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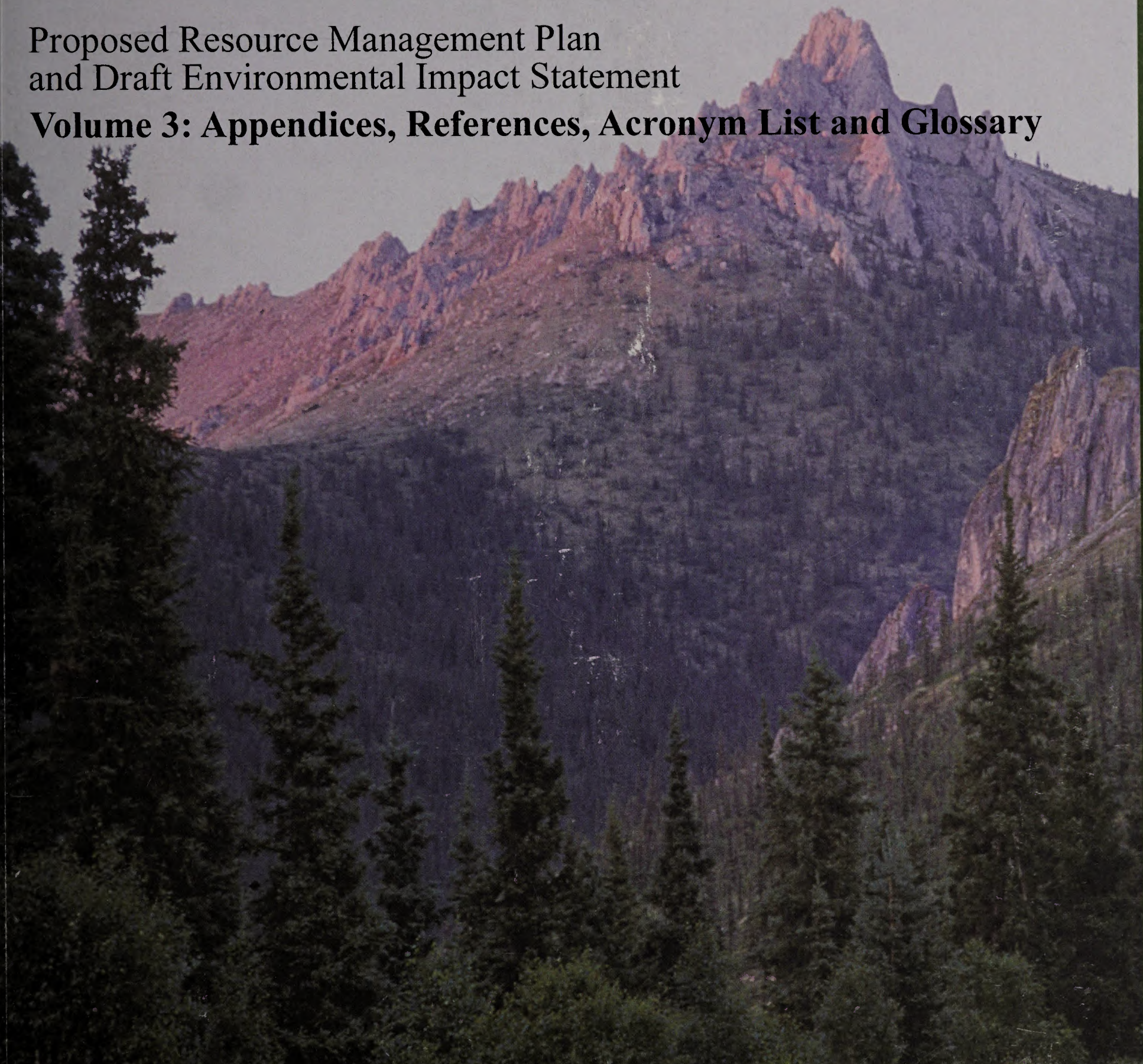
BLM

Eastern Interior

February 2012

Proposed Resource Management Plan
and Draft Environmental Impact Statement

Volume 3: Appendices, References, Acronym List and Glossary



Eastern Interior Field Office, Alaska



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BLM Cover Photos:

1. Alpenglow on the White Mountains, Beaver Creek Wild and Scenic River, Alaska.
2. Steele Creek Roadhouse, Fortymile Wild and Scenic River, Alaska.
3. Dall Sheep at mineral lick near Lime Peak, White Mountains National Recreation Area, Alaska.
4. Mining operation on Walker Fork in Fortymile mining district, Alaska.

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Eastern Interior

Draft Resource Management Plan and Environmental Impact Statement

Volume 3

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Prepared by the
 U.S. Department of the Interior
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Appendix A

ROPs and

Stipulations

Appendix A. Required Operating Procedures and Fluid Mineral Leasing Stipulations

A.1. Introduction

The BLM has developed measures to protect resources called “Required Operating Procedures” (ROPs) and “Fluid Mineral Leasing Stipulations” (Leasing Stipulations) as part of this planning process. These measures were guided by the standards and guidelines included in the Alaska Statewide Land Health Standards (IM AK 2004-023) and by the goals outlined in this RMP/EIS. The ROPs are requirements, procedures, management practices, or design features that the BLM will adopt to protect resources. Leasing Stipulations are requirements to reduce impacts to natural resources from fluid mineral exploration and development. The ROPs and Leasing Stipulations generally do not restate requirements that already exist in regulations or laws. Regulations or laws may require conditions that are more stringent than those presented in this section.

A.1.1. Required Operating Procedures

Required Operating Procedures (ROPs) apply to all actions, whether implemented by the BLM or authorized by the BLM and implemented by another individual, organization or agency on public land. These were based on the best information available during development of the RMP/EIS.

ROPs are common to all action alternatives and will be applied as appropriate for BLM actions and BLM-authorized activities including: FLPMA leases and permits; Special Recreation Permits; oil and gas activities; coal activities; renewable energy activities; mining Plans of Operation; and, authorizations for rights-of-way. For fluid mineral leasing activities, ROPs would apply in addition to the Standard Lease Terms and Leasing Stipulations. Only those ROPs concerning resources that are potentially affected by the action will be applied to permits and authorizations. The ROPs may be modified through site-specific analysis of subsequent authorizations. Modifications to ROPs may be appropriate if other measures are taken to protect resources that would result in the same or reduced impact.

The Authorized Officer (AO) or their representative is responsible for ensuring that the intent of the ROPs presented in this RMP/EIS are followed and that permittees comply with the conditions of their authorization. Non-compliance will be documented and a notice will be sent to the permittee, along with corrective actions and a time frame in which the actions are to be completed.

A.1.2. Fluid Mineral Leasing Stipulations

Fluid Mineral Leasing Stipulations (Leasing Stipulations) are specific to fluid mineral activity, including exploration, development, and production. These Leasing Stipulations are included in a lease in addition to the Standard Lease Terms. Fluid minerals include oil and gas, geothermal, and coal bed natural gas. Leasing Stipulations constitute significant restrictions on the conduct of operations under a lease.

Additional site-specific Leasing Stipulations may be added, if determined necessary, through further analysis. Since no fluid leasing is assumed during the life of this plan, leasing may only occur following additional NEPA analysis. Additional stipulations may be developed at that time.

Leasing Stipulations may be excepted, modified or waived by the AO pursuant to 43 CFR 3101.1-4 and WO-IM-2008-032. The environmental analysis prepared for fluid mineral development (such as Applications for Permit to Drill or sundry notices) will address proposals to except, modify, or waive a Leasing Stipulation. To except, modify, or waive a stipulation, the environmental analysis 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. An exception exempts the holder of a lease from the Leasing Stipulation on a one-time basis. A modification changes the language or provisions of a Leasing Stipulation, either temporarily or for the term of the lease. A waiver permanently exempts the Leasing Stipulation.

Compliance with Leasing Stipulations is monitored by the AO or their representative. Non-compliance may result in monetary fines or operation shut-down.

A.1.3. Standard Lease Terms

All fluid mineral leases will include the Standard Lease Terms contained in BLM Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, October 1992 or later addition. The Standard Lease Terms provide the lessee the right to use the leased land to explore for, drill for, extract, remove, and dispose of fluid mineral deposits located under the leased lands. The Standard Lease Terms also require that operations be conducted in a manner that minimizes impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users.

A.2. Required Operating Procedures

A.2.1. Cultural and Paleontology

ROP C-1 For permitted activities, cultural resource protection and conservation will be consistent with 1) Sections 106, 110, and 101d of the National Historic Preservation Act (1966, as amended); 2) procedures under BLM's 1997 National Programmatic Agreement for Section 106 compliance or its successor agreement; and, 3) the 1998 Protocol for Managing Cultural Resources in Alaska between BLM-Alaska and the Alaska State Historic Preservation Officer (SHPO) or its successor agreement.

ROP C-2 Mitigation measures will be considered for all actions that may potentially affect cultural resources. If the AO determines mitigation measures are necessary to protect and conserve known cultural resources, a mitigation plan will be approved by SHPO and implemented by the AO. Mitigation plans will be reviewed as part of Section 106 consultation for National Register of Historic Places 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. Costs for mitigation will be borne by the land use applicant.

ROP C-3 The BLM will evaluate the impacts of proposed actions to known paleontological resources. If damage to known significant paleontological resources cannot be avoided, the applicant (or the BLM for internal actions) will perform scientific examination of the impacted significant paleontological resources followed by mitigation approved by the AO. This may include the professional collection and analysis of significant specimens by scientists.

A.2.2. Fish and Aquatic Species

ROP FA-1 No road crossings will be permitted in priority fish species spawning habitat, unless no feasible alternative exists.

ROP FA-2 New, replacement, and reconstructed stream crossing structures (such as bridges and culverts) will be designed to:

- Accommodate a 100-year flood event, including bedload and debris;
- Maintain fish and aquatic organism passage;
- Maintain channel integrity;
- Accommodate mean bankfull channel widths; and,
- Incorporate adjacent reclamation (such as willow cuttings, wattles, brush layering) on the disturbed areas up and downstream of the abutments.

ROP FA-3 Application of pesticides and other toxicants will occur in a manner that does not prevent or retard attainment of desired conditions or adversely impacts priority aquatic species.

ROP FA-4 Drilling is prohibited in fish-bearing rivers and streams, as determined by the active floodplain; and fish-bearing lakes, except where the applicant can demonstrate on a site-specific basis that impacts would be minimal or it is determined by the AO that there is no feasible or prudent alternative.

ROP FA-5 When feasible, all water intakes will be screened and designed to prevent fish intake.

ROP FA-6 Reclamation plans for the rehabilitation of fish habitat as required under 43 CFR 3809.420(b)(3)(ii)(E) will focus on three objectives. Typically, these requirements would be satisfied through the development of a site-specific reclamation plan and on achievement of reclamation objectives. Bond release would be based on meeting specific measurable objectives outlined in a monitoring plan (43 CFR 3809.401(b)(3)). These objectives are:

1. Provide a stable channel form that is in balance with the surrounding landform such that channel features are maintained and the stream neither aggrades nor degrades. To achieve this, it will be necessary to design a post-mining stream channel using morphological characteristics of the pre-disturbance channel and floodplain (such as bankfull and floodprone dimensions, meander patterns, design flows and velocities, riffle-to-pool ratios, substrate particle sizes, and so on); which could be derived from field surveys of the area, remotely sensed information, and/or information from adjacent watersheds that exhibit similar characteristics as the watershed proposed for mining.
2. Provide sufficient riparian vegetation or anchored rocks/logs to effectively dissipate stream energy, prevent soil erosion, stabilize streambanks, provide essential nutrient input, and maintain water quality and floodplain function.
3. Provide instream habitat complexity similar to that of pre-disturbance levels through the use of instream structures (such as vortex rock weirs, cross-vane structures, and installation of root wads).

ROP FA-7

Within Riparian Conservation Areas and the Salmon Fork ACEC, baseline hydrological data adequate to characterize the seasonal flow patterns and discharge will be required prior to surface-disturbing activities with the potential to affect stream channel integrity; reduce riparian functioning condition; or, reduce the Watershed Condition Rating. The BLM will be available to advise operators on the exact type of information and detail needed to meet this requirement. Reclamation plans will be designed to result in rehabilitation of habitats within an accelerated timeframe (such as less than three years) and will focus on active revegetation and streambank stabilization techniques as the basis for reclamation design.

A.2.3. Forestry

ROP Forest-1 Timber sale authorizations will require the proper site preparation to ensure natural regeneration of timber stands.

ROP Forest-2 Timber sales will include buffers to prevent disturbance of priority fish species habitat and sedimentation into streams. Buffer widths will be dependent on harvest method, season of harvest, equipment used, slope, vegetation, and soil type. Winter operations will be considered in order to avoid the need for road building and reduce impacts to soils, vegetation, and riparian areas.

A.2.4. Hazmat and Waste Management

ROP Hazmat-1 Areas of activities will be left clean of all debris to minimize environmental contamination from solid waste.

ROP Hazmat-2 All solid wastes, including incinerated ash, will be removed by the permittee from public lands and disposed of within an Alaska Department of Environmental Conservation (ADEC) approved facility, unless otherwise specified. Solid waste combustibles may be incinerated in a contained and controlled manner, however, burn restrictions may apply during high-risk wildland fire seasons. Burial of solid waste is not authorized on public lands.

ROP Hazmat-3 Wastewater should be managed in accordance with Title 18 Alaska Administrative Code, Chapter 72, (18 AAC 72) Wastewater disposal. Wastewater can be defined as human wastes (sewage) and gray water (wastewater from a laundry, kitchen, sink, shower, bath or other domestic sources). Pit privies are authorized in accordance with 18 AAC 72.020(b)(c)(i), 72.030 and all applicable updates. If these standards cannot be met, then special authorization may be given by the AO. Gray water may not be released in any waterbody, without authorization under the Alaska Pollutant Discharge Elimination System (APDES). Gray water may be filtered and released to the surface so as not to cause erosion, and the grey water released must maintain compliance with the ADEC's guidance.

ROP Hazmat-4 All hazardous materials and petroleum, oil, and lubricants (POLs) will be stored in containers that are compatible to the material being stored. Containers will be labeled with the responsible party's name, contents of the container, the date the product was purchased, and the date the container was filled.

ROP Hazmat-5 Transportation and storage of POLs will be handled in a safe manner to avoid impacts to the environment and human health. The storage area for any POLs must be approved by the AO.

ROP Hazmat-6 POLs that are transferred to remote locations for operations are to be stored within a containment area constructed to contain 110 percent of the volume of the largest container. The containment area must be lined with an impermeable liner which is free of cracks or gaps, compatible with the contents to be stored, and sufficiently impervious to contain leaks or spills. The containers shall be covered to eliminate the collection of rainwater within the containment area throughout the storage period.

ROP Hazmat-7 All hazardous materials/toxic substances must be disposed of in accordance with EPA and ADEC regulations at the time of disposal.

ROP Hazmat-8 Transfer of POLs to equipment will be completed in a secure manner to minimize the possibility of contamination to the surrounding environment. At a minimum, POL-type absorbent pads will be placed under the transfer location to catch overflow or assist the operator in containing a spill. If refueling cannot be avoided within riparian habitat, 500 feet of fish-bearing waterbodies, or 100 feet of non-fish bearing waterbodies; the responsible party must exercise caution while refueling to ensure no release of POLs into the waterbody. Equipment that has been identified as having a fluid leak must have a drip basin placed under the leak area to ensure no release to the surrounding environment or collection of rain water.

ROP Hazmat-9 Equipment maintenance by the responsible party may be allowed if it is necessary to operate equipment as described in the authorization. Equipment maintenance that has the potential to release fluids should be completed over an impermeable liner to ensure fluid migration to the environment does not occur.

ROP Hazmat-10 A Spill Prevention, Control and Countermeasure Plan (SPCC) will be written for all sites which have the potential to store 1,320 gallons or more of POLs. SPCCs will follow the requirements in 40 CFR 112 and state regulations.

ROP Hazmat-11 All spills will be contained and cleaned up in accordance with ADEC guidance as soon as the release has been identified, unless health and safety of personnel is at risk. ADEC discharge notifications and reporting requirements are outlined in AS 46.03.755 and 18 AAC 75 Article 3. The release of POLs to any waterbody must be immediately reported to ADEC, as soon as the person has knowledge of the release. The responsible party will contact the AO within 48 hours of a spill on public lands. Notifying the EPA may be required for discharges of oil, as required by 40 CFR 112.4.

A.2.5. Mineral Materials

ROP MM-1 Use existing upland material sources that meet suitability and economic needs whenever possible. Using material from wetlands, lakes, and active or inactive floodplains will be avoided, unless no feasible upland alternative exists. Sales or permits for in-stream gravel extraction within an active channel will not be allowed in priority fish species spawning habitat.

ROP MM-2 When authorizing mineral material sale sites, avoid habitats critical to local fish or wildlife populations (such as fish spawning and overwintering, calving areas, or raptor nesting sites). Avoid key geomorphic features, such as the river cut banks and associated riparian zones; springs; active channels of small, single channel rivers; and, wetlands.

ROP MM-3 When authorizing mineral material sale sites, avoid priority plant species and communities. If sales are authorized in vegetated areas all overburden, vegetation mats and debris will be saved and appropriately stored for use during site reclamation to facilitate vegetative recovery.

ROP MM-4 When scraping gravel in active or inactive floodplains, maintain buffers that will constrain active channels to their original locations and configurations.

A.2.6. Soils

ROP Soils-1 Save all organic material in a separate area from overburden (defined in 43 CFR 23.3 (d)) for future use.

ROP Soils-2 Stockpiled soil and overburden will be spread over mine tailings and stabilized to minimize erosion. The shape of contoured tailing and overburden should approximate the shape of surrounding terrain.

ROP Soils-3 Roadways will be ditched on the uphill side. Culverts or low water crossings will be installed at suitable intervals. Spacing of drainage devices and water bars will be appropriate for the road gradient and soil erodibility of the site.

ROP Soils-4 Design roads and trails for minimal disruption of natural drainage patterns.

ROP Soils-5 Roads and trails should avoid areas with unstable or fragile soils.

ROP Soils-6 Water bars will be placed across reclaimed roads. Spacing will be dependent on road gradient, soil erodibility, and other site-specific factors.

ROP Soils-7 Snow and ice bridges will be removed, breached, or slotted before spring break-up. Ramps and bridges will be substantially free of soil and debris.

ROP Soils-8 Overland moves and heavy equipment use:

- Whenever possible, overland moves that are a part of permitted operations will occur during winter when frost and snow cover is sufficient to minimize vegetation and soil disturbance and compaction. The AO will determine the date when sufficient frost and snow cover exists and no overland moves should occur until these conditions are met.
- Design and locate winter trails and ice roads for overland moves to minimize compaction of soils and breakage, abrasion, compaction, or displacement of vegetation.
- Clearing of drifted snow is generally allowed, to the extent that vegetative ground cover is not disturbed.
- Offsets of winter trail/ice road locations may be required to avoid using the same route or track each subsequent year.
- When access is required in snow-free months, routes that utilize naturally hardened sites will be selected to avoid trail braiding and wetlands will be avoided. The permittee will employ vehicle types and methods that minimize vegetation and soil disturbance, such as use of air or water craft, utilizing existing roads or trails, or use of low ground pressure vehicles.
- The use of heavy machinery in saturated soil conditions will be limited to low ground pressure designated machinery.

A.2.7. Special Status Species

ROP SS-1 The planning area may contain or be identified with Special Status Species or their habitats. The BLM may require actions to avoid or minimize impacts to Special Status Species, pursuant to BLM policy and Endangered Species Act consultation.

ROP SS-2 Where practical, use may be redirected to protect Special Status Species habitat; to enhance indigenous animal population; or, to otherwise maintain public land health through avoidance of sensitive habitat. If impacts to Special Status Species (populations and habitats) cannot be avoided, the applicant (or the BLM for internal actions) will develop mitigation measures to reduce impacts.

ROP SS-3 Where populations or individual sensitive status plant species are located, take measures to protect these populations or individuals through site-specific buffers or management prescriptions. Route new roads and trails away from known sensitive plant communities, with minimum 100-foot buffers; and minimize summer cross-country OHV travel where there are sensitive plants.

A.2.8. Subsistence

ROP Sub-1 For externally generated actions, the BLM may require applicants to provide information to potentially affected subsistence communities regarding the timing, siting, and scope of a proposed activity; and to consult with the potentially affected subsistence communities about ways to minimize impacts to subsistence. If these consultations occur, the applicant may be required to provide documentation of their consultation efforts to the BLM.

A.2.9. Vegetation and Non-Native Invasive Species

ROP Veg-1 All vegetation treatments and revegetation of surface disturbance will require an approved site-specific plan designed to prevent the introduction of non-native invasive plants (NIP), and achieve desired conditions. These plans should describe current vegetative conditions: including plant community composition, structure, cover, seral stages, soil descriptions, age class distribution if applicable, and presence of NIP, desired vegetative conditions (based on the ecological capability of the site), treatment methods, measures for preventing introduction and spread of NIP, and monitoring actions. Whenever possible, treatments will use native vegetation and seed. Non-native vegetation and seed may be used with specific approval from the AO, and in the following cases (1) where native species are not available in sufficient quantities; (2) where native species are incapable of maintaining or achieving the objectives; or, (3) where non-native species are essential to the functional integrity of the site. Seed must meet Alaska certification standards (11 AAC 34.020 Prohibited and Restricted Noxious Weeds) and any amendments to the existing seed laws or new seed legislation.

ROP Veg-2 Existing roads and trails will be utilized for access where feasible, rather than creating new roads and trails. All road or trail construction must include a plan for reclamation similar to a vegetation treatment plan in ROP Veg-1 above. It should also include best management practices for revegetation of cuts and fills and minimize off-site sediment transport impacts. Construction of road or trails in wetlands and floodplains will be avoided.

ROP Veg-3 Destruction of the vegetative mat and associated vegetation will not be authorized, unless the AO determines that no feasible alternative exists. In those cases the AO will require that the vegetative mat and topsoils be salvaged and appropriately stored and used for reclamation. If the AO decides that vegetative mat and topsoils cannot be salvaged, other measures to protect vegetation and soils will be considered. Plans for revegetation of surface disturbances will be clearly addressed during authorization of an action.

ROP Veg-4 Design and locate permanent facilities to minimize the development footprint.

ROP NIS-1 To eliminate, minimize, or limit the spread of noxious and non-native invasive plants, only feed and mulch (hay cubes, hay pellets, or straw, for example) certified as weed-free through the Alaska Weed-Free Forage certification program (or other programs with approval of the AO) will be authorized on BLM lands. Where Alaska certified sources are not available, locally produced forage and mulch may be used with approval from the AO. If no certified weed-free or local sources are available, other products may be used with the approval of the AO.

ROP NIS-2 To eliminate, minimize, or limit the spread of noxious and non-native invasive plants, only gravel and material certified as weed-free through the Alaska Weed-Free Gravel certification program will be authorized on BLM lands. Where weed-free gravel and materials are not available other sources may be used, with the approval of the AO.

ROP NIS-3 Fire management actions, including prescribed fire operations, wildland fire suppression and fire rehabilitation efforts, will protect burned and adjacent areas from the introduction and spread of non-native invasive plants. Protection may include the use of washing stations with a containment system.

ROP NIS-4 Employ measures outlined in the most current Alaska Aquatic Nuisance Species Management Plan (ADF&G 2002a) and the most current Interim Fire Operations Guidance to Prevent Spread of Aquatic Invasive Species (USFS 2011) to reduce the introduction and spread of Aquatic Nuisance Species.

ROP NIS-5 All actions implemented or authorized by the BLM will include measures to prevent the introduction and spread of non-native invasive species, if applicable to the site.

A.2.10. Visual Resource Management

ROP VRM-1 To the extent practicable, all facilities and activities will be located away from roads (except access roads), rivers, trails, and other transportation features; using distance to reduce the facility's visual impact along travel corridors.

ROP VRM-2 All facilities and activities will be designed to meet the visual resource management class, using proper siting and location so that natural features of vegetation and landforms provide screening from travel corridors and other key observation points, and to blend with the natural surroundings.

ROP VRM-3 The modification or disturbance of landforms and vegetative cover will be minimized. Facilities and activities will be designed to reduce unnecessary disturbance.

ROP VRM-4 Facilities and activities will be designed so their shapes, sizes, colors, and textures harmonize with the scale and character by repeating the elements of line, form, color and texture of the surrounding landscape, where possible.

ROP VRM-5 In open exposed landscapes, development will be located in the opposite direction from the primary scenic views, where feasible.

A.2.11. Water, Riparian, and Wetlands

ROP Water-1 Where instream operations are authorized, streams must be diverted using an appropriately sized bypass channel.

ROP Water-2 In mining operations and fluid mineral leasing operations, all process water and ground water seeping into an operating area must be treated appropriately (i.e., use of settling ponds) prior to re-entering the natural water system.

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

ROP Water-4 Streams altered by channeling, diversion, or damming will be restored to a condition that will allow for proper functioning of the riparian zone and stream channels. Active streams will be returned to the natural water course or a new channel will be created at its lowest energy state (valley bottom) that approximates the old natural channel in shape, gradient, and meander frequency using a stable channel design.

ROP Water-5 All permitted operations will be conducted in such a manner to not block any stream or drainage system.

ROP Water-6 Structural and vegetative treatments in riparian and wetland areas will be compatible with the capability of the site, including the system's hydrologic regime, and will contribute to maintenance or restoration of proper functioning condition.

ROP Water-7 Projects requiring the withdrawal of water will be designed to maintain sufficient quantities of surface water and contributing groundwater to support fish, wildlife, and other beneficial uses.

ROP Water-8 State-designated stream crossings will be used where possible for vehicle travel. Stream crossings are online at <http://www.habitat.adfg.alaska.gov/gpvehstreamxings.php>, noted under the General Permits Index-Authorized Vehicle Stream Crossings

ROP Water-9 Rivers and streams will be crossed by vehicles at shallow riffles from point bar to point bar, where possible.

ROP Water-10 When a stream must be crossed, the crossing will be as close to possible to a ninety degree angle to the stream. Stream crossings will be made at stable sections in the stream channel, based on Rosgen channel type evaluations.

ROP Water-11 Disturbed stream banks will be recontoured and revegetated (or other protective measures will be taken) to prevent soil erosion into adjacent waters.

A.2.12. Wildland Fire Management

ROP FM-1 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-2 The BLM will not be held responsible for protection of permittees' structures or their personal property from wildland fire. It is the responsibility of permittees and lessees to mitigate and minimize risk to their personal property and structures from wildland fire, following the conditions in their permit.

ROP FM-3 Gas-powered equipment must be equipped with manufacturer approved and functional spark arrestors.

ROP FM-4 To avoid the potential impacts to aquatic life, the BLM prohibits the use of fire retardant, except when necessary to protect human life, permanent year-round residences, national historic land-marks, structures listed or eligible for the National Register of Historic Places, government facilities, other designated sites or structures, or high-value resources on adjacent lands. Water will be used instead of fire retardant where possible or appropriate. The use of fire suppressant foams is prohibited. Fisheries staff will be involved with decisions to deliver chemical retardant, additives to, or grey water discharge into surface waters.

ROP FM-5 The use of tracked or off-road vehicles in wildland fire suppression or management activities will be conducted in a manner that does not cause erosion, riparian area damage, water quality or fish habitat degradation, or contributes to stream channel sedimentation.

ROP FM-6 Off-road use of heavy equipment and other motorized vehicles requires approval of the AO.

ROP FM-7 Rehabilitate burned areas in accordance with the wildland fire-specific rehabilitation plan provided by the Field Office to the suppression agency.

ROP FM-8 Firelines to mineral soil will not be built in or around riparian areas; unless they are needed to protect life, property, and/or wetland resources. Use natural features as preferred firebreaks over firelines constructed to mineral soil. When possible, use hand crews to construct firelines within (or adjacent to) riparian areas.

ROP FM-9 To the extent practicable, select the location for incident bases, camps, helibases, and so on to avoid riparian areas.

A.2.13. Wildlife

ROP Wild-1 Design pipelines and roads to allow the free movement of wildlife and the safe, unimpeded passage of the public while participating in traditional subsistence activities. The currently accepted design practices are: 1) Above-ground pipelines will be elevated a minimum of seven feet, measured from the ground to the bottom of the pipeline at vertical support members, to facilitate human and wildlife movement under the pipe; 2) In areas where facilities or terrain may funnel caribou movement, ramps over pipelines or buried pipelines may be required; and, 3) Where feasible, maintain a minimum distance of 500 feet between above-ground pipelines and roads.

ROP Wild-2 Prior to development of large facilities, the AO may require development of an ecological land classification map of the development area. The map will integrate geomorphology, surface form, and vegetation at a scale, level of resolution, and level of positional accuracy adequate for detailed analyses of development alternatives and facility siting options. The map will be prepared in time to plan one summer season of ground-based wildlife or vegetation surveys, if deemed necessary by the AO, before approval of exact facility location and facility construction.

ROP Wild-3 Whenever possible, operations that require vegetation removal will avoid the migratory bird nesting period of May 1 to July 15 (USFWS Advisory: Recommended Time Periods for Avoiding Vegetation Clearing in Alaska to Protect Migratory Birds. September 2007). If NEPA analysis reveals that this would unacceptably compromise project objectives or logistical feasibility, potential impacts must be identified, and mitigation applied that are appropriate to the magnitude and duration of expected effects. Assessments would focus on species of concern, priority habitats, and key risk factors. Permittees/project proponents will be reminded that it is their responsibility to comply with provisions of the Migratory Bird Treaty Act.

ROP Wild-4 Employ industry accepted best management practices to prevent raptors and other birds from colliding with or being electrocuted by utility lines, alternative energy structures, towers, and poles (APLIC 2006, <http://www.aplic.org/>). If possible bury utility lines in important bird areas. Where raptors are likely to nest in human-made structures (such as cell phone towers) and such use could impede operation or maintenance of the structures or jeopardize the safety of the raptors; equip the structures with either (1) devices engineered to discourage raptors from building nests, or (2) nesting platforms that will safely accommodate raptor nests without interfering with structure performance.

ROP Wild-5 Guy-wired apparatus, regardless of purpose, will be marked in accordance with the guidance provided by the USFWS 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.

ROP Wild-6 To minimize the potential for disease transmission to wildlife, the use of domestic sheep, goats, alpacas, llamas, and other similar species will not be authorized in conjunction with BLM authorized activities in Dall sheep habitat.

ROP Wild-7 Activities will not be authorized between May 15 and July 15 if the activity will interfere with caribou calving and postcalving activities or Dall sheep lambing (May 10 through June 1). However, ongoing mineral production activities will be allowed throughout these time periods. In these areas and time periods, aircraft associated with activities that require BLM authorization will maintain an altitude of at least 1,500 feet above ground level (except for takeoffs and landings), unless doing so would endanger human life or violate safe flying practices. These seasonal restrictions can be modified based on actual caribou or Dall sheep occupancy of the area.

ROP Wild-8 Within the Fortymile and White Mountains caribou calving and postcalving ranges (Map 98), mineral exploration activities will not be authorized from May 15 through July 15 unless the AO determines that caribou no longer occupy the specific area of the proposed operations. This seasonal restriction can be modified based on actual caribou occupancy of area.

ROP Wild-9 All reasonable precautions will be taken to avoid attracting wildlife to food and garbage. Garbage from all BLM authorized activities will be removed and properly disposed to prevent habituation of wildlife or alteration of populations. The BLM may require food and

garbage to be stored in bear-proof containers or by methods that make it unavailable to bears or other wildlife.

ROP Wild-10 From May 1 through August 31, avoid sustained human activity within one-quarter mile of trumpeter swan nests and rearing ponds. No activity will commence prior to May 15 and, if necessary, qualified personnel will conduct a preliminary site survey within the two-week period prior to the projected start date of the activity to determine trumpeter swan presence. If present, short-term activities will be delayed until after nesting trumpeter swans and cygnets have left the habitat. Exceptions may be granted by the AO, following NEPA analysis, if no feasible alternative exists.

ROPs Specific to Areas of Critical Environmental Concern

The following four ROPs apply to the Steese, Fortymile, and White Mountains ACECs and the White Mountains Wildlife Conservation Area. They are not applicable to the Salmon Fork ACEC

ROP Wild-11¹ Applicants proposing to conduct surface-disturbing activities or other intensive activities will, at the determination of the AO, be required to submit an approved plan (Caribou and Dall Sheep Impact Assessment and Mitigation Plan) describing methods to minimize impacts to caribou and Dall sheep and their habitat. This plan must describe the proposed project, the design and mitigation alternatives considered, the amount and quality of habitat to be affected, the mitigation and restoration to be applied, the residual impacts predicted, and the monitoring to be undertaken to confirm mitigation success.

ROP Wild-12¹ Permanent roads will generally not be allowed (although long-term temporary roads may be) and roads will generally not be open to the public. Roads will be of the lowest practical profile. Road use may be restricted during caribou calving, postcalving, or Dall sheep lambing. Road construction will not be permitted if other means of access is practical (such as aircraft or winter ice-road). Facilities within ACECs that require year-round access will be located in forested areas where practical. Permitted aircraft will follow a minimum flight level of 1,500 feet above ground level, except at landing and takeoff and when it would compromise safety. The AO may allow exceptions to these access requirements where impacts to caribou and Dall sheep are adequately minimized and where other resource considerations are of higher priority.

ROP Wild-13¹ To minimize habitat loss, the surface disturbance and the aerial extent of facilities will be minimized. The amount of cumulative vegetation clearing and surface disturbance will be minimized through an integrated review of planned disturbance between all land users.

ROP Wild-14¹ Reclamation and revegetation of disturbed areas will be required to meet performance standards set in site-specific reclamation plans, such as a required plant cover (percent) within a certain number of years before a performance bond is released.

Priority Raptor ROPs

Priority raptor species are peregrine falcon, gyrfalcon, bald eagle, and golden eagle. Nesting seasons are defined as: From April 15 through August 15 for bald eagles, golden eagles, and peregrine falcons; and, from March 15 through July 20 for gyrfalcons. Nesting season dates apply to ROP Wild-16 through ROP Wild-20.

¹ Applicable to the Steese, Fortymile, and White Mountains ACECs and the White Mountains Wildlife Conservation Area.

ROP Wild-15 To minimize the direct loss of priority raptor foraging habitat, all reasonable and practicable efforts will be made to locate permanent facilities as far from priority raptor nests as feasible and to minimize habitat loss to the extent feasible. Of particular concern for avoidance are ponds, lakes, streams, wetlands, and riparian habitats.

ROP Wild-16 To minimize disturbance to nesting priority raptors, aircraft authorized by the BLM are required to maintain an altitude of at least 1,500 feet above ground level when within one-half mile of priority raptor nesting sites during nesting season. This protection is not intended to restrict flights necessary to conduct wildlife surveys satisfying wildlife data collection requirements.

ROP Wild-17 To reduce disturbance to nesting priority raptors, campsites authorized by the BLM, including short- and long-term camps and agency work camps, must be located at least 500 meters from any known priority raptor nest site during the nesting season. Exceptions may be granted by the AO if no feasible alternative exists.

ROP Wild-18 Authorized human activity within 500 meters of priority raptor nest sites will be minimized during the nesting season. The cumulative number of authorized visits (defined as each day in which work is done within 500 meters of a nest site) to any nest site per nesting season, by all authorized users, must be limited to three visits per nest site. Exceptions may be granted by the AO if no other feasible alternative exists.

ROP Wild-19 To reduce disturbance impacts to priority raptors, motorized ground-vehicle use must be minimized within one mile of any known priority raptor nest during the nesting season. Such use is prohibited within one-half mile of nests during the nesting season, unless an exception is granted by the AO.

ROP Wild-20 Construction within one-half mile of known priority raptor nests is prohibited during the nesting season. No facilities that will be used or accessed during the nesting period (including the area of associated human activity by facility users) can be constructed within one-half mile of known priority raptor nesting sites. Exceptions may be granted by the AO if no feasible alternative exists.

A.3. Fluid Mineral Leasing Stipulations

The following leasing stipulations would be applied to any lease sales in the Eastern Interior Planning Area.

Table A.1. Fluid Mineral Leasing Stipulations

Stipulation	Areas where Stipulations Apply	Exception, Modification, Waiver
Goal: Prevent avoidable damage from proposed land uses to habitats supporting Special Status Species animals and plants, and their habitats.		
Stipulation 1: The lease area may contain or be identified with Special Status Species or their habitats. BLM may require applicants to avoid or minimize impacts to these species pursuant to BLM policy and Endangered Species Act consultation.	Areas open to fluid mineral leasing	Exception: None Modification: None Waiver: None
Goal: When authorizing fluid leasable minerals actions ensure that goals to protect other resource values in the planning area are met to the extent possible.		
Stipulation 2: Upon abandonment or expiration of the lease, all fluid mineral-related facilities will be removed and sites rehabilitated as near to the original condition as practicable, subject to the review of the AO.	Areas open to fluid mineral 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
Stipulation 3: Exploratory drilling will be limited to temporary facilities such as ice pads, ice roads, ice airstrips, and temporary platforms.	Areas open to fluid mineral leasing	Exception: The AO may grant an exception if the lessee demonstrates that construction of permanent facilities such as gravel airstrips, storage pads, and connecting roads are environmentally preferable or that exploring from temporary facilities is not practical or economically feasible. Modification: None Waiver: None
Goal: Maintain and protect aquatic habitat to support populations of well-distributed native fish populations.		
Stipulation 4: Drilling is prohibited in fish-bearing lake and rivers and streams within the active floodplain.	Fish bearing rivers, streams, and lakes	Exception: The AO may grant an exception if the lessee demonstrates that impacts would be minimal or there is no feasible or prudent alternative. Modification: None Waiver: None
Goal: Minimize impacts to wildlife species from BLM-authorized activities.		

Stipulation	Areas where Stipulations Apply	Exception, Modification, Waiver
Stipulation 5: No exploration activities from May 10 through June 1 in Dall sheep habitats and from May 15 through July 15 in caribou calving/postcalving habitat. Construction of production facilities and production activities may occur (no work over rigs).	Identified caribou calving/postcalving and Dall sheep habitats	<p>Exception: The AO may grant an exception if the lessee demonstrates that calving caribou or Dall sheep are not currently using the area.</p> <p>Modification: Season may be shortened or extended based on actual occupancy of the area.</p> <p>Waiver: This stipulation may be waived if caribou migratory patterns change and the areas are no longer used for calving.</p>
Stipulation 6: No exploration or development activities within 500 meters of active priority raptor nests from April 15 through August 15 (only March 15 through July 20 for gyrfalcon nests).	Areas open to fluid mineral leasing	<p>Exception: The AO may grant an exception if the lessee demonstrates that impacts would be minimal or there is no feasible or prudent alternative.</p> <p>Modification: Season may be adjusted based on actual nest occupancy.</p> <p>Waiver: None</p>
Stipulation 7: No motorized ground-vehicle use or facility construction within a half mile of any known priority raptor nests from April 15 through August 15 (only March 15 through July 20 for gyrfalcon nests).	Areas open to fluid mineral leasing	<p>Exception: The AO may grant an exception if the lessee demonstrates that impacts would be minimal or there is no feasible or prudent alternative.</p> <p>Modification: Season may be adjusted based on actual nest occupancy.</p> <p>Waiver: None</p>

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Appendix B

Travel Plan

White Mountains

Appendix B. Travel Management Plan: White Mountains

B.1. Introduction

Travel management is the process of planning for, and managing access and travel systems on, public lands. Comprehensive travel management planning should address all resource use aspects, such as recreational, traditional, casual, commercial, and educational, and accompanying modes and conditions of travel on public lands, not just motorized or off-highway vehicle activities (BLM Land Use Planning Handbook 1601-1, Appendix C). This includes travel needs for all resource management programs administered by the BLM, including but not limited to the mineral industry and recreation.

Though historically focused on motor vehicle use, comprehensive travel management also encompasses all forms of transportation including travel by foot, horseback and other livestock, mechanized vehicles such as bicycles, and the numerous forms of motorized vehicles from two-wheeled (motorcycles) and four-wheeled such as all-terrain vehicles (ATVs) and utility type (or terrain) vehicles (UTVs) to cars, trucks, aircraft and boats, motorized and non-motorized.

The term off-road vehicle (ORV) is an outdated term that has the same meaning as off-highway vehicle (OHV), which is currently in use. The term off-highway vehicle (OHV) refers to – "any motorized vehicle capable of, or designated for, travel on or immediately over land, water, or other natural terrain," as defined in the National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands (BLM 2001a). The intent of the National Strategy was to update and revitalize management of OHV use on BLM managed public lands.

The BLM, as designated by the Secretary of the Interior, permits snowmobiles, motorboats, and other means of surface transportation traditionally used on public lands for appropriate subsistence activities by subsistence users as defined by Section 811(b) of the Alaska National Interest Lands Conservation Act (ANILCA). The use of OHVs for subsistence activities is fundamentally different from the use of OHVs for recreational activities, and the BLM management of this use is guided by ANILCA Section 811.

This document describes the process of development and content of the White Mountains Travel Management Plan.

B.2. Summary

The Code of Federal Regulations (43 CFR 8340) and Executive Order (EO) 12608 require the BLM to designate all public lands as Open, Limited, or Closed for OHV use. These designations are made in the Resource Management Plan (RMP). Additionally, criteria for trail designation are established in the RMP. The following tables summarize the range of alternatives considered for travel management in the White Mountains Subunit, Eastern Interior Draft RMP/EIS.

