSA corporations as staffing and budgets allow. ANCSA 17(b) easement management will be transferred to the National Park Service

(NPS) or the U.S. Fish and Wildlife Service (USFWS) for those easements that access lands administered by these agencies or are wholly within the boundaries of the park, preserve, Wild and Scenic River corridor, or refuge. On BLM-managed lands, the BLM will continue to locate, mark and sign, GPS survey, map, and monitor ANCSA 17(b) easement locations as staffing and budgets allow. The BLM reserves easements to ensure access to Federal, State, and municipal corporation lands as ANCSA conveyances occur. The BLM would continue to identify, sign, map, monitor use, and realign ANCSA 17(b) easements, with priority based on:

- Easements with safety hazards.
- Easements accessing lands that are permanently managed by BLM or are important to BLM programs.
- Easements receiving high use.
- Easements required to implement an activity or implementation plan.
- Easements where landowners have made a request to work cooperatively on marking projects.
- Easements where environmental damage is occurring.

#### **I-5-c: Monitoring (Access)**

Periodic monitoring of easements will occur to accomplish the following:

- Assure safe and continued access to public lands and waters.
- Ascertain that the easement is actually being used for the purpose it was reserved.
- Determine maintenance needs and replacement of any markers and signs which are damaged or removed.
- Be able to justify retention of the easement or termination if the easement is no longer needed.

**I-5-d: Rights-of-Way (ROW):** Rental fees for ROW are at market value rental, or determined according to a rental schedule. The BLM may exempt, waive or reduce rent for a grant under certain circumstances except that there are no reductions or waivers for Mineral Leasing Act (MLA) authorizations. Construction within new ROW would consider valid existing rights and uses. Resource protection measures (Appendix A), and project-specific requirements would apply to MLA and FLPMA ROW.

ROW for oil or gas pipelines and their related facilities are issued under the authority of Section 28 of the MLA (1920). In accordance with 43 CFR 2880, the BLM will require MLA ROWs to:

- Restore, revegetate, and curtail erosion.
- Comply with air and water quality standards.
- Control or prevent damage to the environment, to public or private property, and hazards to public health and safety.
- Protect subsistence interests of those living along the Right-of-Way.

Title V of FLPMA authorizes the issuance of ROW for other uses, such as transportation systems (roads and trails), water pipelines and reservoirs, systems for generation and transmission of electric energy, and various types of communication sites. According to 43 CFR 2800 and ANILCA, the BLM may grant such Rights-of-Way provided that:

- The natural resources located on public lands administered by a government agency, where the public lands are adjacent to private or other lands, are protected.
- Undue or unnecessary environmental damage to the lands and resources is prevented.



- The utilization of ROW in common with respect to engineering and technological compatibility, national security and land use plans compatibility are promoted.
- Coordination, to the fullest extent possible, takes place with the State, local governments, interested individuals and appropriate non-governmental entities.

The Carter Spit ACEC is designated as a ROW avoidance area: refer to section B

Travel Management and OHV Use: Refer to section Q

#### **I-5-e: Monitoring (Rights-of-Way)**

Periodic monitoring of Rights-of-Way will occur to accomplish the following:

- Assure project is built in compliance with grant and resource protection measures.
- Assure Right-of-Way is continually maintained and utilized for intended purpose.

#### **I-6: Withdrawals**

##### **I-6-a: Management Actions (ANCSA 17(d)(1) withdrawals)**

The BLM would recommend, to the Secretary of the Interior, revocation of all ANCSA 17(d)(1) withdrawals in the planning area.

##### **I-6-b: Management Actions (other withdrawals)**

The BLM would maintain Agency withdrawals (including: two water power withdrawals, six military withdrawals, and nine administrative site withdrawals) until the agency for which the land was withdrawn, requested revocation of the withdrawal (Maps E-5a, b, c, and d).

##### **I-6-c: Monitoring (Withdrawals)**

Withdrawal actions will be monitored through the BLM accomplishment tracking process. Management, realty personnel, and other key staff members in the Anchorage Field Office will meet periodically to review program status.

#### **I-7: Unauthorized Occupancy**

Criteria for prioritizing which unauthorized cases would receive the highest consideration are:

- Situations involving new unauthorized construction, public safety, or public complaints
- Areas identified for long-term Federal management
- Selected lands on which resources are being removed without authorization, where resource damage is occurring, or the presence of a trespass cabin is holding up a conveyance
- Other selected lands

##### **I-7-a: Management Actions**

Trespass cabins may become the property of the U.S. Government and be managed as administrative sites, as emergency shelters, or as public use cabins. Possible management actions on trespass cabins include:

- Removal of the structure.
- Relinquishment to the U.S. Government for management purposes, and
- Authorization by lease or permit for legitimate uses if consistent with identified area objectives.

### **I-7-b: Monitoring (Unauthorized Occupancy)**

Lands and Realty staff and other resource staff will continue to monitor in the field and report potential unauthorized use.

### **I-8: Carter Spit ACEC (Lands and Realty)**

- The Carter Spit and adjacent salt marshes and wetlands (Map E-3) would be designated an Area of Critical Environmental Concern to provide additional protection to Steller's eider (a threatened species under the Endangered Species Act) and the marshes and estuaries which provide the unique environment that support molting and staging habitat.
- The BLM recommends, to the Secretary of the Interior, revocation of all ANCSA 17 (d)(1) withdrawals in the planning area.
- The area would be designated as a Right-of-Way avoidance area (Rights-of-Way can be available but with special resource protection measures).
- Lands would not be considered available under R&PP.

## **J. MINERALS**

### **J-1: Fluid Leasable Minerals (Oil and Gas)**

#### **J-1-a: Goal**

Public lands and Federal mineral estate will be made available for orderly and efficient exploration (including geophysical exploration), development and production of fluid leasable minerals, including oil, natural gas, tar sands, coal bed methane and geothermal steam, unless a withdrawal or other administrative action is justified in the national interest. Geothermal resources would be available for leasing in areas open to oil and gas leasing. Areas closed to oil and gas leasing are also closed to geothermal leasing.

#### **J-1-b: Allocations**

##### **Areas open to leasing, subject to the terms and conditions of the standard lease form:**

BLM-managed lands, subsurface estate, and any State- or Native-selected lands relinquished from current selection. (Map E-6a and b) ROPs and Fluid Leasable Stipulations (Appendix A) will be applied to protect other land use or resource values.

**Areas closed to leasing:** Existing Agency withdrawals, of approximately 3,318 acres would remain withdrawn from fluid mineral leasing. (Map E-6a and b)

##### **Areas open to leasing, subject to additional constraints such as seasonal restrictions:**

Carter Spit ACEC (36,220 acres) is designated to protect habitat for federally-listed migratory bird species (Map E-6a and b), see ROPs SS-1a, 1b, and SS-2a (Appendix A).

Throughout the Bay planning area to protect caribou habitat, see Stipulations #6 and #7 and ROPs FW-3b, and FW-3d (Appendix A).

**Areas open to leasing, subject to No Surface Occupancy (NSO):** A 300-ft. NSO buffer on either side of the East and South Forks of the Arolik River, Faro Creek, South Fork Goodnews River, and Klutuk Creek totaling 1,834 acres (Map E-6a and b), see Fluid Leasing Stipulations (Appendix A).

### **J-1-c: Management Actions**

- Lands currently selected by the State and Native Corporations are segregated from mineral leasing to avoid potential encumbrances on selected lands prior to conveyance.
- Areas for potential leasing would be identified consistent with the goals, standards, and objectives for natural resources within the planning area. Areas where oil and gas development could coexist with other resource uses would be open to leasing under Standard Lease Terms. ROPs and Fluid Leasing Stipulations (Appendix A) may also apply.
- Fluid Leasing Stipulations and Required Operating Procedures described in Appendix A apply to all BLM-managed lands in the Bay planning area open to oil and gas leasing. Fluid Leasing Stipulations notify the leaseholder that development activities may be limited, prohibited, or implemented with mitigation measures to protect specific resources. The Fluid Leasing Stipulations would condition the leaseholder's development activities and provide BLM the authority to require other mitigation or to deny some proposed exploration and development methods.
- Additional constraints might also be required based on project-specific NEPA analysis. Additional information can be provided to the lessee in the form of a lease notice. This notice does not place restrictions on lease operations, but does provide information about applicable laws and regulations, and the requirements for additional information to be supplied by the lessee.
- For Federal oil and gas where the surface is managed by another Federal agency, the BLM will consult with that agency before issuing leases.
- All areas open to mineral leasing would be open to geophysical exploration, except those lands containing NSO restrictions, which would only be available for geophysical exploration in winter conditions, subject to Fluid Leasing Stipulations and through Casual Use as described in 43 CFR 3150.05(b) during non-winter conditions. On a case-by-case basis geophysical exploration may be allowed in areas closed to oil and gas leasing based on the nature and level of impacts from the exploration, and consistency with other applicable policy. Oil and gas geophysical exploration activity on public lands in Alaska, the surface of which is administered by the BLM, is governed by regulations found at 43 CFR Subparts 3150, 3152, and 3154. A Federal oil and gas lease is not required to conduct geophysical exploration. The BLM will review Notices of Intent to Conduct Geophysical Exploration (NOI) in the planning area and develop appropriate mitigation measures so as not to create unnecessary or undue degradation. A site-specific environmental analysis will be prepared for each NOI filed. Fluid Leasing Stipulations, ROPs, and Standard Lease Terms developed in this document (Appendix A) serve as the starting point for developing required mitigation measures for each NOI.
- Geothermal resources would be available for leasing in areas open to oil and gas leasing. Areas closed to oil and gas leasing are also closed to geothermal leasing. There are no Known Geothermal Resource Areas (KGRAs) on BLM-managed lands within the planning area. A site-specific environmental analysis would be prepared should interest be expressed in exploring for or developing geothermal resources in the planning area. This analysis would address the application of Fluid Leasing Stipulations and may develop additional mitigating.
- Coal bed natural gas (CBNG) development is authorized by the same process as oil and gas.
- Public lands available for oil and gas leasing would be offered first by competitive bid at an oral auction. Fluid Leasing Stipulations, terms, and conditions would be applied at the time of leasing. Leasing of available lands under jurisdiction of another Federal

agency would only occur following consultation, and consent if necessary, from the surface managing agency.