Table B.1. Comparison of Travel Management – Area Designations

Area Designation	Alt. A (acres)	Alt. B (acres)	Alt. C (acres)	Alt. D (acres)
Limited by weight (summer)	413,000	0	0	461,000
Limited by weight (winter)	1,004,000	990,000	990,000	1,004,000

Area Designation	Alt. A (acres)	Alt. B (acres)	Alt. C (acres)	Alt. D (acres)
Limited to Designated routes, weight and width	0	338,000	407,000	0
Closed to all motorized	12,500	27,000	27,000	12,500

Table B.2. White Mountains NRA – Miles of Trails Available for Summer OHV Use

Miles of Trail (summer)	Alt. A (miles)	Alt. B (miles)	Alt. C (miles)	Alt. D (miles)
Limited to ATV ^a	cross-country travel allowed	139	139	cross-country travel allowed
Limited to UTV ^b	0	0	27	112
Winter Trails Closed to Summer OHV use	109	117	117	117

^aAn All-Terrain Vehicle (ATV) is a wheeled vehicle other than a snowmobile that is defined as having a curb weight of 1,000 pounds or less, a maximum width of 50 inches or less, steered using handlebars, travels on three or more low-pressure tires, and has a seat designed to be straddled by the operator.

^bA Utility Type (or Terrain) Vehicle (UTV) is any recreational motor vehicle other than an All-Terrain Vehicle, motorcycle, or snowmobile designed for and capable of travel over unpaved roads, traveling on four or more low-pressure tires, a curb weight of 1,500 pounds or less, and maximum width is 64 inches or less. Utility type vehicles do not include vehicles specially designed to carry a person with disabilities.

The following additional decisions have also been developed:

- All forms of non-motorized uses are generally allowed including horses and mountain bikes.
- In areas limited to designated trails, only designated trails are open to motorized use.
- Cross-country travel with ATVs will be allowed for game retrieval in areas designated as “limited to designated trails” under Alternative C.
- Travel off of designated trails would be allowed for subsistence uses by permit.
- Aircraft are generally unrestricted with the following provisions: Minimal clearing of rocks, downed logs, and bursh would be allowed; construction or formal improvement of landing areas would occur by permit only.
- Any fire, military, emergency or law enforcement vehicle when used for emergency purposes is exempted from OHV decisions, subject to valid and existing rights, and other uses permitted by the Authorizing officer.

B.3. Authority and Guidance

The following laws, executive orders, and policy documents provide the authority for the BLM to create Travel Management Plans and implement OHV designations.

- Federal Land Policy and Management Act (FLPMA), 43 U.S.C. 1701.
- National Environmental Policy Act, (NEPA), 42 U.S.C. 4321.
- EO 11644 (February 8, 1972): This order established criteria for federal agencies to develop regulations for the management of ORVs on lands under their management. Agencies are to “monitor the effects” of ORV use on public lands and, “on the basis of the information gathered, they shall from time to time amend or rescind designation of areas for ORV use “as necessary to further” its policy.”
- EO 11989 (May 25, 1977): This order modified EO 11644 and authorized agencies to adopt a policy that particular lands can be considered closed to OHVs when it is determined that OHV use “will cause or is causing considerable adverse effects” to specific resources.
- EO 12898 (1994): Indicates that federal planning efforts should give consideration to how plans will affect local economies.

- 43 CFR 8340 (inclusive) The ORV Regulations: Establish criteria for designating lands as Open, Limited, or Closed to the use of ORVs.
- Archaeological Resources Protection Act (ARPA), 1979, as amended and other Cultural protection laws and regulations.
- Endangered Species Act, 16 U.S.C. 1531: Federal agencies will give consideration to ensure agency actions do not jeopardize the continued existence of any endangered species.
- Land and Water Conservation Fund Act, 16 U.S.C. 460 1-6a.
- National Historic Preservation Act, as amended, 1966.
- Wild and Scenic Rivers Act, 16 U.S.C. 1281c.
- National Trails System Act, 16 U.S.C. 1241.
- National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands, DOI, BLM, January 2001.

The following plans and special rules guide current Travel Management in the White Mountains:

- Record of Decision White Mountains National Recreation Area, Resource Management Plan, 1986
- Recreation Activity Management Plan for the White Mountains National Recreation Area, 1988.
- *Federal Register*, Vol. 53, No. 131, Friday, July 8, 1988, Special Rules and Regulations for the White Mountains National Recreation Area et al.,
- *Federal Register*, Vol. 53, No. 136, Friday, July 15, 1988, Designation of Off-Road Vehicle (ORV) Use Areas for the White Mountains National Recreation Area and Associated Lands.
- *Federal Register*, Vol. 57, No. 54, Thursday, March 18, 1992, Modification of Designated Off-Road Vehicle (ORV) Use Areas for the White Mountains National Recreation Area and Associated Lands.
- *Federal Register*, Vol. 62, No. 178, Monday, September 15, 1997, Notice of Special Rules and Regulations for the White Mountains National Recreation Area (WMNRA) and Associated Recreation Facilities.
- *Federal Register*, Vol. 63, No. 244, Monday, December 21, 1998, Designation of Off-Road Vehicle Use Areas in the White Mountains National Recreation Area.
- White Mountains NRA Gateway Project Record of Decision, 1990.

B.4. Travel Plan Designation Process

The goal of travel management planning is to develop a plan that provides access to resources and resource areas. The goals and objectives of this travel plan apply to all areas of travel management including resource access, appropriate recreation opportunities, ensuring public safety, minimizing conflicts among the various public land uses, and providing for support of the local economy.

History of BLM OHV Guidance

The 1986 White Mountains RMP (1986b) designated Limited and Closed OHV areas in the White Mountains National Recreation Area. No areas were designated as Open. Subsequently, special rules were developed and published in the *Federal Register* to further define the limitations to OHV use (FR 1988c, FR 1992, FR 1998). In the Limited areas there were specific designations based on the management prescription, the weight and carrying capacity of an OHV (1,500 pounds GVWR and less, as defined), and season of allowable use.

State and national guidance for the Limited designation has changed since the White Mountains RMP was approved. Designating Open, Closed, and Limited areas for OHV use continues

to be mandated, but under the Limited category the “limited to designated roads and trails” sub-category is recommended. The designation of the subcategory “existing roads and trails” is not encouraged due to confusion and enforcement problems concerning new unauthorized routes being created and then used by the public because they are “existing.” Designation of routes under the Limited category provides a purposefully designed and clearly delineated travel network, reduces route proliferation, and facilitates travel management and law enforcement.

By policy (IM No. 2004-005) the BLM also recommends that as many roads as possible be designated under the Limited category during the RMP process. However, the following guidance applies if all routes cannot be designated within the plan.

If complexity, controversy, or incomplete data make it impossible to complete the selection of a travel network for any area designated as Limited within reasonable time frames or budget availability, the BLM will perform the selection process for all limited areas that can be completed. For any limited areas that cannot be completed in the RMP, the BLM will, to the extent possible:

- Incorporate a map of a preliminary road and trail network, including known roads and trails that are expected to be included in the final network;
- Define short-term management guidance for road and trail access and activities, including interim management guidelines for proper identification of the preliminary road and trail network, including signing and maintenance of open roads and trails.
- Outline additional data needs and a strategy to collect needed information.
- Establish a clear planning sequence, including public collaboration, criteria and constraints for subsequent road and trail selection and identification.
- Produce a schedule to complete the limited area road and trail selection process. Normally, this process should not exceed five years.
- Install signs, and in some cases, construct barriers or perform restoration on closed roads and trails. (IM No. 2004-005).

Interdisciplinary Team

Guidance for developing a Travel Plan includes using an Interdisciplinary Team (ID Team) approach (BLM Manual 8342.21A and 43 CFR 1601.1-3). The following individuals participated in the completion of this draft plan.

Table B.3. ID Team Members

Name	Resource/Organization	Name	Resource/Organization
Eric Yeager	Recreation, Eastern Interior Field Office	Lenore Heppler	Eastern Interior Field Office Manager
Collin Cogley	Recreation, Eastern Interior Field Office	Jim Herriges	Wildlife Biologist, Eastern Interior Field Office
Brad Colin	Recreation and Visitor Services Branch Chief	Ben Kennedy	Hydrologist, Eastern Interior Field Office
Tim DuPont	Recreation, Eastern Interior Field Office	Robin Mills	Archaeologist, Eastern Interior Field Office
Evan Glenn	Recreation, Eastern Interior Field Office	Jason Post	Fisheries Biologist, Eastern Interior Field Office
Jeanie Cole	Planning and Environmental Coordinator	Ruth Gronquist	Wildlife Biologist, Weeds Coordinator

B.5. Identification of Issues

There is a high level of interest in travel management in the planning area. There has been a large increase in OHV use in the past 20 years based on field observations and a large increase in OHV sales indicated from discussions with local vendors.

Travel and OHV management issues were identified by BLM resource specialists in the preplan, by the public through scoping, and through visitor use surveys conducted in 2006 - 2008 in cooperation with the University of Alaska, Fairbanks (UAF). The Eastern Interior Field Office hosted several public scoping meetings (March-August 2008). Travel and OHV management were raised as issues at during these meetings.

Public scoping comments related to Travel Management and White Mountains fell into three categories:

- Comments specific to travel in the White Mountains NRA
- Comments related to R.S. 2477¹
- General and/or uncategorized comments

Comments received during scoping included 144 comments on recreation and travel management, approximately 25 percent of the totalled comments. Comments specific to Travel Management totalled 110, six were specific to the White Mountains NRA, and 96 were listed as general or uncategorized (BLM 2008b).

The majority of the comments on travel management addressed OHVs, and some focused on the White Mountains NRA. Comments ranged from wanting more and almost unlimited motorized access, to wanting less motorized access or more opportunity for non-motorized users, or both. Comments noted that trail and resource damage is occurring, additional trails are needed, more non-motorized trails are needed, all existing motorized trails should remain open to motorized use, boggy sections of trails need to be improved or rerouted, and new trails should be built in a sustainable manner. Although some comments indicated more trails, other comments noted there are enough trails in the White Mountains and the current Primitive setting should be maintained. One comment questioned the long-term value of trail "hardening" techniques, as it enables more riders to go further into the backcountry and invites them to make "new" trails.

Some recommended limits on summer use of OHVs to prevent damage to trails, soils, water, and vegetation. For example: "Not only have the trails, soils and water been damaged by irresponsible riders, but off-road travel has created ever widening sets of "new" trails, damaging the soils, streams, wetlands, vegetation and adversely impacting wildlife." A few comments recommended that OHV use be limited to designated trails.

Comments also recommended inventory and documentation of existing trails, additional law enforcement, more public education on trail etiquette and resource damage caused by OHVs, more signs; additional parking at trailheads, consideration of air quality and noise impacts from OHVs, and more public involvement in travel management decisions.

¹A travel management plan is not intended to provide evidence bearing on or addressing the validity of any R.S. 2477 assertions. R.S. 2477 rights are adjudicated through a separate, judicial and administrative process that is independent of BLM's planning process. Consequently, travel management planning does not take into consideration R.S. 2477 assertions or evidence. Travel management planning is founded on an independently determined purpose and need that is based on resource uses and associated access to public lands and waters. When a decision is made on R.S. 2477 assertions, the BLM will adjust its travel routes accordingly.

BLM staff identified the following issues concerning travel in the White Mountains NRA and the Eastern Interior Field Office based on both public comment and internal review:

- The outdated OHV use designations in the current RMP (BLM 1986b) do not address the current level of use.
- The need to incorporate BLM's OHV National Strategy and other recent guidance.
- OHV designations need to be reviewed and revised as necessary to protect other resources;
- Maps need to be developed to identify areas of competing resources and to show the public where OHV use is allowed;
- The need to implement designated routes on-the-ground through signing and maps;
- Increasing numbers of recreational users and demand for access and facilities;
- Conflicts between OHV use and other resources including riparian, wildlife, soils, and vegetation; and
- Conflicts between user groups, such as non-motorized and motorized users;

B.6. Planning Criteria

Considerations of social and physical elements help to define the criteria for a travel plan. The social aspects include public demands, historical uses, existing rights-of-way, permitted uses, public access, resource development, law enforcement and safety, conflicts between existing or potential uses, recreation opportunities, subsistence uses, cultural and economic issues. Physical elements include the terrain, soils, water and watersheds, connectivity of trails and routes, special designations (RNAs), demands for specific types of vehicle use, and manageability considerations.

Planning criteria for the RMP are found in section 1.6 (p. 9) of the Draft RMP/EIS. Decisions regarding OHV travel will be consistent with BLM's National OHV Strategy.

B.6.1. OHV Designation Criteria

Policy guidance in BLM Manual 8343.1 lists the following protection criteria that must be met in the travel planning process:

1. Cultural and Natural Resources – Designations must minimize damage to all cultural and natural resources. Including, but not limited to historical and archaeological sites, soil, water, air, vegetation, and scenic values.
2. Wildlife – Designations must minimize harassment of wildlife /or significant disruption of wildlife habitat including overwintering and calving areas.
3. Endangered Species – Special attention must be given to protect endangered or threatened species and their habitat.

User Access Requirements: The following criteria are used to assure adequate consideration for the requirements for each resource activity (such as minerals, forestry, recreation, subsistence) as they relate to access needs:

1. Operational needs designations must consider user access requirements for inventory, exploration, administration, monitoring, maintenance, development, and extraction of public land resources as well as maintenance of facilities on public lands.
2. Subsistence-designations must consider the access and use needs for subsistence purposes.
3. State and private land-designations must consider the access and use needs for areas and trails located within intermingled State and private land.

Public Safety: The designation of areas and trails for OHV use must promote public safety, recognizing that challenge and risk are desirable factors by using the following criteria:

1. Hazards-Designations must minimize or eliminate OHV use in areas of extreme natural or human-made hazards unless such hazards can be mitigated.
2. Safety Factors-Designations must separate uses in situations where public safety factors present unacceptable risks (shooting areas, abandoned mines).

Conflict Resolution: The designation of areas and trails for OHV use must assure full consideration of the multiple-use values of public lands consistent with the following criteria:

1. Balanced Approach-Designations must provide as wide and as balanced an approach to public land access as possible to protect public land resource values while at the same time meeting user access needs.
2. Other Uses-Designations must minimize conflicts between OHV use and other existing or proposed uses of the public lands.
3. Compatibility-Designations of areas and trails must ensure the compatibility of OHV uses with existing conditions in populated and other sensitive areas by taking into account noise, air pollution, and other factors of the human environment.

B.6.2. Travel Plan Criteria

Criteria for travel management planning includes the Alaska Statewide Land Health Standards (AK IM 2004-023); establishing the purpose and need for routes, defining conflicts between resources, defining conflicts among users, evaluation and consideration of routes in terms of areas with wilderness characteristics, administration and emergency uses, and access to subsistence resources and privately owned lands.

The Alaska Statewide Land Health Standards relate to all uses of public land, including recreation, and describe natural resource conditions that are needed to sustain public land health. The Standards encompass watershed functions; ecological processes, water quality, threatened, endangered, native, and locally important species. These Standards provide guidance for management of resources.

Purpose and Need

The purpose of this Travel Management Plan is to consider various alternatives for a travel network in the White Mountains Subunit, which will provide for access needs for recreation and other uses, while protecting resource values. Two alternatives consider limiting motorized use to designated trails. This is consistent with guidance from Washington Office (WO) IM 2004-005, which recommends choosing individual routes for designation, "rather than using inherited routes," because most existing routes "were created by use over time, rather than planned and constructed for specific activities and needs."

The purpose and need for specific travel routes in the White Mountains was examined based on the existing situation on-the-ground and current knowledge of land use conflicts. The Eastern Interior Field Office considered the following criteria when considering routes in this travel plan:

- Desired future conditions
 - Identify a long-range transportation network on BLM-managed lands
- Public health and safety
 - Abandoned Mine Lands
 - Hazardous Materials/locations

- Access Needs
 - Routes identified by BLM staff
 - Routes identified in guide books and BLM brochures
 - Scenic overlooks
 - Routes to private lands within the NRA
 - Access for subsistence uses
 - Elimination of route redundancy
 - Special Recreation Management Areas
 - Special designations, Research Natural Areas (RNAs), and Wild and Scenic Rivers (WSRs).
- Cultural and Paleontological resources
- Wildfire considerations
- Recreation Opportunities/Experiences including Recreational Opportunity Spectrum (ROS) and Benefits Based Management (BBM)
 - Cabin and Trail program
 - Existing campgrounds and facilities
- Watershed resources
 - Erosive soils
 - At-risk watersheds
- Vegetative resources
 - Sensitive vegetation communities
 - Spread of non-native invasive species
- Wildlife resources
 - Special Status Species
 - Crucial winter habitats
 - Rutting, calving and lambing habitat
 - Raptor nesting locations
- Visual/Scenic resources

Mitigation

Mitigation that may be used to address travel management conflicts could include:

1. Limiting the season and timing of use,
2. Limiting the types of vehicles allowed,
3. Limiting the weight and/or width of the vehicle,
4. Separate motorized and non-motorized activities,
5. Rerouting of route segments, and
6. Other management such as providing educational materials, route maps, travel information, hardened routes, and increased law enforcement and field staff presence.

Administrative Access and Use

No trails or routes are currently identified for BLM administrative use only. BLM operations may be exempt from OHV rules and regulations based on necessary maintenance requirements and administrative access needs while on official duty work assignments.

Emergency Uses

By regulation any fire, military, emergency or law enforcement vehicle when used for emergency purposes is exempted from OHV decisions.

Emergency Limitation or Closure

Temporary Closures and Restrictions: Where off-highway vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas must be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence (43 CFR 8341.2 and 8364.1). Such limitation or closures are not OHV designations. (43 CFR 8341.2)

B.7. Inventory: Data and Information Collection

Trail and route inventory within the White Mountains NRA was collected by BLM staff over years of traveling through the NRA (1992-2008). Data collection was performed using handheld GPS units via foot, snowmobile, OHVs, and aircraft and converted to GIS layers used to develop maps. Some route data was digitized from other maps and some routes were estimated by drawing on topographic maps. Hand drawn data will be replaced with GPS data when it is available. No trail or route data was been received from the public.

Maps were reviewed to determine sustainable existing routes, which routes could be sustainable with some maintenance or rerouting, which routes could be made better, but not necessarily sustainable throughout their length, and which routes could not be made sustainable. It is difficult, time consuming and costly to build sustainable trails in some areas of Interior Alaska, so the BLM also looked at trail routes that serve a need or provide the only route from one cabin to another. Some trails were included in the transportation network because they provide the only access to a given area realizing that the route may never be improved. All routes will continue to be monitored.

The BLM has GIS layers of the transportation network from 1986 and 2006, which show the White Mountains NRA trail network doubled in size over 20 years.

B.8. White Mountains Travel Plan Development

Goal: Establish a comprehensive approach to travel planning and management, and provide opportunities for a range of motorized access and recreation experiences on public lands while protecting sensitive resources and minimizing conflicts among various users.

Objectives:

1. Address comprehensive travel management to improve access, opportunities, and experiences.
2. Improve on-the-ground travel management operations and maintenance to sustain opportunities and experiences, access, safety, and resource conservation.
3. Improve signing, mapping, travel information, and education.
4. Implement travel management through national motorized, mechanized, and non-motorized recreation strategies.
5. Expand transportation/travel management partnerships and funding sources.

B.8.1. Policy

OHV Designation Categories – BLM National Strategy mandates that all BLM-managed public lands must be designated as Open, Limited, or Closed.

Open - The BLM designates areas as Open for intensive OHV use where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel. However, motor vehicles may not be operated in a manner causing or likely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat improvements, cultural or vegetative resources or other authorized uses of the public lands (43 CFR 8341).

Limited - The Limited designation is used where OHV use must be restricted to meet specific resource management objectives. Limitations may include:

1. A time or season of use depending on the resources in the area
2. Designated trails or routes
3. Types of vehicle use (ATV, Motorcycle, four-wheel vehicle, etc.,)
4. By weight and/or width of vehicles.

Closed - The BLM designates areas as Closed if closure to all vehicular use is necessary to protect resources, ensure visitor safety, or reduce resource or use conflicts. Access by means other than motor vehicle access is generally allowed. The Field Manager may allow motor vehicle access under permit or for emergencies.

Table B.4. Travel Management Zones

Alternative A	Alternative B	Alternative C	Alternative D
Primitive	RNAs and White Mountains Spine (Primitive)	RNAs and White Mountains Spine (Primitive)	RNA (Primitive)
Semi-Primitive Motorized	White Mountains Highlands (Semi-Primitive)	White Mountains Highlands (Semi-Primitive)	
Beaver Creek WSR (Primitive)	Beaver Creek (Semi-Primitive)	Beaver Creek (Semi-Primitive)	Beaver Creek (Semi-Primitive)
Research Natural Areas (Primitive)	Cache Mountain (Backcountry)	Cache Mountain (Backcountry)	Cache Mountain (Backcountry)
	White Mountains Foothills (Middlecountry)	White Mountains Foothills (Middlecountry)	White Mountains Foothills (Middlecountry)
	Nome Creek (Frontcountry)	Nome Creek (Frontcountry)	Nome Creek (Frontcountry)
	Wickersham Dome-Fred Blixt Cabin (Frontcountry)	Wickersham Dome-Fred Blixt Cabin (Frontcountry)	Wickersham Dome-Fred Blixt Cabin (Frontcountry)

B.8.2. Route Designation for Limited Areas

Four formal ID Team meetings and many informal discussions to address route and resource conflicts, and route designation were held from March through May 2009. Informal meetings were ongoing concerning route selection for the range of alternatives. The purpose of the ID Team meetings was:

- To gather input from ID Team on conflicts identified and mitigation proposed by each resource specialist. If there are conflicts with resources, these conflicts are discussed and resolved during the meeting;

- Develop a thoughtful, purposefully designed system of designated routes that fulfills the management goals and objectives for the resource area;
- Review scoping comments;
- Review and consider the results of the UAF surveys.

A majority of the resource area is proposed to be designated as Limited use in the four alternatives in this Draft RMP/EIS. The BLM is encouraged by policy to designate individual routes within the Limited areas as part of the RMP process. The Travel Management Plan is the implementation portion of the Travel Planning process and includes identifying roads and trails that will be available for access and public use, and specifying the limitations placed on use.

B.8.2.1. Potential Conflict Identification by Area

The existing management objectives have been working well although field observations from staff indicate a proliferation of user-made routes. The increase in popularity of the area and the increased use create a need to accommodate different forms of transportation based on improved technology.

The Eastern Interior Field Office Recreation Staff delineated travel management areas based on historical use patterns, certain fixed limitations such as the Beaver Creek WSR Corridor and designated RNAs, and utilizing the White Mountains NRA Benefits Based Management study (Fix 2007).

One approach to Benefits Based Management is to divide recreation management areas into zones based on Recreation Opportunity Spectrum (ROS) classes, focus on visitors' most satisfying zone, and measure the four levels of demand associated with that zone (Knopf, pers. comm.). The information gathered for the study was from questionnaires provided to the public at all the access points into the NRA during typical high use periods.

Recreation and Travel Management Zones were developed for each alternative based on use and desired future conditions. The zones are described below and in Table B.4, "Travel Management Zones". Maps 57-59 of the Draft EIS display the Travel Management Zones. Acres and miles of trail are summarized by zone in Table B.1, "Comparison of Travel Management – Area Designations" and Table B.2, "White Mountains NRA – Miles of Trails Available for Summer OHV Use".

Research Natural Areas and White Mountains Spine (Primitive):

The recreation niche for this zone is to provide high quality, hiking, backpacking and hunting opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk, in a rugged, remote, and primitive Interior Alaska setting with rare and amazing geologic and topographic features. Use and resource conflicts noted within Primitive Zones may include:

- Research Natural Areas (RNAs) are closed to OHV use; and
- BLM-Alaska sensitive species can have an impact on travel management decisions.

White Mountains Highlands (Semi-Primitive)

The recreation niche for this zone is to provide high quality backpacking and hunting opportunities for users who desire a recreation experience characterized by solitude, self-reliance, challenge and

risk in a rugged, remote and Semi-Primitive Interior Alaska setting. Use and resource conflicts noted within this Semi-Primitive Zone may include:

- Conflicts between motorized and non-motorized during winter;
- RNAs are closed to OHV use;
- BLM-Alaska sensitive species can have an impact on travel management decisions.

Beaver Creek WSR (Semi-Primitive):

The recreation niche for this zone is to provide high quality, multi-day road accessible recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Semi-Primitive Interior Alaska setting, on one of America's nationally designated "Wild" Rivers. Use and resource conflicts noted within this Semi-Primitive Zone may include:

- Conflicts between motorized and non-motorized uses;
- Horsepower restrictions for launching boats in Nome Creek;
- Owners of private inholdings within Beaver Creek corridor traveling up and downstream in motorized boats larger than 15 horse power;
- Limitations on facilities development within the corridor; and
- Use of motorized boats within the Beaver Creek corridor.

Cache Mountain (Backcountry):

The recreation niche for this zone is to provide high quality snowmobiling, dogmushing, and skiing opportunities for users who desire a recreation experience characterized by solitude, self-reliance, challenge, and risk with a unique opportunity to experience the rugged Alaskan Interior, with the added convenience of a maintained trail system and public use cabins. Use and resource conflicts noted within the Backcountry Zone may include:

- Conflicts between motorized and non-motorized uses;
- RNAs are closed to OHV use;
- BLM-Alaska sensitive species can have an impact on travel management decisions;
- Reduced facility development, compared to Frontcountry or Middlecountry Zones; and
- OHV encroachment on Caribou and Dall sheep habitat.

White Mountains Foothills (Middlecountry):

The recreation niche for this zone is to provide high quality snowmobiling, dogmushing, and skiing opportunities for users who desire a recreation experience characterized by solitude, self-reliance and a moderate degree of challenge and risk with a unique opportunity to experience the rugged Alaskan Interior, with the added convenience of a well maintained trail system and public use cabins located closer to major access points. Use and resource conflicts noted within the Middlecountry Zone may include:

- Conflicts between motorized and non-motorized use;
- Vegetation impacts;
- Soil impacts;
- Further limitations on summer OHV use from the Wickersham Creek closure;
- Impacts to travel and trails from overflow/aufeis overtopping the trails in winter (safety);
- OHVs traveling into the Beaver Creek WSR Corridor during the summer;
- Most access to the White Mountains NRA is across state land except for Wickersham Dome, so there are right-of-way issues;
- Proliferation of user-made trails; and

- Trail braiding around poor sections of trail.

Nome Creek and Wickersham Dome/Fred Blixt Cabin (Frontcountry):

The recreation niche for Nome Creek is to provide opportunities for Frontcountry recreation experiences that are characterized by the opportunity to affiliate with other users, in an area that is generally natural in appearance, yet contains developed recreation sites and is easily accessible for local families and groups via an improved road system.

The recreation niche for Wickersham Dome/Fred Blixt Zones would be to provide opportunities for Frontcountry recreation experiences that are characterized by uncomplicated recreation opportunities in an area that contains both developed and undeveloped recreation sites, but is easily accessible for users via an improved road system. Use and resource conflicts noted within the Frontcountry Zones may include:

- Conflicts between motorized and non-motorized use;
- Vegetation impacts;
- Soil impacts;
- A State of Alaska road provides the only access to Nome Creek;
- Impacts to travel from overflow/aufeis overtopping the roads and trails in winter (safety and access);
- Ophir Creek Campground is partially inside the Beaver Creek WSR Corridor;
- Proliferation of user-made trails;
- Trail braiding around poor sections of trail;
- Manage vehicle use in tailings area; and
- Campground use conflicts (noise).

Other BLM Lands

BLM lands that are not within the Travel Management Zones described above would be managed in a custodial manner and provide for visitor health and safety, reduced user conflicts, visitor satisfaction, and to prevent resource damage (Map 48). Use and resource conflicts noted on other BLM lands may include:

- Vegetation impacts;
- Soil impacts;
- Proliferation of user made trails; and
- Recreational user and mining claimant conflicts.

B.8.2.2. Motorized Routes: Designations

Motorized routes are discussed in Section B.9 and are characterized differently under each alternative depending on the allowable use. The BLM's approach to designating trails is discussed under Section B.6.

B.8.2.3. Non-Motorized Routes

Non-motorized routes maintain the same management under all alternatives. Non-motorized routes currently include mountain bikes (mechanized), horseback riding, hiking, skiing, skijoring, and dogmushing as allowable uses. Non-motorized trails include the following:

1. The Summit Trail begins at Mile 28 Elliott Highway and travels along the ridge top approximately 20 miles to its intersection with the Wickersham Creek Trail near Beaver Creek and Borealis LeFevre Cabin.
2. The Ski Loop Trail also begins at Mile 28 Elliott Highway and connects the Wickersham Creek Trail to the Summit Trail. The one mile Ski Loop Trail provides a non-motorized loop back to the Wickersham Dome Trailhead.
3. The Table Top Mountain Trail begins near mile 9 of the Nome Creek Road. The three-mile trail travels approximately 1.5 miles to the buttes of Table Top Mountain then loops an equal distance back to the trailhead.
4. The Fishing Trail, inside the Cripple Creek Campground, travels along the Chatanika River for just over one half mile, to the day use area. Interpretive panels are located along the trail to inform users about ecology of the area.
5. The Two-Step Louis Trail is located adjacent to the Nome Creek Road near mile 11.5. The trail is approximately 1,500 feet and travels from the trailhead to old cabin ruins that once belonged to Louis Schmidt. Interpretive panels are adjacent to the cabin ruins.

B.9. Alternative Development

The following sections outline the proposed Travel Management network for the White Mountains Subunit under each of the four alternatives in the Eastern Interior Draft RMP/EIS.

B.9.1. Alternative A

Travel Management prescriptions for Alternative A are displayed on Map 44.

General Restrictions:

Camping and campfires are prohibited within 25 feet of trails.

Primitive Management Unit (Alt. A)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses.

Winter use of snowmobiles of 1,500 pounds gross vehicle weight rating (GVWR) and less allowed (October 15 through April 30) except in the Windy Creek and Fossil Creek drainages which are closed to motorized use beginning April 15th to protect peregrine falcon nesting sites.

Permit required for all other OHV Use.

Aircraft use are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Semi-Primitive Motorized Management Unit (Alt. A)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses.

Motorized use allowed limited to 1,500 pounds GVWR or less allowed (Summer use of ATVs May 1 through October 14, and Winter use of snowmobiles October 15 through April 30) except on designated hiking trails and cross-country ski trails, and designated closed areas.

Permit required for all other OHV Use.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Beaver Creek Management Unit (Alt. A)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses.

Winter use of snowmobiles 1,500 pounds GVWR and less allowed (October 15 through April 30).

Permit required for all other OHV use.

Launching boats with motors exceeding 15 horsepower without written authorization from the AO is prohibited in the Nome Creek Valley.

Hovercraft and airboats are not considered compatible with the wild river designation and will not be authorized.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Research Natural Areas Management Unit (Alt. A)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses.

B.9.2. Management Common to All Action Alternatives

Other BLM Lands

Allowed Uses:

The following allowed uses apply to BLM lands outside of the White Mountains Special Recreation Management Area (Maps 48–50). These lands consist of federal mining claims near Livengood.

All forms of non-motorized use are generally allowed, including horses.

Winter use of snowmobiles 1,000 pounds curb weight and less is allowed (October 15 through April 30).

Summer use (May 1 through October 14) of OHVs weighing 1,500 pounds curb weight or less is allowed. Cross-country travel allowed except where this use may interfere with active mining operations.

Permit required for all other OHV use.

A permit or approved Plan of Operations is required for all other OHV uses on federal mining claims.

Aircraft are generally unrestricted.

B.9.3. Alternative B

Within all zones, the BLM may continue to issue temporary emergency closures based on a determination of adverse effects pursuant to 43 CFR 8341.2, special rules. This includes considerable adverse impacts to soil, vegetation, wildlife habitat, or cultural resources. The agency can maintain this closure until the effects are mitigated and measures are implemented to prevent future recurrence.

RNAs and White Mountains Spine — Primitive (Alt. B)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

Cross-country winter use (October 15 through April 30) of snowmobiles weighing 1,000 pounds curb weight or less would be allowed, except in RNAs which are closed to OHV use.

Helicopter landings are generally allowed within the RNAs and the White Mountain Spine. No clearing of vegetation will be allowed without a permit from the AO.

White Mountains Highlands — Semi-Primitive (Alt. B)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

Winter use of snowmobiles 1,000 pounds curb weight or less is allowed (October 15 through April 30).

Permit required for all other OHV use.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Beaver Creek — Semi-Primitive (Alt. B)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses, mountain bikes and float boats.

Winter use of snowmobiles 1,000 pounds curb weight or less is allowed (October 15 through April 30).

Permit required for all other OHV use.

Camping and campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Motorboat use is generally allowed without specific authorization consistent with ANILCA sections 1110(a) and 811 with the following reasonable regulations:

- Launching boats with motors exceeding 15 horsepower without written authorization from the AO is prohibited in the Nome Creek Valley.
- Airboats, hovercraft, and personal watercraft are prohibited in the White Mountains Special Recreation Management Area.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Cache Mountain — Backcountry (Alt. B)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

Winter use of snowmobiles 1,000 pounds curb weight or less is allowed (October 15 through April 30).

Permit required for all other OHV use.

Camping and campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

White Mountains Foothills — Middlecountry (Alt. B)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

ATVs 50 inches in width or less, and 1,000 pounds curb weight or less, are allowed on designated trails only (May 1 through October 14 except for Wickersham Creek Trail). Wickersham Creek Trail, from Mile 28 Elliott Highway to its intersection with 23.5 mile trail, is open to the summer use of ATVs from June 1 through October 14. Summer use is delayed to protect costly improvements to trail tread from rutting and erosion, and allow the ground to thaw. The use of motorized travel, except snowmobiles, ends October 14, unless posted otherwise, to not impact winter trail grooming activities. User-created routes and travel off of designated trails is not be allowed. Designated Trails include (Map 57):

1. Wickersham Creek Trail from Mile 28 Elliott Highway to the intersection with Trail Creek Trail.
2. Trail Creek Trail from the intersection with Wickersham Creek Trail to Lee's Cabin.
3. Mile 23.5 Elliott Highway to the intersection with Wickersham Creek Trail.
4. Trail Creek Trail from Lee's Cabin to Beaver Creek corridor.
5. McKay Creek Trail from the White Mountains NRA boundary to Beaver Creek corridor.
6. Lower Nome Creek Trail from McKay Creek Trail intersection to Nome Creek Road.
7. Bear Creek Trail from Nome Creek Road to Richards Cabin, Richards cabin northeast along Bear Creek.
8. Sled Dog Rocks Trail from Richards Cabin to Sled Dog Rocks.
9. Quartz Creek Trail from Nome Creek Road to Quartz Creek.
10. Champion Ridge Trail from Quartz Creek Trail west, three miles.
11. Moose Creek Ridge Trail from Nome Creek Road to top of Ridge, then east along ridge to Quartz Creek Trail and west along ridge to Moose Creek.
12. White Mountains NRA Boundary Trail from McKay Creek Trail west along boundary 11 miles.
13. Globe Peak Trail from Globe Peak to intersection with Big Bend Trail.
14. Big Bend Trail from Colorado Creek Cabin to Beaver Creek corridor.
15. Colorado Creek Trail from Colorado Creek cabin, west to White Mountains NRA boundary.
16. Ridge Trail from Colorado Creek Trail to the vertical angle elevation benchmark (VABM) Beaver.
17. Portion of Haystack Mountain access on BLM land.
18. Little Champion Creek extension.

Additional trails may be added when identified or designed and constructed by the BLM in a sustainable fashion.

Winter use of snowmobiles 1,000 pounds curb weight or less allowed (October 15 through April 30).

Permit required for all other OHV use.

Camping and campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Nome Creek—Frontcountry (Alt. B)Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

The Table Top Mountain Trail, Two-Step Louis Trail and the Fishing Trail inside the Cripple Creek Campground are limited to non-motorized use only.

ATVs 50 inches in width or less, and 1,000 pounds curb weight or less are allowed on designated trails only (May 1 through October 14). User-created routes and travel off of designated trails is not allowed. Designated Trails include:

1. Moose Ridge Trail
2. Bear Creek Trail
3. Quartz Creek Trail
4. Lower Nome Creek Trail

Additional trails may be added when designed and constructed by the BLM in a sustainable fashion.

Nome Creek Road and Nome Creek Tailings are open to travel for all OHV and highway vehicles (map available in the Field Office). No cross-country travel is allowed off of disturbed rock tailings.

Winter use of snowmobiles 1,000 pounds curb weight or less is allowed (October 15 through April 30).

Permit required for all other OHV use.

Camping and/or campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Launching boats with motors exceeding 15 horsepower without written authorization from the AO is prohibited in the Nome Creek Valley.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Wickersham Dome and Fred Blixt Cabin — Frontcountry (Alt. B)Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

The Ski Loop and Summit trails are limited to non-motorized use only.

ATVs 50 inches in width or less, and 1,000 pounds curb weight or less are allowed on designated trails only (May 1– October 14 except for Wickersham Creek Trail). Wickersham Creek Trail

from Mile 28 Elliott Highway to its intersection with 23.5 mile trail is open to the summer use of ATVs from June 1 through October 14. Summer use is delayed to protect costly improvements to trail tread from rutting and erosion, and to allow the ground to thaw. The use of motorized travel, except snowmobiles, ends October 14 unless posted otherwise, to not impact winter trail grooming activities. User-created routes and travel off of designated trails is not be allowed. Designated Trails include:

1. Wickersham Creek Trail from Mile 28 Elliott Highway to Lee's cabin.
2. Mile 23.5 Elliott Highway to the intersection with Wickersham Creek Trail.

Winter use of snowmobiles 1,000 pounds curb weight and less allowed (October 15 through April 30).

Permit required for all other OHV use.

Camping and/or campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

B.9.4. Alternative C

Within all zones, the BLM may continue to issue temporary emergency closures based on a determination of adverse effects pursuant to CFR 8341.2, special rules. This includes considerable adverse impacts to soil, vegetation, wildlife habitat, or cultural resources. The agency can maintain this closure until the effects are mitigated and measures are implemented to prevent future recurrence. Travel Management prescriptions are displayed on Map 58.

RNAs and White Mountains Spine — Primitive (Alt. C)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

Cross-country winter use (October 15 through April 30) of snowmobiles weighing 1,000 pounds curb weight or less would be allowed, except in RNAs closed to OHV use.

Helicopter landings are generally allowed within the RNAs and the White Mountain Spine. No clearing of vegetation will be allowed without a permit from the AO.

White Mountains Highlands — Semi-Primitive (Alt. C)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

Winter use of snowmobiles of 1,000 pounds curb weight or less is allowed (October 15 through April 30).

Permit required for all other OHV use.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Beaver Creek — Semi-Primitive (Alt. C)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses, mountain bikes and float boats.

Winter use of snowmobiles of 1,000 pounds curb weight and less allowed (October 15 through April 30).

Permit required for all other OHV Use.

Camping and campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Motorboat use generally allowed without specific authorization consistent with ANILCA sections 1110(a) and 811 with the following reasonable regulations:

- Launching boats with motors exceeding 15 horsepower without written authorization from the AO is prohibited in the Nome Creek Valley.
- Airboats, hovercraft, and personal watercraft is prohibited in the White Mountains Special Recreation Management Area.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Cache Mountain — Backcountry (Alt. C)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

Winter use of snowmobiles 1,000 pounds curb weight or less is allowed (October 15 through April 30).

Permit required for all other OHV use.

Camping and campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

White Mountains Foothills — Middlecountry (Alt. C)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

ATVs 50 inches in width or less, and 1,000 pounds curb weight or less are allowed on designated trails only (May 1 through October 14 except for Wickersham Creek Trail). Wickersham Creek Trail from Mile 28 Elliott Highway to its intersection with 23.5 mile trail is open to the summer use of ATVs from June 1 through October 14. Summer use is delayed to protect costly improvements to trail tread from rutting and erosion and allow the ground to thaw. The use of motorized travel, except snowmobiles, ends October 14, unless posted otherwise, to not impact winter trail grooming activities. Travel off of designated trails allowed only to retrieve legally harvested game within the Middlecountry Zone. Designated ATV Trails include (Map 58):

1. Wickersham Creek Trail from Mile 28 Elliott Highway to Lee's Cabin.
2. Mile 23.5 Elliott Highway to intersection with Wickersham Trail.
3. Trail Creek Trail from Lee's Cabin to Beaver Creek corridor boundary.
4. McKay Creek Trail from the White Mountains NRA boundary to Beaver Creek corridor.
5. Lower Nome Creek Trail from McKay Creek Trail intersection to Nome Creek Road.
6. Bear Creek Trail from Nome Creek Road to Richards Cabin, Richards cabin northeast along Bear Creek.
7. Sled Dog Rocks Trail from Richards Cabin to Sled Dog Rocks.
8. Quartz Creek Trail from Nome Creek Road to Quartz Creek.
9. Champion Ridge Trail from Quartz Creek Trail west three miles.
10. Moose Creek Ridge Trail from Nome Creek Road to top of Ridge, then east to Quartz Creek Trail and west along ridge to Moose Creek.
11. White Mountains NRA Boundary Trail from McKay Creek Trail west along boundary 11 miles.
12. Globe Peak Trail from Globe Peak to intersection with Big Bend Trail.
13. Big Bend Trail from Globe Peak west along ridge top, south to Beaver Creek corridor and north to Colorado Creek Cabin.
14. Colorado Creek Trail from Colorado Creek cabin, west to White Mountains NRA boundary.
15. Ridge Trail from Colorado Creek Trail to VABM Beaver.
16. Portion of Haystack Mountain access on BLM land.
17. Little Champion Creek extension.

UTVs 64 inches in width or less and 1,500 pounds curb weight or less are allowed on designated trails only (May 1– October 14 except for Wickersham Creek Trail, same as above). Designated UTV Trails include:

1. Quartz Creek Trail
2. Wickersham Creek Trail from Mile 28 Elliott Highway to Lee's Cabin.

3. Mile 23.5 Elliott Highway to Wickersham Creek Trail.

Additional trails may be provided for UTVs in the future when a trail is improved and sustainable for this use. No game retrieval by UTVs is allowed off of the designated trail.

Winter use of snowmobiles 1,000 pounds curb weight or less allowed (October 15 through April 30).

Permit required for all other OHV use.

Camping and campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Nome Creek—Frontcountry (Alt. C)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

The Table Top Mountain Trail, Two-Step Louis Trail and the Fishing Trail inside the Cripple Creek Campground are limited to non-motorized use only

ATVs 50 inches in width or less, and 1,000 pounds curb weight or less are allowed on designated trails only (May 1– October 14). Travel off of designated trails allowed only to retrieve legally harvested game within Frontcountry Zone. Designated ATV Trails include:

1. Moose Ridge Trail
2. Bear Creek Trail
3. Quartz Creek Trail
4. Lower Nome Creek Trail

Additional trails may be added to the designated trail system when identified or designed and constructed by the BLM in a sustainable fashion.

UTVs are allowed on the Quartz Creek Trail only. Additional trails may be provided in the future once a trail is improved and sustainable for this use. No game retrieval by UTVs is allowed off of the designated trail.

Nome Creek Road and Nome Creek Tailings are open to travel for all OHV and highway vehicles (map available in the Field Office). No travel off of disturbed rock tailings.

Winter use of snowmobiles 1,000 pounds curb weight or less allowed (October 15 through April 30).

Launching boats with motors exceeding 15 horsepower without written authorization from the AO is prohibited in the Nome Creek Valley.

Permit required for all other OHV use.

Camping and campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Wickersham Dome and Fred Blixt Cabin — Frontcountry (Alt. C)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

The Ski Loop and Summit trails are limited to non-motorized use only.

ATVs 50 inches in width or less, and 1,000 pounds curb weight or less are allowed on designated trails only (May 1 through October 14 except for Wickersham Creek Trail). Wickersham Creek Trail from Mile 28 Elliott Highway to its intersection with 23.5 mile trail is open to the summer use of ATVs from June 1 through October 14. Summer use is delayed to protect costly improvements to trail tread from rutting and erosion, and allow the ground to thaw. The use of motorized travel, except snowmobiles, ends October 14, unless posted otherwise, to not impact winter trail grooming activities. Travel off of designated trails is allowed to retrieve legally harvested game. Designated ATV Trails include:

1. Wickersham Creek Trail from Mile 28 Elliott Highway to Lee's Cabin.
2. Mile 23.5 Elliott Highway to intersection with Wickersham Creek Trail.

UTVs are allowed on designated trails only (May 1– October 14, except for Wickersham Creek Trail). No game retrieval by UTVs is allowed off of the designated trail. Designated UTV Trails include:

1. Wickersham Creek Trail from Mile 28 Elliott Highway to Lee's Cabin.
2. Mile 23.5 Elliott Highway to intersection with Wickersham Creek Trail.

Winter use of snowmobiles 1,000 pounds curb weight or less is allowed (October 15 through April 30).

Permit required for all other OHV use.

Camping and campfires are prohibited within 25 feet of trails within the White Mountains NRA.

Trapping and placement of bait and wildlife lures (scents) is prohibited within 25 feet of BLM-maintained trails. Trapping includes but is not limited to the use of marten pole sets, snares, conibear, or leg hold traps. These restrictions do not apply to sections of trail on land managed by the State of Alaska where the BLM maintains access to the White Mountains NRA.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

B.9.5. Alternative D

Within all zones, the BLM may continue to issue temporary emergency closures based on a determination of considerable adverse effects pursuant to CFR 8341.2, special rules. This includes considerable adverse impacts to soil, vegetation, wildlife habitat, or cultural resources. The agency can maintain this closure until the effects are mitigated and measures are implemented to prevent future recurrence. Travel Management prescriptions are displayed on Map 58.

Note: There is not a "White Mountains Highlands" zone in Alternative D.

RNAs — Primitive (Alt. D)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses.

RNAs are closed to the use of OHVs.

Helicopter landings are generally allowed within the RNAs. No clearing of vegetation will be allowed without a permit from the AO.

Beaver Creek — Semi-Primitive (Alt. D)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses, mountain bikes and float boats.

Winter use of snowmobiles 1,000 pounds curb weight or less is allowed (October 15 through April 30).

Permit required for all other OHV use.

Motorboat use is generally allowed without specific authorization consistent with ANILCA sections 1110(a) and 811 with the following reasonable regulations:

- Launching boats with motors exceeding 15 horsepower without written authorization from the AO is prohibited in the Nome Creek Valley.
- Airboats, hovercraft, and personal watercraft would be prohibited in the White Mountains Special Recreation Management Area.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Cache Mountain — Backcountry (Alt. D)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

Winter use of snowmobiles 1,000 pounds curb weight or less allowed (October 15 through April 30).

Permit required for all other OHV use.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

White Mountains Foothills — Middlecountry (Alt. D)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

ATVs 50 inches in width or less, and 1,000 pounds curb weight or less are allowed (May 1–October 14 except for Wickersham Creek Trail). Wickersham Creek Trail from Mile 28 Elliott Highway to its intersection with 23.5 mile trail is open to the summer use of ATVs from June 1 through October 14. Summer use is delayed to protect costly improvements to trail tread from rutting and erosion, and allow the ground to thaw. The use of motorized travel, except snowmobiles, ends October 14, unless posted otherwise, to not impact winter trail grooming activities. Cross-country travel is allowed except on the Summit and Ski Loop trails and within the Wickersham Creek Closed Area.

UTVs are allowed on designated trails only (Map 59). Designated UTV Trails include:

1. Quartz Creek Trail.
2. Wickersham Creek Trail from Mile 28 Elliott Highway to Lee's Cabin.
3. Mile 23.5 Elliott Highway to intersection with Wickersham Creek Trail.
4. Trail Creek Trail from Lee's Cabin to Crowberry Cabin.
5. McKay Creek Trail from the White Mountains NRA boundary to Beaver Creek corridor.
6. White Mountains Boundary Trail from McKay Creek Trail west along boundary, approximately 11 miles.
7. Moose Creek Ridge Trail from Nome Creek Road to top of Ridge, then east to Quartz Creek Trail and west along ridge to Moose Creek.
8. Globe Peak Trail from Globe Peak to intersection with Big Bend Trail.
9. Big Bend Trail from Colorado Creek Cabin to Beaver Creek corridor.
10. Colorado Creek Trail from Colorado Creek cabin, west to White Mountains NRA boundary.
11. Ridge Trail from Colorado Creek Trail to VABM Beaver.
12. Portion of Haystack Mountain access on BLM land.
13. Little Champion Creek extension.

Additional trails may be constructed in the future once a trail is improved and sustainable for this use.

Winter use of snowmobiles 1,000 pounds curb weight or less allowed (October 15 through April 30).

Permit required for all other OHV use.

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Nome Creek- Frontcountry (Alt. D)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

The Table Top Mountain Trail, Two-Step Louis Trail and the Fishing Trail inside the Cripple Creek Campground are limited to non-motorized use.

ATVs 50 inches in width or less, and 1,000 pounds curb weight or less are allowed on designated trails only (May 1 through October 14). Travel off of designated trails allowed only to retrieve legally harvested game. Designated ATV Trails include:

1. Moose Ridge Trail
2. Bear Creek Trail
3. Quartz Creek Trail
4. Lower Nome Creek Trail

UTVs are allowed on designated trails only (May 1 through October 14). No game retrieval by UTVs is allowed off of the designated trail. Designated UTV Trails include (Map 59):

1. Moose Ridge Trail
2. Quartz Creek Trail

Additional trails may be added to the designated trail system when identified or designed and constructed by the BLM in a sustainable fashion.

Winter use of snowmobiles 1,000 pounds curb weight or less allowed (October 15 through April 30).

Nome Creek Road and Nome Creek Tailings are open to travel for all OHV and highway vehicles (map available in the Field Office).

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

Wickersham Dome and Fred Blixt Cabin — Frontcountry (Alt. D)

Allowed Uses:

All forms of non-motorized use are generally allowed, including horses and mountain bikes.

The Ski Loop and Summit trails are limited to non-motorized use only.

ATVs 50 inches in width or less, and 1,000 pounds curb weight or less (May 1 through October 14 except for Wickersham Creek Trail). Wickersham Creek Trail from Mile 28 Elliott Highway to its intersection with 23.5 mile trail is open to the summer use of ATVs from June 1 through October 14. Summer use is delayed to protect costly improvements to trail tread from rutting and erosion, and allow the ground to thaw. The use of motorized travel, except snowmobiles, ends October 14, unless posted otherwise, to not impact winter trail grooming activities. Cross-country travel is allowed, except on the Summit and Ski Loop trails and within the Wickersham Creek Closed Area.

UTVs are allowed on designated trails only (Same seasonal restrictions apply to Wickersham Creek Trail as above). Designated UTV Trails include (Map 59):

1. Wickersham Creek Trail from Mile 28 Elliott Highway to Lee's Cabin.
2. Mile 23.5 Elliott Highway to intersection with Wickersham Creek Trail.

Additional trails may be added to the designated trail system when identified or designed and constructed by the BLM in a sustainable fashion.

Winter use of snowmobiles 1,000 pounds curb weight or less allowed (October 15 through April 30).

Aircraft are generally unrestricted.

Construction or improvement of aircraft landing areas by permit only. Minimal clearing of rocks, downed logs and brush is allowed.

B.10. Implementation Process

The Land Use Planning portion of this plan defines the areas within the White Mountains Subunit determined to be Open, Limited, or Closed, and the number of miles of designated routes in the Limited category (Chapter 2 of the RMP/EIS).

Implementation decisions are not subject to protest under the planning regulations, but are subject to appeal when the record of decision for the RMP is signed. An implementation plan will be developed that describes the actual routes designated, seasonal closures and associated resource and/or user conflicts, mapping and travel information, signing, interagency coordination, use supervision, monitoring, enforcement, and maintenance for the implementation process. Implementation decisions are the actions taken to implement land use plans and generally are the BLM's final approval allowing on-the-ground actions to proceed. These types of decisions are based on site-specific planning and NEPA analyses and are subject to the administrative remedies set forth in the regulations that apply to each resource management program of the BLM.

Pre-Designation Actions

The Eastern Interior Field Office will establish guidelines for maps and information that can be published in the form of brochures and route maps for the public. Outreach efforts will be coordinated with state and local governments, other federal agencies, and user groups to provide information to the public.

Trail signing standards will be developed so that a consistent signing format is used throughout the White Mountains subunit. The Field Office will plan the on-the-ground designation of routes process to coordinate with maps and needed signage. Seasonal employees and volunteers or both may be needed to install signs. All designated routes will be mapped using GPS. This

data will be used to prepare maps. Vehicle barriers may be put in place at trail heads for routes that need closure from use .

Post-Designation Actions

The Eastern Interior Field Office will supervise the use of routes as outlined in the Approved RMP. Law Enforcement and resource specialists will formally and informally monitor the travel plan decisions as outlined in a Monitoring Plan that will be developed to address timing and criteria for resource monitoring. Monitoring methodologies, procedures and techniques for OHV use and impacts in the resource area will meet Alaska Land Health Standards. Monitoring methodologies will be sufficient to detect and evaluate OHV-related impacts so management changes can occur, if needed. Trail maintenance will be ongoing.

When OHV designations, which may include closures or restrictions, are developed through RMPs, publication of the *Federal Register* Notice for the RMP, Record of Decision, is required and is sufficient for legal enforcement.

Educational programs will be established including: continuing the "Leave No Trace" and "Tread Lightly" programs; local interagency coordination with literature, maps and brochures for public distribution; consistent signing throughout the subunit; and working with the local user groups and vendors.

Appendix C

Evaluation of

ACEC Nominations

Appendix C. Evaluation of ACEC Nominations

C.1. Introduction

An area of Critical Environmental Concern (ACEC) is an area where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes; or to protect human life and safety from natural hazards (43 CFR 1601.0-5; BLM Manual 1613 ACECs). The identification of a potential ACEC will not, of itself, change or prevent change of the management or use of public lands. ACECs must meet the relevance and importance criteria in 43 CFR 1610.7-2(a) and must require special management (43 CFR 1601.0-5(a)) to protect:

- the area and prevent irreparable damage to resources or natural systems
- human life; and, promote safety in areas where natural hazards exist.

The Federal Land Policy and Management Act (FLPMA) requires that priority be given to the designation and protection of ACECs. ACECs are identified, evaluated, and designated through the land use planning process. An ACEC designation is the principal BLM designation for public lands where special management is required to protect important natural, historic, cultural, and scenic resources, or to identify natural hazards.

The regulation in 43 CFR 1610.7-2 outlines the process for designation of ACECs. The inventory data will be analyzed to determine whether there are areas containing resources, values, systems or processes, or hazards eligible for further consideration for designation as an ACEC. In order to be a potential ACEC, both of the following criteria must be met:

1. **Relevance**—There must be a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard present.
2. **Importance**—The above-described value, resource, system, process, or hazard must have substantial significance and value. This generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard may be important if it is a significant threat to human life or property.

An area meets the relevance criterion if it contains one or more of the following:

- A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archaeological resources and religious or cultural resources important to Native Americans).
- A fish or wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species, or habitat essential for maintaining species diversity).
- A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).
- Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of the natural process.

The value, resource, system, process, or hazard identified under the relevance criterion must have substantial significance and values in order to meet the “importance” criteria. This generally

means that the value, resource, system, process, or hazard is characterized by one or more of the following:

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

To be designated as an ACEC, an area must require special management attention to protect the important and relevant resources (BLM Manual 1613). "Special management attention" refers to management prescriptions developed during preparation of an RMP expressly to protect the important and relevant values of an area from the potential effects of actions permitted by the RMP, including proposed actions deemed to be in conformance with the terms, conditions, and decisions of the RMP. There are management measures which would not be necessary and prescribed if the critical and important features were not present. A management prescription is considered to be special if it is unique to the area and includes terms and conditions specifically to protect the important and relevant value(s) in that area. For example, a seasonal use stipulation on permits or other use authorizations may be prescribed specifically to protect an ACEC value. Management prescriptions providing special management attention will include more detail than prescriptions for other areas and should establish priority for implementation.

C.2. Nominations

External Nominations

During the public scoping period for the Eastern Interior RMP, the BLM received one ACEC nomination from the public (Map 61). In addition, the BLM received recommendations that the boundaries of three existing research natural areas (RNAs) be reviewed to determine if the designated RNAs are of sufficient size to maintain the values for which they were designated. Since RNAs are a type of ACEC, these recommendations are handled as ACEC nominations.

The areas reviewed for ACEC status include:

1. Upper Black River watershed
2. Big Windy Hot Springs RNA expansion
3. Mount Prindle RNA expansion
4. Limestone Jags RNA expansion

Internal Nominations

The BLM may internally nominate areas for ACEC designation. The following areas were nominated internally and reviewed for ACEC status.

- Caribou calving/postcalving habitat and Dall sheep habitat in the Fortymile Subunit;
- Caribou calving/postcalving habitat and Dall sheep habitat in the Steese Subunit NCA; and
- Caribou calving/postcalving habitat and Dall sheep habitat in the White Mountains NRA.

C.3. Evaluations of Nominated Areas

Potential ACECs must meet the criteria of relevance and importance, as established in 43 CFR 1610.7-2. The following tables outline the evaluations for each nominated area.

Big Windy Hot Springs Existing Research Natural Area and Proposed Expansion (Map 61)			
Big Windy Hot Springs RNA is 160 acres. Scoping comments recommended that the BLM reevaluate the area to ensure that it was an adequate size to protect the integrity of hot springs systems. The rationale provided was that it is small and susceptible to disturbances and that a much larger area (12,700 acres) was originally considered for designation in the Steese Proposed RMP/Final EIS (BLM 1984).			
Area Evaluated: The area identified in Alternatives B and C of the Steese NCA Proposed RMP/Final EIS (BLM 1984).			
General Location	General Description	Acreage	Values Considered
Steese NCA, South Unit, south of Birch Creek. FM, T. 4-5N., R. 16E.	undisturbed, medium-grade hot geothermal seeps and pools	12,700	cultural, wildlife, fish, natural system
Does the proposed ACEC contain one or more relevant values?			
Relevant Values	Yes/No	Rationale for Determination	
1. A significant historic, cultural, or scenic value	No	No known cultural sites	
2. A fish or wildlife resource	Yes	Dall Sheep habitat, mineral licks and escape terrain which allows use; Fortymile caribou herd year-round habitat.	
3. A natural process or system	Yes	A natural, undisturbed hot springs system	
4. Natural hazards	No	No known natural hazards	
Does the Proposed ACEC contain one or more of the important values?			
Important Values	Yes/No	Rationale for Determination	
More than locally significant	Yes	<p><u>Natural systems:</u> All other hot springs in central Alaska are either developed or have been modified in a way that has substantially disturbed natural geologic features and vegetation. Big Windy Hot Springs is undisturbed. The hot springs area supports several disjunct populations of plant and animal taxa.</p> <p><u>Wildlife:</u> Dall sheep are very limited in distribution in Interior Alaska, and the Yukon Tanana Uplands in particular. The hot springs and adjacent area is heavily used by Dall sheep. Mineral licks are important habitat for Dall sheep.</p>	
Is fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change	Yes	<p><u>Natural systems:</u> Only remaining undisturbed hot springs in central Alaska. Travertine structures at the hot springs are fragile. Unique habitats created are very limited in area.</p> <p><u>Wildlife:</u> Mineral licks are rare habitats. Sheep are vulnerable to predation and sensitive to disturbance in area due to little rugged escape habitat.</p>	
Has been recognized as warranting protection	Yes	<p><u>Natural systems:</u> The hot springs system is designated as an RNA.</p> <p><u>Wildlife:</u> Mineral licks are rare and important habitat for Dall sheep and warrant protection.</p>	
Has qualities which warrant highlighting to satisfy management concerns about safety and public welfare	No	None identified	
Significant threat to human life/safety or property	No	None identified	
Summary of Important Values: Wildlife and natural system			

Big Windy Hot Springs Existing Research Natural Area and Proposed Expansion (Map 61)	
Does the area require special management to protect important and relevant resources?	
<u>Wildlife:</u> Yes. See Steese ACEC nomination.	
<u>Natural System:</u> Yes. Special management is required to protect the natural hot spring system.	
Findings: The existing RNA meets the relevance and importance criteria for natural systems. The proposed expansion area meets the relevance and importance criteria for wildlife resource. The current RNA boundary will be retained. The proposed expansion area was included in the Steese ACEC nomination, described in this Appendix.	
Rationale:	<u>Cultural:</u> There has not been a cultural resources survey within the Big Windy Hot Springs RNA, or within the proposed expanded boundaries. There are no known cultural sites. Protections afforded by existing federal legislation (e.g., National Historic Preservation Act 1966; Archaeological Resources Protection Act 1979) are adequate to protect cultural resources that may be found in the nominated area.
Rationale:	<u>Fish:</u> Big Windy Creek within the existing RNA is a high gradient, riffle-rapid stream with poor pool development and rubble-boulder substrate. Fish habitat is considered marginal and appears to offer summer feeding habitat for a small number of grayling. Winter fishery surveys have not been performed but with poor pool habitat, winter use would likely be marginal. Expanding the boundary of the RNA would not benefit fishery resources.
Rationale:	<u>Wildlife:</u> The proposed expansion has merit for protection of Dall sheep habitat. Protection of only the Hot Springs site will not ensure continued use by Dall sheep. To use the Hot Springs mineral lick, sheep traverse a large area with minimal escape terrain. While in this area of minimal escape terrain, sheep are much more susceptible to disturbance and the consequences of disturbance are large (energy expended and predation risk) due to the distance to quality escape terrain. In order to maintain the ability of sheep to use this area, disturbance along the route to the lick may need to be limited. In addition, the ridge between Puzzle Gulch contains year-round habitat for the Fortymile caribou herd. Field surveys in the area indicate the area may also be valuable habitat for grizzly bear, wolf, moose, and gyrfalcon.
Rationale:	Although the expanded area meets the relevance and importance criteria for wildlife, the planning team did not recommend expansion of the RNA to protect wildlife resources. The expanded area is included in the larger Steese ACEC nomination which also includes additional areas of delineated Dall sheep habitat and Fortymile caribou habitat. <u>Natural System:</u> There is no need to expand the RNA boundary for the purposes of protecting the natural system. The existing management, RNA and national conservation area designations, and additional protection afforded by its remote location are sufficient to protect the natural hot springs system. The system remains intact and functioning 23 years after its initial designation as an RNA.

Limestone Jags Existing RNA and Proposed Expansion (Map 61)			
Limestone Jags RNA is 5,170 acres. Scoping comments recommended that the BLM reevaluate the area to ensure that it is an adequate size. The rationale provided by scoping comments was that RNAs need to be an adequate size to protect the integrity of the system. During development of the White Mountains RMP in the 1980s, larger areas than ultimately designated were proposed for RNAs. The success of management related to the size of these areas must be reviewed to determine if the originally proposed larger area is necessary. The spine of the White Mountains, an area of 180,000 acres that includes the Limestone Jags RNA, was nominated for inclusion in the National Natural Landmarks Program (BLM 1984).			
Area Evaluated:			
General Location	General Description	Acreage	Values Considered
White Mountains NRA	System of caves, underground streams, natural bridges or arches, and emergent cold springs. Seasonal habitat for Dall sheep and caribou. Proposed expansion includes variety of habitats.	180,000	cultural, fish, wildlife
Does the proposed ACEC contain one or more relevant values?			
Relevant Values	Yes/No	Rationale for Determination	
1. A significant historic, cultural, or scenic value	No	No known cultural sites	
2. A fish or wildlife resource	Yes	Dall Sheep habitat; calving, postcalving, and insect avoidance habitat for caribou	
3. A natural process or system	Yes	System of caves, underground streams, natural bridges or arches, and emergent cold springs.	
4. Natural hazards	No	No known natural hazards	
Does the Proposed ACEC contain one or more of the important values?			
Important Values	Yes/No	Rationale for Determination	
More than locally significant	Yes	<p><u>Natural systems:</u> The high-latitude limestone mountains in the area are unusual in the region and create unique karst features and plant and animal habitats, including rare plant species.</p> <p><u>Wildlife:</u> Year-round Dall sheep habitat, much of which is below elevational treeline. The area is calving, postcalving, and insect avoidance habitat for the White Mountains caribou herd and, historical habitat for the Fortymile caribou herd.</p>	
Is fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change	Yes	<p><u>Natural systems:</u> The current RNA is managed to preserve several exemplary "type needs" as part of a nationwide system of RNAs, including geologic features (most related to limestone), animal species (Dall sheep, Hoary marmot, peregrine falcon) and a variety of plant communities.</p> <p><u>Wildlife:</u> Dall sheep habitat and caribou calving and postcalving and insect avoidance habitats are considered sensitive habitat.</p>	
Has been recognized as warranting protection	Yes	<u>Natural systems:</u> The current RNA has been determined to warrant protection of existing values for research and monitoring.	

Limestone Jags Existing RNA and Proposed Expansion (Map 61)		
Has qualities which warrant highlighting to satisfy management concerns about safety and public welfare	No	None identified
Significant threat to human life/safety or property	No	None identified
Summary of Important Values: Wildlife and natural systems		
Does the area require special management to protect important and relevant resources?		
<u>Wildlife:</u> Yes. See White Mountains ACEC nomination.		
Natural System: Yes. Special management is required to protect the RNA for future research.		
Findings: The existing RNA meets the relevance and importance criteria for natural systems. The proposed expansion area meets the relevance and importance criteria for wildlife resource. The current RNA boundary will be retained. The proposed expansion area was instead included in a larger area nominated as an ACEC and is evaluated under the White Mountains ACEC nomination.		
Rationale:	<u>Cultural:</u> Between 2002 and 2005, the BLM surveyed inside the current boundaries of the Limestone Jags RNA for cultural and paleontological resources, specifically focusing on the area's caves and rockshelters. Approximately 3,350 acres of land were surveyed, including 90 caves and rockshelters. No archaeological or other cultural sites were found; one paleontological site was found. There have been no other known cultural resources surveys within the boundaries of the existing Limestone Jags RNA, nor within the proposed expanded boundaries. As such, there are no known cultural sites within these areas. Therefore, specifically for cultural resources concerns, there is no reason to expand the boundary of the RNA to protect the integrity of the system or to enhance management.	
Rationale:	<u>Fish:</u> Fossil Creek, the most significant fish bearing stream in the RNA, contains low fishery resource values. Therefore, fish was not identified as a relevant value.	
Rationale:	<u>Wildlife:</u> The proposed expansion has merit for protection of Dall sheep and caribou calving/postcalving habitat. Protection of only the existing RNA will not ensure continued use of the larger area by Dall sheep and caribou. Although the expanded area meets the relevance and importance criteria for wildlife, the planning team did not recommend expanding the RNA to protect wildlife resources. The expanded area is however included in the larger White Mountains ACEC nomination that includes more significant portions of Dall sheep habitat and caribou habitat. See the White Mountains ACEC nomination.	
Rationale:	<u>Natural System:</u> The existing RNA is thought to adequately protect geologic and plant community Type Needs for the purposes of a RNA.	

Mount Prindle Existing Research Natural Area and Proposed Expansion (Map 61)			
<p>Mount Prindle RNA is 5,950 acres. Scoping comments recommended that the BLM reevaluate the area to ensure that it is of adequate size. The rationale provided was that RNA needs to be an adequate size to protect the integrity of the system. During development of the 1980s management plans, larger areas than ultimately designated, were proposed for RNAs. The success of management related to the size of these areas should be reviewed to determine if the originally proposed larger area is necessary. Mount Prindle and a considerably larger area (47,000 acres) was nominated and reviewed for inclusion in the National Natural Landmarks Program (NNLP) in the late 1970s (Young and Walters 1982). This area still retains the values for which it was reviewed and the RNA boundary should be expanded to ensure proper protections for the values of the area.</p>			
Area Evaluated:			
General Location	General Description	Acreage	Values Considered
White Mountains NRA and Steese NCA	Mount Prindle and surrounding area.	47,000	cultural, wildlife, fish
Does the proposed ACEC contain one or more relevant values?			
Relevant Values	Yes/No	Rationale for Determination	
1. A significant historic, cultural, or scenic value	No	No known cultural or archaeological sites	
2. A fish or wildlife resource	Yes	Dall sheep habitat and mineral lick; current White Mountains and historical Fortymile caribou herd calving habitat	
3. A natural process or system	Yes	Solifluction lobes; glaciated and unglaciated subarctic landforms; diversity of alpine plant communities	
4. Natural hazards	No	No known natural hazards	
Does the Proposed ACEC contain one or more of the important values?			
Important Values	Yes/No	Rationale for Determination	
More than locally significant	Yes	<p><u>Natural systems:</u> Mount Prindle RNA has an unusually high number of scientifically and educationally interesting natural features, both rare and typical of the central and western portion of the Yukon-Tanana Uplands, within a relatively compact area.</p> <p><u>Wildlife:</u> Year-round habitat for a subpopulation of Dall sheep and one mineral lick. The area is calving and postcalving habitat for the White Mountains caribou herd and, historical habitat for the Fortymile caribou herd. Dall sheep are very limited in distribution in Interior Alaska, and the Yukon Tanana Uplands in particular. Caribou are important culturally and for sport and subsistence harvest. The Fortymile caribou herd is an international herd and one of the most important subsistence resources in east central Alaska.</p>	
Is fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change	Yes	<p><u>Natural systems:</u> It contains excellent examples of both glaciated landforms and periglacial (unglaciated) features. The solifluction lobes, produced by the periglacial processes, are some of the best developed in central Alaska. Two recently active debris torrent channels have carved the east face of Mount Prindle, providing spectacular evidence of large-scale weathering processes. RNA system "type needs" listed for the Mount Prindle RNA include periglacial features, cliffs, animals (Dall sheep, caribou, wheatear), a rare plant (<i>Draba densifolia</i>) and several plant communities. Other rare plants occur in the proposed RNA (<i>Ranunculus glacialis</i> var. <i>camissonis</i> and <i>Minuartia biflora</i>).</p>	

Mount Prindle Existing Research Natural Area and Proposed Expansion (Map 61)		
		<u>Wildlife:</u> Mineral licks are rare and important habitats for ungulates. Calving and postcalving habitats for caribou are considered the most sensitive seasonal habitats. Dall sheep have specialized habitat requirements. In addition to Dall sheep, caribou, and northern wheatear habitat, the proposed RNA contains at least two gyrfalcon and one peregrine falcon nest sites.
Has been recognized as warranting protection	Yes	<u>Natural systems:</u> The RNA has been recognized as warranting protection due to its high potential for supporting public education and scientific research. <u>Wildlife:</u> The RNA has been recognized as warranting protection due to its high potential for supporting public education and scientific research.
Has qualities which warrant highlighting to satisfy management concerns about safety and public welfare	No	None identified
Significant threat to human life/safety or property	No	None identified
Summary of Important Values: Wildlife and natural systems		
Does the area require special management to protect important and relevant resources?		
<u>Wildlife:</u> Yes. See White Mountains and Steese ACEC nominations.		
<u>Natural System:</u> Yes. Special management is required to protect the RNA for future research and education.		
Findings: The existing RNA meets the relevance and importance criteria for natural systems. The proposed expansion area meets the relevance and importance criteria for wildlife resource. The current RNA boundary will be retained. An area including the proposed expansion area was nominated as an ACEC and is evaluated under the Steese and White Mountains ACEC nominations.		
Rationale:	<u>Cultural:</u> The Importance Criteria, in terms of cultural resources, emphasizes the presence of cultural sites that have substantial significance and values, are rare, or have qualities of more than local significance. The single log cabin ruin site known in the proposed expanded boundary does not meet these criteria. While it may meet federal criteria for significance and be eligible to the National Register of Historic Places, it would do so at the local level (such as history of economic exploitation in the upper Beaver Creek drainage), not at the regional or national level. Neither is it a rare type site. There are one to two dozen examples of similar miners and trappers cabin in the encompassing White Mountains NRA. (No known religious sites or other sites important to Native Americans or Alaska Natives are known within or near the proposed expanded boundaries of the Mount Prindle RNA, or anywhere else within the surrounding White Mountains NRA or Steese NCA.) Current scoping efforts by the BLM for the Eastern Interior RMP have specifically addressed locating such sites with local, federally recognized Tribal groups. As yet, none have been made known to the BLM. Therefore, historic and cultural resources were not identified as relevant values.	
Rationale:	<u>Fish:</u> Streams in the proposed area are likely to be high gradient, low productivity, and of low fishery value. Therefore, fish was not identified as a relevant value.	

Mount Prindle Existing Research Natural Area and Proposed Expansion (Map 61)	
Rationale:	Wildlife: The proposed expansion has merit for protection of Dall sheep and caribou habitat. Protection of the existing RNA will not ensure continued use of the larger area by Dall sheep and caribou. Although the expanded area meets the relevance and importance criteria for wildlife, the planning team did not recommend expanding the RNA to protect wildlife resources. The expanded area is included in the larger White Mountains and Steese ACEC nominations that includes additional areas of Dall sheep habitat and caribou habitat. See those nominations in this appendix for more information.
Rationale:	Natural System: The RNA contains excellent examples of both glaciated landforms and periglacial (unglaciated) features. At least four glacial advances spanning several hundred thousand years are evident. The small glaciers of Mount Prindle were isolated in a vast unglaciated region and were barely nourished by the ice age climates. The features marking the fluctuations of these small glaciers are useful in studies of past climates. The periglacial landscape processes have operated for even longer periods and have produced remnant features such as tors and cryoplanation terraces, including depositional features such as solifluction lobes. The solifluction lobes in the RNA are some of the best developed in central Alaska. The proposed RNA includes habitat for three rare plants.

Upper Black River Watershed and Salmon Fork of the Black River (Map 61)			
During scoping, the BLM received three nominations for an ACEC in the Upper Black River watershed. This area was nominated for historic, scenic, and cultural values, fish and wildlife resources, as an important source of subsistence resources for Chalkyitsik and Fort Yukon, and municipal water source for the village of Chalkyitsik. The area nominated included all BLM-managed lands within the Upper Black River watershed.			
Area Evaluated:			
General Location	General Description	Acreage	Values Considered
Interior Alaska, north and east of the Yukon River	Upper Black River watershed	1,578,000	historic, cultural, fish, wildlife
Does the proposed ACEC contain one or more relevant values?			
Relevant Values	Yes/No	Rationale for Determination	
1. A significant historic, cultural, or scenic value	No	Three known surveys have occurred and 19 prehistoric and historic sites have been identified on BLM-managed lands in this area. These sites are not significant.	
2. A fish or wildlife resource	Yes	The Salmon Fork of the Black River is an undisturbed, pristine watershed supporting a wide variety of anadromous and resident fish. A nesting population of bald eagles occur. Caribou habitat (core and general winter range) occurs in higher elevations of the proposed area.	
3. A natural process or system	Yes	An intact and mostly undisturbed river system that is in proper functioning condition. Two significant caves and habitats supporting rare plants in the Salmon Fork watershed. Rare and sensitive plants.	
4. Natural hazards	No	No known natural hazards	
Does the Proposed ACEC contain one or more of the important values?			
Important Values	Yes/No	Rationale for Determination	
More than locally significant	No	<u>Cultural and Historic:</u> Known prehistoric and historic sites on the Salmon Fork are not more than locally significant. Outside of the Salmon Fork, the site potential is unknown.	
	Yes*	<u>Fish:</u> The Salmon Fork headwaters are in Canada and it serves as a migration corridor for salmon returning to spawn in Canada. It is a tributary of the Yukon River which is managed subject to international agreements with Canada.	
	Yes*	<u>Wildlife:</u> The nominated area includes fall and winter range for the Porcupine caribou herd. The identified habitats are near the edge of the herd's range, may not be used in all years, and constitute a small portion of available winter habitat. However, the herd is culturally important for communities in Alaska and Canada and is the subject of an international agreement with Canada.	
	No	<u>Natural systems:</u> Most river systems in Alaska are intact, mostly undisturbed, and in proper functioning condition.	
Is fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change	No	<u>Cultural and Historic:</u> Both the historic and prehistoric sites types found in the nominated area are not particularly rare.	
	Yes*	<u>Fish:</u> The Salmon Fork contains spawning and rearing habitat for both anadromous and resident fish species. K.T. Alt (1987) found evidence to suggest sheefish spawn in the Salmon Fork. There are only five known sheefish spawning locations in the entire Yukon River drainage.	
	Yes*	<u>Wildlife:</u> The Black River (including portions of the Salmon Fork and Grayling Forks) supports nesting bald eagles. This population may be the northernmost population of bald eagles of at least moderate density in Alaska.	
	Yes*	<u>Natural systems:</u> The area north of the main stem of the Salmon Fork supports significant populations of one BLM-Alaska sensitive plant species and several rare species being considered for inclusion on the BLM-Alaska Sensitive	

Upper Black River Watershed and Salmon Fork of the Black River (Map 61)		
		Species List. Cave and karst resources are rare in the Arctic. Two significant caves are found in the Salmon Fork drainage. The two significant caves are extremely remote and difficult to access, and do not require special management.
Has been recognized as warranting protection	No	None identified
Has qualities which warrant highlighting to satisfy management concerns about safety and public welfare	No	None identified
Significant threat to human life/safety or property	No	None identified
Summary of Important Values: Fish and wildlife, and natural systems		
Does the area require special management to protect important and relevant resources?		
<p><u>Fish:</u> Land disturbing activities have the potential to jeopardize and/or adversely affect the waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity. Restoration of these habitats after disturbance is extremely difficult in Alaska and may take many decades. Restrictions or limitations on these types of activities are needed.</p> <p><u>Wildlife:</u> Water quality in Salmon Fork and Grayling Fork should be maintained to support nesting Bald Eagles and restrictions on industrial activity in vicinity of nests should be enacted. Coordination and notification with Canadian Government is required prior to developments affecting Porcupine caribou habitat. Provisions should be made in management to allow the herd to continue to utilize habitats in the area. Special management will aid but is not considered required for the protection of caribou habitat.</p> <p><u>Natural systems:</u> Limestone habitats and steep south facing slopes and bluffs should be managed to minimize impacts on rare flora. Special management will aid but is not considered required for the protection of rare and sensitive plants.</p>		
Findings: *The Salmon Fork Watershed (621,000 acres) meets the relevance and importance criteria and should be considered for ACEC designation in the Draft RMP/EIS (Map 69). The remainder of the nominated area does not meet the criteria and will not be considered for designation.		
Rationale:	<p><u>Cultural:</u> Outside of the Salmon Fork, the prehistoric site potential of the vast majority of the proposed ACEC is unknown. No known religious sites or other sites important to Native Americans or Alaska Natives are known within the boundaries of the proposed ACEC. There is no data on which to recommend an ACEC designation for this area based upon cultural resources.</p> <p>Regarding the Salmon Fork, the 20th century log cabin ruins do not meet the criteria. Nor are these sites particularly rare in Interior Alaska. Hundreds if not thousands of such sites (such as 1910s-1950s trapping cabins) exist on the landscape. Known prehistoric sites along the Salmon Fork do not meet the importance criteria. The site types found are not particularly rare, they are mostly surface lithic sites (some apparently have a shallow subsurface component), with no known organic artifacts or ecofacts present, and with no features presently known. They are situated on high topographic, exposed locations along the rivers. As such, they are likely summer-oriented, brief campsites. None are village sites. There are no known quarry sites. No artifacts indicating any occupation beyond the mid-Holocene were located (no artifacts associated with early Holocene or late-Pleistocene occupations association with addressing Peopling of the New World research questions). While the sites, individually and collectively may meet federal criteria for significance and be eligible to the National Register of Historic Places, they would only do so at the local (e.g., Salmon River drainage) or sub-regional (e.g., eastern-central Interior Alaska) geographic levels, and not at the regional (e.g., Alaska-wide) or national level. Protections afforded to cultural resources by existing federal legislation are adequate for the cultural resources that may be expected to be found in the area.</p>	

Upper Black River Watershed and Salmon Fork of the Black River (Map 61)	
Rationale:	<p><u>Fish:</u> The watershed of the Salmon Fork Black River (4th level HUC #194040204) meets the importance criteria. The Salmon Fork is an undisturbed pristine watershed supporting a wide variety of anadromous and resident fish species. Local residents in the Black River area have long used its fisheries resources for subsistence purposes and the Black River and its tributaries, primarily the Salmon Fork, are considered the most productive sources of fish for residents of Chalkyitsik. Anadromous fish stocks destined for the Salmon Fork contribute to subsistence fishing opportunities along more than 900 miles of the Yukon River. With declining salmon stocks in the Yukon River one might consider all of its anadromous fish producing tributaries to be of important value. The headwaters of the Salmon Fork originate in Canada, therefore, the portion of the Salmon Fork located in the U.S. is a migration corridor for anadromous fish stocks returning to spawn in Canada.</p> <p>The Salmon Fork contains high quality and diverse fishery resources, with at least eight species of fish including Chinook salmon and a significant run of fall chum salmon. The Salmon Fork contains critical spawning and rearing habitat for both anadromous and resident fish species. Aerial surveys estimate escapement of fall chum between 444 and 3,098 fish. Aerial estimates of abundance are always lower than actual escapements even in optimal survey conditions (Barton 1984). Local residents report that coho and fall chum spawn in open water springs found on Kevinjik (slightly upstream of BLM lands) and Tetthaajik Creeks during the late fall. Sheefish use the Salmon Fork for summer feeding and K. T. Alt (1987) found evidence that suggests sheefish spawn in the Salmon Fork. There are only five known sheefish spawning locations in the entire Yukon River drainage. Alt accurately predicted sheefish spawning areas in the upper Nowitna River drainage which has since been documented. The Salmon Fork also contains a very healthy Arctic grayling population.</p>
Rationale:	<p><u>Wildlife:</u> The nominated area meets the relevance and importance criteria. Some resources may require special management.</p> <p><u>Subsistence:</u> Trapping and harvest of moose and caribou have occurred within the Salmon Fork (Caulfield 1983). However, these activities also occur along the Porcupine River and mainstem of the Black River. Harvest of fall caribou is reported occasionally in the headwaters of the Salmon Fork, however, it is a small area compared to the entire caribou harvest area and significantly farther from the village. Porcupine herd caribou migrate through and winter in portions of BLM-managed lands in the Black River drainage. Given the whole picture of trapping and caribou and moose hunting land use, the portions of BLM-managed lands are small. Further input from local residents would provide specific information on whether or not these are critically important areas for subsistence resources and harvest.</p> <p>The area nominated includes general and core fall and winter range for the Porcupine caribou herd. The identified areas of winter range are generally higher elevations and may be valuable winter range because higher elevations tend to burn less frequently, allowing more time for forage lichens to develop. Most seasonal caribou habitats (e.g., calving and postcalving) are considered of higher value and more sensitive than winter habitats. In addition, the identified habitats are near the edge of the herd's range and may not be used in all years. However, the Porcupine herd is an international herd of high value to subsistence hunters and First Nations people and the subject of an international agreement with Canada. Provisions should be made in management to allow the herd to continue to use these winter habitats.</p>
Rationale:	<p><u>Natural System:</u> The upper Black River is extremely remote and difficult to access. It is likely to remain in proper functioning condition without special management. Relevant and important resources are concentrated in the Salmon Fork watershed. The significant caves meet the relevance and importance criteria but do not require special management. Rare and sensitive plants meet the relevance and importance criteria but do not require special management.</p>