- Where oil or gas is being drained from lands otherwise unavailable for leasing, there is implied authority in the agency having jurisdiction of those lands to grant authority to the BLM to lease such lands (43 CFR 3100.0-3(d)). Leasing of such lands would only occur following consultation, and consent if necessary, from the surface managing agency.
- The terms of existing oil and gas leases cannot be changed by the decisions in this document. However, when the lease expires, the area will be managed for oil and gas according to the decisions made in this RMP/EIS.

#### **J-1-d: Monitoring**

If leasing occurs, monitoring will be done to ensure compliance with applicable laws, regulations, conditions of leases, and the requirements of approved exploration/development plans/applications for permit to drill. Monitoring activities will include:

- Periodic field inspections of leasable mineral activities. Inspections will be conducted to determine compliance with applicable laws, regulations, Fluid Leasing Stipulations, and the requirements of approved exploration and development plans, applications for permit to drill, and sundry notices.
- Monitoring of oil and gas drilling/production activities in the planning area. Total surface disturbance from all drilling will be tracked.

An accurate accounting of production will also be tracked on producing leases.

#### **J-2: Solid Leasable Minerals**

The Governor of any state with an approved regulatory program may request that the Secretary of the Department of the Interior enter into a cooperative agreement to grant the State the authority to implement the Surface Mining Control and Reclamation Act of 1977 on Federal lands. At present, Alaska has no such agreement in place.

##### **J-2-a: Goal**

Public lands and the Federal mineral estate will be made available for orderly and efficient exploration, development and production of solid leasable mineral resources (including coal and oil shale, and non-energy leasable minerals (including potassium, sodium, phosphate and gilsonite), unless continued withdrawal from mineral entry is justified in the national interest.

All solid leasable minerals actions will comply with goals and objectives for natural resources in the planning area.

##### **J-2-b: Allocations**

Currently there are no known coal resources on BLM-managed lands in the Bay planning area. There is no occurrence of phosphates, oil shale, or sodium resources in the planning area.

##### **J-2-c: Management Actions**

- Leasing and exploration licensing are subject to BLM standard lease terms and Required Operating Procedures (Appendix A).
- Coal and oil shale exploration and leasing will comply with the Mineral Leasing Act of 1920, as amended, the Surface Mining Control and Reclamation Act of 1977, the

Federal Coal Leasing Amendments Act of 1976, the Mineral Leasing Act for Acquired Land of 1947 and other Federal resource and environmental laws, coal regulations and coal planning criteria.

- All unencumbered BLM-managed lands within the Bay planning area, subject to coal leasing under Part 43 CFR 3400.2, are open to coal exploration and study through the issuance of an exploration license. To date, no areas within the Bay RMP have been identified as having economic coal reserves. Therefore, the coal screening process (as identified by 43 CFR 3420.1-4) has not been conducted for this plan. If an application for a coal lease should be received, an appropriate environmental analysis, including the coal screening process, would be conducted to determine whether or not the coal areas are acceptable for leasing under 43 CFR 3420.1-4(e). The Bay RMP/EIS would be amended as necessary.
- Should coal operations be developed on Federal lands, an agreement would likely be developed between the State of Alaska and the Office of Surface Mining defining the regulatory role of the State in these mining operations (30 CFR 745).
- The Mineral Leasing Act authorizes the leasing of Federal lands for the development of oil shale. However, there are currently no regulations governing the leasing of oil shale. Oil shale may be leased under the authority of 30 U.S.C. Chapter 3A, Subchapter V, section 241.
- Solid leasable minerals include chlorides, sulfates, carbonates, borates, silicates or nitrates of potassium or sodium and related products; sulphur, phosphate and related minerals; oil shale, coal and gilsonite (including all vein-type solid hydrocarbons). The likelihood of commercially valuable deposits of these minerals occurring on BLM-managed lands in the planning area is not presently known. If solid leasable mineral deposits (excluding oil shale and coal) were discovered, subsequent leasing, exploration, and development would be analyzed and would be subject to regulations under 43 CFR 3500 (Leasing of Solid Minerals other than Coal and Oil Shale). Non-energy leasable mineral exploration and leasing will comply with the Mineral Leasing act of 1920, as amended, the Mineral Leasing Act for Acquired Land of 1947, as amended, Federal resource laws, the Reorganization Plan No. 3 of 1946, and non energy leasable minerals regulations.
- Lands under selection by the State and Native Corporations are segregated from mineral leasing. The categories and constraints identified in this section only apply on lands retained in long-term Federal ownership.

### **J-3: Locatable Minerals**

#### **J-3-a: Goal**

Maintain or enhance opportunities for mineral exploration and development while preventing undue and unnecessary degradation of other resource values from the development of locatable and salable mineral resources.

#### **J-3-b: Allocations**

- This RMP recommends revocation of withdrawals to open approximately 1,102,489 acres of unencumbered BLM land and any State- or Native- selected lands relinquished from selection to mineral location. All selected lands would remain closed to mineral entry.
- Approximately 3,968 acres would remain withdrawn from mineral entry due to Agency withdrawals as described in specific PLOs (Maps E-5a, b, c, d).
- The Carter Spit ACEC would be open to locatable mineral activities. ROPs (Appendix A) would apply to protect habitat for Steller's eider, a federally-listed migratory bird species (Map E-7a).
- A 300-ft setback on either side of the East and South Forks of the Arolik River, Faro Creek, South Fork Goodnews River, and Klutuk Creek (Maps E-7a and b) would be established to protect riparian areas and soils adjacent to sensitive habitat for salmon and resident fish (ROPs, Appendix A).

#### **J-3-c: Management Actions**

- Mining of locatable minerals including existing mineral claims, would be subject to the surface management regulations found in 43 CFR 3809. Surface occupancy under the mining laws will be limited to uses incident to the mining operation. Bonding will be required in accordance with BLM policy. Specific measures that would be utilized to minimize surface impacts and to facilitate rehabilitation and revegetation of mined areas can be found in the Required Operating Procedures in Appendix A.
- All operations must file a Notice or Plan of Operations with BLM. A Plan of Operations is required for operations in excess of 5 acres. All Plans of Operations must be approved prior to commencement of on-the-ground activities. Areas withdrawn from mineral location in which valid existing rights are being exercised require the filing of a Plan of Operations.
- All operations within the Carter Spit will require a Plan of Operations.
- Lands under selection by the State and Native Corporations are segregated from locatable mineral and salable material entry. For State- and Native-selected lands, revocation or modification of ANCSA (d)(1) withdrawals as indicated below only apply if lands are retained in long-term Federal ownership.

#### **J-3-d: Monitoring**

Monitoring of mining operations will be done to ensure compliance with 43 CFR 3809 and other regulations and conditions of approval, specifically preventing "unnecessary or undue degradation." Each Plan of Operation and Notice will have mitigation measures that cover the life of the operation. Field inspections will look for compliance with these measures and include monitoring reclamation of disturbed areas, revegetation and protection of the environment and public health and safety. Findings for each inspection will be documented and placed in the case file. Any non-compliance items will be noted and appropriate regulatory procedures followed.



43 CFR 3809 regulations require inspections at least four times a year for operations that use cyanide or other leachate or where there is a significant potential for acid drainage. Inspections for active operations will occur twice a year and all others will be inspected once per year. Operations in sensitive areas or operations with a high potential for greater than usual impacts will require inspections more often.

#### **J-4: Salable Minerals (Mineral Materials)**

##### **J-4-a: Allocations**

- This RMP recommends revocation of withdrawals to open approximately 1,100,654 acres of unencumbered BLM land and any selected lands relinquished from selection to salable mineral development. All selected lands would remain closed to salable mineral activities (Maps E-8a and b).
- Approximately 3,968 acres would remain withdrawn from salable mineral activities due to Agency withdrawals as described in specific PLOs. (Maps E-5a,b,c, and d)
- The Carter Spit ACEC (36,220 acres) would be closed to salable mineral activities (Map E-3).
- A 300-ft setback on either side of the East and South Forks of the Arolik River, Faro Creek, South Fork Goodnews River, and Klutuk Creek would be established to protect riparian areas and soils adjacent to sensitive habitat for salmon and resident fish (Appendix A, Resource Protection Measures).

##### **J-4-b: Management Actions**

Monitoring of mining operations will be done to ensure compliance with 43 CFR 3600 and other regulations and conditions of approval, specifically preventing “unnecessary or undue degradation”. Bonding would be required in accordance with BLM contract regulations. Each disposal shall require that a Mining and Reclamation plan be approved and on file with the BLM. On-site field inspections will look for compliance with these operations plans and include monitoring reclamation of disturbed areas, revegetation and protection of the environment and public health and safety. Findings for each inspection will be documented and placed in the case file. Generally, all salable disposals will be monitored with an annual site inspection; large volume operations or operations with a higher potential for negative impacts will be inspected more frequently.

##### **J-4-c: Monitoring**

Monitoring of salable minerals will be done to ensure compliance with applicable laws, regulations, BLM policy contained in BLM Manual Section 3600 and Handbook H-3600-1.

Field inspections of common use areas, exclusive sale sites and other operations will be done on a periodic basis and will determine compliance with applicable laws, regulations, and the requirements of the approved mining plan. Inspections will specifically note compliance with reclamation, weed control, protection of the environment, and public health and safety. Operations in sensitive environmental areas or operations with a high potential for greater than usual impacts will be inspected more often. Identification and resolution of salable trespasses will also be performed.

## **K. PUBLIC SAFETY: ABANDONED MINE LANDS / HAZARDOUS MATERIALS**

### **K-1: ABANDONED MINE LANDS**

#### **K-1a: Goal**

- Protect public health and safety and environmental resources by minimizing environmental contamination from chemical, biological and radiological sources on public lands and BLM-owned or operated facilities.
- Comply with Federal and State hazardous materials standards and meet all Federal and State mandates, laws, Executive Orders, regulations and policies.
- Maintain the health of ecosystems through location, assessment, cleanup, and restoration of contaminated sites.
- Manage hazardous materials related risks, costs, and liabilities.
- Integrate environmental protection and compliance with all environmental statutes into all BLM activities.

#### **K-1b: Management Actions**

- Impacts caused by past hazardous materials management on BLM lands will be mitigated subject to the availability of funds.
- The BLM will prevent creation of new hazardous material sites through implementation of ROPs (Appendix A) for all land use permits, leases, ROW, and mining claims and will include pollution prevention measures in all permits, leases, and grants of ROW.

#### **K-1c: Monitoring**

The BLM will coordinate and consult with appropriate regulatory agencies for all cleanup plans, and will notify and coordinate hazardous materials activities with specific Native Corporations on Native-selected lands.

### **K-2: Hazardous Materials**

#### **K-2a: Goal**

Protect humans and the environment from exposure to hazardous materials.

#### **K-2b: Management Actions**

- The BLM will prevent creation of new hazardous material sites through implementation of ROPs (Appendix A) for all land use permits, leases, ROW, and mining claims and will include pollution prevention measures in all permits, leases, and grants of ROW.
- Comply with all appropriate laws and regulations regarding hazardous materials.
- Do not permit unauthorized storage, treatment, or disposal of hazardous waste on public lands.
- Apply additional measures to comply with appropriate laws, regulations, and policies when the use or storage of hazardous materials is authorized (Appendix A, Required Operating Procedures ROP-Haz-a-1 through ROP-Haz-c-9).
- Conduct cleanup and reclamation in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan.

#### **K-2c: Monitoring**

Site clean-ups will be monitored to protect and safeguard human health, prevent/restore environmental damage and to limit the BLM's liability. The performance of the clean-up

contractor for all release on public lands will be monitored to ensure full compliance and damaged land restoration. Hazardous material monitoring data will be kept in monitoring files. All data will be collected at the time and place of the incident or until the cleanup is completed and there is no future threat to human health or environment.

## **L. RECREATION**

Note: See the *Travel Management* section for discussion of OHV use for recreational and other purposes.

### **L-1: Goal**

- Manage recreation to maintain a diversity of recreational opportunities.
- Improve access to appropriate recreational opportunities.
- Ensure a quality experience and enjoyment of natural resources
- Provide for fair value in recreation on BLM-managed lands

### **L-2: Management Actions**

- The entire recreation area setting, including all unencumbered BLM-managed lands and selected lands until they are conveyed, would be managed as Semi-Primitive Motorized.
- Opportunities for commercial recreation will be provided consistent with area objectives for recreation management.
- The entire planning area would be designated as an Extensive Recreation Management Area. Management for dispersed recreation use and no facilities would be developed. No significant amounts of recreational staffing would be expended for the area.
- Camping associated with commercial activities would be prohibited without written authorization from the BLM. Short-term commercial camping would be limited to 14 days within a 28-day period. After a camp has been occupied for 14 days, the camp must be moved at least 2 miles to start a new 14-day period. Short-term camping associated with non-commercial activities would be allowed for less than 14 days in one location.

#### **Permit Availability**

- Issuing a Special Recreation Permit (SRP) is a discretionary action.
- Factors considered before approval of a Special Recreation Permit (SRP) include existing recreation conflicts, diversity of services provided to the public, number of similar services already offered, and whether the public land area available is sufficient to accommodate the proposed use.
- SRPs may be issued until the affected area's desired use level is reached. The desired use level for the Bay planning area is established using the Recreation Opportunity Spectrum (ROS) limits of acceptable change (LAC) or other valid methods. (BLM,1990)
- Each SRP application is analyzed for impacts to subsistence in accordance with ANILCA 810 through application-specific NEPA processes.

### **L-3: Monitoring:**

Monitoring of recreation resources and activities will continue to occur throughout the planning area dependant on budget and available staffing levels. Monitoring will include regular patrols to check on visitor use, recreation use-related impacts, and user conflicts. Monitoring will also emphasize identification of areas where there may be problems with compliance with rules and regulations resulting in user conflicts or resource damage.

## **M. RENEWABLE ENERGY**

### **M-1: Goal**

Make BLM-managed lands available for development of renewable energy sources.

### **M-2: Management Actions**

Potential exists for the development of a variety of sources of renewable energy on BLM-managed lands in the Bay planning area, including solar, wind, and biomass renewable energy facilities. No authorizations for these purposes have been issued on BLM-managed lands within the planning area to date, nor has any interest been expressed. The BLM would consider applications for permit or lease to conduct such developments, subject to the constraints developed through project-specific NEPA analysis.

Permits for development of renewable energy would include Resource Protection Measures (Appendix A) and project-specific requirements that minimize impacts to resources.

### **M-3: Monitoring**

Renewable energy projects will be monitored through the BLM accomplishment tracking process. Where renewable energy projects require land use authorizations, monitoring will be conducted in accordance with the monitoring in the *Lands and Realty* section.

## **N. SOILS**

### **N-1: Goal**

- Ensure that watersheds are in, or are making significant progress toward, a properly functioning physical condition that includes stream banks, wetlands, and water quality.
- The BLM will manage soils to promote healthy, sustainable, fully functioning ecosystems by maintaining the soils, which support a wide range of public values and uses.
- Minimize negative impacts to soils and prevent soil erosion. Maintain desired ecological conditions as defined by the BLM Alaska Statewide Land Health Standards.
- The BLM will provide for a wide variety of public land uses without compromising the long-term health of soil resources.
- Treatments to alter the vegetative composition of a site, such as prescribed burning, seeding, or planting will
  - be based on the potential of the site and will retain or promote infiltration, permeability, and soil moisture storage;
  - contribute to nutrient cycling and energy flow.
- Promote moisture storage by soil and plant conditions consistent with the potential/capability of the site.

### **N-2: Management Actions**

- Ensure actions occurring on BLM lands are in compliance with the Clean Water Act, State water quality standards, and Federal wetlands and floodplain requirements.
- The BLM will require permittees to mitigate for all activities that may cause accelerated soil erosion, and to follow prescribed resource protection measures (Appendix A).
- Resource protection (Appendix A) measures may be applied on a site-specific basis for permitted activities and uses that affect soil.

### **N-3: Monitoring**

- Inventory and monitoring data should be collected according to a Quality Assurance Project Plan.” Development of a Quality Assurance Project Plan (QAPP) that meets the elements of the state and/or EPA requirements listed on the following web sites will help ensure the quality of collected data and that other resource agencies, as well as the public, can utilize that data.
  - ADEC Quality Assurance Project Plan elements:  
<http://www.dec.state.ak.us/water/wqsar/pdfs/qappelements.pdf>.
  - EPA Requirements for Quality Assurance Project Plans:  
<http://www.epa.gov/r10earth/offices/oea/epaqar5.pdf>
- Contract soil surveys in areas of high resource value or proposed development as needed.