Fortymile ACEC (Maps 62, 63, and 64)			
Internal BLM nomination for caribou calving and postcalving habitat and Dall sheep habitat			
Area Evaluated:			
General Location	General Description	Acreage	Values Considered
Northern portion of the Fortymile Subunit	Caribou calving and postcalving habitat, Dall sheep habitat, mineral licks.	732,000	Wildlife
Does the proposed ACEC contain one or more relevant values?			
Relevant Values	Yes/No	Rationale for Determination	
1. A significant historic, cultural, or scenic value	No	None identified	
2. A fish or wildlife resource	Yes	Fortymile caribou herd calving and postcalving habitat and Yukon-Tanana Uplands Dall sheep habitat.	
3. A natural process or system	No	None identified	
4. Natural hazards	No	No known natural hazards	
Does the Proposed ACEC contain one or more of the important values?			
Important Values	Yes/No	Rationale for Determination	
More than locally significant	Yes	<u>Wildlife:</u> Dall sheep are very limited in distribution in Interior Alaska and the Yukon Tanana Uplands in particular. Caribou are important culturally and for sport and subsistence harvest. The Fortymile caribou herd is an international herd and one of the most important subsistence resources in east central Alaska.	
Is fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change	Yes	<u>Wildlife:</u> Mineral licks are rare and important habitats for ungulates. Calving and postcalving habitats for caribou are considered the most sensitive seasonal habitats. Dall sheep have specialized habitat requirements.	
Has been recognized as warranting protection	Yes	<u>Wildlife:</u> See above and in "Rationale" below.	
Has qualities which warrant highlighting to satisfy management concerns about safety and public welfare	No	None identified	
significant threat to human life/safety or property	No	None identified	
Summary of Important Values: Wildlife			
Does the area require special management to protect important and relevant resources?			
<u>Wildlife:</u> Yes. Without long-term special management the value of these areas as wildlife habitat will likely be reduced.			
Findings: The nominated area meets the relevance and importance criteria and should be considered for ACEC designation in the Draft RMP/EIS.			
Rationale	<p><u>Dall Sheep:</u> Dall sheep are an important component of biological diversity and recreational opportunity of the area. Alaska is the only state which harbors Dall sheep, and BLM lands support the majority of Dall sheep in the Yukon-Tanana Uplands. In Canada, Dall sheep are found only in portions of Yukon and Northwest Territories, while Stone sheep (a Dall sheep subspecies) occur in portions of Yukon Territory and northern British Columbia. Within Alaska, Dall sheep are most abundant and widespread in the large mountain ranges—Brooks Range and Alaska Range/Chugach Range/Wrangell Mountains. The Yukon-Tanana Uplands are non-typical Dall sheep habitat, supporting small scattered populations of sheep in isolated areas of rugged terrain. Much of the habitat is just above treeline and sheep often make use of areas below treeline. Occurring as small populations, these sheep are relatively more susceptible to local population extinction. Climate change could potentially result in decreasing area and quality of these patchy near-treeline habitats, and warmer winter weather could result in icing conditions that might restrict access to forage. Wild sheep are sensitive to human disturbance and often avoid areas of human disturbance. Where sheep continue use of habitats in the presence of human disturbance, physiological stress and increased susceptibility to disease may result. When important habitats are located at a distance from rugged escape terrain, susceptibility to the effects of disturbance are greater. Dall sheep in many areas within the planning area, by necessity utilize low-security habitats for foraging and for mineral acquisition,</p>		

Fortymile ACEC (Maps 62, 63, and 64)	
	<p>and so are more susceptible to disturbance. When disturbed, the discontinuous nature of escape terrain also may result in extensive flight distances to reach the next suitable patch of escape terrain.</p> <p>Many of the mineral licks used by these populations occur at low elevation and require long distance travel through low-security habitats (e.g., tussock tundra and lowland black spruce forest and woodland). Sheep in these situations may be already stressed and susceptible to predation. Human activities may cause additional stress, add to predation risk, or result in abandonment or avoidance of the area. Heavy use of mineral licks by Dall sheep (especially in early summer) is considered indicative of the importance of these licks to the population and they are considered crucial habitats. Dall sheep make intensive, regular use of relatively small areas (near rugged terrain and mineral licks). Protection of sheep habitat requires applying use restrictions to only minor portions of the planning area. Most Dall sheep habitat occurs within areas of caribou calving habitat.</p>

Fortymile ACEC (Maps 62, 63, and 64)	
Rationale	<p><u>Caribou:</u> The White Mountains caribou herd is an important component of biological diversity and recreational opportunity in the White Mountains NRA and Steese NCA and occurs in the northwestern portion of the historical range of the Fortymile caribou herd. Preliminary genetic analysis, indicates that the White Mountains herd may possibly be more closely related to woodland caribou herds in Canada than Alaska barren ground caribou herds. The much larger Fortymile herd is one of the most important subsistence resources in east central Alaska. Once estimated to number more than 500,000 animals, the herd is also an international resource, with a considerable portion of the historical range occurring in Canada. (The herd once ranged as far as Whitehorse, Yukon Territory). It remains one of the seven largest herds in Alaska, and one of the few large herds accessible by road. A precedent-setting cooperative planning process focuses on the goal of recovery of the herd in numbers and range. The habitats considered most sensitive for this herd are calving and postcalving, and the Fortymile Caribou Herd Planning Team recommended these be given the highest priority in management. During calving and postcalving time periods caribou are concentrated in specific habitats which are limited in extent.</p> <p>Caribou have been shown to be sensitive to disturbance. Studies of Prudhoe Bay oil development have indicated that caribou avoid oil field roads and facilities and distribution of calving has shifted away from oil fields. In addition, the caribou cows that do continue to use the oil field area during calving appear to have lower reproductive success. The population-level effects on caribou from a given level of activity or development in calving habitats cannot at this time be predicted. Although sufficient calving habitat may exist to allow caribou to shift to undeveloped portions of calving range, the increased reliance on a smaller set of calving habitats may have negative consequences for long-term herd population dynamics, such as, shifting of calving grounds may reduce predation, improve forage conditions, and provide resiliency in response to changing weather, forage, and insect conditions. Caribou population declines have occurred as a result of overuse by caribou of calving and summer range forage.</p> <p>Climate in the planning area is predicted to become warmer and drier (increases in summer precipitation will not keep pace with the increase in evapotranspiration). It is likely that tree-line will slowly rise and alpine tundra will become shrubbier. These changes would increase the importance of specific alpine and subalpine habitats for calving and postcalving caribou. Looking at worldwide caribou and reindeer populations, Vors and Boyce (2009) concluded: "The cumulative effects of phenology changes, spatial and temporal changes in species overlap, and extreme weather events are thus significant threats to the long-term persistence of caribou and reindeer." They showed that most caribou herds in the world are currently in decline, coincident with climate change and human-caused landscape change.</p> <p>With the completion of BLM land conveyance, state lands and private lands within caribou calving and postcalving habitats and sheep habitats are likely to experience mineral development and the associated development of roads and trails. These developments will increase the importance of federal lands for maintenance of caribou and Dall sheep populations. BLM lands that will remain after selections are generally considered of lower potential for occurrence of minerals. Designation</p>

Fortymile ACEC (Maps 62, 63, and 64)	
	<p>and management of calving and postcalving habitats in ACECs may conserve caribou and Dall sheep while allowing access to mineral resources of the region. Focusing on limiting impacts to the most critical habitats in these areas would be the most efficient strategy for maintaining this important northern resource. In ANILCA, Congress directed that caribou range should be a special value in management of the Steese National Conservation Area. At the time, much of the Steese had been used for calving by Fortymile caribou. In recent years, Fortymile caribou have concentrated in habitats located more to the south and east, areas contained in the Fortymile ACEC.</p>

Steese ACEC (Maps 65, 66, and 67)			
Internal BLM nomination for caribou calving and postcalving habitat and Dall sheep habitat			
Area Evaluated:			
General Location	General Description	Acreage	Values Considered
Steese NCA	Caribou calving and postcalving habitat, Dall sheep habitat, mineral licks.	927,000	Wildlife
Does the proposed ACEC contain one or more relevant values?			
Relevant Values	Yes/No	Rationale for Determination	
1. A significant historic, cultural, or scenic value	No	None identified	
2. A fish or wildlife resource	Yes	White Mountains caribou herd habitat, current and historic Fortymile caribou herd calving and postcalving habitat, Dall sheep habitat; mineral licks.	
3. A natural process or system	Yes	Boreal forest ecosystem	
4. Natural hazards	No	No known natural hazards	
Does the Proposed ACEC contain one or more of the important values?			
Important Values	Yes/No	Rationale for Determination	
More than locally significant	Yes	<u>Wildlife:</u> Dall sheep are very limited in distribution in Interior Alaska and the Yukon Tanana Uplands in particular. Caribou are important culturally and for sport and subsistence harvest. The Fortymile caribou herd is an international herd and one of the most important subsistence resources in east central Alaska.	
Is fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change	Yes	<u>Wildlife:</u> Mineral licks are rare and important habitats for ungulates. Calving and postcalving habitats for caribou are considered the most sensitive seasonal habitats. Dall sheep have specialized habitat requirements.	
Has been recognized as warranting protection	Yes	<u>Wildlife:</u> In creating the Steese NCA, Congress directed that caribou habitat be one of two special values to be considered in planning and management of the area.	
Has qualities which warrant highlighting to satisfy management concerns about safety and public welfare	No	None identified	
Significant threat to human life/safety or property	No	None identified	
Summary of Important Values: Wildlife			
Does the area require special management to protect important and relevant resources?			
<u>Wildlife:</u> Yes. Without long-term special management the value of these areas as wildlife habitat will likely be reduced.			
Findings: The nominated area meets the relevance and importance criteria and should be considered for ACEC designation in the Draft RMP/EIS.			
Rationale:	See Fortymile ACEC evaluation.		

White Mountains ACEC (Map 65)			
Internal BLM nomination for caribou calving and postcalving habitat and Dall sheep habitat			
Area Evaluated:			
General Location	General Description	Acreage	Values Considered
White Mountains National Recreation Area	Caribou calving and postcalving habitat; Dall sheep habitat; mineral licks.	589,000	wildlife
Does the proposed ACEC contain one or more relevant values?			
Relevant Values	Yes/No	Rationale for Determination	
1. A significant historic, cultural, or scenic value	No	None identified	
2. A fish or wildlife resource	Yes	White Mountains caribou herd habitat; historic Fortymile caribou herd calving and postcalving habitat, Dall sheep habitat; mineral licks.	
3. A natural process or system	Yes	Boreal forest ecosystem	
4. Natural hazards	No	No known natural hazards	
Does the Proposed ACEC contain one or more of the important values?			
Important Values	Yes/No	Rationale for Determination	
More than locally significant	Yes	<u>Wildlife:</u> Dall sheep are very limited in distribution in Interior Alaska and the Yukon Tanana Uplands in particular. Caribou are important culturally and for sport and subsistence harvest. The Fortymile caribou herd is an international herd and one of the most important subsistence resources in east central Alaska.	
Is fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change	Yes	<u>Wildlife:</u> Mineral licks are rare and important habitats for ungulates. Calving and postcalving habitats for caribou are considered the most sensitive seasonal habitats. Dall sheep have specialized habitat requirements.	
Has been recognized as warranting protection	Yes	<u>Wildlife:</u> See above and in "Rationale" below.	
Has qualities which warrant highlighting to satisfy management concerns about safety and public welfare	No	None identified	
significant threat to human life/safety or property	No	None identified	
Summary of Important Values: Wildlife			
Does the area require special management to protect important and relevant resources?			
<u>Wildlife:</u> Yes. Without long-term special management the value of these areas as wildlife habitat could potentially be reduced.			
Findings: The nominated area meets the relevance and importance criteria and should be considered for ACEC designation in the Draft RMP/EIS.			
Rationale:	See Fortymile ACEC evaluation.		

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A large table with multiple columns and rows, containing very faint and illegible text. The table appears to be a data table or a list of items, but the content is too light to transcribe accurately.

Appendix D

Visual Resource Inventory

Appendix D. Visual Resource Inventory

D.1. Introduction

Visual resource inventory (VRI) class areas for the Eastern Interior Planning Area were delineated using the process in BLM's Visual Resource Inventory Handbook (H-8410-1). Visual resources are described in the context of the Visual Resource Management (VRM) system, which is used by the BLM to inventory and manage visual resources. This system provides an analytical method to analyze potential visual impacts and to apply visual design techniques to ensure that surface-disturbing activities are harmonious with their surroundings. The VRM system is applied to the entire planning area, including non-federal lands (e.g., state, private).

Implementing VRM involves conducting an inventory, establishing management classes, and providing an impact assessment. During the inventory stage, data are collected to identify the visual resources of an area in order to designate VRI classes. The inventory consists of a scenic quality evaluation (Map 109), sensitivity level analysis (Map 108), and a delineation of distance zones (Map 107). These are described in the following sections.

Based on these three factors, BLM lands are placed into one of four VRI classes which represent the relative value of the visual resources. Classes I and II being the most valued, Class III representing a moderate value, and Class IV being of least value. The inventory classes provide the basis for considering visual values in the resource management planning process.

Once the visual resource inventory is completed, visual resource management classes (I-IV) are assigned to lands in the planning area. The visual resource management classes for each alternative are described in Chapter 2 of the Draft RMP/EIS and displayed on Maps 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25. The effects of the alternatives on visual resources are analyzed in Chapter 4.

D.2. Scenic Quality

Scenic quality is a measure of the visual appeal of a tract of land. All public lands have scenic value, but areas with the most variety and harmonious composition have the greatest value. The scenic quality evaluation describes the characteristic landscape and determines scenic-quality ratings for the visual resources (the land, water, vegetation, animals, and structures that are visible on the land) of the planning area. The evaluation is intended to represent the overall impression a viewer has of the visual resources from several viewpoints or locations, rather than the view from any one location, including an aerial view, or during any one season of the year.

The planning area was used as the frame of reference for rating scenic quality. Physiographic Divisions of Alaska (Wahrhaftig 1965) were used as a foundation for each Scenic Quality Rating Unit (SQRU). The planning area can be divided into three major physiographic provinces: the Northern Plateaus Province, the Western Alaska Province, and the Alaska-Aleutian Province. These provinces are further divided into 11 physiographic divisions, forming a basis to describe the elements of landform, water, color and distinctiveness (Map 109). Each of these divisions was considered a SQRU. The transitions between physiographic divisions are generally subtle.

Landform is characterized by vertical relief, spatial composition, and color. Water is characterized by its shape, pattern, and color. Color is defined by its relative scales of hue (classifications of red,

yellow, green, blue, or combinations) and value (lightness and darkness), and intensity (degree or strength). Distinctiveness is a measure of uniqueness within a region.

Each SQRU was evaluated to determine its scenic quality and is rated as Class A, B or C. There is Scenic Quality Field Inventory Form for each SQRU in section A.3 Scenic Quality Evaluation. In some cases, there is more than one form if the SQRU occurred in more than one planning subunit. These inventory forms estimate the visual values which resulted in the Class A, B, or C rating. The SQRUs are displayed on Map 109 and are summarized below:

- Class A SQRU has a great deal of visual variety, contrast, and harmony.
- Class B SQRU has a moderate amount of visual variety, contrast, and harmony.
- Class C SQRU has little visual variety, contrast, and harmony.

Yukon-Tanana Uplands SQRU; Class Rating A

This SQRU (Table D.3, “Scenic Quality Field Inventory – Yukon Tanana Uplands”, Table D.8, “Scenic Quality Field Inventory – Yukon Flats Section”, and Table D.14, “Scenic Quality Field Inventory – White MountainsNRA/Yukon-Tanana Uplands”) is the largest in the planning area and occurs in all four subunits. It is characterized by scattered irregular rugged mountains at 3,600-6,000 feet with isolated jagged tors that transition to a complex system of high rounded domes, and high horizontal trending plateau systems sloping to large meandering creeks in V- to U-shaped valley floors with larger V-shaped tributaries and occasional irregular V-shaped narrow steep incised terraced canyons with high cliffs and complex river systems, such as the Fortymile river system. The unit is characterized by discontinuous permafrost region with periglacial mass-wasting active at high altitudes, and ice wedges lacing the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes. This SQRU has a large variation in topographic relief and has a wide variety of plant species within the vegetative types of alpine tundra, closed spruce forests, open, low growing spruce forests and treeless bogs (described in section D.2.1) that create large diversities in color, texture and form between the low growing heaths and shrubs to the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder, with lower growing black spruce, sedge and grass understory species and open bog areas. Contrast also occurs between vegetated areas and barren areas of the rugged mountains and lower domes. Waterbodies also vary widely with large clear water river systems bisecting mountain ridges and meandering through rounded domed mountains creating contrast between the adjacent landform and vegetation and the barren soils of gravel bars and cliff areas. Water is another dominate element of this landscape. Smaller oxbow and thaw lakes occur throughout the unit and contrast in color and texture with adjacent vegetation.

Yukon Flats SQRU; Class Rating C

This SQRU is the second largest in the planning area (Table D.8, “Scenic Quality Field Inventory – Yukon Flats Section”) and occurs in three of the four subunits (Steese, White Mountains and Upper Black River). This unit is characterized by gentle rolling and rounded hills commonly around 2,000 feet but occasionally up to 2,300 feet that transition to flat basins at 600 feet. Most relief is about 1,000 feet in elevation. Permafrost probably occurs through most of this unit except for under rivers, recently abandoned meander belts, and large thaw lakes. This SQRU has little variation in topographic relief and has some variety of plant species within the vegetative types of closed spruce forests, open, low growing spruce forests and treeless bogs that create some contrast in color, texture and form between the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder, with lower growing black spruce, sedge and grass understory species and open bog areas. Waterbodies vary widely with large clear water rivers meandering

through gentle rolling rounded hills and the glacial fed Yukon River flowing in a broad valley. Water is a dominate element of this landscape. Thaw lakes are abundant throughout the flats with Medicine Lake being the largest at nearly two miles across with thaw sinks on marginal terraces. The variety of water features creates contrast between the adjacent landform and vegetation and the barren soils of gravel bars and shore lines.

Porcupine Plateau SQRU; Class Rating B

This SQRU occurs in the Upper Black River Subunit and is the largest in that subunit (Table D.12, "Scenic Quality Field Inventory – Porcupine Plateau"). It is characterized by low ridges having gentle slopes and rounded to flat summits from 1,500 to 2,500 feet with a few domes and mountains rising to 3,500 feet above broad irregular valley floors (1,000 feet). The entire unit is underlain by continuous permafrost. This SQRU has a moderate variation in topographic relief and has a wide variety of plant species within the vegetative types of closed spruce forests, open, low growing spruce forests and treeless bogs that create some diversities in color, texture and form between the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder, with lower growing black spruce, sedge and grass understory species and open bog areas. All rivers within the SRQU drain into the Yukon River with the clear water Black and Little Black being the dominate rivers which meander through broad irregular flats. The variety of water features creates contrast between the adjacent landform and vegetation and the barren soils of gravel bars, moderate cliffs and shore lines.

Ogilvie - Keele Ranges SQRU; Class Rating A

This SQRU occurs mostly in the Upper Black River Subunit, a small portion extends into the northern part of the Fortymile Subunit (Table D.13, "Scenic Quality Field Inventory – Ogilvie-Keele Ranges"). It is characterized sharp crestlines, precipitous slopes rising to 5,000 feet, and deep narrow valleys at 1,000 feet with an elevation relief of as much as 4,000 feet. Many of the ridges are interconnected with few passes but the narrow valleys are interrupted by gorges where rivers cross cliff-forming rock. Most of the area is underlain by permafrost with some pingos. This SQRU has a large variation in topographic relief and has a wide variety of plant species within the vegetative types of alpine tundra, closed spruce forests, open, low growing spruce forests and treeless bogs that create large diversities in color, texture and form between the low growing heaths and shrubs to the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder, with lower growing black spruce, sedge and grass understory species and open bog areas. Contrast also occurs between vegetated areas and barren areas of the rugged mountains and lower domes. Waterbodies also vary widely with clear headwater river systems bisecting mountain ridges creating contrast between the adjacent landform and vegetation and the barren soils of gravel bars and cliff areas. Small thaw lakes and oxbow lakes occur in the unit and contrast in color and texture with adjacent vegetation.

Tintina Valley SQRU; Class Rating B

This SQRU occurs primarily in the Fortymile Subunits, a small portion extends into the southern Upper Black River Subunit and the eastern Steese Subunit (Table D.11, "Scenic Quality Field Inventory – Tintina Valley"). It is a narrow belt of low country consisting of low rounded ridges (2,500 feet) and open valleys (1,000 feet). The area is generally underlain by permafrost. This SQRU has moderate variation in topographic relief and has some variety of plant species within the closed spruce forests vegetative type that create some diversity in species, color, texture and form between the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder. Waterbodies vary somewhat with clear water river systems and a small section of the

glacier fed Yukon River flowing in narrow valleys across hills of resistant rocks creating contrast between the adjacent landform and vegetation and the barren soils of gravel bars and cliff areas. A few thaw lakes occur in the unit and contrast in color and texture with adjacent vegetation.

Northway-Tanacross Lowland SQRU; Class Rating B

This SQRU occurs in the Fortymile Subunit, along the southern portion with a backdrop of the Alaska Range (Table D.6, “Scenic Quality Field Inventory – Northway-Tanacross Lowlands”). It contains three small, nearly level or gently rolling basins, separated by screens of low rolling hills. Scattered longitudinal dunes are present in one of the basins. The unit is characterized by discontinuous permafrost. This SQRU has a little variation in topographic relief and has a moderate variety of plant species within the vegetative types of closed spruce forests, open, low growing spruce forests and treeless bogs that create some diversities in color, texture and form between the low growing heaths and shrubs to the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder, with lower growing black spruce, sedge and grass understory species and open bog areas. Contrast occurs between vegetated areas and barren areas of the dunes. Many of the rivers are steep barbed streams with swift and braided upper courses and sluggish meandering lower reaches in broad valleys creating contrast between the adjacent landform and vegetation and the barren soils of braided gravel bars. There are a number of large lakes in the surrounding hills; while thaw lakes, oxbow lakes and morainal ponds are also present creating a contrast in color and texture with adjacent vegetation.

Central and Eastern Alaska Range SQRU; Class Rating A

This SQRU occurs along the southern boundary of the Fortymile Subunit (Table D.2, “Scenic Quality Field Inventory – Alaska Range (Central and Eastern Part)”). It is characterized by two or three parallel rugged glaciated ridges rising between 6,000 and 9,000 feet, surmounted by groups of extremely rugged, snow capped mountains more than 9,500 feet high. In much of the unit, rock glaciers are common and permafrost is extensive with solifluction features well developed. It can be described as a complex, irregular, rugged mountain system at 9,000 feet with steep slopes connected to rugged steep sloped foothills and scattered massive plateau systems. This SQRU has a large variation in topographic relief and has a moderate variety of plant species within the vegetative types of alpine tundra, and closed spruce forests that create some diversities in color, texture and form between the low growing heaths and shrubs to the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder. Contrast also occurs between vegetated areas and barren areas of the rugged mountains and lower foothills. All the rivers in this unit feed into the Tanana with swift, braided clear water streams and mostly glaciated rivers creating contrast between the adjacent landform and vegetation and the barren soils of gravel bars and boulder areas. Water is a major element of this landscape.

Northern Foothills SQRU; Class Rating A

This SQRU occurs in the Fortymile Subunits along the southern boundary (Table D.5, “Scenic Quality Field Inventory – Northern Foothills”). It is characterized by flat-topped, east trending ridges up to 4,500 feet in height, 7 miles wide, and 5 to 20 miles long. These are separated by rolling lowlands up to 1,500 feet high and 2 to 10 miles wide. Major streams of the foothills are superimposed across the topography in rugged impassable V-shaped canyons and across lowlands in broad terraced valleys. Permafrost is extensive and polygonal ground and solifluction features are well developed creating contrast in color tones of the vegetation. This SQRU has a moderate variation in topographic relief and has a moderate variety of plant species within the vegetative types of alpine tundra, moist tundra, and closed spruce forests that create moderate diversities

in color, texture and form between the low growing heaths and shrubs, sedge meadows to the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder, with lower growing black spruce, sedge and grass understory species and open bog areas. Contrast also occurs between vegetated areas and barren areas of the ridges and rugged river canyons. Waterbodies also vary widely with large clear water river systems bisecting flat-topped ridges and meandering through rolling lowlands creating contrast between the adjacent landform and vegetation and the barren soils of gravel bars and canyon areas. There are a few small thaw lakes in lowland passes, and morainal areas have shallow irregular ponds creating a contrast in color and texture with adjacent vegetation.

Tanana-Kuskokwim Lowlands SQRU; Class Rating C

This SQRU occurs in the Fortymile Subunit along the southern boundary (Table D.10, "Scenic Quality Field Inventory – Tanana-Kuskokwim Lowlands"). It is characterized as a broad depression with gentle, rolling and rounded hills commonly around 2,000 feet that transition to flat basin at 900 feet. Topographic relief is about 1,000 feet in elevation to low flat basin. The unit is characterized by permafrost. This SQRU has a little variation in topographic relief and has a some variety of plant species within the vegetative types of closed spruce forests and open, low growing spruce forests that create some diversities in color, texture and form between the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder, with lower growing black spruce. Most of the rivers are glacial and flow in tight meanders, in broad outwash fans in terraced valleys. Thaw lakes abound in areas of fine alluvium. Thaw sinks are also abundant in areas of thick loess cover. Contrasts are created between the water features and adjacent vegetation with areas of barren ground within broad river channels.

Rampart Trough SQRU; Class Rating C

This SQRU occurs along the northwestern part of the White Mountains Subunit (Table D.7, "Scenic Quality Field Inventory – Rampart Trough"). It is a structurally controlled depression having gently rolling topography up to 1,500 feet high and incised down to 2,500 feet below the surrounding highlands on either side. Terraces along rivers can be 500 feet above the stream level. Hard rock hills and surrounding uplands are partly metamorphosed sedimentary and volcanic rock and cut by granitic intrusions resulting in cliff formations. Permafrost underlies all the lowlands except the floodplain. This SQRU has a moderate variation in topographic relief and has a moderate variety of plant species within the vegetative types of closed spruce forests and treeless bogs that create some diversities in color, texture and form between the low growing heaths and shrubs to the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder, with lower growing black spruce, sedge and grass understory species and open bog areas. Contrast occurs between vegetated areas and barren areas of the water features. Scattered thaw lakes lie on the floodplain and elsewhere creating a contrast in color and texture with adjacent vegetation.

Kokrine-Hodzana Highlands SQRU; Class Rating B

This SQRU occurs along the northwestern part of the White Mountains Subunit (Table D.4, "Scenic Quality Field Inventory – Kokrine-Hodzana Highlands"). It is characterized by even-topped rounded ridges rising to 2,000-4,000 feet surmounted by isolated areas of more rugged mountains. Elevational change is around 2,000 feet. Steep bluffs drop to the wide U-shaped meandering and braided Yukon River valley with smaller river valleys more V-shaped, irregular, and complex. Valleys have alleviated floors. Rough, irregular bluffs, rocky outcrops and scree slopes occur along rivers. The unit is probably underlain by permafrost and contains classic

examples of altiplanation terraces, stone polygons, and other periglacial phenomena. This SQRU has a moderate variation in topographic relief and has a moderate variety of plant species within the vegetative types of closed spruce forests and treeless bogs that create some diversities in color, texture and form between the low growing heaths and shrubs to the tall growing hardwood forests of birch and spruce with tall shrubs of willow and alder, with lower growing black spruce, sedge and grass understory species and open bog areas. Contrast occurs between vegetated areas and barren areas of the water features. The Yukon River is broad with a few islands creating contrast between the adjacent landform and vegetation and the barren soils of gravel bars. There are a few thaw lakes in the lowlands creating a contrast in color and texture with adjacent vegetation.

D.2.1. Vegetative Types

Vegetation is an important component in determining the visual quality of an area. Vegetation is represented by species, variety, extent and color. The more variety of species a landscape has the higher the scenic quality. General vegetation types based on Viereck and Elbert (1972) were used as a basis for this analysis.

Alpine tundra: Alpine tundra vegetative type is predominately barren rocks and rubble interspersed with low mat plants such as white mountain-avens, low heath shrubs, such as bearberry, birch, *Cassiope*, diapensia, crowberry, alpine azalea, Labrador-tea, luetkea, mountain heath, rhododendron, blueberry, cranberry, prostrate willows and dwarf herbs.

Closed spruce: Hardwood forests are tall to moderately tall forests of white and black spruce, paper birch, aspen, and balsam poplar forests on moderate to well drained sites with many new and old burns. These stands are rather open under the canopy but contain shrubs of rose, alder and willow. The forest floor is usually carpeted with a thick moss mat. Other common shrubs are bearberry, crowberry, Labrador-tea, red current, buffaloberry, blueberry and cranberry. Quaking aspen stands may develop in well drained upland areas on south facing slopes or lowland river terraces. Paper birch occurs on east and west facing slopes and flat areas. Balsam Poplar occurs on flood plains of glacial rivers and along sandbars.

Moist tundra: Meadows are dominated by sedges, especially cotton grass in tussocks with scattered willows and dwarf birch. Shrubs include alder, bearberry, birch, *Cassiope*, mountain – avens, Labrador-tea, alpine azalea, mountain heath, rhododendron, rosebay, willows, spirea, blueberry, and cranberry.

Open, low growing spruce: Open, low growing spruce forests which occur on north facing slopes and poorly drained lowlands, usually underlain with permafrost. These are low growing open forest primarily of black spruce but often interspersed with tamarack, paper birch and willows, locally interspersed with treeless bogs. A thick moss mat, often of sphagnum mosses, sedges, grasses and heath or ericaceous shrubs makes up the “under story” of this forest. Shrubs include bearberry, crowberry, Labrador-tea, rose, willow, blueberry, and cranberry.

Treeless bogs: Scattered areas of treeless bogs and are characterized by wet treeless areas of sedges and grasses usually with an abundance of willows, alders and resin birch, locally with widely spaced black spruce and tamarack. They occur throughout the division where conditions are too wet for tree growth on old river terraces, outwash areas, in filling ponds and sloughs and occasionally on gentle north facing slopes. The vegetation of these bogs consists of varying amounts of grasses, sedges and mosses, especially sphagnum. Shrubs occur on drier peat ridges

and include bog-rosemary, birch, leatherleaf, Labrador-tea, sweetgale, cranberry, blueberry and willow.

Vegetation Types Present in the Subunit	Fortymile Subunit	Steese Subunit	Upper Black River Subunit	White Mountains Subunit
Alpine tundra	x	x	x	x
Closed spruce forests	x	x	x	x
Moist tundra	x			
Open, low growing spruce	x	x	x	
Treeless bogs	x	x	x	x

D.2.2. Cultural Modifications

Cultural Modifications are also taken into account in the scenic quality rating process. Cultural modifications can blend in with or stand out from the surrounding landscape. The planning area is still primarily a natural landscape where humans have not substantially changed the scenic quality. However some areas have been modified by the activities of humans. Buildings are the most likely to be seen and have the most modification from the natural landscape. Buildings primarily exist near communities, including Boundary, Central, Chicken, Eagle, Tanacross, Tetlin, Tetlin Junction, and Tok. Homestead areas, mining claims, Native allotments, and isolated cabins can also be found throughout the planning area. Most of the buildings outside a community, are in relative harmony with the landscape as they are small, made of local materials, and have primarily natural based colors.

Other modifications include the Alaska, Dalton, Elliot, Steese, Taylor, and Top of the World highways, and other roads. Airstrips can be found in the Fortymile, Steese, and Upper Black River subunits. While the profile of an airstrip is low, landform changes are introduced by brown colors in predominantly green vegetation and more regular lines than the surrounding irregular vegetation. A few capped oil and gas exploration wells may be found within the Upper Black River Subunit. Given the small footprint and with most either being flush with the landscape or consisting of a "Christmas tree" less than six feet tall, these modifications are very hard to see from a distance of more than 200 feet. OHV trails exist in all subunits to varying degrees. Summer travel in the Upper Black River Subunit is primarily by watercraft. However, snowmobile trails and seismic lines can be seen from elevated locations. Summer ATV travel has occurred in the Fortymile, Steese, and White Mountains subunits with many trails or travel routes being visible for long distances from elevated locations.

While these features introduce modifications to the landform, they also provide places of use and special interest or key observation areas from which to evaluate the sensitivity levels.

D.3. Visual Sensitivity

Visual sensitivity is a key component in identifying VRI classes. Sensitivity levels are a measure of public concern for the scenic quality of an area. There are six factors to consider when evaluating sensitivity levels: Type of Users, Amount of Use, Public Interest, Adjacent Land Use, Special Areas and Other Factors. Areas identified as sensitive include known travel routes, especially State Scenic Byways, areas of human habitation, areas of traditional use, Native allotments, and areas identified through Benefits Based Management studies (Fix 2007; Harrington and Fix 2008; Stegmann, Fix and Teel 2008). Numerous areas are noted to have potentially high visual sensitivity because area residents and visitors view the natural landscape as very important and have a high level of interest and sensitivity to changes to the natural landscape.

There are three levels of overall sensitivity: High (H), Medium (M) and Low (L). The results of the sensitivity ratings are summarized in Table D.1, "Scenic Quality Rating Units, VRI Classes, and Sensitivity Ratings in the Planning Area" and displayed on Map 108. See section D.6 for Sensitivity Level Rating Forms for each SQRU.

Table D.1. Scenic Quality Rating Units, VRI Classes, and Sensitivity Ratings in the Planning Area

Scenic Quality Rating Unit (SQRU)	SQRU Class	Visual Sensitivity Rating	Fortymile Subunit	Steese Subunit	Black River Subunit	White Mountains Subunit
Alaska Range-Central and Eastern Part	A	M	X			
Kokrine-Hodzana Highlands	B	M				X
Northern Foothills	A	M	X			
Northway-Tanacross Lowlands	B	M	X			
Ogilvie Mountains	A	M	X		X	
Porcupine Plateau	B	M			X	
Rampart Trough	C	M				X
Tanana-Kuskokwim Lowland	C	L	X			
Tintina Valley	B	L	X			
Yukon Flats Section	C	M	X	X	X	
Yukon-Tanana Upland	A	M	X	X		X
Visual Resource Inventory Class			II-III	I-II	II-III	I-II

D.4. Distance Zones

Distance Zones are also used in determining VRI classes. They are important in assessing visual impacts. The distance from an object affects how clearly elements of a landscape are perceived, with visible details of a particular object decreasing with increasing distance. Distance Zones are one basis for determining the visual sensitivity of planning areas. The VRM system recognizes three Distance Zones: Foreground-Middleground, Background, and Seldom-Seen as defined below (Map 107):

- **Foreground-Middleground Zone:** This is the area that can be seen from each travel route or assessment location for a distance of up to five miles where management activities might be viewed in detail.
- **Background Zone:** This is the remaining area that can be seen from each travel route or assessment location to approximately 15 miles. It does not include areas in the background that are so far distant that the only thing discernible is the form or outline.
- **Seldom-Seen Zone:** These are areas that are not visible within the Foreground-Middleground and Background zones, and areas beyond the Background Zone, generally over 15 miles and screened by natural landscape features.

D.5. Scenic Quality Worksheets

The following 13 Scenic Quality Field Inventory forms show the scenic quality rating for each of the SQRUs in the planning area. Although there are only 11 physiographic divisions, separate SQRU ratings were done for the Steese NCA, White Mountains NRA and the Fortymile river drainage within the Yukon-Tanana Uplands SQRU, resulting in 13 forms.

Table D.2. Scenic Quality Field Inventory – Alaska Range (Central and Eastern Part)

Form 8400-1 (September 1985)		Date: 02 June 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		Fortymile Subunit	
		SQRU: Alaska Range (Central and Eastern Part)	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Prominent rugged mountain system at 9,000 feet with steep slopes connected to rugged steep sloped foothills and scattered massive plateau systems. Headwater streams in flat bottomed, braided river valleys.	Complex irregular mixed forest with diverse irregular shrub and grass under-stories and open areas of shrub and tundra creating scattered patchy random mosaic forms.	Small, isolated block cabins and associated buildings Campgrounds with related facilities block buildings. Parallel, linear Tok Cutoff Highway and associated rectangular bridges, flat wayside parking areas.
Line	Complex, irregular, bold, jagged and rugged mountains and steep foothills change abruptly to broad flat valleys of major rivers.	Bold irregular complex lines of mixed forest to simple curving regular line of shrubs and tundra.	Regular straight vertical and diagonal line.
Color	White to brown mountains with irregular black colored scree slopes. Grays of glacial rivers with few small brown and blues of headwater streams. Grays and tans of gravel bars and boulder areas. Various hues of white to gray to brown to black cliff and bluff areas.	Irregular hues of green mixed forest, shrub and tundra vegetation. Vivid fall colors.	Natural browns and grays of logs and wood buildings and multi colored roofing. Blacks, grays and browns of road and bridge structures. Shiny metal of towers, and power lines with brown support structures.
Texture	Mountains exhibit rough, coarse, discontinuous texture against the rugged steep foothills and random smooth, graduating to medium and coarse larger river segments.	Smooth log or wood texture with fascia boards and decks, etc. Smooth metal texture of power lines with fine, ordered support structures. Medium texture of continuous roads and highway.	Smooth log or wood texture with fascia boards and decks, etc. Smooth metal texture of power lines with fine, ordered support structures. Medium texture of continuous roads and highway.
3. Narrative: This is just a small part of the larger unit. The Tok Cutoff Highway traverses the unit. There are a number of isolated cabins and houses with associated structures including transmission lines, radio towers, bridges, etc.			

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW		
a. Landform	5			Rugged peaks of the Alaska Range, and adjacent foothills, and major river valleys.	Class A - 19 or more
b. Vegetation	5			Mixed forest, shrub and tundra communities.	
c. Water		3		Major tributaries and other headwater tributaries.	
d. Color	5			Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars. Black and grey outcrops of the mountain ridges. White of early winter snows.	

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
e. Adjacent Scenery		3		Very natural in appearance. Fairly remote homestead areas.	Class C - 11 or less
f. Scarcity	5			This area is unique within the planning area.	
g. Cultural Modification		0		Cultural modifications are minimal but do not blend with the surrounding landscape.	
Totals			26		Class A

Alaska Range Central and Eastern Part: Located within the Alaska-Aleutian Province, consists of two or three parallel rugged glaciated ridges rising between 6,000 and 9,000 feet, surmounted by groups of extremely rugged snow capped mountains more than 9,500 feet high.

Alaska Range Central and Eastern Part This area has a single axial ridge. The area within the planning unit drains to the Tanana River with swift and braided streams and mostly glaciated rivers. In much of the unit, rock glaciers are common and permafrost is extensive with well developed solifluction features.

Adjacent Physiographic Divisions descriptions:

Northern Foothills located within the Alaska-Aleutian Province, are flat-topped, east trending ridges up to 4,500 feet in height, 7 miles wide, and 5 to 20 miles long. These are separated by rolling lowlands up to 1,500 feet high and 2 to 10 miles wide. Major streams of the foothills are superimposed across the topography in rugged impassable V-shaped canyons and across lowlands in broad terraced valleys. There are a few small thaw lakes in lowland passes, and morainal areas have shallow irregular ponds. Permafrost is extensive and polygonal ground and solifluction features are well developed (Map 109).

Northway-Tanacross Lowland within the Northern Plateaus Province, contains three small, nearly level or gently rolling basins, separated by screens of low rolling hills. Scattered longitudinal dunes are present in one of the basins. Many of the rivers are steep barbed streams with swift and braided upper courses and sluggish meandering lower reaches in broad valleys. There are a number of large lakes in the surrounding hills, while thaw lakes, oxbow lakes and morainal ponds are also present. The entire area is discontinuous permafrost.