## **O. SPECIAL STATUS SPECIES**

### **O-1: Goals**

- Manage habitats consistent with the conservation needs of Special Status Species and in a manner that will not contribute to the need to list any species under the Endangered Species Act (ESA).
- Manage plant and animal resources and wildlife habitat to ensure compliance with the ESA and to ensure progress towards recovery of listed species.
- Manage habitats consistent with the conservation needs provided in Recovery Plans for listed species.

### **O-2: Management Actions**

- Cooperate with USFWS in the development and implementation of recovery plans, management plans, and conservation strategies for Threatened and Endangered Species (T&E) species occurring on BLM lands.
- Consult with USFWS or National Marine Fisheries Service under Section 7 of the ESA for all actions that may affect listed species or designated critical habitat or confer if actions are likely to jeopardize the continued existence of a proposed species or result in the destruction or adverse modification of proposed critical habitat.
- Cooperate with USFWS and other agencies to monitor habitats and populations of T&E species.
- Plant and wildlife resources and habitat will be managed to ensure compliance with the ESA.
- T&E evaluations will occur on all actions proposed and mitigation or consultation carried out where listed species may occur.
- Additional site-specific actions needed to manage habitat for Special Status Species will be made through project-specific NEPA process.
- An ACEC is designated for the Carter Spit/Goodnews Bay area (Map E-3) to provide additional protection to Steller's eiders, a federally-listed migratory bird species.
- Wildlife resources will be managed to comply with the ESA to facilitate recovery of listed species and to prevent listing of additional species.

### **O-3: Monitoring**

- Identify botanically unexplored BLM lands within the planning area and prioritize for floristic inventory.
- Assess project proposals for potential impacts to Special Status Species plants and their habitats. Conduct pre-project inventories when SSS habitat is likely to occur in project area prior to ground disturbing activities.
- Monitor Special Status Species plant populations and associated habitats for population trends and threats on a project specific basis.
- Contribute data on Special Status Species plant locations, population numbers, and trends (and voucher specimens as needed) to the Northern Plant Documentation Center (University of Alaska Fairbanks Museum Herbarium) and Alaska Natural Heritage Program in a cooperative effort to build a statewide rare plant database.
- Inventory Special Status Species habitat and populations on BLM-managed lands in accordance with the ESA, on a project specific basis.

## **P. SUBSISTENCE**

### **P-1: Goals**

- Maintain and protect subsistence opportunities.
- Determine how the management actions, guidelines, and allowable uses prescribed will affect subsistence opportunities, resources, and the socio/economic environment.
- Maintain sufficient quality and quantity of habitat to support healthy populations of important subsistence species of fish and wildlife.
- The BLM will effectively manage subsistence harvests through regulations established by the Federal Subsistence Board, and in cooperation with ADF&G, other Federal agencies, the Subsistence Regional Advisory Councils, and the subsistence users.
- Ensure that rural residents engaged in subsistence use have reasonable access to subsistence resources on public lands.
- To the extent possible, minimize displacing resources from traditional harvest areas due to permitted activities.
- Avoid user conflicts over multiple use resources. Involve subsistence users in issue identification and conflict resolution.

### **P-3: Management Actions**

The opportunity for subsistence uses by rural residents on Federal public lands in Alaska is assured by law [sec. 801(1) of ANILCA]. Decisions made within this RMP will not affect the BLM's role in administration of subsistence on Federal public lands. Under all Alternatives, the BLM will continue to carry out or participate in the following administrative functions:

- **Involve Subsistence Users in Issues Identification.** Ten Subsistence Regional Advisory Councils (SRACs) were established in Section 100.22 of the Subsistence Management Regulations for Public Lands in Alaska as an administrative structure to provide a “meaningful voice” for subsistence users in the management process. The Bay planning area encompasses parts of the Bristol Bay and Yukon Kuskokwim Delta Federal Subsistence Regions. BLM field staff members as well as those of other agencies meet twice each year with both Subsistence Regional Advisory Councils to identify emerging issues in conservation, allocation, and appropriate regulation of subsistence harvests.



- **Manage Land/Habitat; Assess Impacts to Subsistence.** ANILCA Section 810 establishes a distinct set of requirements for assessment of potential impacts to subsistence from Federal land decisions. These supplement the discussion of potential impacts to subsistence resources and uses found as part of conventional NEPA environmental reviews.
- **In a Multi-agency Setting, Monitor Resource Populations Used for Subsistence Purposes.** When these monitoring efforts are focused on key subsistence resources, they are a major contribution to the quality of subsistence management efforts.
- The BLM will work cooperatively with ADF&G and other Federal agencies to implement the Mulchatna Caribou Herd Monitoring Plan, the Western Brown Bear Management Area planning group, the Arolik Moose Moratorium and Restoration Plan, the migratory bird MOU, Boreal Partners in Flight Conservation Plan, and other cooperative management efforts of which the BLM is a part.
- **In a Multi-agency Setting, Manage Subsistence Harvests through regulations established by the Federal Subsistence Board.** With heavy reliance on SRAC input and interagency coordination, the development of subsistence regulations is a multi-step process.
- All permitted activities would operate under the Stipulations, Required Operating Procedures, and Standard Lease Terms (Appendix A).

#### **P-4: Monitoring**

- Anchorage Field Office staff issue Federal subsistence permits to rural residents. As harvest reports are turned in, the information is compiled into a database maintained by USFWS. This information can be accessed to determine current harvest levels and average levels of harvest by area. BLM law enforcement works with Alaska State Troopers to ensure compliance with Federal harvest regulations.
- In cooperation with ADF&G and other Federal agencies, the BLM will monitor habitats and populations of important subsistence species to provide information necessary to develop subsistence regulations and bag limits on Federal lands, monitor priority migratory bird species, identify habitats of importance to special status species, and identify habitats for priority species.

### **Q. TRAVEL MANAGEMENT AND OHV USE**

#### **Q-1: Goals**

- Manage access to BLM-managed lands and water.
- Ensure protection of natural and cultural resources from OHV impacts.
- Improve access to appropriate recreation opportunities on BLM-managed lands and water.
- Incorporate BLM's national strategy for motorized off-highway vehicle use.
- Provide OHV access consistent with the provisions of ANILCA.
- Manage OHV access for resource development by applying Required Operating Procedures.

#### **Q-2: Management Actions**

- Manage all lands under BLM jurisdiction, including State- and Native-selected land until conveyance from BLM jurisdiction as "limited" to existing trails for OHV use.

- Vehicle weight limits for OHV activities would be to 2,000 pounds gross vehicle weight rating (GVWR includes the weight of the vehicle itself plus fuel, driver, passenger, and load).
- Consider all access to public lands, including recreational, traditional (subsistence), commercial, industrial, public roads and airstrips including motorized, non-motorized, mechanical and animal-powered modes of travel.
- Any activity-level plan or integrated activity plan (IAP) such as for an ACEC, would include a trails inventory in the activity planning area and describe specific resource concerns or conflicts, and could describe specific designated trails and trail conditions or limitations of use (seasonal, vehicle class). Such a planning process would include public, State, and Native coordination. These plans would identify and prioritize specific maintenance needs and opportunities for trail development or loops. Unencumbered BLM lands would be first priority for implementation-level planning.
- OHVs will use existing trails consistent with the State's Conditions on Generally Allowed Uses (11 AAC 96.025) (Appendix C). OHV use will be conducted in a manner that minimizes disturbance of vegetation, disturbance of soil stability, or impacts to drainage systems; changing the character of, polluting, or introducing silt and sediment into streams, lakes, ponds, seeps, or marshes; and disturbance of fish and wildlife. Snowmachines will be allowed open cross-country travel when adequate snow cover is present – that is, adequate to avoid crushing vegetation or removing ground cover.
  - All proposals for OHV management under consideration would be consistent with Section 811 of ANILCA, which allows for appropriate use for subsistence purpose.
- All proposals for OHV management under consideration would be consistent with Section 811 of ANILCA, which allows for “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.

### **Q-3: Monitoring**

- Trail inventory and assessment will be performed during development of activity-level planning (Comprehensive Trails and Travel Management Plan) to be completed within five years of signing the Bay RMP Record of Decision. Travel management and OHV use monitoring within the planning area will focus on compliance with specific route and area designation and restrictions, with primary emphasis on those routes or areas causing the highest levels of user conflicts or adverse impacts to resources. The secondary focus will be to establish trends in trail proliferation and density. Various methods of monitoring may be employed including aerial monitoring, ground patrol, and appropriate methods of remote surveillance such as traffic counters, etc. Route or area closures will be regularly monitored for compliance.
- Assess impacts of OHV trails, especially in high-use areas where riparian and wetland resources or water quality are at risk.

## **R. VEGETATION, WETLAND, and RIPARIAN HABITAT**

### **R-1: Goal**

- The BLM will maintain and protect vegetative land cover that provides for healthy fish and wildlife habitat on BLM-managed lands.
- Treatments to alter the vegetative composition of a site, such as prescribed burning, seeding, or planting will

- be based on the potential of the site and will retain or promote infiltration, permeability, and soil moisture storage;
  - contribute to nutrient cycling and energy flow;
  - help prevent the introduction and spread of invasive and noxious weeds;
  - contribute to the natural diversity of plant communities, plant community composition, and structure;
  - maintain proper functioning condition; and
  - support the conservation of Special Status Species.
- The BLM will take action to minimize the destruction, loss, or degradation of wetlands and riparian areas, and to preserve and enhance their natural and beneficial values.

## **R-2: Objectives (Desired Condition)**

A detailed description of desired land health conditions and objectives are described in Land Health Standards (Appendix A, section B). Specific objectives for obtaining desired conditions pertaining to vegetation, wetland, and riparian habitat include:

- Promote moisture storage by soil and plant conditions consistent with the potential/capability of the site.
- Hydrologic, vegetative, and erosion/depositional processes support physical functioning, consistent with the potential or capability of the site.
- Photosynthesis is effectively occurring throughout the growing season, consistent with the potential/capability of the site.
- Nutrient cycling is occurring effectively, consistent with the potential/capability of the site.

## **R-3: Management Actions**

- Vegetation treatments will be designed to achieve BLM Alaska Statewide Land Health Standards. Vegetation treatments will be designed to prevent introduction or spread of noxious weeds.
- Prescribed burn plans will contain measures to prevent the introduction and spread of weeds. Burn plans for large burns will prescribe conditions that result in a mosaic of burned or unburned areas within the burn unit. Smaller burns may not require a mosaic, dependent on objectives.
- Timber sales are not anticipated; however, should they occur, any ground disturbing equipment used in timber sales will be free of any material that could contain weed seeds and to the extent possible, rely on natural regeneration through proper site preparation.
- Permitted livestock grazing is not expected to occur; however, should it occur, it will be conducted in a manner that meets Alaska Statewide Land Health Standards and maintains long-term vegetation productivity.

## **R-4: Monitoring**

- Support monitoring and assessment of riparian areas for proper functioning condition, as defined in the BLM manual Technical Reference 1737-3. Develop maintenance and restoration projects. Priority areas will include the Carter Spit ACEC, areas known to be in need of restoration, and riparian areas within anticipated or ongoing mining activity.
- Assess impacts of OHV trails, especially in high-use areas where riparian and wetland resources or water quality are at risk.

## S. VISUAL RESOURCES

Bay Planning Area Visual Resource Management Class Objectives are described as:

- **Class III:** Partially retain the existing character of the landscape; change to the characteristic landscape should be moderate and may attract attention, but not dominate the view of the casual observer.
- **Class IV:** Provides for action that would make major modifications to the existing character of the landscape; change to the characteristic landscape can be high, dominate the view, and be the major focus of the viewer.

### S-1: Goal

Protect the quality of scenic values of these lands.

### S-2: Allocations

- Maps E-9a and b identify the location of the VRM classes across the planning area.
- BLM lands in the full visible foreground based on GIS analysis up to one-half mile from established winter trail/road systems would be managed as VRM Class III, including Goodnews to Quinhagak coastal and Arolik River routes; Goodnews Bay to Dillingham route; Dillingham to Aleknagik; Dillingham to Koliganek; Ekwok to Naknek; New Stuyahok to Levelock; and Naknek to King Salmon.
- BLM lands in the full visible foreground up to one-half mile from main river travel routes would be managed as VRM Class III, including portions of the North Fork Goodnews River; Middle Fork Goodnews River; South Fork Goodnews River; and East Fork Arolik River; Nushagak River; Kvichak River; Lower Mulchatna River; and Alagnak Wild River.
- BLM lands in the full visible foreground up to one mile from the boundaries of Togiak NWR, Becharof NWR, Katmai NPP, and Lake Clark NPP would be managed as VRM Class III. The proposed Carter Spit ACEC would be managed as VRM Class III.
- All other BLM lands would be managed as VRM Class IV.

### S-3: Management Actions

- All proposed actions within the planning area would be analyzed individually for impacts on visual resources utilizing the Visual Resource Contrast Rating System as described in BLM Manual 8431 – Visual Resource Contrast Rating. This analysis would determine if the potential visual impacts from proposed surface-disturbing activities or developments would meet VRM Inventory Class management objectives assigned for the area, or whether design adjustments would be required.
- Required Operating Procedures (Appendix A) would be used to protect VRM designations.

### S-4: Monitoring

No monitoring will be required. VRM designations will be protected as only permits compatible with designations will be approved.

## T. WATER

### T-1: Goal

- **Resource Protection** – maintain, improve, and restore the health of watersheds. Ensure that watersheds are in, or are making significant progress toward, a properly functioning physical condition that includes stream banks, wetlands, and water quality.
- **Water Quality** – meet or exceed local, State, and Federal requirements. Minimize negative impacts to soils and wetland vegetation and prevent soil erosion. Maintain desired ecological conditions as defined by the BLM Alaska Statewide Land Health Standards.
- **Resource Uses** – support planning, use authorizations, compliance, and special designations.
- **Service to Communities** – support collaboration in shared watersheds.
- **Management Excellence** – promote program financial efficiency and improve data quality, security, and availability.

### T-2: Objectives

Desired conditions are described in Land Health Standards (Appendix A, section B). Specific conditions pertaining to Water include:

- 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.
- Promote moisture storage by soil and plant conditions consistent with the potential/capability of the site.
- Hydrologic, vegetative, and erosion/depositional processes support physical functioning, consistent with the potential or capability of the site.
- Stream channel, lake bed, shoreline characteristics are appropriate for the landscape position.

### T-3: Management Actions

- In order to comply with the Safe Drinking Water Act and protect the quality and quantity of drinking water, the BLM will consult with owners/operators of potentially affected, federally-regulated public water supply systems when proposing management actions in State-designated Source Water Protection Areas. The locations of public water supply systems and Source Water Protection Areas are available from the Alaska Department of Environmental Conservation Drinking Water and Wastewater Program.
- Collect data necessary for an Alaska in-stream water reservation on water bodies having critical aquatic habitats and within the Carter Spit ACEC.
- Inventory and monitoring data should be collected according to a Quality Assurance Project Plan.” Development of a Quality Assurance Project Plan (QAPP) that meets the elements of the state and/or EPA requirements listed on the following web sites will help ensure the quality of collected data and that of other resource agencies, as well as the public, can utilize that data.
  - ADEC Quality Assurance Project Plan elements:  
<http://www.dec.state.ak.us/water/wqsar/pdfs/qappelements.pdf>.
  - EPA Requirements for Quality Assurance Project Plans:  
<http://www.epa.gov/r10earth/offices/oea/epaqar5.pdf>
- Develop a water quality monitoring program implementing U.S. Geological Survey – National Water Quality Assessment (NAWQA) protocol to determine baseline water

quality values in areas having critical aquatic habitats or 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.

- Resource protection measures (Appendix A) would be applied on a site-specific basis for permitted activities and uses that affect water.

#### **T-4: Monitoring**

Monitor water quality and quantity as needed to achieve objectives and support Management Actions.

## **U. WILD AND SCENIC RIVERS**

Within the Bay planning area, the BLM did not recommend rivers for inclusion to the Wild and Scenic Rivers system.

## **V. WILDLIFE**

Note: for Special Status Wildlife, refer to Special Status Species section

#### **V-1: Goal**

- Maintain high enough quality and quantity of habitat to support healthy wildlife populations.
- To the extent practical, mitigate impacts to wildlife species and their habitats from authorized and unauthorized uses of BLM-managed lands.
- In cooperation with Alaska Department of Fish and Game (ADF&G), ensure a natural abundance and diversity of wildlife resources and habitat.

#### **V-2: Objectives**

- 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.

#### **V-3: Management Actions**

- In cooperation with ADF&G, ensure a natural abundance and diversity of wildlife habitat to assist ADF&G in ensuring sustained populations and a natural abundance of wildlife.
- The BLM will work cooperatively with ADF&G, other Federal agencies, and adjacent land managers to implement the Mulchatna Caribou Herd Monitoring Plan, the Western Brown Bear Management Area planning group, the Unit 18 Goodnews/Arolik Moose Moratorium and Restoration Plan, the migratory bird MOU, and the Boreal Partners in Flight Conservation Plan.
- Resource protection measures (Appendix A) will be used to protect wildlife species.
- Manage fish and wildlife in accordance with BLM Alaska's Master Memorandum of Agreement with the State of Alaska (Appendix B) for management of fish and wildlife.

#### **V-4: Monitoring**

- In cooperation with ADF&G and other Federal agencies, the BLM will monitor habitats and populations of important subsistence species to provide information necessary to develop subsistence regulations and bag limits on Federal lands, monitor priority

migratory bird species, identify habitats of importance to special status species, and identify habitats for priority species.

### III. PUBLIC INVOLVEMENT

The BLM will continue to actively seek the views of the public using techniques such as news releases, mass mailings, and website postings to ask for participation and to inform the public of new site-specific planning and opportunities for comment.

The BLM will continue to coordinate and consult, both formally and informally, with various Federal and state agencies, Native governments, local agencies, and officials, communities, and groups interested and involved in the management of public lands in the Bay planning area.