Table D.3. Scenic Quality Field Inventory – Yukon Tanana Uplands

Form 8400-1 (September 1985)		Date: 16 April 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		Fortymile Subunit	
		SQRU: Yukon-Tanana Uplands	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Colin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Scattered rugged mountain system at 6,000 feet connected to scattered isolated rounded domes or scattered dome systems at 4,000-5,000 feet by high horizontal trending plateau system bisected with. Headwater streams in broad U-shaped valleys transition to irregular V-shaped narrow steep incised terraced canyons with high cliffs complex river system.	Complex irregular mixed forest with diverse irregular shrub and grass under-stories and open areas of shrub and tundra creating scattered patchy random mosaic forms.	Small, isolated block cabins and associated buildings Campgrounds with related facilities block buildings.
Line	Irregular rugged, broken mountains. Broken curving to angular or horizontally terraced domes with soft flowing headwaters in broad horizontal valleys with small rounded lakes gradating to bolder broken undulating water in folded and banded cliffs.	Bold irregular complex lines of mixed forest to simple curving regular line of shrubs and tundra.	Regular straight vertical and diagonal line
Color	White to brown mountains with irregular black colored scree slopes. Blues of water – streams and rivers and grays and tans of gravel bars. Various hues of white to gray to brown to black cliff and bluff areas.	Irregular hues of green mixed forest, shrub and tundra vegetation. Vivid fall colors.	Natural browns and grays of logs and various colored roofing.
Texture	Mountains exhibit rough, course, discontinuous texture against the random smooth, scattered domes producing a high contrast. Headwater areas are soft fine and smooth graduating to medium and course larger river segments.	Irregular texture of various vegetation types from course trees to fine tundra. Medium scattered vegetation along gravel bars.	Smooth log texture.
<p>3. Narrative: This mountain system and large isolated domes stand out within the terraced uplands bisected by the Fortymile River and are unique within the Yukon-Tanana Uplands division. The rugged peaks and domes are visible from most of the Taylor and Top of the World Highways.</p> <p>There are three campgrounds, seven trailheads or waysides, and one administrative site all with related structures and one short road (Rainbow Road) located along the Taylor and Top of the World Highways. Fort Egbert and Eagle Campground, located in Eagle have structures and related buildings. Many of these facilities blend with the surrounding landscape, but some are noticeable and may attract the attention of the casual observer, especially Fort Egbert.</p>			

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW		
a. Landform	5			Rugged peaks and domes with the entrenched Fortymile river system	Class A - 19 or more
b. Vegetation	5			Mixed forest, shrub and tundra communities	
c. Water	5			Fortymile river system and other headwater tributaries and various whitewater areas.	Class B- 12 -18
d. Color	5			Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars. White, gray brown and black of mountains with the banded various colors of cliffs and exposed bedrock of the Fortymile river system.	
e. Adjacent Scenery		4		Very natural in appearance. Yukon-Charley Rivers National Preserve to the north. Canada to the East. Small scattered areas of development along the Taylor Highway.	Class C - 11 or less
f. Scarcity	5			The entrenched Fortymile river system and the diversity of mountains and isolated domes of the surrounding lands is unique within the Yukon-Tanana Uplands.	
g. Cultural Modification			-2	Cultural modifications of past mining activities detract from the naturalness of the area.	Class A
Totals			27		

Yukon-Tanana Upland displays rounded even-topped ridges with gentle side slopes. These rounded ridges trend northeast to east and have ridge-crest altitudes up to 3,000 feet and rise 500 to 1,500 feet above the valley floor. These lower ridges are surrounded by compact rugged mountains rising another 2,000 feet to heights of 5,000 feet. Valleys are generally flat, with alluvium floors. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Adjacent Physiographic Divisions descriptions:

Kokrine-Hodzana Highlands consists of even-topped rounded ridges rising to 4,000 feet surmounted by isolated areas of more rugged mountains. There are a few thaw lakes in the lowland areas and the entire section is probably underlain by permafrost. Many examples of periglacial phenomena occur in the area, such as altiplanation terraces and stone polygons.

Northway-Tanacross Lowland within the Northern Plateaus Province, contains three small, nearly level or gently rolling basins, separated by screens of low rolling hills. Scattered longitudinal dunes are present in one of the basins. Many of the rivers are steep barbed streams with swift and braided upper courses and sluggish meandering lower reaches in broad valleys. There are a number of large lakes in the surrounding hills, while thaw lakes, oxbow lakes and morainal ponds are also present. The entire area is discontinuous permafrost.

Rampart Trough is a structurally controlled depression having gently rolling topography up to 1,500 feet high and incised to 2,500 feet below the surrounding highlands. Terraces along rivers can be 500 feet above stream level. Scattered thaw lakes lie on the floodplain and elsewhere. Permafrost underlies all the lowlands except the floodplain. Hard rock hills and surrounding uplands are partly metamorphosed sedimentary and volcanic rock and cut by granitic intrusions resulting in cliff formations.

Tanana-Kuskokwim Lowland, part of the Western Alaska Province, is a broad depression. Most of the rivers are glacial and flow in tight meanders, in broad outwash fans in terraced valleys. Thaw lakes abound in areas of fine alluvium. Thaw sinks are also abundant in areas of thick loess cover. The entire section is an area of permafrost.

Tintina Valley within the Northern Plateaus Province is a narrow belt of low country consisting of low rounded ridges (2,500 feet) and open valleys (1,000 feet). Streams in this area flow in narrow valleys across hills of resistant rock. A few thaw lakes occur in the area, with Medicine Lake being the largest at nearly two miles across. The area is generally underlain by permafrost.

Yukon Flats Section: The southeastern part of this division is a broad gentle outwash fan while most of the rest is a nearly flat floodplain. Rolling silt and gravel covered marginal terraces having sharp escarpment 150-600 feet high rise above the flats and slope gradually upward to altitudes of about 1,500 feet at the base of surrounding uplands and mountains. The escarpments expose well-consolidated or crystalline rocks. Most of the waterways have meandering courses through the flats. Thaw lakes are abundant throughout the flats and are common with thaw sinks on the marginal terraces. Permafrost is probably abundant except for under rivers, recently abandoned meander belts, and large thaw lakes.

SCENIC QUALITY CLASSIFICATION	SCENIC QUALITY DESCRIPTION	SCENIC QUALITY RATING		
		LOW	MED	HIGH
Class A - 19 or more	Very high scenic quality, outstanding scenic resources, and scenic values.			
Class B - 12-18	High scenic quality, scenic resources, and scenic values.			
Class C - 11 or less	Low scenic quality, scenic resources, and scenic values.			

Table D.4. Scenic Quality Field Inventory – Kokrine-Hodzana Highlands

Form 8400-1 (September 1985)		Date: 03 June 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT		Eastern Interior Field Office	
		White Mountains Subunit	
		SQRU: Kokrine-Hodzana Highlands	
SCENIC QUALITY FIELD INVENTORY			
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Rugged uplands rising to 2,500 feet with valley floors at 400 feet – elevational change 2,000 feet. Steep bluffs dropping to wide U-shaped meandering/braided Yukon River valley with smaller rivers more V-shaped complex irregular.	Complex irregular mixed forest with diverse irregular shrub and grass under-stories and open areas of shrub and tundra creating scattered patchy random mosaic forms.	Small, isolated block cabins and associated buildings. Bold cylindrical pipeline on regular vertical supports for parallel linear structure. Prominent bridge structure with parallel, smooth flat horizontal form.
Line	Rough, irregular bluffs, rock outcrops and scree slopes. Flowing horizontal line of U-shaped valley floors exhibit continuous flowing regular meanders. V-shaped valley floors exhibit continuous, hard, irregular line with smooth water.	Bold irregular complex lines of mixed forest to simple curving regular line of shrubs and tundra.	Bold regular straight, vertical, continuous and diagonal lines.
Color	Natural browns and grays of uplands rock outcrops, bluffs and gravel bars. Blues, grays and browns of rivers.	Irregular hues of green mixed forest, shrub and tundra vegetation. Vivid fall colors.	Natural browns and grays of logs and wood buildings and multi colored roofing. Blacks, grays and browns of road and bridge structures. Shiny metal of pipeline with reds of support structures.
Texture	Mountains exhibit course, random texture against the smooth, subtle texture of river valleys. Water areas are soft and smooth.	Irregular texture of various vegetation types from course trees to fine tundra. Medium gravel bars along water courses.	Smooth log or wood texture with fascia boards and decks, etc. Smooth metal texture of pipeline with fine, ordered support structures. Medium texture of roads and highway.
3. Narrative: Dalton Highway (State Scenic Byway), Trans Alaska Pipeline, miscellaneous structures, and Yukon River bridge. This is just a small part of the larger unit.			

4. SCORE					SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW	EXPLANATION OR RATIONALE	
a. Landform		3			Class A - 19 or more
b. Vegetation		4		Mixed forest, shrub and tundra communities	
c. Water		4		Yukon River	
d. Color		3		Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers, bluffs and gravel bars. Browns and gray of the mountain ridges.	Class B- 12 -18
e. Adjacent Scenery		3			Class C - 11 or less
f. Scarcity		3			

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
		-3		Cultural modifications do not blend with surrounding landscape.	Class B
Totals			17		

Kokrine-Hodzana Highlands is characterized by even-topped rounded ridges rising to 2,000-4,000 feet surmounted by isolated areas of more rugged mountains. Valleys have alleviated floors. There are a few thaw lakes in the lowland areas. The entire section is likely underlain by permafrost and contains classic examples of altiplanation terraces, stone polygons, and other periglacial phenomena.

Adjacent Physiographic Division descriptions:

Rampart Trough is a structurally controlled depression having gently rolling topography up to 1,500 feet high and incised to 2,500 feet below the surrounding highlands. Terraces along rivers can be 500 feet above stream level. Scattered thaw lakes lie on the floodplain and elsewhere. Permafrost underlies all the lowlands except the floodplain. Hard rock hills and surrounding uplands are partly metamorphosed sedimentary and volcanic rock and cut by granitic intrusions resulting in cliff formations.

Yukon Flats Section Northern Plateaus Province, The southeastern part of this division is a broad gentle outwash fan while most of the rest is a nearly flat floodplain. Rolling silt and gravel covered marginal terraces having sharp escarpment 150 to 600 feet high, rise above the flats and slope gradually upward to altitudes of about 1,500 feet at the base of surrounding uplands and mountains. The escarpments expose well-consolidated or crystalline rocks. Most of the waterways have meandering courses through the flats. Thaw lakes are abundant throughout the flats and are common with thaw sinks on the marginal terraces. Permafrost is probably abundant except under rivers, recently abandoned meander belts, and large thaw lakes.

Division	Score	Explanation or Rationale	Scenic Quality Classification
Yukon Flats Section	17	Cultural modifications do not blend with surrounding landscape.	Class B

Table D.5. Scenic Quality Field Inventory – Northern Foothills

Form 8400-1 (September 1985)		Date: 21 September 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		Fortymile Subunit	
		SQRU: Northern Foothills	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Prominent bold, rugged, complex, steep sided mountains at 6,000 feet with steep diagonal dip to 1,500 feet. Most relief is about 4,500 feet in elevation. Major rivers in broad U-shaped valleys with smaller creeks in V-shaped valleys.	Complex irregular mixed forest with diverse irregular shrub and tundra under-stories and open areas of shrub creating scattered patchy random mosaic forms.	Small, isolated block cabins and associated buildings
Line	Complex, hard, bold, rugged, steep diagonal mountains change abruptly to broad U-shaped valleys of bold curving major rivers and V-shaped valleys of smaller water courses.	Bold irregular complex lines of mixed forest to simple curving regular line of shrubs and open areas.	Regular straight vertical, horizontal and diagonal lines.
Color	Brown mountains with irregular black colored scree slopes. Grays of glacial rivers with few small brown and blues of headwater streams. Grays and tans of gravel bars and boulder areas. Various hues of white to gray to brown to black cliff and bluff areas. White of snow on mountains may be visible for 10 months of the year.	Various hues of green mixed forest, shrub and tundra vegetation. Vivid fall colors.	Natural browns and grays of logs and wood buildings and multi colored roofing.
Texture	Mountains exhibit rough, coarse, discontinuous texture against the flatter river valleys and random smooth, graduating to medium and coarse along larger rivers.	Irregular texture of various vegetation types from coarse trees to fine tundra. Medium scattered vegetation along gravel bars.	Smooth log or wood texture with fascia boards and decks, etc.
3. Narrative: This is a small part of the larger unit. This unit is visible as a backdrop from the Alaska Highway, Richardson Highway, Delta Junction, Big Delta, Fort Greely, Dot Lake, and Tok. There may be a small number of isolated cabins and houses with associated structures including radio towers, unimproved dirt roads and trails. Major tributaries in this unit are the Johnson River, Robertson River, and Gerstle Rivers that are glacier feed tributaries.			

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW		
a. Landform		4		Rugged peaks of the Macomb Plateau, Granite Mountain and Independent Ridge, and major river valleys.	Class A - 19 or more
b. Vegetation		3		Mixed forest, shrub and tundra communities	

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
c. Water		4		Major tributaries and other headwater streams.	Class B- 12 -18
d. Color		3		Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars. Black and grey outcrops of the mountain ridges. White of early winter snows.	
e. Adjacent Scenery		3		Very natural in appearance.	Class C - 11 or less
f. Scarcity		3		Similar to other major mountain areas in the Planning area such as the Ogilvie-Keele Mountains, White Mountains and Crazy Mountains.	
g. Cultural Modification		0		Cultural modifications are minimal.	Class A
Totals			20		

Northern Foothills located within the Alaska-Aleutian Province, are flat-topped, east trending ridges up to 4,500 feet in height, 7 miles wide, and 5 to 20 miles long. These are separated by rolling lowlands up to 1,500 feet high and 2 to 10 miles wide. Major streams of the foothills are superimposed across the topography in rugged impassable V-shaped canyons and across lowlands in broad terraced valleys. There are a few small thaw lakes in lowland passes, and morainal areas have shallow irregular ponds. Permafrost is extensive and polygonal ground and solifluction features are well developed.

Adjacent Physiographic Divisions descriptions:

Alaska Range Central and Eastern Part, located within the Alaska-Aleutian Province, consists of two or three parallel rugged glaciated ridges rising between 6,000 and 9,000 feet, surmounted by groups of extremely rugged snow capped mountains more than 9,500 feet high.

Alaska Range Central and Eastern Part has a single axial ridge. The area within the planning unit drains to the Tanana River with swift and braided streams and mostly glaciated rivers. In much of the unit, rock glaciers are common and permafrost is extensive with solifluction features well developed.

Northway-Tanacross Lowland within the Northern Plateaus Province, contains three small, nearly level or gently rolling basins, separated by screens of low rolling hills. Scattered longitudinal dunes are present in one of the basins. Many of the rivers are steep barbed streams with swift and braided upper courses and sluggish meandering lower reaches in broad valleys. There are a number of large lakes in the surrounding hills, while thaw lakes, oxbow lakes and morainal ponds are also present. The entire area is discontinuous permafrost.

Table D.6. Scenic Quality Field Inventory – Northway-Tanacross Lowlands

Form 8400-1 (September 1985)		Date: 03 June 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT		Eastern Interior Field Office	
		Fortymile Subunit	
		SQRU: Northway-Tanacross Lowland	
SCENIC QUALITY FIELD INVENTORY			
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Colin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Gentle rolling and rounded hills commonly around 2,000 feet but occasionally up to 3,400 feet, transitioning to flat basin at 1,000 feet. Most relief is about 2,000 feet in elevation. Tributaries are meandering rivers in broad valleys and round lakes.	Smooth to irregular mixed forest, shrub, and wetlands. Vertical mixed forests to more horizontal shrubs and wetlands and open areas creating a scattered patchy mosaic.	Small communities (1,000 people or less) with houses, businesses, and infrastructure. Very few, isolated block homes and associated buildings. Triangular radio towers, parallel power lines, the Alaska Highway and associated rectangular bridges, flat parking areas.
Line	Flowing random smooth trending horizontal hills blending to flat lowlands. Parallel flowing or still water.	Irregular complex lines of mixed forest to simple curving regular line of shrubs and wetlands.	Regular straight, vertical, continuous and diagonal lines.
Color	Vegetative covered hills. Blue-browns of water and grays of glacial streams with brown and tans of gravel bars and small bluffs.	Various hues of green mixed forest, shrub and wetland vegetation. Mixed vegetation produces multiple fall colors.	Natural browns and grays of log and wood buildings, and multi colored roofing. Blacks, grays and browns of road and bridge structures. Shiny metal towers and power lines with brown support structures.
Texture	Smooth, subtle foot hills. Water areas are soft and smooth with medium gravel bars along water courses and lakes.	Course rough texture of mixed forest to smooth grassland and wetland vegetation. Medium shrub vegetation types create a patchy mosaic.	Smooth log or wood texture with fascia boards and decks, etc. Smooth metal texture of power lines with fine, ordered support structures. Medium texture of continuous roads and highway.
3. Narrative: Communities in this unit include Northway, Tok, Tanacross, Tetlin Junction, and Dot Lake. The Alaska Highway and Richardson Highway (State Scenic Byway-North segment) traverse the unit. There are a number of isolated cabins and houses with associated structures including transmission lines, radio towers, bridges. The Tanana River is a major water source including Tetlin Lake, other medium sized lakes and wetlands. Several major rivers such as the Tok, Robertson, and Johnson rivers flow into the Tanana River.			

4. SCORE					SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW	EXPLANATION OR RATIONALE	
a. Landform			2	Rolling hills and flats are common throughout the area	Class A - 19 or more
b. Vegetation		3		Few mixed forest communities, mostly shrub and tundra communities	
c. Water		3		Water features of tributaries and major rivers with small lakes scattered throughout the area enhance the landscape.	Class B- 12 -18
d. Color		3		Mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars.	

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
e. Adjacent Scenery		3			Class C - 11 or less
f. Scarcity			1	Rolling uplands and low valley bottoms are not unique compared to adjacent Porcupine Plateau.	
g. Cultural Modification			-2	Cultural modifications do not blend with the surrounding landscape.	Class B
Totals			13		

Northway-Tanacross Lowland contains three small, nearly level or gently rolling basins, separated by screens of low rolling hills. Scattered longitudinal dunes are present in one basin. Many rivers are steep barbed streams, with swift and braided upper courses and sluggish meandering lower reaches in broad valleys. There are a number of large lakes in the surrounding hills. Thaw lakes, oxbow lakes and morainal ponds are also present. The entire area is discontinuous permafrost.

Adjacent Physiographic Division descriptions:

Alaska Range Central and Eastern Part, within the Alaska-Aleutian Province consists of two or three parallel rugged glaciated ridges rising from 6,000 to 9,000 feet, surmounted by groups of extremely rugged snow capped mountains more than 9,500 feet high.

Alaska Range Central and Eastern Part within the Alaska-Aleutian Province, has a single axial ridge. The area within the planning unit drains to the Tanana River with swift and braided streams and mostly glaciated rivers. In much of the unit, rock glaciers are common and permafrost is extensive with well developed solifluction features.

Tanana-Kuskokwim Lowland within the Western Alaska Province, is a broad depression. Most of the rivers are glacial and flow in tight meanders, in broad outwash fans in terraced valleys. Thaw lakes abound in areas of fine alluvium. Thaw sinks are also abundant in areas of thick loess cover. The entire section is an area of permafrost.

Yukon-Tanana Upland within the Northern Plateaus Province, is the largest division in the planning area. It displays rounded even-topped ridges with gentle side slopes. The rounded ridges trend northeast to east and have ridge-crest altitudes up to 3,000 feet and rise 500 to 1,500 feet above the valley floor. Lower ridges are surrounded by compact rugged mountains rising another 2,000 feet to heights of 5,000 feet in altitude. Valleys are generally flat, with alluvium floors. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Yukon-Tanana Upland ridges are up to 5,000 feet in elevation with some domes rising up to 6,800 feet, a rise of up to 3,000 feet above the valley floor. Some mountains rival the Ogilvie Mountains in ruggedness. Rivers and streams in this subunit drain to the Yukon River in narrow V-shaped canyons, except for the extreme headwater creeks and streams which are in broad alluvium-floored basins. Most streams follow parallel to the structural trends of the bedrock and have sharp bends involving reversal of direction around the ends of ridges of hard rock resulting in unique geological cliff formations. There are a few thaw lakes in this discontinuous permafrost

region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Table D.7. Scenic Quality Field Inventory – Rampart Trough

Form 8400-1 (September 1985)		Date: 21 September 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		White Mountains Subunit	
		SQRU: Rampart Trough	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Irregular, gently rolling uplands rising to 1,500 feet with valley floors at 800 feet – elevational change 700 feet. Flowing to broad U-shaped meandering valleys. Occasional minor bluffs along water courses.	Complex irregular mixed forest with diverse irregular shrub and grass under-stories and open areas of shrub and grass wetlands creating scattered patchy random mosaic forms.	Small, isolated block cabins and associated buildings. Bold cylindrical pipeline on regular vertical supports for parallel linear structure. Small bridge structures with parallel, smooth flat horizontal form.
Line	Complex, soft curving flowing uplands, blending to wide U-shaped valleys. Flowing line of U-shaped valley floors exhibit continuous flowing regular line. Some small streams with V-shaped valleys present continuous, hard, irregular line.	Bold irregular complex lines of mixed forest to simple curving regular line of shrubs and grass wetlands.	Bold regular straight, vertical, continuous and horizontal lines.
Color	Natural browns and grays of small bluffs and gravel bars along water courses. Blues and browns of rivers.	Irregular hues of green mixed forest, shrub and grass wetlands vegetation. Vivid fall colors. Diverse colors of vegetation.	Natural browns and grays of logs and wood buildings and multi colored roofing. Blacks, grays and browns of road and bridge structures. Shiny metal of pipeline with reds of support structures.
Texture	Uplands exhibit fine subtle, random texture against the smooth, texture of valleys. Water areas are soft and smooth.	Irregular texture of various vegetation types from course trees to fine grass. Medium gravel bars along water courses.	Smooth log or wood texture with fascia boards and decks, etc. Smooth metal texture of pipeline with fine, ordered support structures. Medium texture of continuous roads and highway.
3. Narrative: Dalton Highway (State Scenic Byway), Trans Alaska Pipeline, miscellaneous structures. There may be other structures within this area such as communications towers, primitive roads and trails. This is a small part of the larger unit.			

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
a. Landform			1		Class A - 19 or more
b. Vegetation		3		Mixed forest, shrub and grass wetlands communities	
c. Water			2	Water does not a dominate feature of this area.	Class B- 12 -18
d. Color		3		Vivid mixed forest and grass wetland vegetation in summer and fall, blues and browns of streams, bluffs and gravel bars.	
e. Adjacent Scenery			0		Class C - 11 or less
f. Scarcity			2		

4. SCORE					SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW	EXPLANATION OR RATIONALE	
g. Cultural Modification			-3	Cultural modifications do not blend with the surrounding landscape.	Class C
Totals			8		

Rampart Trough is a structurally controlled depression having gently rolling topography up to 1,500 feet high and incised down to 2,500 feet below the surrounding highlands. Terraces along rivers can be 500 feet above stream level. Scattered thaw lakes lie on the floodplain and elsewhere. Permafrost underlies all the lowlands except the floodplain. Hard rock hills and surrounding uplands are partly metamorphosed sedimentary and volcanic rock and cut by granitic intrusions resulting in cliff formations.

Adjacent Physiographic Division descriptions:

Kokrine-Hodzana Highlands is characterized by even-topped rounded ridges rising to 2,000-4,000 feet surmounted by isolated areas of more rugged mountains. Valleys have alleviated floors. There are a few thaw lakes in the lowland areas. The entire section is probably underlain by permafrost and contains classic examples of altiplanation terraces, stone polygons, and other periglacial phenomena.

Yukon Flats Section: The southeastern part of this division is a broad gentle outwash fan while most of the rest is a nearly flat floodplain. Rolling silt and gravel covered marginal terraces having sharp escarpment 150-600 feet high rise above the flats and slope gradually upward to altitudes of about 1,500 feet at the base of surrounding uplands and mountains. The escarpments expose well-consolidated or crystalline rocks. Most of the waterways have meandering courses through the flats. Thaw lakes are abundant throughout the flats and are common with thaw sinks on the marginal terraces. Permafrost is probably abundant except under rivers, recently abandoned meander belts, and large thaw lakes.

Table D.8. Scenic Quality Field Inventory – Yukon Flats Section

Form 8400-1 (September 1985)		Date: 15 April 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		Steese Subunit, Black River Subunit	
		SQRU: Yukon Flats Section	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Colin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Gentle rolling and rounded hills commonly about 2,000 feet but occasionally up to 2,300 feet transitioning to flat basin at 600 feet. Most relief is about 1,000 feet in elevation. Tributaries are meandering rivers in broad valleys and round lakes.	Smooth to irregular mixed forest, shrub, and wetlands. Vertical mixed forests to more horizontal shrubs and wetlands and open areas creating a scattered patchy mosaic.	No known structures.
Line	Flowing random smooth trending horizontal hills blending to flat lowlands. Parallel flowing or still water.	Irregular complex lines of mixed forest to simple curving regular line of shrubs and wetlands.	No known structures.
Color	Vegetative covered hills. Blue-browns of water and streams with brown and tans of gravel bars and small bluffs.	Various hues of green mixed forest, shrub and wetland vegetation. Mixed vegetation produces multiple fall colors.	No known structures.
Texture	Smooth, subtle foot hills. Water areas are soft and smooth with medium gravel bars along water courses and lakes.	Course rough texture of mixed forest to smooth grassland and wetland vegetation. Medium shrub vegetation types create a patchy mosaic.	No known structures.
3. Narrative: Water is more dominate in this landscape than in the Porcupine Plateau's numerous small lakes and tributaries. No large lakes. The Yukon River is a major feature. No known structures on BLM lands in this unit.			

4. SCORE					SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW	EXPLANATION OR RATIONALE	
a. Landform			1	Rolling hills are common throughout the area	Class A - 19 or more
b. Vegetation		3		Few mixed forest communities, mostly shrub and tundra communities	
c. Water		3		Tributaries and major rivers with small lakes scattered throughout the area enhance the landscape.	Class B- 12 -18
d. Color		3		Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars.	
e. Adjacent Scenery			0		Class C - 11 or less
f. Scarcity			1	Rolling uplands and low valley bottoms are not unique.	
g. Cultural Modification		0		Cultural modifications blend with the surrounding landscape.	Class C
Totals			11		

Yukon Flats Section : The southeastern part of this division is a broad gentle outwash fan while most of the rest is a nearly flat floodplain. Rolling silt and gravel covered marginal terraces having sharp escarpment 150-600 feet high rise above the flats and slope gradually upward to altitudes of about 1,500 feet at the base of surrounding uplands and mountains. The escarpments expose well-consolidated or crystalline rocks. Most of the waterways have meandering courses through the flats. Thaw lakes are abundant throughout the flats and are common with thaw sinks on the marginal terraces. Permafrost is probably abundant except under rivers, recently abandoned meander belts, and large thaw lakes.

Adjacent Physiographic Division descriptions:

Porcupine Plateau consists of low ridges having gentle slopes and rounded to flat summits from 1,500 to 2,500 feet with a few domes and mountains rising to 3,500 feet above broad irregular valley floors (1,000 feet). All rivers within the SRQU drain into the Yukon River with the clear water Black and Little Black being the dominate rivers which meander through broad irregular flats. Scattered pingos and thaw lakes occur in lowlands. The entire area is underlain by continuous permafrost.

Ogilvie Mountains have sharp crestlines, precipitous slopes rising to 5,000 feet and deep narrow valleys at 1,000 feet with a elevation relief of as much as 4,000 feet. Many of the ridges are interconnected with few passes but the narrow valleys are interrupted by gorges where rivers cross cliff-forming rock. This division contains small thaw lakes and oxbow lakes and pingos. Most of the area is underlain by permafrost.

Yukon-Tanana Upland within the Northern Plateaus Province is the largest division in the planning area. It displays rounded even-topped ridges with gentle side slopes. The rounded ridges trend northeast to east and have ridge-crest altitudes up to 3,000 feet and rise 500 to 1,500 feet above the valley floor. These lower ridges are surrounded by compact rugged mountains rising another 2,000 feet to heights of 5,000 feet in altitude. Valleys are generally flat, with alluvium floors. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Yukon-Tanana Upland ridges are up to 5,000 feet in elevation with some domes rising up to 6,800 feet, a rise of up to 3,000 feet above the valley floor. Some mountains rival the Ogilvie Mountains in ruggedness. Rivers and streams in this subunit drain to the Yukon River in narrow V-shaped canyons, except for the extreme headwater creeks and streams which are in broad alluvium-floored basins. Most of the streams follow parallel to the structural trends of the bedrock and have sharp bends involving reversal of direction around the ends of ridges of hard rock resulting in unique geological cliff formations. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Table D.9. Scenic Quality Field Inventory – Steese NCA/Yukon-Tanana Uplands

Form 8400-1 (September 1985)		Date: 23 March 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		Steese Subunit	
		SQRU: Steese National Conservation Area/Yukon-Tanana Uplands	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Colin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Scattered rugged mountains at 3,600-5,000 feet with isolated jagged tors transitioning to a complex system of high rounded domes, sloping to the meandering Birch Creek and Preacher Creek V- to U-shaped valley floors with larger V-shaped tributaries.	Complex irregular mixed forest with diverse irregular shrub and grass under-stories and open areas of shrub and tundra creating scattered patchy random mosaic forms	Small, isolated block cabins and associated buildings
Line	Rugged, broken mountains with rolling domed foothills in a flowing horizontal line while V- and U-shaped valley floors exhibit continuous flowing regular meanders.	Bold irregular complex lines of mixed forest to simple curving regular line of shrubs and tundra.	Regular straight vertical and diagonal line
Color	Rugged gray to brown peaks with irregular black colored scree slopes. Blues and browns of water (streams, rivers and small lakes). Grays and tans of gravel bars, bluffs and rock outcrops.	Irregular hues of green mixed forest, shrub and tundra vegetation. Vivid fall colors.	Natural browns and grays of logs and brown colored, sod or shiny roofing.
Texture	Mountains exhibit course, random texture against the smooth, subtle texture of the high domes producing a high contrast. Water areas are soft and smooth.	Rough, irregular texture of various vegetation types from course trees to fine tundra. Medium gravel bars along water courses.	Smooth log texture.
3. Narrative: Rugged mountains of the White Mountains, West and East Crazy Mountain ranges and massive high domes stands out within the Yukon-Tanana Uplands division. The rugged peaks are visible from high points around Fairbanks and provide vertical dimension to the surrounding lower rounded domes. There are 2 shelters, the Fryingpan Creek Road (16 miles), Harrison Creek - Portage Creek Right-of-way (about 21 miles), 4 trailheads, 1 administration site, and one 17(b) easement. There are a number of isolated cabin structures and 2 known landing strips. Numerous travel routes exist within this area. Many of these facilities blend with the surrounding landscape or are well screened from known travel routes. Some, however are noticeable and may attract the attention of the casual observer.			

4. SCORE					SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW	EXPLANATION OR RATIONALE	
a. Landform		3		Scattered rugged peaks of the White Mountains and West and East Crazy Mountain ranges with high massive domes and Birch Creek and Preacher Creek valleys surrounded by low rolling hills.	Class A - 19 or more
b. Vegetation	5			Mixed forest, shrub and tundra communities	

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW		
c. Water	5			Beaver Creek, Preacher Creek and other headwater tributaries	Class B- 12 -18
d. Color		4		Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers, bluffs and gravel bars. Browns and gray of the mountain ridges.	
e. Adjacent Scenery		3		Very natural in appearance. Yukon Flats NWR wilderness study area to the north. White Mountains NRA to the west. Yukon-Charley Rivers National Preserve to the east. Small scattered areas of development along the Steese Highway. Fairly remote homestead areas.	Class C - 11 or less
f. Scarcity		4		This high domed area is unique within the Yukon-Tanana Uplands.	
g. Cultural Modification		0		Cultural modifications blend with the surrounding landscape, except some off-highway travel routes.	
Totals			24		Class A

Yukon-Tanana Upland displays rounded even-topped ridges with gentle side slopes. The rounded ridges in this subunit trend northeast to east and have ridge-crest altitudes up to 3,000 feet and rise 500 to 1,500 feet above the valley floor. These lower ridges are surrounded by compact rugged mountains rising another 2,000 feet to heights of 5,000 feet in altitude. Valleys are generally flat, with alluvium floors. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Adjacent Physiographic Divisions descriptions:

Tintina Valley within the Northern Plateaus Province is a narrow belt of low country consisting of low rounded ridges (2,500 feet) and open valleys (1,000 feet). Streams in this area flow in narrow valleys across hills of resistant rocks. A few thaw lakes occur, with Medicine Lake being the largest at nearly two miles across. The area is generally underlain by permafrost.

Yukon Flats Section: The southeastern part of this division is a broad gentle outwash fan while most of the rest is a nearly flat floodplain. Rolling silt and gravel covered marginal terraces having sharp escarpment 150-600 feet high rise above the flats and slope gradually upward to altitudes of about 1,500 feet at the base of surrounding uplands and mountains. The escarpments expose well-consolidated or crystalline rocks. Most of the waterways have meandering courses through the flats. Thaw lakes are abundant throughout the flats and are common with thaw sinks on the marginal terraces. Permafrost is probably abundant except under rivers, recently abandoned meander belts, and large thaw lakes.

Table D.10. Scenic Quality Field Inventory – Tanana-Kuskokwim Lowlands

Form 8400-1 (September 1985)		Date: 03 June 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		Fortymile Subunit	
		SQRU: Tanana-Kuskokwim Lowlands	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Colin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Gentle rolling and rounded hills commonly around 2,000 feet transitioning to flat basin at 900 feet. Most relief is about 1,000 feet in elevation to low flat basin. Tributaries are meandering rivers in broad flat valleys and small round lakes.	Smooth to irregular mixed forest, shrub, and wetlands. Vertical mixed forests to more horizontal shrubs and wetlands and open areas creating a scattered patchy mosaic.	Small communities of 1,000 people or less with houses, businesses, and support structures. Strip development and isolated block homes and associated buildings along the highway. Flat agricultural areas. Triangular radio towers, parallel power lines, the Alaska Highway and associated rectangular bridges, flat wayside parking areas.
Line	Flowing, random smooth trending low, horizontal hills blending to flat broad lowlands. Parallel or braided flowing, soft or still water.	Irregular complex lines of mixed forest to simple curving regular line of shrubs and wetlands.	Regular straight, vertical, continuous and diagonal lines.
Color	Vegetative covered hills. Blue-browns of water and streams with brown and tans of gravel bars and small bluffs.	Various hues of green mixed forest, shrub and wetland vegetation. Mixed vegetation produces multiple fall colors.	Natural browns and grays of logs and wood buildings and multi colored roofing. Blacks, grays and browns of road and bridge structures. Shiny metal of towers, and power lines with brown support structures.
Texture	Smooth, subtle foot hills. Water areas are soft and smooth with medium gravel bars along water courses and lakes.	Course rough texture of mixed forest to smooth grassland and wetland vegetation. Medium shrub vegetation types create a patchy mosaic.	Smooth log or wood texture with fascia boards and decks, etc. Smooth metal texture of power lines with fine, ordered support structures. Medium texture of continuous roads and highway.
3. Narrative: Communities within this unit include Delta Junction and Big Delta. The Alaska Highway traverses this unit. There are a number of isolated cabins and houses with associated structures including transmission lines, radio towers, bridges etc. The Tanana River is a major water source including other medium sized lakes and wetlands. A number of major drainages flow into the Tanana River, such as the Johnson River. This is a small part of the larger province.			

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
		1	Rolling hills are common throughout the area	Class A - 19 or more	
	2		Few mixed forest communities, mostly shrub and tundra communities		

4. SCORE					SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW	EXPLANATION OR RATIONALE	
c. Water		3		Water features of tributaries and major rivers with small lakes scattered throughout the area enhance the landscape.	Class B- 12 -18
d. Color		2		Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars.	
e. Adjacent Scenery		2			Class C - 11 or less
f. Scarcity			1	Rolling uplands and low valley bottoms are not unique compared to adjacent Porcupine Plateau.	
g. Cultural Modification			-4	Cultural modifications do not blend with the surrounding landscape.	Class C
Totals			7		

Tanana-Kuskokwim Lowland within the Western Alaska Province is a broad depression. Most of the rivers are glacial and flow in tight meanders, in broad outwash fans in terraced valleys. Thaw lakes abound in areas of fine alluvium. Thaw sinks are also abundant in areas of thick loess cover. The entire section is an area of permafrost.

Adjacent Physiographic division descriptions:

Northern Foothills located within the Alaska-Aleutian Province, are flat-topped, east trending ridges up to 4,500 feet in height, 7 miles wide, and 5 to 20 miles long. These are separated by rolling lowlands up to 1,500 feet high and 2 to 10 miles wide. Major streams of the foothills are superimposed across the topography in rugged impassable V-shaped canyons and across lowlands in broad terraced valleys. There are a few small thaw lakes in lowland passes, and morainal areas have shallow irregular ponds. Permafrost is extensive and polygonal ground and solifluction features are well developed.

Northway-Tanacross Lowland contains three small, nearly level or gently rolling basins, separated by screens of low rolling hills. Scattered longitudinal dunes are present in one of the basins. Many of the rivers are steep barbed streams with swift and braided upper courses and sluggish meandering lower reaches in broad valleys. There are a number of large lakes in the surrounding hills, while thaw lakes, oxbow lakes and morainal ponds are also present. The entire area is discontinuous permafrost.

Yukon-Tanana Upland within the Northern Plateaus Province is the largest division within the planning area. It displays rounded even-topped ridges with gentle side slopes. The rounded ridges trend northeast to east and have ridge-crest altitudes up to 3,000 feet and rise 500 to 1,500 feet above the valley floor. These lower ridges are surrounded by compact rugged mountains rising another 2,000 feet to heights of 5,000 feet in altitude. Valleys are generally flat, with alluvium floors. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Yukon-Tanana Upland, Northern Plateaus Province. Ridges in this subunit are up to 5,000 feet in elevation with some domes rising up to 6,800 feet – a rise of up to 3,000 feet above the valley floor. Some mountains rival the Ogilvie Mountains in ruggedness. Rivers and streams in this

subunit drain to the Yukon River in narrow V-shaped canyons, except for the extreme headwater creeks and streams which are in broad alluvium-floored basins. Most of the streams in this subunit follow parallel to the structural trends of the bedrock and have sharp bends involving reversal of direction around the ends of ridges of hard rock resulting in unique geological cliff formations. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Area	Topography	Geology	Soils	Vegetation	Wildlife	Water Resources	Recreation	Other
Yukon River	Wide, flat valley floor with some low hills.	Recent alluvium and older terraces.	Rich, fertile soils.	Deciduous forest.	Salmon, bears, moose.	Large river, many tributaries.	Fishing, hunting.	Historic sites.
Interior Plateau	High, rugged mountains.	Crystalline rocks, igneous intrusions.	Thin, rocky soils.	Coniferous forest.	Caribou, moose, sheep.	Small streams, lakes.	Wilderness, hunting.	Geological features.
Subunit Drain	Narrow V-shaped canyons.	Hard rock ridges.	Thin, rocky soils.	Coniferous forest.	Caribou, moose.	Small streams.	Wilderness, hunting.	Geological features.
Headwater Creeks	Broad alluvium-floored basins.	Recent alluvium.	Rich, fertile soils.	Deciduous forest.	Salmon, bears, moose.	Small streams.	Fishing, hunting.	Historic sites.

Table D.11. Scenic Quality Field Inventory – Tintina Valley

Form 8400-1 (September 1985)		Date: 03 June 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT		Eastern Interior Field Office	
		Upper Black/Fortymile/Steese Subunits	
SCENIC QUALITY FIELD INVENTORY		SQRU: Tintina Valley	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Colin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Gentle rolling and rounded domes and foothills, some scattered at elevations of 3,000 - 5,300 feet transitioning to flat valley bottoms at 900 feet. Most relief is about 4,000 feet in elevation. Tributaries are meandering rivers in broad U-shaped valleys.	Smooth to irregular mixed forest, shrub, and wetlands. Vertical mixed forests to more horizontal shrubs and wetlands and open areas creating a scattered patchy mosaic.	Small communities of 150 people or less with houses, businesses, and support structures. Strip development and, isolated block homes and associated buildings along the river and trail. The Taylor Highway and associated rectangular bridges, flat wayside parking areas.
Line	Flowing random smooth trending horizontal hills blending to flat lowlands. Parallel flowing or still water.	Irregular complex lines of mixed forest to simple curving regular line of shrubs and wetlands.	Regular straight, vertical, continuous and diagonal lines.
Color	Vegetative covered hills. Blue-browns of water and streams with brown and tans of gravel bars and small bluffs.	Various hues of green mixed forest, shrub and wetland vegetation. Mixed vegetation produces multiple fall colors.	Natural browns and grays of logs and wood buildings and multi colored roofing. Blacks, grays and browns of road and bridge structures. Shiny metal of towers, and power lines with brown support structures.
Texture	Smooth, subtle foot hills. Water areas are soft and smooth with medium gravel bars along water courses and lakes.	Course rough texture of mixed forest to smooth grassland and wetland vegetation. Medium shrub vegetation types create a patchy mosaic.	Smooth log or wood texture with fascia boards and decks, etc. Smooth metal texture of power lines with fine, ordered support structures. Medium texture of continuous roads and highway.
3. Narrative: Water is somewhat dominate in this landscape with large tributaries of the Yukon River influencing the unit. Communities include Eagle and Eagle Village. The northern portion of the Taylor Highway (State Scenic Byway) crosses the unit. There are a number of isolated cabins and houses with associated structures. A few isolated cabins and homesteads may occur but are generally small. No large lakes occur.			

4. SCORE					SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW	EXPLANATION OR RATIONALE	
a. Landform			2	Rolling hills are common throughout the area.	Class A - 19 or more
b. Vegetation		4		Mixed forest, shrub and tundra communities.	
c. Water			2	Water features of tributaries and major rivers scattered throughout the area enhance the landscape.	Class B- 12 -18
d. Color		3		Mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars.	

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
e. Adjacent Scenery			2		Class C - 11 or less
f. Scarcity			1	Rolling uplands and low valley bottoms are not unique.	
g. Cultural Modification			-2	Cultural modifications do not blend with the surrounding landscape.	Class B
Totals			13		

Tintina Valley within the Northern Plateaus Province is a narrow belt of low country consisting of low rounded ridges (2,500 feet) and open valleys (1,000 feet). Streams in this area flow in narrow valleys across hills of resistant rocks. A few thaw lakes occur, with Medicine Lake being the largest at nearly two miles across. The area is generally underlain by permafrost.

Adjacent Physiographic Division descriptions:

Ogilvie Mountains have sharp crestlines, precipitous slopes rising to 5,000 feet and deep narrow valleys at 1,000 feet with a elevational relief of as much as 4,000 feet. Many of the ridges are interconnected with few passes but the narrow valleys are interrupted by gorges where rivers cross cliff-forming rock. This division contains small thaw lakes and oxbow lakes and pingos. Most of the area is underlain by permafrost.

Yukon Flats Section The southeastern part of this division is a broad gentle outwash fan while most of the rest is a nearly flat floodplain. Rolling silt and gravel covered marginal terraces having sharp escarpment 150-600 feet high rise above the flats and slope gradually upward to altitudes of about 1,500 feet at the base of surrounding uplands and mountains. The escarpments expose well-consolidated or crystalline rocks. Most of the waterways have meandering courses through the flats. Thaw lakes are abundant throughout the flats and are common with thaw sinks on the marginal terraces. Permafrost is probably abundant except under rivers, recently abandoned meander belts, and large thaw lakes.

Yukon-Tanana Upland is the largest division within the planning area. It displays rounded even-topped ridges with gentle side slopes. The rounded ridges in this subunit trend northeast to east and have ridge-crest altitudes up to 3,000 feet and rise 500 to 1,500 feet above the valley floor. These lower ridges are surrounded by compact rugged mountains rising another 2,000 feet to heights of 5,000 feet in altitude. Valleys are generally flat, with alluvium floors. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Yukon-Tanana Upland ridges are up to 5,000 feet in elevation with some domes rising up to 6,800 feet – a rise of up to 3,000 feet above the valley floor. Some mountains rival the Ogilvie Mountains in ruggedness. Rivers and streams in this subunit drain to the Yukon River in narrow V-shaped canyons, except for the extreme headwater creeks and streams which are in broad alluvium-floored basins. Most of the streams follow parallel to the structural trends of the bedrock and have sharp bends involving reversal of direction around the ends of ridges of hard rock resulting in unique geological cliff formations. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Table D.12. Scenic Quality Field Inventory – Porcupine Plateau

Form 8400-1 (September 1985)		Date: 15 April 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		Upper Black Subunit	
		SQRU: Porcupine Plateau	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Colin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Gentle rolling and rounded hills and mountains commonly around 2,000 feet, occasionally up to 2,800 feet, transitioning to flat basin at 900-1,000 feet. Most relief between 1,000-2,000 feet in elevation. Tributaries are sinuous headwaters to meandering rivers and round lakes.	Smooth to irregular mixed forest, shrub, and wetlands. Vertical mixed forests to more horizontal shrubs and wetlands and open areas creating a scattered patchy mosaic.	Small, isolated block cabins and associated buildings
Line	Flowing random smooth trending horizontal hills and low mountains blending to flat lowlands. Parallel flowing or still water.	Irregular complex lines of mixed forest to simple curving regular line of shrubs and wetlands.	Regular straight vertical and diagonal line
Color	Various rocky peaks with irregular colored tops with some scree slopes. Blue-browns of water and streams with brown and tans of gravel bars.	Various hues of green mixed forest, shrub and wetland vegetation. Vivid fall colors.	Natural browns and grays of logs and various colored roofing – some shiny.
Texture	Mountains exhibit course, random uneven patchy texture against the smooth, subtle texture of the foothills producing a high contrast. Water areas are soft and smooth with medium gravel bars along water courses and lakes.	Course rough texture of mixed forest to smooth grassland and wetland vegetation. Medium shrub vegetation types create a patchy mosaic.	Smooth log texture.
3. Narrative: The massive forms of the Ogilvie and Keele Ranges stand out against the lowlands of the Porcupine Plateau. Water is more dominate in this landscape than the Oglivie/Keele Ranges with the Black, Lower Black, Kandik, Salmon Fork and other tributaries. No large lakes occur but small lakes are abundant. There is an aircraft radar site on Snowy Peak, consisting of a few buildings and some large storage tanks. These facilities blend with the surrounding landscape, are not generally noticeable, and do not attract the attention of the casual observer from ground level. Isolated cabins and homesteads occur within this area but are generally small and somewhat screened from travel routes (i.e., river courses).			

4. SCORE					SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW	EXPLANATION OR RATIONALE	
a. Landform			1	Rolling hills and low mountains are common throughout the area.	Class A - 19 or more
b. Vegetation	5			Mixed forest, shrub and tundra communities.	
c. Water		4		Water features of tributaries and major rivers with small lakes scattered throughout the area enhance the landscape.	Class B- 12 -18
d. Color		4		Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars.	

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
e. Adjacent Scenery			1	Ogilives and Keele Ranges enhance the rolling hills.	Class C - 11 or less
f. Scarcity			1	Rolling uplands and low valley bottoms are not unique compared to adjacent Porcupine Plateau, Yukon Flats and Tintina Valley.	
g. Cultural Modification		0		Cultural modifications blend with the surrounding landscape.	Class B
Totals			16		

Porcupine Plateau consists of low ridges having gentle slopes and rounded to flat summits from 1,500 to 2,500 feet with a few domes and mountains rising to 3,500 feet above broad irregular valley floors (1,000 feet). All rivers within the SRQU drain into the Yukon River with the clear water Black and Little Black being the dominate rivers which meander through broad irregular flats. Scattered pingos and thaw lakes occur in lowlands. The entire area is underlain by continuous permafrost.

Adjacent Physiographic Division descriptions:

Ogilvie Mountains have sharp crestlines, precipitous slopes rising to 5,000 feet and deep narrow valleys at 1,000 feet with a elevation relief of as much as 4,000 feet. Many of the ridges are interconnected with few passes but the narrow valleys are interrupted by gorges where rivers cross cliff-forming rock. This division contains small thaw lakes and oxbow lakes as well as pingos. Most of the area is underlain by permafrost.

Yukon Flats Section: The southeastern part of this division is a broad gentle outwash fan while most of the rest is a nearly flat floodplain. Rolling silt and gravel covered marginal terraces having sharp escarpment 150-600 feet high rise above the flats and slope gradually upward to altitudes of about 1,500 feet at the base of surrounding uplands and mountains. The escarpments expose well-consolidated or crystalline rocks. Most of the waterways have meandering courses through the flats. Thaw lakes are abundant throughout the flats and are common with thaw sinks on the marginal terraces. Permafrost is probably abundant except under rivers, recently abandoned meander belts, and large thaw lakes.

Table D.13. Scenic Quality Field Inventory – Ogilvie-Keele Ranges

Form 8400-1 (September 1985)		Date: 23 March 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		Upper Black Subunit	
		SQRU: Ogilvie-Keele Ranges	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Colin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Irregular rugged angular mountain peaks in a massive complex at 2,000-4,800 feet transitioning to flat basin at 800-1,000 feet.	Complex irregular patchy mixed forest with diverse irregular shrub, grass and tundra open areas creating a scattered random mosaic forms.	Small, isolated block cabins and associated buildings
Line	Bold-rugged, irregular mountains in a predominately horizontal landscape. Foothill region is curvy and angular flowing line while valley floors exhibit continuous flowing regular flat appearing curves.	Bold irregular complex lines of mixed forest to simple curving regular line of shrubs and tundra.	Regular straight vertical and diagonal line
Color	Various rocky peaks with irregular colored tops with some scree slopes. Blue-browns of water and streams with brown and tans of gravel bars.	Irregular hues of green mixed forest, shrub and tundra vegetation. Vivid fall colors.	Natural browns and grays of logs and various colored roofing – some shiny.
Texture	Mountains exhibit course, random uneven patchy texture against the smooth, subtle texture of the foot hills producing a high contrast. Water areas are soft and smooth.	Irregular texture of various vegetation types create a contrasting and patchy mosaic from course trees and shrubs to fine tundra and grasses. Medium gravel bars along water courses and smooth lakes.	Smooth log texture.
3. Narrative: The massive forms of the Ogilvie and Keele Ranges stand out against the lowlands of the Porcupine Plateau. Water is generally not a dominate part of the landscape as the mountains form the headwaters, so the water courses are smaller in this area. No large lakes occur. There is an aircraft radar site on Snowy Peak, consisting of a few buildings and some large storage tanks. These facilities blend with the surrounding landscape, are not generally noticeable, and do not attract the attention of the casual observer from ground level. Isolated cabins and homesteads occur within this area but are generally small and somewhat screened from travel routes (i.e., river courses).			

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW		
a. Landform	4			Irregular rugged angular mountain peaks in a massive complex	Class A - 19 or more
b. Vegetation	5				
c. Water			3	Small headwater tributaries	Class B- 12 -18
d. Color	5			Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars against various rock outcrops and scree slopes.	

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
e. Adjacent Scenery	5			Very natural in appearance. Fairly remote homesteads in the area and adjacent areas. Ogilives and Keele Ranges add to the value of the adjacent scenery.	Class C - 11 or less
f. Scarcity		4			
g. Cultural Modification		0			
Totals			26		Class A

Ogilvie Mountains have sharp crestlines, precipitous slopes rising to 5,000 feet and deep narrow valleys at 1,000 feet with a elevation relief of as much as 4,000 feet. Many of the ridges are interconnected with few passes but the narrow valleys are interrupted by gorges where rivers cross cliff-forming rock. This division contains small thaw lakes and oxbow lakes as well as pingos. Most of the area is underlain by permafrost.

Adjacent Physiographic Division descriptions:

Porcupine Plateau consists of low ridges having gentle slopes and rounded to flat summits from 1,500 to 2,500 feet with a few domes and mountains rising to 3,500 feet above broad irregular valley floors (1,000 feet). All rivers within the SRQU drain into the Yukon River with the clear water Black and Little Black being the dominate rivers which meander through broad irregular flats. Scattered pingos and thaw lakes occur in lowlands. The entire area is underlain by continuous permafrost.

Tintina Valley is a narrow belt of low country consisting of low rounded ridges (2,500 feet) and open valleys (1,000 feet). Streams in this area flow in narrow valleys across hills of resistant rocks. A few thaw lakes occur in the area with Medicine Lake being the largest at nearly two miles across. The area is generally underlain by permafrost.

Yukon Flats Section: The southeastern part of this division is a broad gentle outwash fan while most of the rest is a nearly flat floodplain. Rolling silt and gravel covered marginal terraces having sharp escarpment 150-600 feet high rise above the flats and slope gradually upward to altitudes of about 1,500 feet at the base of surrounding uplands and mountains. The escarpments expose well-consolidated or crystalline rocks. Most of the waterways have meandering courses through the flats. Thaw lakes are abundant throughout the flats and are common with thaw sinks on the marginal terraces. Permafrost is probably abundant except under rivers, recently abandoned meander belts, and large thaw lakes.

Table D.14. Scenic Quality Field Inventory – White Mountains NRA/Yukon-Tanana Uplands

Form 8400-1 (September 1985)		Date: 23 March 2009	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SCENIC QUALITY FIELD INVENTORY		Eastern Interior Field Office	
		White Mountains Subunit	
		SQRU: White Mountains NRA/Yukon-Tanana Uplands	
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Colin Cogley, Outdoor Recreation Planner			
2. LANDSCAPE CHARACTER (feature)			
	a. LANDFORM/WATER	b. VEGETATION	c. STRUCTURE (General)
Form	Irregular rugged mountains at 5,000 feet with isolated jagged tors transitioning to even-topped ridges and rounded foothills, gently sloping to the generally flat meandering Beaver Creek valley floor with U-shaped gentle, curving tributaries.	Complex irregular mixed forest with diverse irregular shrub and grass under-stories and open areas of shrub and tundra creating scattered patchy random mosaic forms.	Small, isolated block cabins and associated buildings
Line	Jagged-rugged, broken mountains in a predominately horizontal landscape. Foothill region is continuous flowing horizontal line while valley floors exhibit continuous flowing regular curves.	Bold irregular complex lines of mixed forest to simple curving regular line of shrubs and tundra.	Regular straight vertical and diagonal line
Color	White-gray limestone peaks with irregular black colored scree slopes. Blues of water, streams and rivers and grays and tans of gravel bars.	Irregular hues of green mixed forest, shrub and tundra vegetation. Vivid fall colors.	Natural browns and grays of logs and brown colored roofing
Texture	Mountains exhibit course, random texture against the smooth, subtle texture of the foot hills producing a high contrast. Water areas are soft and smooth.	Irregular texture of various vegetation types from course trees to fine tundra. Medium gravel bars along water courses.	Smooth log texture with fascia boards and deck
3. Narrative: Limestone peaks of the White Mountains stand out within the Yukon-Tanana Uplands division. The rugged peaks are visible from high points around Fairbanks and provide vertical dimension to the surrounding more rounded domes. There are 12 cabins, 2 shelters, one 20 mile road, 3 campgrounds, 4 trailhead areas, and 1 administration site all with related structures. These facilities blend with the surrounding landscape. Some are noticeable and may attract the attention of the casual observer.			

4. SCORE					SCENIC QUALITY CLASSIFICATION
	HIGH	MED	LOW	EXPLANATION OR RATIONALE	
a. Landform	5			Rugged peaks of the White Mountains Range and Beaver Creek valley surrounded by rolling hills.	Class A - 19 or more
b. Vegetation	5			Mixed forest, shrub and tundra communities	
c. Water	5			Beaver Creek and other headwater tributaries	Class B- 12 -18
d. Color	5			Vivid mixed forest and tundra vegetation in summer and fall, blues and browns of rivers and gravel bars. White and grey of limestone and granite outcrops of the mountain ridges.	

4. SCORE				EXPLANATION OR RATIONALE	SCENIC QUALITY CLASSIFICATION
HIGH	MED	LOW			
e. Adjacent Scenery	5			Very natural in appearance. Yukon Flats NWR wilderness study area to the north. Steese NCA to the east. Small scattered areas of development along the Steese Highway. Fairly remote homestead areas.	Class C - 11 or less
f. Scarcity	5			This area is unique within the Yukon-Tanana Uplands.	
g. Cultural Modification		0		Cultural modifications blend with the surrounding landscape, except Mt. Prindle Campground and Nome Creek Road. Quartz Creek Trail is also noticeable from many locations.	Class A
Totals			30		

Yukon-Tanana Upland displays rounded even-topped ridges with gentle side slopes. The rounded ridges trend northeast to east and have ridge-crest altitudes up to 3,000 feet and rise 500 to 1,500 feet above the valley floor. These lower ridges are surrounded by compact rugged mountains rising another 2,000 feet to heights of 5,000 feet in altitude. Valleys are generally flat, with alluvium floors. There are a few thaw lakes in this discontinuous permafrost region. Periglacial mass-wasting is active at high altitudes, and ice wedges lace the frozen muck of valley bottoms. Pingos are common in valleys and on lower hill slopes.

Adjacent Physiographic Divisions descriptions:

Kokrine-Hodzana Highlands consist of even-topped rounded ridges rising to 4,000 feet surmounted by isolated areas of more rugged mountains. There are a few thaw lakes in the lowland areas and the entire section is probably underlain by permafrost. Many examples of periglacial phenomena occurs in the area, such as altiplanation terraces and stone polygons.

Rampart Trough is a structurally controlled depression having gently rolling topography up to 1,500 feet high and incised down to 2,500 feet below the surrounding highlands on either side. Terraces along rivers can be 500 feet above stream level. Scattered thaw lakes lie on the floodplain and elsewhere. Permafrost underlies all the lowlands, except the floodplain. Hard rock hills and surrounding uplands are partly metamorphosed sedimentary and volcanic rock and cut by granitic intrusions resulting in cliff formations.

Yukon Flats Section: The southeastern part of this division is a broad gentle outwash fan while most of the rest is a nearly flat floodplain. Rolling silt and gravel covered marginal terraces having sharp escarpment 150-600 feet high rise above the flats and slope gradually upward to altitudes of about 1,500 feet at the base of surrounding uplands and mountains. The escarpments expose well-consolidated or crystalline rocks. Most of the waterways have meandering courses through the flats. Thaw lakes are abundant throughout the flats and are common with thaw sinks on the marginal terraces. Permafrost is probably abundant except under rivers, recently abandoned meander belts, and large thaw lakes.

D.6. Visual Sensitivity Worksheets

The following Sensitivity Level Rating Sheets show the sensitivity rating for each of the SQRUs in the planning area.

Table D.15. Sensitivity Level Rating Sheet – Yukon-Tanana Uplands

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 23 March 2009
	Eastern Interior Field Office
	Subunit: Fortymile Subunit
	SQRU: Yukon-Tanana Uplands
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner	

Sensitivity Level Rating Unit	Type of User	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Other Factors	Overall Rating	Explanation
	H	M						Hunting and harvest gathering, ATV and snowmobile riding, dispersed hiking, car camping in campgrounds, scenic driving, river floaters
			H					Benefits Based Management study indicates high interest. Scoping report comments reflect interest in naturalness.
				H				Yukon-Charley Rivers National Preserve to the north, Canada to the east, state lands in natural state with isolated homesteads.
					H			Fortymile Wild and Scenic River. Taylor Highway and Top of the World highway designated as a scenic byway with scenic, natural and historic values.
Sensitivity Level Rating = High								
H= High M= Medium L= Low								

Table D.16. Sensitivity Level Rating Sheet – Yukon Flats Section

Form 8400-6 (September 1985)								
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET				Date: 15 April 2009				
				Eastern Interior Field Office				
				Subunit: Steese Subunit				
				SQRU: Yukon Flats Section				
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner								
Sensi- tivity Level Rating Unit	Type of User	Amo- unt of Use	Public Inter- est	Adja- cent Land Uses	Spe- cial Areas	Other Fac- tors	Overall Rating	Explanation
	H-M	L						Subsistence from Chalkyitsik and Circle. Hunting and trapping.
			M					Scoping comments reflect interest in leaving the area undeveloped.
				M				Arctic National Wildlife Refuge (NWR) to the north; Yukon Flats NWR to the west; Yukon-Charley Rivers National Preserve to the south. All lands in a natural state. Chalkyitsik to the east.
					L			No Special Areas within this division.
Sensitivity Level Rating = Medium								
H= High M= Medium L= Low								

Table D.17. Sensitivity Level Rating Sheet – Porcupine Plateau

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 15 April 2009
	Eastern Interior Field Office
	Subunit: Upper Black Subunit
	SQRU: Porcupine Plateau
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner	

Sensitivity Level Rating Unit	Type of User	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Other Factors	Overall Rating	Explanation
	H-M	L						Subsistence from Chalkyitsik, hunting and trapping Homesteads.
			M					Scoping comments reflect interest in leaving the area undeveloped.
				M				Arctic NWR to the north; Yukon Flats NWR to the west; Yukon-Charley Rivers National Preserve to the south. All lands in a natural state. Chalkyitsik to the west.
					L			No Special Areas within this division.

Sensitivity Level Rating = Medium

H= High M= Medium L= Low

Table D.18. Sensitivity Level Rating Sheet – Ogilvie-Keele Ranges

Form 8400-6 (September 1985)								
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET					Date: 15 April 2009			
					Eastern Interior Field Office			
					Subunit: Upper Black Subunit			
					SQRU: Ogilvie-Keele Ranges			
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner								
Sensi- tivity Level Rating Unit	Type of User	Amo- unt of Use	Public Inter- est	Adja- cent Land Uses	Spe- cial Areas	Other Fac- tors	Overall Rating	Explanation
	H-M	L						Subsistence from Chalkyitsik, hunting and trapping, homesteads.
			M					Scoping comments reflect interest in leaving the area undeveloped.
				M				Arctic NWR to the north. Yukon-Charley Rivers National Preserve to the south. Canadian lands to the east in natural state. Chalkyitsik to the west.
					L			No Special Areas within this division.
Sensitivity Level Rating = Medium								
H= High M= Medium L= Low								

Table D.19. Sensitivity Level Rating Sheet – Tintina Valley

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 03 June 2009
	Eastern Interior Field Office
	Subunit: Fortymile/Steese/Upper Black Subunits
	SQRU: Tintina Valley
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner	

Sensi- tivity Level Rating Unit	Type of User	Amo- unt of Use	Public Inter- est	Adja- cent Land Uses	Spe- cial Areas	Other Fac- tors	Overall Rating	Explanation
	M							Subsistence from Eagle and Eagle Village, hunting and trapping, homesteads.
		L						Within the Yukon River Valley.
			L					Major selling and advertising point is the naturalness of Alaska.
				L				Adjacent land is in natural state with little development except at Eagle and Eagle Village.
					M			Yukon-Charley Rivers National Preserve, Fortymile National Wild and Scenic River, Fort Egbert-Eagle Historic District

Sensitivity Level Rating = Low

H= High M= Medium L= Low

Table D.20. Sensitivity Level Rating Sheet – Northway-Tanacross Lowlands

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 03 June 2009
	Eastern Interior Field Office
	Subunit: Fortymile Subunit
	SQRU: Northway-Tanacross Lowlands
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner	

Sensitivity Level Rating Unit	Type of User	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Other Factors	Overall Rating	Explanation
	M							Subsistence from Tok, Tanacross, Dot Lake, Northway, and Tetlin; hunting and trapping, homesteads.
		H						Alaska Highway and Tok Cutoff are major travel routes.
			M					Major selling and advertising point is the naturalness of Alaska.
				M				Adjacent land is in natural state with little development except along Alaska Highway at Tok, Tanacross, Dot Lake, Northway, and Tetlin.
					M			Tetlin NWR; Tetlin Indian Reservation.

Sensitivity Level Rating = Medium

H= High M= Medium L= Low

Table D.21. Sensitivity Level Rating Sheet – Alaska Range Central and Eastern

Form 8400-6 (September 1985)								
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office						Date: 03 June 2009		
SENSITIVITY LEVEL RATING SHEET						Eastern Interior Field Office		
						Subunit: Fortymile		
						SQRU: Alaska Range Central and Eastern		
1. Evaluator: Holli McClain, Outdoor Recreation Planner								
Sensi- tivity Level Rating Unit	Type of User	Amo- unt of Use	Public Inter- est	Adja- cent Land Uses	Spe- cial Areas	Other Fac- tors	Overall Rating	Explanation
	M							Hunting and trapping, Homesteads
		H						Major travel route into and out of Alaska.
			M					Major selling and advertising point is the naturalness of Alaska.
				M				Within the viewshed of Tok, Tanacross, and Mentasta. Adjacent land in natural state with little development except along Tok Cutoff.
					L			No Special Areas within this division.
Sensitivity Level Rating = Medium								
H= High M= Medium L= Low								

Table D.22. Sensitivity Level Rating Sheet – Northern Foothills

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 21 September 2009
	Eastern Interior Field Office
	Subunit: Fortymile Subunit
	SQRU: Northern Foothills
1. Evaluators: Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner	

Sensitivity Level Rating Unit	Type of User	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Other Factors	Overall Rating	Explanation
	M							Subsistence from Delta Junction and Dot Lake, Hunting and trapping, Homesteads.
		L						
			H					Alaska Highway and Richardson Highway (State Scenic Byway) are major travel routes. Major selling and advertising point is the naturalness of Alaska. Viewshed for Tok, Delta Junction, Big Delta, Dot Lake, Fort Greely communities.
				M				Viewshed for Tok, Delta Junction, Big Delta, Dot Lake, Fort Greely communities. Adjacent land is in natural state with little development except along Alaska Highway at Delta Junction and Richardson Highway and Fort Greely
					L			No Special Areas within this division.

Sensitivity Level Rating = Medium

H= High M= Medium L= Low

Table D.23. Sensitivity Level Rating Sheet – Tanana-Kuskokwim Lowlands

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 03 June 2009
	Eastern Interior Field Office
	Subunit: Fortymile Subunit
	SQRU: Tanana-Kuskokwim Lowlands
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner	

Sensi- tivity Level Rating Unit	Type of User	Amo- unt of Use	Public Inter- est	Adja- cent Land Uses	Spe- cial Areas	Other Fac- tors	Overall Rating	Explanation
	M							Subsistence from Delta Junction and Dot Lake, Hunting and trapping, Homesteads
		H						Alaska Highway and Richardson Highway (State Scenic Byway) are major travel routes.
			M					Major selling and advertising point is the naturalness of Alaska.
				L				Adjacent land is in natural state with little development except along Alaska Highway at Delta Junction and Fort Greely.
					L			No Special Areas within this division.
Sensitivity Level Rating = High								
H= High M= Medium L= Low								

Table D.24. Sensitivity Level Rating Sheet – Rampart Trough

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 22 September 2009
	Eastern Interior Field Office
	Subunit: White Mountains Subunit
	SQRU: Rampart Trough
1. Evaluators (names): Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner	

Sensitivity Level Rating Unit	Type of User	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Other Factors	Overall Rating	Explanation
	M							Hunting, trapping, and homesteads
		H						Dalton Highway is a major travel route
			M					Major selling and advertising point is the naturalness of Alaska. Dalton Highway – State Scenic Byway (scenic, natural, historic, cultural, archaeological and recreational values).
				M				Adjacent land is in natural state with little development except along Dalton Highway.
					M			Dalton Highway – State Scenic Byway
Sensitivity Level Rating = Medium								
H= High M= Medium L= Low								

Table D.25. Sensitivity Level Rating Sheet – Kokrine-Hodzana Highlands

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 03 June 2009
	Eastern Interior Field Office
	Subunit: White Mountains Subunit
	SQRU: Kokrine-Hodzana Highlands
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner	

Sensi- tivity Level Rating Unit	Type of User	Amo- unt of Use	Public Inter- est	Adja- cent Land Uses	Spe- cial Areas	Other Fac- tors	Overall Rating	Explanation
	M							Hunting, trapping, and homesteads
		H						Dalton Highway is a major travel route.
			M					Major selling and advertising point is the naturalness of Alaska. Dalton Highway – State Scenic Byway (scenic, natural, historic, cultural, archaeological and recreational values).
				M				Adjacent land is in natural state with little development except along Dalton Highway and at Yukon River bridge.
					M			Dalton Highway – State Scenic Byway
Sensitivity Level Rating = High								
H= High M= Medium L= Low								

Table D.26. Sensitivity Level Rating Sheet – Steese SRMA

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 23 March 2009
	Eastern Interior Field Office
	Subunit: Steese Subunit
	SQRU: Steese National Conservation Area/Yukon Tanana Uplands
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner	

Sensitivity Level Rating Unit	Type of User	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Other Factors	Overall Rating	Explanation
	H	M						Hunting and harvest gathering, ATV and snowmobile riding, dispersed hiking and backpacking
			H					Benefit Based Management study indicates high interest. Scoping Report comments reflect interest in naturalness.
				H				Yukon Flats NWR Wilderness Study Area to the north, White Mountains NRA to the west, Yukon-Charley Rivers National Preserve to the east. State lands in natural state with some areas offered for remote cabin and isolated homesteads.
					H			Designated as National Conservation Area. Birch Creek Wild and Scenic River. Big Windy and Mt. Prindle research natural areas.

Sensitivity Level Rating = High

H= High M= Medium L= Low

Table D.27. Sensitivity Level Rating Sheet – White Mountains SRMA

Form 8400-6 (September 1985)	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Eastern Interior Field Office SENSITIVITY LEVEL RATING SHEET	Date: 23 March 2009
	Eastern Interior Field Office
	Subunit: White Mountains Subunit
	SQRU: White Mountains NRA/Yukon-Tanana Uplands
1. Evaluators (names) Holli McClain, Outdoor Recreation Planner; Collin Cogley, Outdoor Recreation Planner	

Sensitivity Level Rating Unit	Type of User	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Other Factors	Overall Rating	Explanation
	H	M						Hunting and harvest gathering, ATV and snowmobile riding, dispersed hiking and backpacking, car camping in campgrounds, scenic driving, cabin rental
			H					Articles in local paper about recreation opportunities and other activities within and adjacent to the White Mountains NRA. Benefits Based Management study indicates high interest. Scoping Report comments reflect interest in naturalness.
				H				Yukon Flats NWR Wilderness Study Area to the north; Steese NCA to the east. State lands in natural state with some areas offered for remote cabin and isolated homesteads.
					H			Designated as White Mountains NRA. Includes Beaver Creek Wild and Scenic River, and Limestone Jags, Mt. Prindle, and Serpentine Slide research natural areas.

Sensitivity Level Rating = High

H= High M= Medium L= Low

D.7. Summary

D.7.1. Fortymile Subunit

The tables below show the results of the VRM Inventory (VRI Class) for the Fortymile Subunit. The first table shows inventory results for all lands in the subunit. The second table displays VRI results for BLM-managed lands.

Table D.28. VRM Inventory for all lands within the Fortymile Subunit

Inventory Parameters	VRI Class I (acres)	VRI Class II (acres)	VRI Class III (acres)	VRI Class IV (acres)	Percent of Subunit
Scenic Quality Rating (SQRU)					
SQRU A	145,000	12,910,000	0	0	82
SQRU B	0	0	741,000	1,565,000	15
SQRU C	0	0	0	488,000	3
Visual Sensitivity					
High	145,000	11,057,000	0	0	71
Medium	0	1,853,000	741,000	1,011,000	23
Low	0	0	0	1,042,000	6
Distance Class					
Foreground-Middleground	145,000	2,926,000	741,000	488,000	27
Background	0	4,188,000	0	1,034,000	33
Seldom-seen	0	5,797,000	0	530,000	40

Table D.29. VRM Inventory for BLM-managed lands within the Fortymile Subunit

Inventory Parameters	VRI Class I (acres)	VRI Class II (acres)	VRI Class III (acres)	VRI Class IV (acres)	Percent of Subunit
Scenic Quality Rating (SQRU)					
SQRU A	145,000	1,870,000	0	0	97
SQRU B	0	0	6,000	47,000	3
SQRU C	0	0	0	1,000	0
Visual Sensitivity					
High	145,000	1,857,000	0	0	97
Medium	0	13,000	6,000	0	1
Low	0	0	0	47,000	2
Distance Class					
Foreground-Middleground	145,000	655,000	6,000	2,000	39
Background	0	659,000	0	45,000	34
Seldom-seen	0	556,000	0	0	27

The following tables show the relationship between the VRI inventory data and the VRM Class management alternatives.

Table D.30. Fortymile Subunit Alternatives A and B for VRI Classes I and II

		VRI Class I									VRI Class II								
		Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
Alt. A	Acres ^a (1,000s)	A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	145	145			145			145											
VRM Class II	103										103			103			103		
VRM Class III																			
VRM Class IV																			
Total	248	145			145			145			103			103			103		
Alt. B	Acres (1,000s)	A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	145	145			145			145											
VRM Class II	631										968			968			437	360	170
VRM Class III	4										3			3			3		
VRM Class IV	1,284										907			894	13		222	298	387
Total	2,076	145			145			145			1,878			1,865	13		663	659	557

^aAll acres are in 1,000s of acres

Table D.31. Fortymile Subunit Alternatives C and D for VRI Classes I and II

VRI Class I											VRI Class II								
Alt. C	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			A	B	C	Sensitivity Rating			Distance Zones		
		A	B	C	High	Medium	Low	F-M	B	SS				High	Medium	Low	F-M	B	SS
VRM Class I	145	145			145			145											
VRM Class II	452										452			452			124	212	115
VRM Class III																			
VRM Class IV	1,831										1,426			1,413	13		538	447	442
Total	2,076	145			145			145			1,878			1,865	13		663	659	557
Alt. D	Acres (1,000s)	A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	145	145			145			145											
VRM Class II	103,000																		
VRM Class III											100			100			100		
VRM Class IV											1,778			1,765	13		562	659	557
Total		145			145			145			1,878			1,864	13		662	659	557

^aAll acres are in 1,000s of acres

Table D.32. Fortymile Subunit Alternatives A and B for VRI Classes III and IV

VRI Class III											VRI Class IV								
Alt. A	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
		A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	145																		
VRM Class II	103																		
VRM Class III																			
VRM Class IV																			
Total	248																		
Alt. B	Acres (1,000s)	A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	145																		
VRM Class II	970											3				3		3	
VRM Class III	4											838				1	1		
VRM Class IV	957		6			6		6				43	<1			44	1	42	<1
Total	2,076		6			6		6				47	<1			47	2	45	<1

^aAll acres are in 1,000s of acres

Table D.33. Fortymile Subunit Alternatives C and D for VRI Classes III and IV

VRI Class III											VRI Class IV								
Alt. C	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
		A	B	C	High	Med- ium	Lo- w	F-M	B	SS	A	B	C	High	Med- ium	Low	F-M	B	SS
VRM Class I	145																		
VRM Class II	100																		
VRM Class III																			
VRM Class IV	1,831		6			6		6				47	<1			47	2	45	<1
Total	2,076		6			6		6				47	<1			47	2	45	<1
Alt. D	Acres	A	B	C	High	Med- ium	Lo- w	F-M	B	SS	A	B	C	High	Med- ium	Low	F-M	B	SS
VRM Class I	145																		
VRM Class II																			
VRM Class III	100																		
VRM Class IV	1,831		6			6		6				47	<1			47	2	45	<1
Total	2,076		6			6		6				47	<1			47	2	45	<1

^aAll acres are in 1,000s of acres

D.7.2. Steese Subunit

The tables below show the results of the VRM Inventory (VRI Class) for the Steese Subunit. The first table shows inventory results for all lands in the subunit. The second table displays VRI results for only BLM-managed lands.

Table D.34. VRM Inventory for all lands within the Steese Subunit

Inventory Parameters	VRI Class I (acres)	VRI Class II (acres)	VRI Class III (acres)	VRI Class IV (acres)	Percent of Subunit
Scenic Quality Rating (SQRU)					
SQRU A	58,000	1,963,000	0	0	48
SQRU B	0	0	1,000	20,000	1
SQRU C	11,000	0	25,000	2,122,000	51
Visual Sensitivity					
High	58,000	1,960,000	25,000	1,000	49
Medium	11,000	3,000	1,000	2,121,000	51
Low	0	0	0	20,000	0
Distance Class					
Foreground-Middleground	69,000	830,000	26,000	1,456,000	57
Background	0	955,000	0	596,000	37
Seldom-seen	0	178,000	0	90,000	6

Table D.35. VRM Inventory for BLM-managed lands within the Steese Subunit

Inventory Parameters	VRI Class I (acres)	VRI Class II (acres)	VRI Class III (acres)	VRI Class IV (acres)	Percent of Subunit
Scenic Quality Rating (SQRU)					
SQRU A	58,000	1,136,000	0	0	94
SQRU B	0	0	0	0	0
SQRU C	11,000	0	25,000	45,000	6
Visual Sensitivity					
High	58,000	1,136,000	25,000	1,000	96
Medium	11,000	0	0	44,000	4
Low	0	0	0	0	0
Distance Class					
Foreground-Middleground	69,000	408,000	25,000	43,000	43
Background	0	644,000	0	2,000	51
Seldom-seen	0	84,000	0	0	6

The tables below show the relationship between the inventory data and management alternatives.

Table D.36. Steese Subunit Alternatives A and B for VRI Classes I and II

VRI Class I											VRI Class II								
		Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
Alt. A	Acres ^a (1,000s)	A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	69	57		11	57	11		69			<1			<1			<1		
VRM Class II	76										76			76			30	46	
VRM Class III	1,066	<1			<1			<1			1,056			1,056			373	598	84
VRM Class IV																			
Total	1,211,000	58		11	58	11		69			1,132			1,132			404	644	84
Alt. B	Acres (1,000s)	A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	107	58		15	58	15		73			21			21			21	<1	
VRM Class II	1,139										1,130			1,130			401	645	84
VRM Class III																			
VRM Class IV	35										2			2			2		
Total	1,292	58		15	58	15		73			1,153			1,153			424	645	84

^aAll acres are in 1,000s of acres

Table D.37. Steese Subunit Alternatives C and D for VRI Classes I and II

VRI Class I											VRI Class II								
Alt. C	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
		A	B	C	High	Med-ium	Lo-w	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS
VRM Class I	103	58		15	58	15		73			17			17			17	<1	
VRM Class II	578										569			569			166	363	40
VRM Class III																	38	116	
VRM Class IV	612										568			568			242	282	44
Total	1,292	58		15	58	15		73			1,153			1,153			462	761	84
Alt. D	Acres (1,000,s)	A	B	C	High	Med-ium	Lo-w	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS
VRM Class I	90	58		15	58	15		73			5			5			4	<1	
VRM Class II	423										423			423			127	257	
VRM Class III																			40
VRM Class IV	779										725			725			293	388	44
Total	1,292	58		15	58	15		73			1,153			1,153			424	645	84

^aAll acres are in 1,000s of acres

Table D.38. Steese Subunit Alternatives A and B for VRI Classes III and IV

VRI Class III											VRI Class IV								
		Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
Alt. A	Acres ^a (1,000s)	A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	69			<1	<1			<1					<1		<1		<1		
VRM Class II	76																		
VRM Class III	1,066			8	8			8					1	1				1	
VRM Class IV																			
Total	1,211			8	8			8					1	1	<1		<1	1	
Alt. B	Acres (1,000,s)	A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	107			12	12			12											
VRM Class II				8	8			8					1	1				1	
VRM Class III																			
VRM Class IV	35												44		44		43	<1	
Total	1,281			20	20			20					45	1	44		43	2	

^aAll acres are in 1,000s of acres

Table D.39. Steese Subunit Alternatives C and D for VRI Classes III and IV

VRI Class III											VRI Class IV								
Alt. C	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			A	B	C	Sensitivity Rating			Distance Zones		
		A	B	C	High	Medium	Low	F-M	B	SS				High	Medium	Low	F-M	B	SS
VRM Class I	103			12	12			12					<1		<1		<1		
VRM Class II	578			8	8			8					1	1				1	
VRM Class III	154																		
VRM Class IV	612												44		44		43	<1	
Total	1,292			20	20			20					45	1	44		43	2	
Alt. D	Acres (1,000s)	A	B	C	High	Medium	Low	F-M	B	SS	A	B	C	High	Medium	Low	F-M	B	SS
VRM Class I	90			12	12			12											
VRM Class II	423																		
VRM Class III																			
VRM Class IV	779			8	8			8					45	1	44		43	2	
Total	1,292			20	20			20					45	1	44		43	2	

^aAll acres are in 1,000s of acres

D.7.3. Upper Black River Subunit

The tables below show the results of the VRM Inventory (VRI Class) for the Upper Black River Subunit. The first table shows inventory results for all lands in the subunit. The second table displays VRI results for only BLM-managed lands.

Table D.40. VRM Inventory for all lands within the Upper Black River Subunit

Inventory Parameters	VRI Class I (acres)	VRI Class II (acres)	VRI Class III (acres)	VRI Class IV (acres)	Percent of Subunit
Scenic Quality Rating (SQRU)					
SQRU A	0	2,884,000	0	0	37
SQRU B	0	0	1,262,000	1,739,000	39
SQRU C	0	0	0	1,873,000	24
Visual Sensitivity					
High	0	10,000	0	0	0
Medium	0	2,874,000	1,262,000	3,452,000	98
Low	0	0	0	161,000	2
Distance Class					
Foreground-Midleground	0	1,512,000	1,262,000	1,199,000	51
Background	0	1,102,000	0	1,743,000	37
Seldom-seen	0	270,000	0	671,000	12

Table D.41. VRM Inventory for BLM-managed lands within the Upper Black River Subunit

Inventory Parameters	VRI Class I (acres)	VRI Class II (acres)	VRI Class III (acres)	VRI Class IV (acres)	Percent of Subunit
Scenic Quality Rating (SQRU)					
SQRU A	0	1,478,000	0	0	63
SQRU B	0	0	448,000	398,000	36
SQRU C	0	0	0	37,000	1
Visual Sensitivity					
High	0	0	0	0	0
Medium	0	1,478,000	448,000	435,000	100
Low	0	0	0	0	0
Distance Class					
Foreground-Midleground	0	783,000	448,000	16,000	53
Background	0	637,000	0	408,000	44
Seldom-seen	0	58,000	0	11,000	3

Table D.42. Upper Black River Subunit Alternatives A and B for VRI Classes I and II

VRI Class I											VRI Class II									
Alt.	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones			
		A	B	C	High	Med-ium	Lo-w	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS	
Alt. A																				
VRM Class I																				
VRM Class II																				
VRM Class III																				
VRM Class IV																				
Total																				
Alt. B																				
VRM Class I																				
VRM Class II	2,361										1,478				1,478		783	637	58	
VRM Class III																				
VRM Class IV	1,738																			
Total	2,359										1,478				1,478		783	637	58	

^aAll acres are in 1,000s of acres

Table D.43. Upper Black River Subunit Alternatives C and D for VRI Classes I and II

VRI Class I											VRI Class II								
Alt. C	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
		A	B	C	High	Med- ium	Lo- w	F-M	B	SS	A	B	C	High	Med- ium	Lo- w	F-M	B	SS
VRM Class I																			
VRM Class II																			
VRM Class III	623										549				549		275	216	58
VRM Class IV	1,738										929				929		507	422	
Total	2,361										1,478				1,478		783	637	58
Alt. D	Acres (1,000s)	A	B	C	High	Med- ium	Lo- w	F-M	B	SS	A	B	C	High	Med- ium	Lo- w	F-M	B	SS
VRM Class I																			
VRM Class II																			
VRM Class III																			
VRM Class IV	2,361										1,478				1,478		782	637	58
Total	2,361										1,478				1,478		782	637	58

^aAll acres are in 1,000s of acres

Table D.44. Upper Black River Subunit Alternatives A and B for VRI Classes III and IV

VRI Class III											VRI Class IV								
Alt.	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
		A	B	C	High	Med-ium	Lo-w	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS
Alt. A																			
VRM Class I																			
VRM Class II																			
VRM Class III																			
VRM Class IV																			
Total																			
Alt. B		A	B	C	High	Med-ium	Lo-w	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS
VRM Class I																			
VRM Class II	2,361		448			448		448				398	37		435		16	408	11
VRM Class III																			
VRM Class IV																			
Total	2,361		448			448		448				398	37		435		16	408	11

^aAll acres are in 1,000s of acres

Table D.45. Upper Black River Subunit Alternatives C and D for VRI Classes III and IV

VRI Class III											VRI Class IV								
Alt. C	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
		A	B	C	High	Med-ium	Lo-w	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS
VRM Class I																			
VRM Class II			51			51		51				22		23			12	11	
VRM Class III	623																		
VRM Class IV	1,738		397			397		397				375	37	413		16	397	<1	
Total	2,361		448			448		448				398	37	435		16	408	11	
Alt. D	Acres (1,000s)	A	B	C	High	Med-ium	Lo-w	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS
VRM Class I																			
VRM Class II																			
VRM Class III																			
VRM Class IV	2,361		448			448		448				398	37	435		16	408	11	
Total	1,281		447			447		447				398	37	435		16	408	11	

^aAll acres are in 1,000s of acres

D.7.4. White Mountains Subunit

The tables below show the results of the VRM Inventory (VRI Class) for the White Mountains Subunit. The first table shows inventory results for all lands in the subunit. The second table displays VRI Class results for only BLM-managed lands.