### IV. MANAGEMENT PLAN IMPLEMENTATION

Plan implementation is a continuous and active process. Decisions presented in the *Management Decisions* section of this Approved Plan are of three types: Immediate, One-time, and Long-Term.

#### ***Immediate Decisions***

These decisions go into effect upon signature of the Record of Decision and Approved Plan. These include decisions such as the allocation of lands as available or unavailable for oil and gas leasing, ACEC designation, and OHV designations (open, limited or closed). Immediate decisions require no additional analysis and provide the framework for any subsequent activities proposed in the planning area. Proposals for actions such as oil and gas leasing, land adjustments, and other allocation-based actions will be reviewed against these decisions/allocations to determine if the proposal is in conformance with the plan.

#### ***One-Time Decisions***

The Comprehensive Trails and Travel Management Plan is the only “One-Time” action in the Approved Plan. This action requires additional analysis and site-specific activity planning and should be completed within five years from the date of the Record of Decision.

#### ***Implementation plans***

The following schedule will assist BLM managers and staff in preparing budget requests and in scheduling work. However, the proposed schedule must be considered tentative and will be affected by future funding, changing program priorities, non-discretionary workloads, and cooperation by partners and external publics.

- A Comprehensive Trails and Travel Management Plan (CTTMP) should be completed within five years of signing the Bay RMP/ROD.
- Assess impacts of OHV trails, especially in high-use areas where riparian and wetland resources or water quality are at risk. An initial assessment will be incorporated into the CTTMP, successive efforts and request for funding will occur based on site specific observations.
- Collect data necessary for an Alaska in-stream water reservation within the Carter Spit ACEC. This is a five year data collection effort. Funding will be requested in Fiscal Year 2009; \$20K and 1 WM/per year.

- Contract soil surveys in areas of high resource value or proposed development as needed. These efforts and request for funding will occur based on site/project-specific requirements.
- Inventories and assessments of biological and habitat resources (particularly Steller's eider) is a field office priority. The timing and scope of inventory efforts will be determined by available funding.
- An inventory of cultural and paleontological resources would be a field office priority for the proposed Carter Spit ACEC dependent upon available funding.
- Continue to conduct non-NHPA Section 106 (Cultural Resources) related inventories as funds are available.
- If proposals for grazing are received, develop allotment management plans that include grazing systems and fire management and allows for maintaining long-term native vegetative communities, composition, diversity, distribution and productivity.

## **V. ADAPTIVE MANAGEMENT/PLAN EVALUATION**

Refer to Appendix A, section A.5 for a description of adaptive management for the Bay RMP

Evaluation is a process in which the plan and monitoring data are reviewed to see if land use plan decisions and NEPA analysis are still valid and whether the RMP is being implemented. Land use plans are evaluated to determine if: (1) decisions remain relevant to current issues, (2) decisions are effective in achieving desired outcomes, (3) decisions need to be revised, (4) decisions need to be dropped, or (5) new decisions need to be made. In making these determinations, the evaluation should consider whether resource protection measures are satisfactory, whether there are significant changes in related plans of other entities, and whether there is new data of significance to the plan.

Evaluations of the RMP will be conducted every five years, unless unexpected actions, new information, or significant changes in other plans, legislation, land conveyances, or litigation triggers more frequent evaluations.

Evaluations will follow the protocols established by the BLM Land Use Planning Handbook (H-1601-1) (USDI-BLM 2005c) or other appropriate guidance in effect at the time of the evaluation.



## References

# References

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## **Appendix A: Resource Protection Measures**

# APPENDIX A

## RESOURCE PROTECTION MEASURES

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## A. INTRODUCTION

This Appendix includes the BLM's Alaska Statewide Land Health Standards, Required Operating Procedures, Fluid Leasing Stipulations, and Standard Oil and Gas Lease Terms. These resource protection measures and desired outcomes provide the side-boards to managing resources in the Bay planning area as described in the Bay RMP.

There are many Federal, State, and local laws, regulations and permitting requirements that must be met before BLM may authorize actions. The Alaska Statewide Land Health Standards, Required Operating Procedures, Fluid Leasing Stipulations, and Standard Oil and Gas Lease Terms do not include all of the requirements that already exist in the form of regulation or law. 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.

The BLM recognizes the need to maintain a healthful environment. Development of these resource protection measures further BLM's statutory responsibility to prevent unnecessary or undue degradation of the land, its resources or the environment. These resource protection measures establish standards of environmental care, which allows for environmentally responsible resource use and development.

### 1. BLM Alaska Statewide Land Health Standards

The Alaska Statewide Land Health Standards were developed by the Alaska BLM Resource Advisory Council and signed by the BLM 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.

The Alaska Land Health Standards establish goals for BLM-managed land and resource conditions in Alaska, and are criteria for land use planning decisions. BLM intends for these standards to 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.

## **2. Required Operating Procedures**

Required Operating Procedures (ROPs) 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.

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.

## **3. Fluid Leasing Stipulations**

Fluid 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. Stipulations constitute major 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. 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.

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.

The Stipulations in this Appendix were adapted from oil and gas leasing Stipulations developed for the National Petroleum Reserve-Alaska (NPR-A). For example, NPR-A Stipulations 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; additional conditions may apply through these other authorizing processes.

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 may be excepted (Instruction Memorandum 2008-032), modified, or waived by the AO, following direction in 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.

The environmental analysis document prepared for oil and gas development (e.g., Applications for Permit to Drill or sundry notices) would address any Stipulation exemptions, modifications, or waivers. 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.

#### **4. Standard Oil and Gas Lease Terms**

The Standard Oil and Gas 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 edition as applicable (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.



## **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.

## **B. BLM ALASKA LAND HEALTH STANDARDS**

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.

### **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
- fire history mapping
- fire return rate
- fire severity distribution
- animal migrations and other behavior patterns
- groundwater flow interruptions
- accumulation, distribution, incorporation of plant litter and organic matter into the soil
- animal community structure and composition
- root occupancy in the soil profile
- biological activity including plant growth, herbivory, and rodent, insect, and 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
- effects on beneficial uses (i.e., effects of management activities on beneficial uses as defined under the CWA and state regulations)
- 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
- animal community composition 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 cryptogammic 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

The Required Operating Procedures (ROPs) described in this section will be imposed by the BLM, as necessary, for all permitted activities, to achieve resource management objectives throughout the Bay Planning Area.

### 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 resspreading over tailings.

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

**ROP Soils-1d** Final shape of resspread 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**

Gradients (%)	Water Bar Spacing (in feet)		
	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](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.

#### ***Required Operating Procedure***

**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 stream 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.

### **c) 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. Additionally, the presence of caribou at the time of commencement of a temporary activity will result in the delay of temporary activities until caribou have left the area. 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.

**ROP FW-3c** Follow Federal Aviation Administration Advisory Circular (AC) 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.

**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.

**d) 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.

**e) 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).

**f) 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.

## **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 stream 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** Precautions 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. FLUID LEASING STIPULATIONS

### 1. Introduction

The following information pertaining to lease Fluid Leasing 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.

Fluid Leasing 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. Fluid Leasing 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 Fluid Leasing 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.

### 2. 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 Fluid Leasing Stipulation is necessary. Land use/management plans serve as the primary vehicle for determining the necessity for Fluid Leasing 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. Fluid Leasing 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 Fluid Leasing 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 Fluid Leasing Stipulations should be implemented when amendments or revisions of land management plans are prepared or by other appropriate means.

The uniform format for Fluid Leasing Stipulations is designed to accommodate most existing stipulations by providing space to record the local mitigation objectives.

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. Fluid Leasing Stipulations attached to noncompetitive leases require the applicant's acceptance and signature.

### 3. Definitions

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

**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.

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

**Seasonal Restriction (Timing Limitation):** 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.

## 4. Fluid Leasing Stipulation Guidance

### a. 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."

## b. Seasonal Restrictions (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.

## 5. Fluid Leasing 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	<b>Exception:</b> 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. <b>Modification:</b> None <b>Waiver:</b> None

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

Objective	Stipulation	Areas Where Stipulations Apply	Exception, Modification, Waiver
Minimize disturbance to calving caribou.	Stip-6: No exploration or development activities May 15-June 15. Production activities may occur (no work over rigs).	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.
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).	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. 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.

## **Appendix B: Master Memorandum of Understanding between ADF&G and BLM**



## MASTER MEMORANDUM OF UNDERSTANDING

BETWEEN

THE ALASKA DEPARTMENT OF FISH AND GAME  
Juneau, Alaska

AND

THE U.S. BUREAU OF LAND MANAGEMENT  
DEPARTMENT OF THE INTERIOR  
Anchorage, Alaska

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

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

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

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

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

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

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

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

THE DEPARTMENT OF FISH AND GAME AGREES:

1. To recognize the Bureau as the Federal agency responsible for multiple-use management of Bureau lands including wildlife habitat in accordance with the Federal Land Policy and Management Act, ANILCA, and other applicable law.
2. To regulate and manage use of fish and wildlife populations on Bureau lands in such a way as to maintain or improve the quality of fish and wildlife habitat and its productivity.
3. To consult with the Bureau in a timely manner and comply with applicable Federal laws and regulations before embarking on enhancement or construction activities on or which would affect Bureau lands.
4. To act as the primary agency responsible for management of all uses of fish and wildlife on State and Bureau lands, pursuant to applicable State and Federal laws.
5. To notify the Bureau of any animal damage control activities on Bureau lands; and to obtain Bureau approval for the use of pesticides, herbicides, or other toxic chemical agents in the course of animal damage control.
6. To provide all maintenance on facilities, structures, or other construction owned by the Department on Bureau lands; and to hold the Bureau harmless for liability claims resulting from these constructions, facilities, and/or structures.

THE BUREAU OF LAND MANAGEMENT AGREES:

1. To recognize the Department as the primary agency responsible for management of use and conservation of fish and wildlife resources on Bureau lands.
2. To recognize the right of the Department to enter onto Bureau lands at any time to conduct routine management activities which do not involve construction, disturbance to the land, or alterations of ecosystems.
3. To recognize the Department as the primary agency responsible for policy development and management direction relating to uses of fish and wildlife resources on State and Bureau lands, pursuant to applicable State and Federal laws.
4. To incorporate the Department's fish and wildlife management objectives and guidelines in Bureau land use plans unless such



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

5. To adopt the State's regulations to the maximum extent allowed by Federal law when developing new or modifying existing Federal regulations governing or affecting the taking of fish and wildlife on Bureau lands in Alaska.
6. To notify the Department of any portion of the Department's fish and wildlife management objectives, guidelines, or State regulations that the Bureau determines to be incompatible with the purposes for which Bureau lands are managed.
7. To manage Bureau lands so as to conserve and enhance fish and wildlife populations.
8. To inform the Department of proposed development activities on Bureau lands which may affect fish and wildlife resources, subsistence and other uses, and to provide or require appropriate mitigation where feasible.
9. To permit, under appropriate agreement or authorization, the erection and maintenance of facilities or structures needed to further fish and wildlife management activities of the Department on Bureau lands, provided their intended use is not in conflict with Bureau policy and land-use plans.
10. To recognize that the taking of fish and wildlife by hunting, trapping, or fishing on Bureau lands in Alaska is authorized in accordance with applicable State and Federal law unless State regulations are found to be incompatible with Bureau regulations.

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

1. To coordinate planning for management of fish and wildlife resources on Bureau lands and adjacent lands having common fish and wildlife resources so that conflicts arising from differing legal mandates, objectives, and policies either do not arise or are minimized.
2. To cooperate in planning, enhancement, or development activities on Bureau lands which require permits, environmental assessments, compatibility assessments, or similar regulatory documents by responding in a timely manner with requirements, time tables, and any other necessary input.
3. To consult with each other when developing or implementing policy, legislation, and regulations which affect the attainment of wildlife resource management goals and objectives of the other agency.



4. To cooperate in the management of fish and wildlife resources and habitat (including planning, regulation, enforcement, protection, restoration, research, inventories, and habitat enhancement) on Bureau lands and adjacent lands having common fish and wildlife resources consistent with the species and habitat management plans and objectives of both agencies.
5. To develop specific plans for cooperative development and joint management of habitat areas determined to be essential to the continued productivity or existence of fish and wildlife populations.
6. To consult with the Department prior to entering into any cooperative land management agreements which could affect fish and wildlife resources.
7. To cooperate in the development of fire management plans which may include establishment of priorities for the control of wild-fires, 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

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 C: Generally Allowed Uses on State Lands**

# Appendix C

## 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<sup>1</sup>. 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

<sup>1</sup> 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/](http://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, earhauger, 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 than five feet wide using only hand-held tools (such as a chainsaw), or **setting a survey marker** (setting a survey monument - a permanent, official marker - requires written survey instructions issued by the Division of Mining, Land and Water under 11 AAC 53).

Placing a residential **sewer outfall** into marine waters from a contiguous privately owned upland parcel, with the consent of the affected parcel owners, if the outfall is within the 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 as required by 11 AAC 96.018.

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

- Is not a commercial recreational camp or facility (whether occupied or unoccupied) that remains overnight
- Does not involve explosives or explosive devices (except firearms)
- Is not prospecting or mining using hydraulic equipment methods
- Does not include drilling in excess of 300 feet deep (including exploratory drilling or stratigraphic test wells on state land 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 (for instance, a special use land designation for the North Slope requires a permit for off-road vehicle use). Special Use Areas are listed in 11 AAC 96.014; more information is available on the department's website at [www.dnr.state.ak.us/mlw/sua/](http://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:**

<b>PUBLIC INFORMATION CENTER</b> 550 W. 7th Avenue, Suite 1260 Anchorage, AK 99501-3557 (907) 269-8400 TDD: (907) 269-8411	<b>DIVISION OF MINING, LAND &amp; WATER PUBLIC INFORMATION OFFICE</b> 400 Willoughby Ave., Suite 400 Juneau, AK 99801-1700 (907) 465-3400 TDD: (907) 465-3888	<b>PUBLIC INFORMATION CENTER</b> 3700 Airport Way Fairbanks, AK 99709-4699 (907) 451-2705 TDD: (907) 451-2770
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**CONDITIONS FOR GENERALLY ALLOWED USES (11 AAC 96.025)<sup>2</sup>**

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.

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<sup>2</sup> 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 McKinley 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 D: Wild and Scenic River and Areas of Critical Environmental Concern Justification**

## **Appendix D**

# **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 44 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 44 waterways for inclusion in the WSR system:

Alagnak River, Alagnak tributary, Arolik River South Fork, Bear Creek, Ben Courtney 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 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.

This analysis excludes the Kvichak River because the BLM does not have administrative interest in the water, the submerged lands (Determination of Navigability, 1985), nor the lands immediately adjacent to this water body, due to conveyance of lands. Additionally, a Recordable Disclaimer of Interest finding was issued by the Bureau of Land Management 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.

The BLM does not have jurisdiction of rivers and submerged lands determined to be navigable. In some instance these water bodies may flow across BLM managed lands. In these cases BLM jurisdiction is that of lands located above the mean-high water elevation.

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 D.1 and D.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 D.1. Summary Description of River Segments**

<b>River Segment</b>	<b>Miles (total)</b>	<b>Miles BLM</b>	<b>Comments</b>
*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.



River Segment	Miles (total)	Miles BLM	Comments
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 Courtney 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.
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.

River Segment	Miles (total)	Miles BLM	Comments
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 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.
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.
<p>* Much of the headwaters of the Alagnak are a designated national wild &amp; scenic river.</p> <p>(Note): All river waterways identified above have high quality cultural resource values in their respective regional areas. The <u>potential</u> 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.</p>			

## **Fisheries**

The ranking to evaluate the fisheries and subsistence values of the rivers to determine WSR eligibility was based on a numerical value ranging from 1 to 5.

1. a stream with fisheries populations that are examples of the best habitat and populations in the nation, and are regionally and locally important for subsistence, commercial, and recreational fishing.
2. a stream with unique concentrations of fisheries populations in the region and is highly important regionally and locally for subsistence, commercial, and recreational fishing.
3. a stream with high quality fisheries habitat and population concentrations at a regional and local level and are moderately important for subsistence, commercial, and recreational fishing.
4. a stream with common fisheries habitat and population concentrations at local or regional level or no subsistence or recreational fishing.
5. a stream in which fisheries habitat values, population concentrations, and subsistence values are unknown.

## **Scenery/ Recreation**

The ratings provided were based on recreational and scenic qualities within the following rivers, creeks, and tributaries.

### **Scenery**

1. At the national level, the areas landscape elements of landform, vegetation, water, color and related factors, which are directly river-related, result in exemplary visual features and/or attractions. The scenic values, such as seasonal variations in vegetation are extremely high and the scale of cultural modifications is very low. The length of time negative intrusions are viewed by visitors is highly minimal. Scenery and visual attractions is extremely diverse over the majority of the river.
2. The areas landscape elements of landform, vegetation, water, color and related factors, which are directly river-related, result in unique visual features and/or attractions are one of a kind at a regional level. Scenic values, such as seasonal variations in vegetation are unique and the scale of cultural modifications is low. The length of time negative intrusions are viewed by visitors is minimal. Scenery and visual attractions is uniquely diverse over the majority of the river.
3. At a regional or local level, the areas landscape elements of landform, vegetation, water, color and related factors, which are directly river-related, result in high visual features and/or attractions. Scenic values, such as seasonal variations in vegetation are also high and the scale of cultural modifications is low to moderate. The length of time negative intrusions are viewed by visitors is low to moderate. Scenery and visual attractions is highly diverse over the majority of the river.

4. The areas landscape elements of landform, vegetation, water, color and related factors, which are directly river-related, demonstrate common visual features and/or attractions at the regional or local level. Scenic values, such as seasonal variations in vegetation are also ordinary and the scale of cultural modifications may be frequent. The length of time negative intrusions are viewed by visitors is moderate. The diversity of scenery and visual attractions is common over the majority of the river.
5. The areas scenery and visual resources in the area are unknown.