Table D.46. VRM Inventory for all lands within the White Mountains Subunit

Inventory Parameters	VRI Class I (acres)	VRI Class II (acres)	VRI Class III (acres)	VRI Class IV (acres)	Percent of Subunit
Scenic Quality Rating (SQRU)					
SQRU A	73,000	1,790,000	0	0	59
SQRU B	0	0	69,000	53,000	4
SQRU C	4,000	0	0	1,159,000	37
Visual Sensitivity					
High	73,000	1,790,000	0	0	59
Medium	4,000	0	69,000	1,211,000	41
Low	0	0	0	0	0
Distance Class					
Foreground-Middleground	76,000	1,177,000	69,000	453,000	57
Background	0	482,000	0	657,000	36
Seldom-seen	0	131,000	0	101,000	7

Table D.47. VRM Inventory for BLM-managed lands within the White Mountains Subunit

Inventory Parameters	VRI Class I (acres)	VRI Class II (acres)	VRI Class III (acres)	VRI Class IV (acres)	Percent of Subunit
Scenic Quality Rating (SQRU)					
SQRU A	70,000	950,000	0	0	100
SQRU B	0	0	0	0	0
SQRU C	0	0	0	0	0
Visual Sensitivity					
High	70,000	950,000	0	0	100
Medium	0	0	0	0	0
Low	0	0	0	0	0
Distance Class					
Foreground-Middleground	70,000	786,000	0	0	84
Background	0	164,000	0	0	16
Seldom-seen	0	0	0	0	0

Table D.48. White Mountains Subunit Alternatives A and B for VRI Classes I and II

VRI Class I											VRI Class II								
Alt.	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
		A	B	C	High	Med-ium	Low	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS
VRM Class I	69	69			69			69			<1			<1			<1		
VRM Class II	506	1			1			1			505			505			388	117	
VRM Class III	428	<1			<1			<1			428			428			382	46	
VRM Class IV																			
Total	1,003	71			71			71			933			933			769	164	
Alt. B	Acres (1,000s)	A	B	C	High	Med-ium	Low	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS
VRM Class I	96	70			70			70			25			25			25		
VRM Class II	554										554			554			397	157	
VRM Class III	38										367			367			361	7	
VRM Class IV	4										4			4			4	<1	
Total	1,020	70			70			70			950			950			786	164	

^aAll acres are in 1,000s of acres

Table D.49. White Mountains Subunit Alternatives C and D for VRI Classes I and II

VRI Class I											VRI Class II								
Alt.	Acres ^a (1,000s)	Scenic Quality Rating			Sensitivity Rating			Distance Zones			Scenic Quality Rating			Sensitivity Rating			Distance Zones		
		A	B	C	High	Med-ium	Low	F-M	B	SS	A	B	C	High	Med-ium	Lo-w	F-M	B	SS
Alt. C																			
VRM Class I	96	70			70			70			25			25			25		
VRM Class II	217										217			217			130	87	
VRM Class III	268										268			268			237	30	
VRM Class IV	440										440			440			394	47	
Total	1,020	70			70			70			950			950			786	164	
Alt. D																			
VRM Class I	82	70			70			70			12			12			12		
VRM Class II	123										123			123			70	53	
VRM Class III	321										321			321			265	56	
VRM Class IV	494										494			494			440	54	
Total	1,020	70			70			70			950			950			786	164	

^aAll acres are in 1,000s of acres

Appendix E

**Wild and Scenic Rivers
Inventory**

Appendix E. Wild and Scenic Rivers Inventory

Through the Wild and Scenic Rivers Act (WSR Act) of 1968, Congress established legislation to protect and preserve designated rivers throughout the United States in their free-flowing condition. Section 5(d) of the WSR Act directs federal agencies to consider the potential for national “wild,” “scenic,” and “recreational” river areas during land use planning. A Wild and Scenic River inventory was therefore conducted by the Eastern Interior Field Office as part of the Eastern Interior planning process. Only Congress can designate new wild and scenic rivers.

This appendix outlines the process used to determine which rivers in the Eastern Interior Planning Area meet the eligibility and suitability criteria under the WSR Act. Rivers determined eligible are described in this appendix and in Chapter 3 of the Draft RMP/EIS. Rivers meeting the suitability criteria are recommended suitable for designation under the WSR Act in Alternative B of the Draft RMP/EIS. The BLM is required to analyze the impacts of designation and of suitable rivers in at least one alternative.

Guidance on determining eligibility and suitability for wild and scenic rivers (WSRs) comes from:

- The Wild and Scenic Rivers Act of 1968 (Public Law 90-542 [as amended], 16 U.S.C. 1271-1287)
- BLM Manual 8351, Wild and Scenic Rivers—Policy and Program Direction for Identification, Evaluation, and Management
- The Interagency Wild and Scenic Rivers Council: Composed of representatives from the U.S. Department of the Interior and the Department of Agriculture, the overriding goal of the Council is to improve interagency coordination in administering the WSR Act, improve service to the American public, and enhancing protection of important river resources. Information about the council and its products can be found at <http://www.rivers.gov/>

All rivers in Alaska were considered for inclusion in the National Wild and Scenic Rivers System (NWSR) as part of the Alaska National Interest Lands Conservation Act (ANILCA). In the *Report to the Secretary of the Interior for Potential Components of the National Wild and Scenic Rivers System, Alaska* (Bureau of Outdoor Recreation 1972), Alaska was divided into six drainage sub-regions with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. The planning area is in the Yukon sub-region and 26 rivers were identified for study. Of these 26 rivers, 11 are within the planning area. These rivers are Beaver, Birch, Black-Grayling-Salmon, Charley, Chatanika, Chena, Fortymile, Kandik, Porcupine, Tanana, and Yukon. Additionally, three of these rivers were previously identified for potential inclusion in the NWSR (FR 1970). They include Birch Creek, Chatanika River, and the Fortymile River. Birch Creek, Fortymile River, and Beaver Creek were designated as wild and scenic rivers (WSRs) in 1980 by ANILCA.

E.1. Overview of the Process

There are three phases in identifying rivers for possible inclusion in the NWSR.

The first phase of the wild and scenic river review is to inventory all potentially eligible rivers within the planning area to determine which rivers are eligible for consideration in the NWSR. To be eligible, rivers must be free-flowing and possess at least one outstandingly remarkable value

(ORV). Free-flowing is defined as existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway. ORVs may include scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. The ORVs are evaluated in the context of regional and/or national significance, and must be river-related. Eligibility is, in legal terms, a fact-based determination and not a planning decision.

The second phase is to assign a tentative classification of “wild,” “scenic,” or “recreational” for each river/segment found eligible. It is made based on the current level of naturalness and development associated with each river/segment. Congress will set the actual classification on any river added to the NWSR.

The third phase is to determine suitability for inclusion into the NWSR. Determining suitability is a planning decision and it provides the basis for recommending legislation.

Methodology

The first step in determining eligibility is to develop a list of potential rivers. A list of potential rivers was generated for the planning area that included or was based on review of:

1. recommendations from the public made during the scoping process;
2. the 1970 USDA/DOI List;
3. the Nationwide Rivers Inventory List;
4. the Outstanding Rivers List compiled by American Rivers, Inc.;
5. published guidebooks, regional guides, and inventories, i.e., American Whitewater Affiliation List;
6. river segments identified in Statewide Comprehensive Outdoor Recreation Plans;
7. river segments officially identified by State or local government agencies as being in the public interest for river protection;
8. rivers identified as potentially meeting the criteria by the BLM review team; and,
9. other sources such as website searches.

The review was limited to rivers that the BLM administers per BLM Manual 8351: “In cases where a particular river segment is predominantly non-federal in ownership and contains interspersed BLM-managed lands, BLM shall evaluate only its segment as to eligibility and defer to the State or to the private landowners’ discretion as to their determination of eligibility.” The data from the list of potential river segments were then transferred to a GIS database with segments being either extended to landmarks or confluences on the ground. Some segments were connected to the existing river corridors for easier management consideration or were extended to headwaters to protect downstream values.

The second step in determining eligibility is determining ORVs for each identified river. The Wild and Scenic Rivers Act states that ORVs can include scenery, recreation, geology, fish and wildlife, history, cultural and other similar values. More specific guidance on identifying ORVs is provided by the Interagency Wild and Scenic Rivers Council (IWSRC) and BLM Manual 8351.

The following is a summary of the guidance by the IWSRC in “A Compendium of Questions & Answers Relating to Wild & Scenic Rivers,” May, 1997 online at www.rivers.gov. The value must be river related. To be considered river related, a value must:

- be located in the river or on its immediate shorelines – within one-quarter mile on either side of the river; and,
- contribute substantially to the functioning of the river ecosystem; or,
- owe its location or existence to the presence of the river.

The value must be rare, unique, or exemplary in a regional or national context. To be considered rare or unique, a value should be a conspicuous example from among a number of similar values that are themselves uncommon or extraordinary.

Since the determination of a river's eligibility is a review of what exists, the eligibility of rivers does not vary with the plan alternatives. It is simply a declaration of what has been determined.

Section 1(b) of the WSR Act requires that, in order for a river segment to be eligible for inclusion as a component of the NWSR, it must possess one or more of the following ORVs: scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. The following standards guide how these values are to be interpreted and applied on BLM-managed lands. State Directors may (normally as an element of guidance for resource management planning) prescribe supplemental standards or criteria for determining ORVs as they apply to particular river segments. BLM Manual 8351 provides standards to guide how ORVs are interpreted and applied. These are described below.

1. **Scenic.** The landscape elements of landform, vegetation, water, color, and related factors must result in notable or exemplary visual features and/or attractions within the geographic region. BLM Visual Resource Inventory Handbook, H-8410-1, may be used in assessing visual quality and in evaluating the extent of development upon scenic values. The rating area must be scenic quality "A" as defined in BLM Visual Resource Inventory Handbook. When analyzing scenic values, additional factors such as seasonal variations in vegetation, scale of cultural modifications, and length of time negative intrusions are viewed may be considered. Scenery and visual attractions may be highly diverse over the majority of the river segment length and not common to other rivers in the geographic region.
2. **Recreational.** Recreational opportunities are or have the potential to be unusual enough to attract visitors to the geographic region. Visitors are willing to travel long distances to use the river resources for recreational purposes. Recreation-related opportunities could include, but not be limited to, sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting, and boating. Interpretive opportunities may be exceptional and attract or have the potential to attract visitors from outside the geographic area. The river may provide or have the potential to provide settings for national or regional commercial usage or competitive events. In addition, the river may be eligible if it is determined to provide a critically important regional recreation opportunity, or be a significant component of a regional recreation opportunity spectrum setting.
3. **Geologic.** The river or the area within the river corridor contains example(s) of a geologic feature, process, or phenomenon that is rare, unusual, or unique to the geographic region. The feature(s) may be in an unusually active stage of development, represent a textbook example, and/or represent a unique or rare combination of geologic features (erosional, volcanic, glacial, and other geologic structures).
4. **Fish.** Fish values may be judged on the relative merits of either fish populations or habitat, or a combination of these river-related conditions.
 - a. **Populations.** The river is nationally or regionally one of the top producers of resident, indigenous, and/or anadromous fish species. Of particular significance may be the presence of wild or unique stocks, or populations of State, federally listed, or candidate threatened and endangered species.
 - b. **Habitat.** The river provides exceptionally high quality habitat for fish species indigenous to the region. Of particular significance is habitat for State, federally listed, or candidate threatened and endangered species.

5. **Wildlife.** Wildlife values may be judged on the relative merits of either wildlife populations or habitat, or a combination of these conditions.
 - a. **Populations.** The river or area within the river corridor contains nationally or regionally important populations of resident or indigenous wildlife species dependent on the river environment. Of particular significance may be species considered unique or populations of State, federally listed, or candidate threatened and endangered species.
 - b. **Habitat.** The river or area within the river corridor provides exceptionally high quality habitat for wildlife of national or regional significance, or may provide unique habitat or a critical link in habitat conditions for State, federally listed, or candidate threatened and endangered species. Contiguous habitat conditions are such that the biological needs of the species are met.
6. **Cultural.** The river or area within the river corridor contains a site(s) where there is evidence of occupation or use by Native Americans. Sites must be rare, have unusual characteristics, or exceptional human-interest value(s). Sites may have national or regional importance for interpreting prehistory; may be rare; may represent an area where culture or cultural period was first identified and described; may have been used concurrently by two or more cultural groups; or may have been used by cultural groups for rare, sacred, tribal, or spiritual purposes.
7. **Historic.** The river or area within the corridor contains a site(s) or feature(s) associated with a significant event, person, or cultural activity of the past that was rare or unusual in the region. A historic site(s), feature(s), or Native American site(s) in most cases is 50 years or older. Sites or features listed in, or eligible for inclusion in, the National Register of Historic Places, may be of particular significance.
8. **Other Similar Values.** While no specific evaluation guidelines have been developed for the "other similar values" category, additional values deemed relevant to the eligibility of the river segment should be considered in a manner consistent with the foregoing guidance; including, but not limited to, hydrologic, ecologic/biologic diversity, paleontologic, botanic, and scientific study opportunities.

E.1.1. Determining Eligibility

The region of comparison used for determining eligibility was generally the eastern Interior Alaska consisting of the Yukon and Tanana drainages, from the U.S.-Canada border to the confluence of the Tanana River with the Yukon River, between the Alaska Range and Brooks Range. This region was only a general guideline. A BLM resource specialist could determine that based on the resource under consideration, it may be more appropriate to modify the region of consideration. For example, a particular fish may only live in one small area of the region of comparison, making it unique to the region. But if these fish are abundant in the area immediately adjacent to the region, it may be more appropriate to use a larger area for consideration. Likewise, a particular fish species may be present in several locations in the planning area, but only exist in the planning area, so it may be appropriate to consider a larger region of comparison.

List of Potential Rivers to be Evaluated

1. Two comments were received on WSRs in the scoping process for the Eastern Interior RMP. One encouraged the BLM to consider designation of WSRs as a tool to help wildlife populations but did not recommend any particular river segment. The second recommended that the Salmon Fork of the Black River be considered for designation as a WSR.
2. On October 28, 1970, the Secretaries of Agriculture and the Interior identified and published in the *Federal Register* a list of 47 river segments for Wild and Scenic river evaluation and

- consideration (FR 1970). Of the 47 identified rivers, six are in Alaska. They include the following three rivers in the planning area: Birch Creek, Chatanika River, and Fortymile River. Birch Creek and the Fortymile River were designated as components of the NWSR in 1980 under ANILCA. The BLM has no management authority on the Chatanika River.
3. The Nationwide Rivers Inventory listed four rivers within the planning area. These rivers were placed on the list by the National Park Service (NPS) in 1993 because they were thought to potentially contain one or more ORVs, though no formal determination of eligibility was conducted. The NPS only reviewed the segments of these rivers that are within the Yukon-Charley Rivers National Preserve.
 - a. The Kandik River from the Yukon-Charley Rivers National Preserve boundary to the river mouth (32 river miles) was listed in 1993 as possibly being eligible as “wild” with outstanding fish, history, and biological diversity values. North of the Preserve boundary, Doyon, Limited, manages 16 miles of the Kandik River, the State of Alaska manages the next 12 miles, and the BLM manages the remaining 25 miles to the Canadian border.
 - b. The Nation River from the Yukon-Charley Rivers National Preserve boundary to river mouth (16 river miles) was listed in 1993 as possibly being eligible as “wild” with outstanding fish and wildlife values. The BLM does not manage any lands on the Nation River.
 - c. The Seventymile River from headwaters to the Yukon-Charley Rivers National Preserve boundary (20 river miles) was listed in 1993 as possibly being eligible as “wild” with outstanding geology, wildlife, and archaeological sites. Downstream from the preserve boundary, the lands surrounding the river are not managed by the BLM. (A Decision to Issue Conveyance on the section immediately downstream from the preserve boundary was issued on March 17, 2009.)
 - d. The Yukon River from upstream of the Yukon-Charley Rivers National Preserve boundary near Calico Bluffs to downstream of Yukon-Charley Rivers National Preserve boundary near Circle (128 river miles) was listed in 1993 possibly being eligible for classification as “wild” and “scenic” with outstanding geology, wildlife, and history values. The BLM does not manage any lands on the Yukon River in the planning area.
 4. *The American Rivers Outstanding Rivers List (Huntington and Echeverria 1991)*: Eight rivers on the list are within the planning area. Of these, five contain no lands for which the BLM has management responsibilities (Charley, Chatanika, Chena, Porcupine and Yukon rivers). The three rivers on the list for which the BLM does have management authority (Birch, Beaver and the Fortymile) were designated as components of the NWSR in 1980 under ANILCA.
 5. Published guidebooks, regional guides, and inventories. A review of published guidebooks found the following: *The Alaska River Guide* by Karen Jettmar (1993). This book contains information on the following rivers in the planning area: Beaver Creek, Birch Creek, Black River, Charley River, Chatanika River, Chena River, Fortymile River, and Porcupine River. *The American Whitewater National Whitewater Inventory* includes the following rivers in the planning area: Charley River and Fortymile River.
 6. A review of *Alaska's Outdoor Legacy; Statewide Comprehensive Outdoor Recreation Plan 2004-2009* (ADNR 2004) found that the State of Alaska has six legislatively designated State Recreation Rivers, none of which are in the planning area.
 7. River segments officially identified by State or local government agencies as being in the public interest for river protection. None were identified.

8. Rivers identified as potentially meeting the criteria by a BLM review team. On January 14, 2009 BLM staff specialists reviewed USGS 1:250,000 quadrangle maps covering the planning area and developed a list of rivers that potentially met the eligibility criteria of free-flowing and possessing at least one Outstandingly Remarkable Value. Thirty-seven rivers were identified as having potential for Outstandingly Remarkable Values.
9. Other resources: A website search was conducted for rivers in the planning area. The American Rivers America's Most Endangered Rivers Report 2009 Edition (online at <http://www.americanrivers.org/our-work/protecting-rivers/endangered-rivers/>) listed Beaver Creek as the eighth most endangered river in the nation.

From the sources listed above, the BLM compiled a list of 40 rivers (Table E.1, "List of Potential Rivers in the Planning Area"). Rivers already designated as components of the NWSR (e.g., Birch Creek) were excluded from the list. Of the 40 rivers, five are not under BLM management and were removed from further consideration. The remaining 35 rivers were evaluated for eligibility (Table E.2, "Summary Eligibility Findings for Inclusion into the NWSR").

Table E.1. List of Potential Rivers in the Planning Area

River	Subunit	Presence of BLM Lands
Bachelor Creek	Steese	Yes
Bear Creek	Steese	Yes
Big Windy Creek	Steese	Yes
Black River	Upper Black River	Yes
Chatanika	Fortymile	No
Chena River	Fortymile	No
Clums Fork	Steese	Yes
Dexter Creek	Steese	Yes
Dome Creek	Fortymile	Yes
Drifting Snow Creek	Upper Black River	Yes
Fossil Creek	White Mountains	Yes
Gold Run	Fortymile	Yes
Grayling Fork of the Black River plus tributaries	Upper Black River	Yes
Kandik River	Upper Black River	Yes
Little Black River	Upper Black River	Yes
Little Champion Creek	White Mountains	Yes
Little Champion Creek	Fortymile	Yes
Loper Creek	Steese	Yes
McKinley Creek	Steese	Yes
McLean Creek	Steese	Yes
Nation River	Upper Black River	No
Nome Creek	White Mountains	Yes
O'Brien Creek	White Mountains	Yes
Ophir Creek	White Mountains	Yes
Preacher Creek	Steese	Yes
Racquet Creek	Upper Black River	Yes
Rice Gulch Creek and tributary	Upper Black River	Yes
Roy Creek	White Mountains	Yes
Runt Creek and tributaries	Upper Black River	Yes
Salmon Fork of the Black River	Upper Black River	Yes
Seventymile	Fortymile	No
Sheep Creek	White Mountains	Yes
South Fork Birch Creek and two tributaries	Steese	Yes
Tikan Creek	Upper Black River	Yes

River	Subunit	Presence of BLM Lands
Victoria Creek	White Mountains	Yes
Volcano 2 Creek	Steese	Yes
Volcano Creek	Steese	Yes
Willow Creek	White Mountains	Yes
Windy Creek	White Mountains	Yes
Yukon River	Upper Black River	No

The 35 rivers listed in Table E.2, "Summary Eligibility Findings for Inclusion into the NWSR" were reviewed for eligibility using the criteria described below. Resources that ranked a 3 or 4 were considered to meet the criteria of being an ORV. All rivers that are free-flowing and possess at least one ORV were considered eligible. Because of past extensive gold dredging operations, Nome Creek was determined not to be free-flowing and thus, potential ORVs were not evaluated.

Each river's resources were rated by BLM specialists based on a five point scale:

- 0 – not present / not significant
- 1 – low value / not significant
- 2 – moderate value; typical, one of many in the region / locally significant
- 3 – exemplary value; one of only a few in the region / regionally significant
- 4 – extraordinary value; the most significant in the region / regionally significant
- U – unknown value / little or no knowledge of resource values.

The following BLM resource specialists completed the eligibility review:

- Holli McClain: Outdoor Recreation Planner
- Collin Cogley: Outdoor Recreation Planner
- Robin Mills: Archaeologist
- Jason Post: Fisheries Biologist
- Jim Herriges: Wildlife Biologist
- Craig McCaa: Writer/Editor, Geologist

Summary of Eligibility Findings

Of the 35 rivers reviewed, five were determined to be eligible for inclusion into the NWSR by virtue of being free-flowing and possessing at least one ORV (ranking of 3 or 4): Dome Creek (Fortymile Subunit), Gold Run (Fortymile Subunit), Big Windy Creek (Steese Subunit), Salmon Fork of the Black River (Upper Black River Subunit), and Fossil Creek (White Mountains Subunit). Discussion of how the ORVs for each eligible river were determined are described in section E.1.1.

Table E.2. Summary Eligibility Findings for Inclusion into the NWSR

River	Free-flowing	Potential Outstandingly Remarkable Value							Miles
		Scenic	Recreational	Geologic	Fish	Wildlife	Cultural	Historic	
FORTYMILE SUBUNIT									
Dome Creek	Yes	1	2	U	1	1	U	3	5 ^a
Gold Run	Yes	1	U	U	U	1	U	3	4
Little Champion	Yes	U	U	U	U	1	U	2	7
STEESE SUBUNIT									
Bachelor Creek	Yes	1	1	1	U	1	U	1	4
Bear Creek	Yes	U	U	1	U	1	U	1	8
Big Windy Creek	Yes	3	2	3	1	3	U	U	14
Clums Fork	Yes	1	1	U	2	1	2	2	22
Dexter Creek	Yes	U	U	U	U	1	U	1	9
Loper Creek	Yes	1	2	1	U	1	U	2	22
McKinley Creek	Yes	U	U	U	U	1	U	1	10
McLean Creek	Yes	U	U	U	U	1	U	2	4
Preacher Creek	Yes	1	2	2	2	1	2	1	31
South Fork Birch Creek and 2 tributaries	Yes	2	U	2	1	2	U	1	15
Volcano 2 Creek	Yes	U	U	U	U	1	U	1	5
Volcano Creek	Yes	1	U	1	U	1	U	2	5
UPPER BLACK RIVER SUBUNIT									
Black River	Yes	1	U	U	2	1	U	U	59 ^b
Drifting Snow Creek	Yes	U	U	U	1	1	U	2	18
Grayling Fork— Black River and tributaries	Yes	1	U	U	2	2	2	U	87
Kandik	Yes	U	2	U	2	1	U	2	25 ^c
Little Black River	Yes	1	2	U	1	2	2	U	
Racquet Creek	Yes	U	U	U	U	1	U	2	11
Rice Gulch Creek and tributaries	Yes	U	U	U	1	1	1	2	16
Runt Creek and tributaries	Yes	U	U	U	2	1	2	2	61
Salmon Fork — Black River	Yes	2	2	U	2	3	2	2	52 ^d
Tikan Creek	Yes	U	U	U	U	1	U	U	6
WHITE MOUNTAINS SUBUNIT									
Fossil Creek	Yes	3	1	3	U	2	U	1	23
Champion Creek	Yes	1	1	2	U	2	1	1	8

River	Free-flowing	Potential Outstandingly Remarkable Value							Miles
		Scenic	Recreational	Geologic	Fish	Wildlife	Cultural	Historic	
Nome Creek	No	—	—	—	—	—	—	—	25
O'Brien Creek	Yes	2	1	U	U	2	U	1	11
Ophir Creek	Yes	1	0	1	U	1	U	2	17
Roy Creek	Yes	1	0	U	U	1	U	1	10
Sheep Creek	Yes	2	0	U	U	1	U	U	10
Victoria Creek	Yes	2	U	2	2	2	U	2	58
Willow Creek	Yes	2	1	U	1	1	U	1	17
Windy Creek	Yes	2	1	2	U	1	U	1	8

^aDome Creek miles managed: State —11, BLM — 5

^bBlack River – miles managed: Doyon Ltd – 32 miles, USFWS – 242, BLM – 59

^cKandik River – miles managed: NPS – 32, Doyon, Ltd. – 16, State of Alaska – 12, BLM – 25

^dSalmon Fork – miles managed: USFWS – 27, BLM – 52

E.1.1.1. Discussion of ORVs for Eligible Rivers

Dome Creek (Fortymile Subunit)

Historic ORV: Dome Creek, a tributary of O'Brien Creek in the Fortymile River drainage (Map 78), is of particular interest in the regional history of Interior Alaska in exemplifying small-scale capitalized entrepreneurs or businesses in mining placer gold deposits in Interior Alaska. The typical evolution of mining processes along placer gold-bearing ground includes original discovery and subsequent workings with hand techniques, small-scale capital projects, followed by larger-scale consolidation of claims and workings of lower-grade deposits. Each subsequent stage frequently erases the traces of the previous one.

The historic material remains along Dome Creek exemplify the remains of a small companies, that consolidated and worked the claims along the middle portion of Dome Creek, dating to the 1910s to 1930s, and which were not subsequently destroyed by later operations. Intact historic remains found include an eight-mile long ditch, at least two camp and cabin ruins related first to the ditch construction and then to later mining operations, worked and hydraulicked ground, and a complete sawmill.

Historic remains relating to other mining and trapping operations throughout much of the 20th century are also found along other portions of Dome Creek. There are other creeks in the region of comparison that have similar evidence of small placer mining companies, but the relative isolation of Dome Creek has allowed it to maintain its integrity. The site types are not necessarily rare in the region of comparison, but the integrity of the features on this creek provide more than just local significance. Dome Creek is regionally significant for historic values.

Because of these factors, the history of Dome Creek is considered to be an ORV.

Gold Run (Fortymile Subunit)

Historic ORV: Gold Run, a tiny tributary of Slate Creek in the upper drainage of the North Fork of the Fortymile River, is of particular interest in the regional history of Interior Alaska in exemplifying an isolated, early-20th century placer mining community, that focused on hand-working of shallow placer gold deposits. Because of the creek's isolation, it never underwent subsequent, larger-scale mining activities (e.g., hydraulicking; bulldozers and backhoes; dredges), that typically erase earlier, hand-worked traces of mining activity. As a result, about 100 historic features are found intact along a four mile stretch of the creek, most of them associated with early-20th century mining, including cabin ruins, ground and stilt caches, other caches of tools, ditches, hand-stacked tailings piles, sluice boxes, dams and dam gates, and prospects. While there may be other creeks in the region of comparison that have evidence of early hand-working placer mining, there sheer density of such sites along Gold Run makes it stand out with substantial value, and it is likely one of only a few such creeks in the region of comparison. Gold Run is regionally significant for historical values.

The eligible segment begins about one-half mile above the second tributary upstream on the south side from the mouth of Gold Run (T.4S., R. 25E., section 1, SE1/4SE1/4NE1/4, Fairbanks Meridian) to the border of Doyon, Limited, lands approximately 0.2 miles above the mouth (Map 78).

Because of these factors, the history of Gold Run is considered to be an ORV.

Big Windy Creek (Steese Subunit)

Scenic ORV: The Big Windy Creek lies within the Yukon-Tanana Uplands which has a scenic quality of “A” according to BLM’s Visual Resource Management (VRM) process (H-8410-1). A scenic quality rating of “A” means the landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications within the area have the most variety and most harmonious composition.

Big Windy Creek flows through a very narrow steep gradient canyon with birch and spruce uplands until the confluence with the South Fork of Birch Creek (Map 79). The focus for the river users is on the clear water course that is characterized by rapids and cascades created by boulders falling from granite cliffs and boulder talus slopes which constrict movement of the creek. Other sections of the creek closer to the confluence of South Fork, while still steep and narrow, are characterized by a plunge–pool system created by boulder fields. Elevations of surrounding ridge summits are about 3,200 feet while the creek valley is about 1,500 feet for an elevation change of 1,700 feet.

The hot springs in the area create a diverse, lush grass type vegetation and colorful green and red algae that contrast with the white of the granite cliffs and boulders, and the black of lichen covered rocks, as well as adjacent spruce and birch forests. Small springs, flows, pools and seeps allow water to flow over the face of the cliff creating unique views. The cliff face has massive fractured boulders. Pothole features created by smaller rocks caught in the current of Big Windy Creek can be seen in the creek bed. The hot springs raises the temperature of the water as far away as the confluence of South Fork with Birch Creek.

Due to the hot springs, the canyon has contrasting vegetation types unique to the area with large productive mature white spruce and paper birch on the south-facing slope and low paper birch, black spruce, and dwarf birch tundra in other areas or also on south-facing slope. This natural hot springs is one of a limited number of hot springs in central Alaska and is one of a few still undeveloped (Juday 1998).

The changes in elevation and topography over a relatively short river segment results in highly diverse scenery and visual attractions. The steep gradient and narrow canyon focus the attention of the viewer on the water, cliff and boulder areas, and diverse plants communities resulting from the hot springs. The natural undeveloped nature of this hot spring and adjacent river segment make it unique within the region.

Because of these factors, the Scenery of Big Windy Creek is considered to be an ORV.

Geologic ORV Of the three major hot springs east of Fairbanks in central Alaska, Big Windy Hot Springs on Big Windy Creek remains the only hot springs system that has not been extensively altered by human development (Juday 1998). Precipitation of dissolved minerals from cooling hot springs waters has created unusual and delicate geologic features at the site and provided an important mineral lick for Dall sheep. The springs, adjacent cliffs, and marshy areas provide habitat for unusual plant species, as well as for bacteria and algae that live only in the high-temperature environments of geothermal vents. Big Windy Hot Springs’ geothermal vents provide excellent research opportunities for studying flow of mineralized water through an undisturbed hot springs system.

Big Windy Creek, particularly in its central section near the hot springs, has several rare features for a stream in the Yukon-Tanana Upland:

- It occupies a narrow V-shaped valley.
- It cascades over large, granitic boulders.
- It remains largely ice-free during the winter because of hot water contributed by the springs.
- Boulders caught in powerful eddies have ground smooth circular depressions called potholes into the bedrock.

Because of these factors, the geology of Big Windy Creek is considered to be an ORV.

Wildlife ORV: Wildlife and the associated ecosystem of Big Windy Creek is of at least regional significance. The presence of an undeveloped hot springs in this river results in unique wildlife and ecosystem values. Other hot springs in the area have been developed and most other central Alaska hot springs are either developed for resort use or have been modified substantially (Juday 1998). The hot springs serves as a mineral lick for a population of Dall sheep. They travel more than 20 km from the primary portion of sheep habitat in the area (in and beyond the headwaters of Big Windy Creek) to reach the lick and use a small cliff at the site. A 1962 ADF&G inventory reported a band of 76 Dall sheep near the hot springs on Big Windy Creek. All sheep in this population apparently use the lick. The lick is also used by moose.

The northern water shrew (*Sorex palustris*) was documented here and this represents the furthest north occurrence in its range (Cook et al., 1997). Another uncommon small mammal, the long-tailed vole (*Microtus longicaudis*) was also documented at the hot springs, which is near the northwest edge of its known distribution.

Several plant species occur here as disjunct populations or at the northern limits of their range. It is possible that unique thermophytic organisms, such as green and red algae and cyanobacteria occur in the hot springs. The hot water creates open water conditions through the winter on Big Windy Creek, which likely influences vegetation and wildlife species use for some distance downstream. Upstream of the Hot Springs a peregrine falcon nest site occurs on a riverside cliff and gyrfalcons forage and probably nest in the alpine environment of the headwaters. The drainage is regularly used by caribou of the Fortymile herd.

Because of these factors, the wildlife of Big Windy Creek is considered to be an ORV.

Salmon Fork Black River (Upper Black River subunit)

Wildlife ORV: Nesting bald eagles occur along the Black River (including the Salmon Fork) in what is probably the most northern dense nesting population of bald eagles in Alaska (Robert J. Ritchie, pers. comm.). Although similar densities of bald eagle nests occur along the Tanana River, this population occurs approximately 250 km north of that population and above the Arctic Circle. Thirty three bald eagle nests (not all active) were recorded in surveys conducted in 1994, 1996, and 1997; ten of these were on BLM-managed portion of the Salmon Fork mainstem (Ritchie and Rose, 1998). An additional active nest was observed during fisheries surveys in 2009, upstream of previous surveys.

Due to its remoteness, the BLM has limited data about other wildlife values of the Salmon Fork (Map 80). American peregrine falcon nest on river bluffs (two to three pairs). Based on a float trip in 1991, BLM biologist Winston Hobgood reported very abundant black bear, "the largest owl population I have encountered in 23 years observing wildlife in Alaska," and noted the presence of harlequin ducks. The Salmon Fork is used by subsistence hunters and trappers from Chalkyitsik and Fort Yukon. Game Management Unit 25(B), which includes the Salmon Fork, is one of the more productive furbearer trapping areas in the state. Chalkyitsik residents have

reported that the Salmon Fork is an important moose hunting area for their community. Wildlife associated with this river are of at least regional significance.

Because of these factors, the wildlife of the Salmon Fork of the Black River is considered to be an ORV.

Fossil Creek (White Mountains Subunit)

Scenic ORV: Fossil Creek lies within the Yukon-Tanana Uplands which has a scenic quality of "A" according to BLM's VRM process (H-8410-1).

Fossil Creek is roughly 30 miles in length. It originates in broad valleys at about 3,000 feet elevation in the heart of the White Mountains, well above tree line (Map 81). High granitic type mountains rising from 4,000 to 5,000 feet in elevation frame these valleys. At five to eight miles downstream, the creek rapidly transitions from the tall rounded mountains and broad valleys to a steep narrow valley below tree line. An abrupt towering limestone ridge thrusts up, forcing Fossil Creek to turn 90 degrees to the south. This ridge of limestone holds Fossil Creek to its east side for nearly 20 miles. Along the ridge numerous "jags" punctuate from its nearly vertical sides and peaks. White cliff faces and scree slopes dominate the west side of the creek. Some of these exposed "jags" have natural arches carved through them. These natural arches are not uncommon along the ridge. Many are tucked away, but some like Windy Arch can be seen from many different directions from several miles away.

In sharp contrast to the knife-like limestone ridge on the west side, the more rounded darker granitic type mountains quickly rise up on the east side. This east side, unlike the west side, is mostly vegetated. The vegetation types within the valley primarily consist of white spruce and deciduous trees immediately along the creek rapidly changing to exposed barren slopes on the west side and sparse black spruce and open tundra on to the east.

The last 3-5 miles of Fossil Creek turn abruptly again to the west. The creek slices through the limestone ridge at what is known as Fossil Gap. Here, a number of fires have burned through the area in the past few decades further exposing limestone rock formations. The creek itself can also be nearly dry during the summer, most likely losing water into underground aquifers that later flow into Beaver Creek. Overall, during the winter months, Fossil Creek does not have the scenic values as during the summer months due to decreased light levels and snow covered vegetation and landscapes, but its scenic value still remains very high. A multiple-use winter trail follows the entirety of the drainage and two public use cabins, Caribou Bluff and Windy Gap, exist close to the creek. These cabins are log and blend into the natural environment.

Because of these factors, the scenery of Fossil Creek is considered to be an ORV.

Geologic ORV: Fossil Creek's drainage is defined by a prominent ridge of Early Silurian white Tolovana Limestone, for which the White Mountains were named. The Tolovana Limestone includes karst (limestone dissolution) features such as caves, natural arches, sinkholes, cold springs, and underground streams that, in Alaska, have been widely documented only in the Southeast. Development of karst features in high-latitude locations is thought to be impeded by seasonal freezing of near-surface groundwater or by destruction during periods of glaciation (Jennings 1983). The White Mountains represent one of the few recorded locations of these features in northern or western Alaska (ADF&G 2006). A limestone dissolution joint-type cave in the Fossil Creek drainage represents one of the largest examples of its kind in high-latitude North America (Juday 1989).

The geologic complexity of the area is compounded by northeast-southwest-trending thrust faults, a disconformable contact between the limestone and underlying volcanic rocks, and a wind gap marking a former stream channel stranded after Fossil Creek captured the drainage through headward erosion.

The Ordovician volcanic rocks underlying the Tolovana Limestone are a productive source of fossils, including brachiopods and sphinctozoan sponges. Several fossil locations on Fossil Creek have been the subject of paleontological research.

Because of these factors, the geology of Fossil Creek is considered to be an ORV.

E.1.2. Tentative Classification

Classification is a determination based on existing characteristics of a river area resulting from human-caused change or levels of development. The criteria for classification is provided by BLM Manual 8351 and is described below. The classification presented in this plan (Table E.3, "Classification Findings for Eligible Rivers") is tentative.

1. **Wild River Areas:** "Wild" river areas are 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. "Wild" means undeveloped; roads, dams, or diversion works are generally absent from a quarter mile corridor on both sides of the river.
2. **Scenic River Areas:** "Scenic" river areas are those rivers or sections of rivers that are generally free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads. "Scenic" does not necessarily mean the river corridor has scenery as an ORV; however, it means the river segment may contain more development (except for major dams or diversion works) than a "wild" segment and less development than a "recreational" segment. For example, roads may cross the river in places but generally do not run parallel to it. In certain cases, however, if a parallel road is unpaved and well screened from the river by vegetation, it could qualify for "scenic" river area classification.
3. **Recreational River Areas:** "Recreational" river areas are 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. Parallel roads or railroads, existence of small dams or diversions can be allowed in this classification. A "recreational" river area classification does not imply that the river will be managed or prioritized for recreational use or development.

Table E.3. Classification Findings for Eligible Rivers

River	Subunit	Tentative Classification
Dome Creek	Fortymile	Recreational
Gold Run	Fortymile	Wild
Big Windy Creek	Steese	Wild
Salmon Fork of the Black River	Upper Black River	Wild
Fossil Creek	White Mountains	Scenic

E.1.3. Suitability

Each eligible river segment is further evaluated during the planning process to assess whether or not it would be suitable for inclusion in the NWSR. The planning determination of suitability provides the basis for any decision to recommend legislation. Other federal agencies, the State, local entities, the public and other interests will have the opportunity to review and comment on this report during the public comment period for the Draft Eastern Interior RMP. Any interest in designating or not designating would be identified during this period, and this section would be revised accordingly in the Proposed RMP.

Since the determination of suitability is considered a decision in the planning process, the suitability of these rivers will vary across the alternatives in the Draft RMP. Below is a discussion on how each of the five eligible rivers meets the criteria of suitability, followed by the range of alternatives being considered in the Eastern Interior RMP. Suitability is determined only for those sections on BLM-managed lands.

The suitability criteria outlined in the WSR Act and BLM Manual 8351 are:

1. Characteristics which do or do not make the area a worthy addition to the NWSR.
2. Status of land ownership, minerals (surface and subsurface), use in the area, including the amount of private land involved and associated or incompatible uses.
3. Reasonably foreseeable potential uses of the land and related waters which would be enhanced, foreclosed, or curtailed if the area were included in the NWSR and the values which could be foreclosed or diminished if the area is not protected as part of the NWSR.
4. Federal, public, state, Tribal, local, or other interests in designation or non-designation of the river, including the extent to which the administration of the river, including the costs thereof, may be shared by state, local, or other agencies and individuals.
5. Estimated cost, if necessary, of acquiring lands, interests in lands, and administering the area if it is added to the NWSR.
6. Ability of the agency to manage and/or protect the river area or segment as a WSR, or other mechanisms (existing or potential) to protect identified values other than WSR designation.
7. Historical or existing rights which could be adversely affected.
8. Other issues and concerns.