## Recreation

1. Recreational opportunities are, or have the potential to be, popular enough to attract visitors from throughout or beyond the region of comparison or are exemplary or rare at a national level. Visitors are willing to travel extremely long distances to use the river resources for recreational purposes. River-related opportunities include rare sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting and boating. Interpretive opportunities are highly exceptional and attract, or have the potential to attract, visitors from outside the region of comparison. The river may provide, or have the potential to provide, settings for national usage, such as competitive or commercial events.
2. Recreational opportunities are, or have the potential to be, popular enough to attract visitors from throughout or beyond the region of comparison or are unique and one of a kind at a regional level. Visitors are willing to travel long distances to use the river resources for recreational purposes. River-related opportunities include unique sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting and boating. Interpretive opportunities are exceptional and attract, or have the potential to attract, visitors from outside the region of comparison. The river may provide, or have the potential to provide, settings for regional usage, such as competitive or commercial events.
3. Recreational opportunities are, or have the potential to be, popular enough to attract visitors from the regional and/or local level. Visitors are willing to travel moderate to local distances to use the river resources for recreational purposes. River-related opportunities include high quality sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting and boating. Interpretive opportunities are also high and attract, or have the potential to attract, visitors from the region or local area. The river may provide, or have the potential to provide, settings for regional or local usage, such as competitive or commercial events.
4. Recreational opportunities are, or have the potential to be, popular enough to some visitors from the regional and/or local level. Visitors are willing to travel moderate to local distances to use the river resources for recreational purposes. River-related opportunities include common sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting and boating. Interpretive opportunities are also common and attract, or have the potential to attract, visitors from the region or local area. Common recreation resources in the same regional area may not attract local usage, such as competitive or commercial events.
5. The recreation opportunities in the area are unknown.

## **Wildlife/Subsistence**

Both Subsistence and Wildlife were grouped together for the purpose of this evaluation since chapter 3 discussion was referenced in the same manner. Subsistence is unique to Alaska and cannot be considered a National level exemplary of resource management Nationwide and is unique to Alaska. The ranking to evaluate the wildlife and subsistence values of the rivers to determine WSR eligibility was based on a numerical value ranging from 1 to 5:

1. a stream with the existence of wildlife populations that are examples of the best habitat and populations in the nation, and is regionally and locally important for subsistence hunting
2. a stream with unique concentrations of wildlife populations that is one of a kind in the region and is regionally important for subsistence hunting
3. a stream with high quality wildlife habitat and population concentrations at a regional and local level and is important for subsistence hunting
4. a stream with common wildlife habitat and population concentrations at local or regional level or is important for subsistence hunting
5. a stream in which wildlife habitat values, population concentrations and subsistence values are unknown.

## **Cultural/Historic**

The ranking system used for these rivers, creeks, and tributaries was based on a numerical value ranging from 1 to 5. The criteria for evaluation of cultural resources on proposed wild & scenic rivers within the Bay RMP are listed below.

1. there is an observable settlement pattern of cultural sites (either eligible for listing on National Register of Historic Places individually or as a group), and/or sites exhibiting evidence of two or more cultures using the area, and/or an area of religious or cultural significance for local population (TCP eligible)
2. there is at least one site eligible for listing and high potential for more
3. no cultural resources are known for this segment, but there is high potential for cultural resources. High potential for cultural resources in this area includes: well drained areas adjacent to salmon streams/rivers, inlets/outlets to lakes that do not freeze to bottom in the winter; overlooks where game herds would funnel through a natural constriction such as a valley
4. no cultural resources are known within such segments, but there is medium potential for cultural resources
5. no cultural resources are known within such segments, and there is low potential for cultural resources. Low potential for cultural resources in this area includes: poorly drained areas, areas not adjacent to trout or salmon streams, streams draining from lakes that freeze to the bottom in winter, steep slopes of over 30 degrees

After comparative ranking the river resources, the miles of stream on unencumbered BLM land was determined. This determination was added to the matrix in order to prevent biasness toward BLM managed rivers during the ranking process. Rivers that did not receive a ranking of 1 or 2 were immediately removed from the eligibility determination process due to no ORV. Rivers receiving a ranking of 1 or 2 that do not flow through unencumbered BLM managed lands were removed from the eligibility determination process. Rivers that are free flowing, determined to have an ORV(s), and flowed through unencumbered BLM managed lands were determined to be eligible as per the Wild and Scenic River Act of 1968.

**Table D.2. Comparison of Relative Resource Values of River Segments**

<b>River Segment</b>	<b>Cultural (potential)</b>	<b>Historic</b>	<b>Fish Habitat</b>	<b>Scenic</b>	<b>Recreation</b>	<b>Sub-sistence</b>	<b>Wildlife</b>
*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
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

River Segment	Cultural (potential)	Historic	Fish Habitat	Scenic	Recreation	Sub-sistence	Wildlife
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 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
Nushagak tributary	3	3	3	4	3	3	3
Ole Creek	3	3	4	3	3	3	3
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
<b>Key to Ratings:</b> 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.							

The resource evaluations conducted and documented within Table D-2 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 44 Waterways**

Table D.3 summarizes the eligibility determinations of the 44 waterways that were screened during the eligibility study. Though all forty four rivers are free flowing, forty one waterways were found ineligible and dropped from further study, lacking a requisite ORV. 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 D.3. Summary of River Segment Eligibility and Tentative Classification**

<b>River Segment</b>	<b>Percent BLM</b>	<b>Comments</b>
*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 Courtney 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 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
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.		

## **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's administrative jurisdiction applies to 0.0 miles of this 98.4 mile waterway. Approximately 0.10 river miles (determined navigable) passes through BLM-managed/Native-selected uplands. The Alaganak River earned a 2 value for fish habitat because of the quality of anadromous and resident fish including fish habitat. Recreation received a 2 value, which is described by the National Park Service as one of the most popular fly-in fisheries in southwest Alaska. The river supported 2133 visitor days of fishing and floating in the NPS managed upper 56 miles of river alone. 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's administrative jurisdiction applies to 0.0 miles of this 15.1 mile river. Unique fisheries and subsistence resource values in the regional area. The Goodnews River earned a 2 value because of the quality of anadromous and resident fish including fish habitat. The Goodnews River earned a 2 value for subsistence, exhibiting a crucial salmon fishery for supporting an entire region for subsistence uses. It is the major regional resource in extreme Southwest Alaska and also includes a portion of Togiak National Wildlife Refuge and is a part of the Federal Subsistence Program. The Goodnews River is a crucial Bering Sea fishery because of its large anadromous fish populations, sport and commercial fishing, and subsistence dependence of international, national, and in-state importance. The fish provide a large part of sustaining the terrestrial wildlife ecosystem as well.

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 Managers: 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 Goodnews River earned a 2 value because of the quality of anadromous and resident fish including fish habitat. The Middle Fork is the main tributary and parallels the mainstem of the Goodnews River for its entire length and joins near the mouth.

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 D.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 D.4, which relates attributes of the three river classifications under the national Wild and Scenic River system.

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

<b>Wild</b>	<b>Scenic</b>	<b>Recreational</b>
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 BLM selected lands. The BLM does not have administrative jurisdiction of the water, submerged lands, and terrestrial lands adjacent to the 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. Administrative jurisdiction of the Alagnak River belongs to the State of Alaska who has expressed disinterest in WSR designation, though local support for WSR designation was expressed. Due to expected land conveyance and the lack of jurisdiction, the BLM would not have the ability to manage the river for protection of identified values. Segments of the Alagnak River are currently designated as a national wild and scenic river.

**Goodnews River (mainstem): Unsuitable.** BLM manages 0.0 miles of this 15.1 mile river. The BLM does not have administrative jurisdiction of the water and submerged lands, and terrestrial lands adjacent to the river. The BLM managed terrestrial lands adjacent to the Goodnews River are both Native and State priority selected so long-term retention of federal ownership and management is unlikely. Administrative jurisdiction of the Goodnews River belongs to the State of Alaska who has expressed disinterest in WSR designation, though local support for WSR designation was expressed. Due to expected land conveyance and the lack of jurisdiction, the BLM would not have the ability to manage the river for protection of identified values.

**Goodnews River Middle Fork: Unsuitable.** BLM manages 0.0 miles of this 38.6 mile river. The BLM does not have administrative jurisdiction of the water and submerged lands, and terrestrial lands adjacent to the river. The BLM managed terrestrial lands adjacent to the Goodnews River middle fork are both Native and State priority selected so long-term retention of federal ownership and management is unlikely. Administrative jurisdiction of the Goodnews River middle fork belongs to the State of Alaska who has expressed disinterest in WSR designation, though local support for WSR designation was expressed. Due to expected land conveyance and the lack of jurisdiction, the BLM would not have the ability to manage the river for protection of identified values.

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 and protests from the Final 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 have administrative jurisdiction for any portions of the three eligible rivers 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 jurisdiction. Each of the eligible rivers are found unsuitable for inclusion in the National WSR System due to current status of land ownership, the State of Alaska's interests in non-designation, and the BLM's inability to manage the river and protect identified values.