Suitability — Dome Creek (Fortymile Subunit)

- Length: 16 miles
- Tentative classification: “recreational”

1. Characteristics which do or do not make the area a worthy addition to the NWSR.

Dome Creek has outstandingly remarkable historic values and is free-flowing making it eligible for inclusion in the NWSR.

2. Status of land ownership, minerals (surface and subsurface), use in the area, including the amount of private land involved and associated or incompatible uses.

The state has selected all of Dome Creek as part of their entitlement under the Statehood Act. Valid federal mining claims cannot be conveyed to the State and the State's topfiling will continue to be listed as a "selection." If the mining claim holders choose to convert these claims to state mining claims, or if they fail to meet federal requirements to maintain

their claims and the claims are closed, the state would be able to prioritize these lands for conveyance. Most of Dome Creek has federal mining claims on it. The lands surrounding these claims were conveyed to the State, and in some cases, state lands lay within the one-half mile potential WSR corridor. The only lands BLM administers on Dome Creek are these mining claims, which may or may not remain under BLM management for the long-term.

There are 18 federal mining claims on Dome Creek. In the discussion on eligibility for Dome Creek, it is noted that the typical evolution of mining processes along placer gold-bearing ground includes original discovery and subsequent workings with hand techniques, small-scale capital projects, followed by larger-scale consolidation of claims and workings of lower-grade deposits. Each subsequent stage frequently erases the traces of the previous one. The existing claims could be mined and could erase the evidence of the historic material remains along Dome Creek that exemplify the remains of a small companies, that consolidated and worked the claims in the 1910s to 1930s. This would result in the loss of the ORV for Dome Creek. Mining these claims would be incompatible with designation of this creek into the NWSR.

There are no known commercial timber values in the area and no known leasable mineral potential. Some hunting or trapping occurs in the area. Active mining and OHV routes are found within the proposed river corridor. The river segment is not considered to be floatable and little, if any, recreational boating use is expected. Little subsistence use is thought to occur on Dome Creek.

3. Reasonably foreseeable potential uses of the land and related waters which would be enhanced, foreclosed, or curtailed if the area were included in the NWSR and the values which could be foreclosed or diminished if the area is not protected as part of the NWSR.

The federal mining claims would still be valid if the creek is designated as a segment of the NWSR and the claims could be worked, which could potentially erase the historic features which are the Outstandingly Remarkable Value. Locatable mineral activities are not discretionary on the part of the administering agency. Therefore, the effects of designation and non-designation would be the same.

4. Federal, public, state, Tribal, local, or other interests in designation or non-designation of the river, including the extent to which the administration of the river, including the costs thereof, may be shared by state, local, or other agencies and individuals.

There is no known public support for designation of Dome Creek. In general, the State of Alaska is in opposition to designation of river segments (ADNR 2008). The Fortymile Miners' Association opposes new designations in the area (AMA 2008).

5. Estimated cost, if necessary, of acquiring lands, interests in lands, and administering the area if it is added to the NWSR.

The federal government could buy out the existing mining claims if there were willing sellers, but the cost is unknown. It is unlikely that there would be willing sellers.

6. Ability of the agency to manage and/or protect the river area or segment as a WSR, or other mechanisms (existing or potential) to protect identified values other than WSR designation.

The ability for the BLM to manage and/or protect the creek area is minimal. The state manages the uplands, there are 18 valid existing federal mining claims, and the federal lands have been prioritized for conveyance to the state.

7. Historical or existing rights which could be adversely affected.

If designated, the federal miners in the river corridor would be required to file a Plan of Operations for all activity, not just those that disturb more than five acres. Currently if less than five acres, they are only required to file a notice.

8. Other issues and concerns.

Dome Creek is a tributary to O'Brien Creek, a designated "scenic" segment in the Fortymile WSR. The addition of this headwater stream would add to the basin and river system approach already evident in the Fortymile WSR of 392 designated river miles.

Finding for Dome Creek

Dome Creek possesses outstandingly remarkable historic values in that it exemplifies small-scale capitalized entrepreneurs or businesses in mining placer gold deposits in Interior Alaska from the 1910s to 1930s. This creek meets the tentative classification as a "recreational" river due to the amount of development/disturbance and past mining. Dome Creek is suitable for designation under Alternative B of the RMP for the purpose of analysis. It is not suitable under the other alternatives because the BLM would be unable to protect the ORVs and the free-flowing condition of the creek. There are 18 valid existing mining claims on Dome Creek. Locatable mineral activities are not discretionary on the part of the administering agency. The existing claims could be mined and could erase the evidence of the historic material remains along Dome Creek that would result in the loss of the historic value of Dome Creek. In addition, there is no known federal, public, state, tribal, local, or other interests in the designation. State and local groups are opposed to the designation.

Suitability — Gold Run (Fortymile Subunit)

- Length: 4 miles
- Tentative Classification: "wild"

1. Characteristics which do or do not make the area a worthy addition to the NWSR.

Gold Run has outstandingly remarkable historic values and is free-flowing making it eligible for inclusion in the NWSR.

2. Status of land ownership, minerals (surface and subsurface), use in the area, including the amount of private land involved and associated or incompatible uses.

The BLM administers the entire segment of Gold Run under consideration. There are no existing federal mining claims on Gold Run. Generally, the water flow is too low to permit boating. There is a rough airstrip on the ridge above the creek between Gold Run and Jim Creek that hunters use to access the area, although this use is thought to be low. Some trapping has been known in the past, although there is none known to be occurring now. Subsistence use is thought to be low.

3. Reasonably foreseeable potential uses of the land and related waters which would be enhanced, foreclosed, or curtailed if the area were included in the NWSR and the values which could be foreclosed or diminished if the area is not protected as part of the NWSR.

There are no known mineral, oil and gas, geothermal or coal resources in this area. There are no known commercial timber values in the area. Because of the remoteness of the area and the lack of known resources, it is reasonable to assume that the existing minimum level of use would continue and that designation or non-designation would have no effect on the use level.

4. Federal, public, state, Tribal, local, or other interests in designation or non-designation of the river, including the extent to which the administration of the river, including the costs thereof, may be shared by State, local, or other agencies and individuals.

There is no known public support for designation. In general, the State of Alaska is in opposition to designation of river segments (ADNR 2008). The Fortymile Miners' Association opposes new designations in the area (AMA 2008).

5. Estimated cost, if necessary, of acquiring lands, interests in lands, and administering the area if it is added to the NWSR.

Designation of Gold Run would not require the acquisition of any property as the lands are federal lands managed by the BLM. The additional costs anticipated from the management of the area as a WSR are expected to be minimal.

6. Ability of the agency to manage and/or protect the river area or segment as a WSR, or other mechanisms (existing or potential) to protect identified values other than WSR designation.

As discussed in the eligibility section E.1.1 new mining in the area could erase the outstandingly remarkable features. In Alternative A, the area would remain withdrawn from the location of new mining claims and from leasing of oil and gas. Gold Run is within the boundaries of the proposed Fortymile ACEC in Alternatives B, C, and D. The purpose of the ACEC is to protect caribou and Dall sheep habitat. The area is closed to the location of new mining claims in Alternatives B and C and is open in Alternative D.

7. Historical or existing rights which could be adversely affected.

There are no known historical or existing rights which could be adversely affected.

8. Other issues and concerns.

The addition of this headwater stream would add to the basin and river system approach already evident in the Fortymile WSR System of 392 designated river miles. It is separated, however, from the North Fork by approximately nine miles of streams under private ownership.

Finding for Gold Run

Gold Run possesses outstandingly remarkable historic values in that it exemplifies an isolated, early 20th century placer mining community, which focused on hand-working of shallow placer gold deposits. Because of the creek's isolation, it never underwent subsequent, larger-scale mining activities that typically erase earlier, hand-worked traces of mining activity. Because the remains of the mining activity are unobtrusive and do not detract from the primitive appearance of

the watershed, and the lack of other disturbances, Gold Run meets the tentative classification as a “wild” river. Gold Run is suitable for designation under Alternative B of the Draft RMP for the purpose of analysis. It is not suitable under the other alternatives because there are alternative means to protect the ORVs and there is no support for the designation. New mining could erase the ORV of this stream. In Alternative A of this EIS, the area would remain withdrawn from the location of new mining claims and from leasing of oil and gas. Gold Run is within the boundaries of the proposed Fortymile ACEC in Alternatives B, C, and D. The purpose of the ACEC is to protect caribou and Dall sheep habitat. The area is closed to the location of new mining claims in Alternatives B and C and is open in Alternative D, but the area is very remote with poor access so it is unlikely that mining would occur here. Gold Run flows into a stream that feeds the North Fork (a designated “wild” river) but it is separated from the North Fork by approximately nine miles of streams under private ownership. In addition, there is no known federal, public, state, Tribal, local, or other interests in the designation. State and local groups are opposed to the designation.

Suitability — Big Windy Creek (Steese Subunit)

- Length: 14 miles
- Tentative Classification: “wild”

1. Characteristics which do or do not make the area a worthy addition to the NWSR.

Big Windy Creek has outstandingly remarkable scenic, geologic and wildlife values and is free-flowing making it eligible for inclusion in the NWSR.

2. Status of land ownership, minerals (surface and subsurface), use in the area, including the amount of private land involved and associated or incompatible uses.

The river segment is wholly managed by the BLM and is in the Steese NCA, an area that Congress has established to protect caribou habitat. One portion of the river corridor was designated as the Big Windy Research Natural Area in the Steese NCA Resource Management Plan (BLM 1986a) to be managed for the primary purpose of research and education.

There are no private or state lands and there are no existing mining claims within one-half mile on either side of Big Windy Creek. In 1983, the BLM determined that Big Windy Creek is non-navigable.

The area is remote and receives very little use, primarily winter use of the hot springs. Some hunting or trapping may occur in the area. There is no known interest in the development of water resources in this area. The river segment is not considered to be floatable and little recreational use is expected. Little subsistence use is thought to occur in the area. All existing use is compatible with designation into the NWSR.

3. Reasonably foreseeable potential uses of the land and related waters which would be enhanced, foreclosed, or curtailed if the area were included in the NWSR and the values which could be foreclosed or diminished if the area is not protected as part of the NWSR.

There is high locatable mineral potential, and no leasable mineral potential in the area with the exception of geothermal resources. There are no oil and gas or coal resources known in this area. There are no known commercial timber values in the area. Due to the area’s remoteness and lack of available infrastructure, commercial use of resources in the area is

unlikely. The infrequent recreational, subsistence, hunting, and trapping use discussed under #2 above is expected to continue and be neither enhanced nor foreclosed by designation of the creek into the NWSR.

4. Federal, public, state, Tribal, local, or other interests in designation or non-designation of the river, including the extent to which the administration of the river, including the costs thereof, may be shared by State, local, or other agencies and individuals.

There is no known public support for designation. In general, the State of Alaska is in opposition to designation of river segments (ADNR 2008).

5. Estimated cost, if necessary, of acquiring lands, interests in lands, and administering the area if it is added to the NWSR.

Designation of Big Windy Creek would not require the acquisition of any property because the lands are federal lands managed by the BLM. The additional costs anticipated from the management of the area as WSR is expected to be minimal.

6. Ability of the agency to manage and/or protect the river area or segment as a WSR, or other mechanisms (existing or potential) to protect identified values other than WSR designation.

In Alternatives B, C and D of this plan, Big Windy Creek would be closed to mineral entry which would protect the scenic, geologic and wildlife values of the area.

7. Historical or existing rights which could be adversely affected.

There are no historical or existing rights that would be adversely affected.

Finding for Big Windy Creek

Big Windy Creek possesses outstandingly remarkable scenic, geologic and wildlife values. The varied geologic/hydrologic features and the unique contrasting vegetation resulting from the hot springs provide outstandingly remarkable scenery. The hot springs also provide unique habitat for wildlife. This river meets the tentative classification as a “wild” river due to its primitive appearance, its general inaccessibility, and its high water quality. Big Windy Creek is suitable for designation under Alternative B of the Draft RMP for the purpose of analysis. It is not suitable under the other alternatives because there is no known federal, public, state, Tribal, local, or other interest in the designation. The State is opposed to the designation. Big Windy is within the Steese NCA and in all alternatives in this EIS, this area would be closed to mineral entry and would have a suite of management decisions that would protect the ORVs of this river.

Suitability — Salmon Fork of the Black River (Upper Black River Subunit)

- Length: 52 miles
- Tentative Classification: “wild”

1. Characteristics which do or do not make the area a worthy addition to the NWSR.

Salmon Fork has outstandingly remarkable wildlife values and is free-flowing making it eligible for inclusion in the NWSR.

2. Status of land ownership, minerals (surface and subsurface), use in the area, including the amount of private land involved and associated or incompatible uses.

The BLM manages the upper reaches of the Salmon Fork, from the border with Canada downstream 52 miles to the Yukon Flats National Wildlife Refuge. These lands have been selected by the State to meet their land entitlement under the Statehood Act. The State has prioritized these lands at a level 14, the lowest priority rating. Due to the low prioritization, we can assume that BLM will retain management of these lands. There are no Native allotments along the river.

In 1980, the BLM determined that the Salmon Fork is a navigable stream and in 2003 the BLM issued a recordable disclaimer of interest to the State of Alaska for the bed of the Salmon Fork Black River from its confluence with the Black River upstream approximately 74 river miles to the International Boundary.

There are no federal mining claims on the Salmon Fork. The Salmon Fork is an important subsistence area for the people of Chalkyitsik (Chalkyitsik Village Council 2008). Because of its remoteness, little recreational boating occurs on the Salmon Fork although the river is boatable and floatable.

3. Reasonably foreseeable potential uses of the land and related waters which would be enhanced, foreclosed, or curtailed if the area were included in the NWSR and the values which could be foreclosed or diminished if the area is not protected as part of the NWSR.

The potential for solid or fluid minerals in the area is low. There is no infrastructure in the area; the nearest road is over 60 miles away and is on the other side of the Yukon River. It is reasonable to conclude that the existing uses will continue on these lands and waters with little increase. No uses will be precluded if the area was included in the NWSR and no values would be foreclosed or diminished if the area is not protected as part of the NWSR.

4. Federal, public, state, Tribal, local, or other interests in designation or non-designation of the river, including the extent to which the administration of the river, including the costs thereof, may be shared by state, local, or other agencies and individuals.

In general, the State of Alaska is in opposition to designation of river segments (ADNR 2008). One individual recommended that the Salmon Fork be considered for designation under the WSR Act during public scoping for the Eastern Interior RMP (Matesi 2008).

5. Estimated cost, if necessary, of acquiring lands, interests in lands, and administering the area if it is added to the NWSR.

Designation of Salmon Fork would not require the acquisition of any property because the lands are federal lands managed by the BLM. The additional costs anticipated from the management of the area as a WSR is expected to be minimal.

6. Ability of the agency to manage and/or protect the river area or segment as a WSR, or other mechanisms (existing or potential) to protect identified values other than WSR designation.

The Salmon Fork is within a proposed ACEC in Alternatives B, C and D of the plan. Restrictions within the area vary by alternative, but the two uses that are most likely to have an effect on the ORVs are gold mining and oil and gas development. In Alternative B, the ACEC is closed to both uses. In Alternative C, the ACEC is open to the location of new mining claims and closed to mineral leasing. In Alternative D, the ACEC is open to the location of new mining claims and open to leasing with minor constraints. In all

alternatives, the river watershed is considered a Riparian Conservation Area with buffer zones in which ground-disturbing activities are restricted.

7. Historical or existing rights which could be adversely affected.

There are no historical or existing rights that would be adversely affected.

Finding for the Salmon Fork

The Salmon Fork of the Black River possesses outstandingly remarkable wildlife values that include the most northern dense nesting population of bald eagles in Alaska. This river meets the tentative classification as a “wild” river due to its primitive appearance, its general inaccessibility, and its high water quality. Salmon Fork is suitable for designation under Alternative B of the Draft RMP for the purpose of analysis. It is not suitable under the other alternatives because in 2003, the BLM issued a recordable disclaimer of interest to the State of Alaska for the bed of the Salmon Fork Black River from its confluence with the Black River upstream approximately 74 river miles to the International Boundary. The State generally does not support new designations into the NWSR. In addition, the Salmon Fork is within a proposed ACEC in Alternatives B, C and D of the plan. Restrictions within the area vary by alternative, but the two uses that are most likely to have an effect on the ORVs are gold mining and oil and gas development. In Alternative B, the ACEC is closed to both uses. In Alternative C, the ACEC is open to the location of new mining claims and closed to mineral leasing. In Alternative D, the ACEC is open to the location of new mining claims and open to leasing with minor constraints. In all alternatives, the river watershed is considered a Riparian Conservation Area with riparian area restrictions that would sufficiently protect the outstandingly remarkable features.

Suitability — Fossil Creek (White Mountains Subunit)

- Length: 23 miles
- Tentative Classification: “scenic”

1. Characteristics which do or do not make the area a worthy addition to the NWSR.

Fossil Creek has outstandingly remarkable scenic and geologic values and is free-flowing making it eligible for inclusion in the NWSR.

2. Status of land ownership, minerals (surface and subsurface), use in the area, including the amount of private land involved and associated or incompatible uses.

Fossil Creek lies wholly within the White Mountains National Recreation Area established by ANILCA to provide for public outdoor recreation use and enjoyment and for the conservation of the scenic, scientific, historic, fish and wildlife and other values contributing to public enjoyment of such area. There are no private or state lands and no existing mining claims within one-half mile on either side of the creek. In 1982, the BLM determined that Fossil Creek is non-navigable.

Fossil Creek receives an estimated 1,000 recreational visits each year, mostly during the winter season. Of these 1,000 visits, an estimated 50 are from hikers and hunters during the summer and fall. Hunting is almost entirely for Dall sheep in the surrounding limestone jags. Water flow on Fossil Creek is generally too low to permit boating. Little subsistence use is thought to occur in the area. There are no existing uses that are incompatible with designation.

3. Reasonably foreseeable potential uses of the land and related waters which would be enhanced, foreclosed, or curtailed if the area were included in the NWSR and the values which could be foreclosed or diminished if the area is not protected as part of the NWSR.

Recreation is, and is expected to continue to be, the primary use of the area. It is reasonable to expect recreational use to increase in the area whether Fossil Creek is designated as part of the NWSR or not. Designation would have some effect on proposed recreation development in the area, requiring greater care in screening to maintain the scenic quality of the area.

4. Federal, public, state, Tribal, local, or other interests in designation or non-designation of the river, including the extent to which the administration of the river, including the costs thereof, may be shared by State, local, or other agencies and individuals.

There is no known public support for designation. In general, the State of Alaska is in opposition to designation of river segments (ADNR 2008).

5. Estimated cost, if necessary, of acquiring lands, interests in lands, and administering the area if it is added to the NWSR.

Designation of Fossil Creek would not require the acquisition of any property because the lands are federal lands managed by the BLM. The additional cost anticipated from the management of the area as WSR is expected to be minimal.

6. Ability of the agency to manage and/or protect the river area or segment as a WSR, or other mechanisms (existing or potential) to protect identified values other than WSR designation.

Fossil Creek is closed to the location of new mining claims by ANILCA. In all alternatives of the EIS, Fossil Creek would be closed to mineral leasing. Also in all alternatives, this area would be in a Limited OHV designation, allowing for winter use of snowmobiles 1,000 pounds curb weight and less and requiring a permit or Plan of Operations for all other OHV use. These restrictions would protect the scenic and geologic ORVs of Fossil Creek.

7. Historical or existing rights which could be adversely affected.

There are no historical or existing rights that would be adversely affected by designation.

Finding for Fossil Creek

Fossil Creek possesses outstandingly remarkable scenic and geologic values. Scenic qualities include contrasting topography and varied vegetation. Geologic values include karst features, which are rare in Alaska outside of the southeast panhandle. This river meets the tentative classification as a Scenic river due to its largely primitive appearance, and its trail access. Fossil Creek is suitable for designation under Alternative B of the RMP for the purpose of analysis. It is not suitable under the other alternatives because alternate means of protection are in place. ANILCA closed this area to the location of new mining claims and in all alternatives of this EIS, the area would be closed to mineral leasing and limit OHV use to the winter season. These decisions would be sufficient to protect the ORVs for Fossil Creek. In addition, there is no known support for designating Fossil Creek and the State of Alaska generally opposes designation of rivers.

E.2. Outstanding Remarkable Values on Designated Rivers

The following sections describes the ORVs for wild and scenic rivers designated by ANILCA. The Eastern Interior RMP makes a determination of the ORVs for the Birch Creek, Beaver Creek, and Fortymile WSRs. ORVs are typically identified in a study prior to the designation, but the Birch Creek, Beaver Creek, and Fortymile WSRs were designated by ANILCA without these specific values identified by Congress. In these cases, managers typically develop ORVs from study reports and other documentation of management activities and intentions as well as incorporating current data and expertise.

ORVs are defined by the WSR Act as those characteristics that make the river worthy of special protection. These can include scenery, recreation, fish and wildlife, geology, history, culture, and other similar values, which are to be considered in determining eligibility for wild and scenic river designation. The WSR Act states that “Each component of the National Wild and Scenic Rivers System shall be administered in such a manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values.”

E.2.1. Outstanding Remarkable Values for Birch Creek

Birch Creek WSR begins approximately one mile upstream from the confluence of Twelvemile and Birch Creeks, near Mile 94 of the Steese Highway, and ends at the Steese Highway – Birch Creek bridge, near Mile 140 of the Steese Highway, a distance of 126 river miles. Approximately 77 miles of Birch Creek WSR flows through the Steese National Conservation Area (NCA), which was also established by ANILCA. The Steese NCA is managed by the BLM and managed pursuant to the applicable provisions of the Federal Land Policy and Management Act. Special values to be considered in planning and management of the area are caribou habitat and Birch Creek WSR (ANILCA Section 401.)

The final 13 miles of the designated river (upstream from the Steese Highway bridge near Mile 140) flows through lands owned by Doyon, Limited. While these final 13 miles are designated as “wild,” the BLM does not manage these lands.

Historical Review Birch Creek

Proposed Birch Creek Wild and Scenic River Final Environmental Statement. This document was prepared by the Alaska Planning Group of the U.S. Department of the Interior in 1975 and addressed the impact of designating a portion of Birch Creek as a component of the NWSR. Specific values of the river were discussed in the section “Description of the Environment,” however no formal determination of ORVs was made. The document reviewed 135 miles of the 314 mile-long Birch Creek.

Pertinent statements on the values of the river in the Environmental Statement include:

- “Spectacular schist examples are found along the river in rock outcroppings and on adjacent hillsides where sheer rock walls have resisted the erosive action of the water. These outcropping and coloration of the exposed bedrock are of outstanding interest to the layman as well as the geologist.” (page 30)
- “The area adjacent to the lower 35 miles of the proposed Wild River Area has been identified by the Alaska Department of Fish and Game, in the publication Alaska’s Wildlife and Habitat,

as a significant waterfowl molting and nesting area for lesser scaup, pintails, widgeons, mallards, green-winged teals, white-winged scoters, buffleheads, American goldeneyes, canvasbacks, and shovelers. Trumpeter swans also may nest in the area. Canada and white-fronted geese and little brown cranes are common in the wet muskeg areas.” (page 41)

- “The American peregrine falcon (*Falco peregrines anatum*) is known to nest along Birch Creek. As the peregrine falcon is a threatened species (Threatened Wildlife of the United States, 1973), the nesting sites found along Birch Creek cliffs are considered quite significant.” (page 41)
- “Other area wildlife of special interest are the timber wolf and American osprey.” (page 41)
- “Birch Creek offers outstanding recreational opportunities for non-motorized ‘float-boat’ use for the experienced canoeist (canoeing, kayaking, rafting). It is one of the very few clearwater rivers in the State with road access at two points on an otherwise undisturbed river segment. The recreationist is offered a wilderness experience along the river without having to pay the high costs of aircraft transportation—a unique proposition in Alaska.” (page 48)

A Proposal for Protection of Eleven Alaskan Rivers, Final Environmental Statement .

This document was prepared by the Department of the Interior Heritage Conservation and Recreation Service, June 1980. It evaluates the impact of protecting the natural environment within a four-mile corridor along eleven rivers in Alaska, including Birch Creek. No specific values were noted for Birch Creek.

Alaska National Interest Lands Conservation Act (ANILCA) December 1980. Congress established the Birch Creek WSR in ANILCA Section 603 in which the Wild and Scenic River Act was amended to add the following paragraph:

“Birch Creek, Alaska: The segment of the main stem from the south side of the Steese Highway in township 7 north, range 10 east, Fairbanks meridian, downstream to the south side of the Steese Highway in township 10 north, range 16 east, to be administered by the Secretary of the Interior.”

ANILCA designated Birch Creek as a “wild” pursuant to the WSR Act. The values of the river were not discussed. ANILCA further directed the Secretary of the Interior to establish detailed boundaries and to prepare a management and development plan.

Birch Creek River Management Plan. This document was prepared by the BLM and USFWS, December 1983. It determined the detailed boundaries for the river corridor and established a management and development plan. While values in the river corridor were discussed, ORVs were not determined.

Pertinent statements on the values of the river in the River Management Plan include:

- “Birch Creek provides for a wide variety of primitive-based recreation opportunities.... Attractive, natural campsites are abundant along the river, including the many gravel bars as well as upland forested areas. Birch Creek is easily accessible from Fairbanks via the State-maintained Steese Highway.” (page 8)
- “Scenic viewing opportunities are one of the region’s most valuable recreational resources. Occasional cliffs and outcroppings of bedrock contrast with the green mosaic formed by surrounding vegetation on low rolling hills.” (page 8)
- “A portion of the Circle to Fairbanks Historic Gold Rush Trail, which has been submitted for nomination to the National Register of Historic Places, passes through the river corridor.” (page 23). Note: Upon subsequent review, it was determined that this trail does not pass through the river corridor.

Findings for Birch Creek

The following paragraphs evaluate the scenic, recreational, geologic, fish, wildlife, cultural, historic, and other values for Birch Creek WSR. See section E.1 Overview of the Process for a description of BLM criteria used to interpret these values.

Scenic

Evaluation of Present Situation:

The Birch Creek WSR Corridor lies within the Yukon-Tanana Uplands which has a scenic quality of "A" according to BLM's VRM process. See Appendix D.2 Scenic Quality.

The upper reach of Birch Creek flows through a narrow winding canyon with birch and spruce upland. A boater's focus is on the water course of riffle-pools with small rapids emptying into shallow pools; there are opportunities, however, for glimpses of historic structures in an otherwise natural landscape. Some shallow gravel bars offer contrast with the water and upland vegetation.

At the confluence with Harrington Creek the river changes character as the channel widens with a backdrop of low rounded hills and mountains. Short sections of rapids over a an eight-mile stretch through outcropping bedrock create contrast with the water and the varied vegetation types which include white and black spruce, birch and aspen, alpine tundra and black spruce bog uplands. Gravel bars are larger and higher with willow and alder shrubs and congregations of large debris along point bars creating unique visual points of interest. Upland banks are also higher in many stretches with four-to-six foot drops to water level. There are more opportunities to glimpse historic cabins and hike to higher elevations for outstanding views of the river system.

The lower section of Birch Creek enters the Yukon Flats where the river valley widens to miles and the river meanders with numerous channels with broad gravel bars. Cliff areas with ice lenses and loess soils are evident along this lower stretch. There are also unique areas where trees have lodged along the river bed in mid channel and create a bone-yard effect. Diverse vegetative types such as closed spruce forest, open low-growing spruce, and treeless bog offers distinctive contrast between the water, gravel bars and uplands creating unique views and changing views along Birch Creek. The river again approaches the foothills with a more confined meandering channel with oxbows and sloughs before it finally breaks free into the flats. The viewshed is confined again with small cliff-like banks.

Finding:

The changes in topography from a headwater stream to a more mature river with meander bends and braided systems add diversity to a relatively short river segment. The eight-mile stretch of intermittent extruding bedrock with interspersed rapids creates visual contrast with the surrounding vegetation, gravel bars and water. The range of foreground hills, middle distant mountains, broad flats and foreground hills as one floats down the river creates a mosaic of backdrops for floaters. The small number of historical cabins that blend with the landscape and are mostly hidden from view add some variety and points of interest to the area. The variety of vegetation types and the seasonal colors are an exemplary example for the interior. Because of these characteristics, the scenic value of Birch Creek is found to be outstandingly remarkable.

Recreational

Evaluation of the Present Situation:

Birch Creek, flowing for the most part through the Steese NCA, offers outstanding recreational opportunities for non-motorized “float-boat” use for the experienced canoeist (canoeing, kayaking, rafting). It is one of the very few clearwater rivers in the State with road access at two points on an otherwise undisturbed river segment. The recreationist is offered a multi-day wilderness river experience without having to pay the high costs of aircraft transportation. Many rivers in Interior Alaska have extensive motorized use, while Birch Creek offers an 8 to 14 day non-motorized float opportunity. It is one of the few accessible rivers that offer a floater the experience of all phases of a river, from headwater stream to full meandering river with a whitewater experience. Floaters experience solitude, closeness with nature and wildlife, escape from personal pressures, everyday demands of life and crowds, and exploration of new areas. The chance of seeing wildlife is good with peregrine falcons, bald eagles, and beaver being common. Wolf, bear, fox, lynx, and occasionally caribou may be seen.

River floaters demographics are local Fairbanks, Anchorage, national, and international. They come to float a multi-day wilderness type experience as a major part of their Alaska destination. The clear-water whitewater is unique for open floaters, as well as smaller whitewater craft. Hunters from the Lower-48 bring rafts and canoes for the float-hunting opportunities. International use has occurred in the past and is anticipated to occur again in the future with users from Germany being the primary user group willing to pay for a guided experience. While floating the river, users also enjoy seeing wildlife, fishing, hunting, remote primitive camping, hiking to higher vista points, amateur geology, and photography.

Finding:

Birch Creek is recognized regionally and nationally as an accessible, freshwater and whitewater wild river providing a multi-day primitive floating and camping experience which is considered unique. The rivers presentation of diverse geological values is unique within the region that includes a stretch of whitewater caused by bedrock outcrops and the changes in river character from headwater to mature stream. This creek is a good example of the typical diversity of vegetation types and seasonal variations that enhance the river experience. The recreational value of Birch Creek is found to be outstandingly remarkable.

Geologic

Evaluation of the Present Situation:

Most of the bedrock along Birch Creek WSR consists of Paleozoic to Late Precambrian metamorphic rocks (primarily schist and quartzite) that are among the oldest rocks in Alaska. Geologists formerly referred to these rocks as Birch Creek Schist, a name inspired by the characteristic outcrops along this river.

Also exposed in cutbanks along Birch Creek are melting ice lenses, part of the permanently frozen soils, or permafrost, underlying much of the river valley. Supporting evidence and examples of the geologic processes include, but are not limited to:

- Active landslides and thawing permafrost along the river provide opportunities to observe dynamic and ongoing geologic processes.

- Birch Creek's usually clear water is characteristic of certain Interior rivers that, unlike most rivers in the state, drain terrain that did not experience extensive continental and/or alpine glaciation.
- Classic exposures of Birch Creek Schist are found in sheer rock walls below Harrison Creek and along both banks at Shotgun Rapids.
- Numerous periglacial features, including altiplanation terraces and tors, can be seen from the river on nearby ridges.

Finding:

Outcrops of schist along the river could be considered "textbook" in that they served as inspiration for naming the Birch Creek Schist. However, this rock type is widely dispersed in the Yukon-Tanana Upland, and similar bluffs and rapids exist on the region's other rivers. Similarly, the periglacial features, permafrost exposures, and general hydrology of Birch Creek are widely distributed in the region. Geology is therefore not an outstanding remarkable value of Birch Creek.

Fish Populations and Habitat

Evaluation of the Present Situation:

Birch Creek supports 12 known species of fish and has one of the highest diversity of fish in the region.

Anadromous species: Birch Creek supports populations of Chinook, chum, and coho salmon. Various environmental factors make it difficult to gather population data for Chinook salmon in Birch Creek. The relative health of Birch Creek Chinook may be assessed to some extent by the health of Yukon River Chinook salmon that are still experiencing below average returns (Volk et al., 2009). With below average returns in the Yukon River, all streams providing spawning and rearing habitat for Chinook salmon are highly important both locally and regionally.

Resident species: Birch Creek also supports healthy and viable populations of Arctic grayling, round and humpback whitefish, sheefish, least cisco, northern pike, burbot, slimy sculpin, and blackfish.

Habitat: Major stream-disturbing activities such as placer mining have been active in the Birch Creek watershed for over one hundred years. While it is not known to what degree these activities affected the various fish populations, Birch Creek does provide critical habitat for up to many fish species making it one of the most diverse watersheds in the region.

Finding:

Birch Creek has one of the highest diversity of fish of all rivers in the region. This diversity makes fisheries an outstanding remarkable value for Birch Creek.

Wildlife Populations and Habitat

Evaluation of the Present Situation:

Birch Creek WSR supports a dense nesting population of American peregrine falcons that occur on riverside cliffs and bluffs. The species was an Endangered Species under the Endangered Species Act at the time of Birch Creek WSR designation and was delisted in 1999 but remains a BLM-Alaska sensitive species. Similar densities of nesting peregrines occur on few other rivers in the region (Fortymile WSR and the Yukon River within Yukon-Charley Rivers National Preserve).

Peregrine falcons are one component of a complete assemblage of subarctic wildlife species present along Birch Creek at natural levels of abundance and among habitats and plant communities essentially unchanged from natural conditions. The riparian habitats supported by the river are productive and provide key habitat for many species. River corridor and adjacent habitat combine to support this complete assemblage of species. Other raptors nesting along the river include frequently-observed red-tailed (Harlan's) hawks, a few nesting bald eagles, and occasional osprey. The lower section of the river supports extensive riparian vegetation that is excellent moose habitat. The many wetlands and oxbow lakes in the lower river corridor also support important waterfowl and shorebird nesting, including significant waterfowl molting and nesting of lesser scaup, pintails, widgeons, mallards, green-winged teals, white-winged scoters, buffleheads, American goldeneyes, canvasbacks, and shovelers. Trumpeter swans (BLM-Alaska sensitive species) also nest in oxbow and other lakes in the river corridor.

Wolves occur in the area and at least one den site is known to occur in the river corridor. Caribou of the Fortymile herd travel on the river ice in winter and use the adjacent uplands in winter and summer. The river is a popular hunt area (sport and subsistence) for moose and caribou, via float boats and (in the lower portion) motorized river boats. The river receives its heaviest use during moose hunting season.

Finding:

While the wildlife values of Birch Creek are high, they do not constitute an ORV of at least regional significance. Wildlife values do contribute to the recreational ORV for the river as wildlife watching is often component of recreational activities.

Cultural

Evaluation of the Present Situation:

There are eight prehistoric sites within or immediately adjacent to the Birch Creek WSR Corridor. They are all shallow or surface lithic sites; therefore, likely late prehistoric Athabascan sites. Most are located on high promontories; therefore, likely hunting lookout sites. One potential early historic Athabascan village site, which may have once contained a prehistoric component, is also located inside the corridor. However, the location of this site is known only from historic documentation, and has never been verified archaeologically, despite repeated attempts by different researchers over the past four decades. A couple of the sites have features or topographic settings that may indicate short-term camping locales. None have been evaluated for eligibility to the National Register of Historic Places, although field notes indicate that all likely have at least some buried, undisturbed deposits, which along with other variables may make them eligible to the Register.

An evaluation of the topographic settings inside the Birch Creek WSR Corridor indicates that, although additional prehistoric sites may be found, they will not likely vary in site type from those already discovered. For example, there is little likelihood of locating a caribou drive line site, or a permanent or winter village site, within the corridor. If such rare types of sites were found inside the corridor, they would likely contribute to culture or prehistory being an ORV in any future re-evaluation of Birch Creek. Similarly, if prehistoric utilization of riverine resources (e.g., salmon) are discovered, such a regionally relatively rare site type would too likely contribute to a prehistoric ORV re-evaluation for Birch Creek.

Finding:

The prehistoric uses of the Birch Creek corridor (such as short-term camping, lookout hunting sites) are typical of this and many other river settings in the region. None of the known prehistoric sites are particularly unusual or rare within the region of comparison. While the examples of the known prehistoric sites do indeed seem typical, or exemplary, of their site types, one cannot argue that they are “especially good examples” of their types owing to a present lack of quantitative data at the present time. Cultural, or prehistoric archaeology, is therefore not an ORV.

Historic

Evaluation of the Present Situation:

Birch Creek is of interest in the regional history of eastern Interior Alaska because of its association with a pre-Klondike gold rush. Gold miners first prospected in the area in the early 1890s, and the first economically viable gold discovery was made at Pitka's Bar in 1893 by Pitka Pavaloff and Sergei Cherosky, two miners of mixed Russian-Athabascan descent. The following year saw a rush or stampede up the creek when about 100 other men descended in the area. The creek and associated supply town on the Yukon River, Circle City, was virtually emptied of miners following the 1896 Klondike gold discovery further up the Yukon River in Canada. Mining would resume along tributaries of Birch Creek and in surrounding areas in the years following the Klondike strike, and continues through to the present day.

There are about 21 historic-era sites known within or immediately adjacent to the corridor. Of these, five have eroded away with no or very little remaining evidence of their existence. Three others have been built and occupied within the last 50 years, including one framed building covered with corrugated sheet metal that was occupied seasonally nearly every year from 1959-1993. The remaining 13 are spruce log cabin sites, often with an assortment of outbuildings (e.g., doghouses, caches, trash dumps). All but one of these are collapsing, the sole exception being a refurbished cabin that was likely originally constructed in the 1920s to 1930s. Based upon artifacts, some historic documentation, and writings on the walls, these 13 sites date variably from the early 1900s through the 1970s or 1980s. Sites with evidence of a post-1959 occupation had further evidence of earlier occupations; they were apparently refurbished and reused in later times. The remaining cabin ruin sites were all mining and prospecting or trapping related, based on historical documentation, artifacts or features at the sites, or comparison to known cabins in the comparative region. One of the sites that has eroded away was an early 20th century roadhouse, and another was the purported site of a historic Athabascan village.

Of the 13 sites that have components older than 50 years and that have not eroded away, none have been evaluated for eligibility to the National Register of Historic Places. Field notes indicate, however, that most if not all of these sites have undisturbed cultural deposits, which along with other variables, may make them eligible to the Register.

As most historic-era sites leave at least some type of surface presence, it is likely that most cabin ruins or above-ground structure ruins have been identified inside the corridor. Any undiscovered ruin sites will most likely represent more examples of the types already found; that is, 20th century mining and trapping related sites. Other historic site types that are probable along Birch Creek but have not been discovered are those that leave more ephemeral traces, such as graves, mining prospect and other types of sub-surface pits, and short-term camps that do not involve permanent buildings (e.g., hunting camps; prospect camps). Examples of rare historic sites that may be present in the corridor, and that would likely contribute to history being an outstanding

remarkable value in any future reevaluation of Birch Creek, include (1) definitive pre-Klondike era historic mining/prospecting sites, and (2) any early historic or protohistoric Alaska Native sites typifying traditional land use or subsistence practices.

Finding:

The historic traces found inside the Birch Creek corridor are typical of this and many other river settings in the region. None of the known historic sites are particularly unusual or rare within the region of comparison. The known historic sites seem typical, or exemplary, of their site types, of which there are hundreds more known scattered throughout the region of comparison, both on BLM and non-BLM lands. Taken alone, the historic sites found inside the Birch Creek corridor that are exemplary of mining and prospecting and trapping enterprises do not constitute an ORV.

Conclusion:

The scenic, recreation, and fish values of Birch Creek WSR are determined to be outstanding remarkable.

E.2.2. Outstanding Remarkable Values for Beaver Creek

Of the 127 miles of the designated Beaver Creek WSR, the initial 111 mile segment flows through the White Mountains National Recreation Area, an area established in ANILCA and managed by the BLM to provide for public outdoor recreation use and enjoyment and for the conservation of the scenic, scientific, historic, fish and wildlife and other values contributing to public enjoyment of such area. The final 16 mile segment flows the Yukon Flats National Wildlife Refuge, administered by the U.S. Fish and Wildlife Service.

Historical Review Beaver Creek

The Beaver Creek National Wild River Final Environmental Statement. This document was prepared by the Alaska Planning Group of the U.S. Department of the Interior, 1973 (DOI 1973a), and addressed the impact of designating a portion of Beaver Creek as a component of the NWSR. Specific values of the river were discussed in the section called "Description of the Environment," however no formal determination of ORVs was completed. The document reviewed 135 miles of the 303 mile-long Beaver Creek.

Pertinent statements on the values of the river in the Environmental Impact Statement include:

- "The overall landscape of the White Mountains area has been identified as superior or unique in a statewide scenery evaluation by the staff of the joint Federal-State Land Use Planning Commission." (page 24)
- "The intersection [of two great structural trends] and accompanying fault zones associated with the Beaver Creek area produce a very complex geological area." (page 25)
- The lower 2.5 miles of Fossil Creek "has been identified by the BLM as a 'Geological Display Area'—compact areas where significant periods of geologic history are presented or other important geologic processes are vividly portrayed." (page 28)
- "In addition to esthetic and wildlife values, the natural vegetation in the Beaver Creek area is extremely important in maintaining water quality and a stable watershed." (page 33-35)
- "Fishing for Arctic grayling is considered excellent and attracts fly-in fishermen. The grayling fishery also attracts snowmobilers into the river area near 'Big Bend' where waters remain

open because of springs.” The document also describes the grayling fishery as “high quality.” (page 35)

- “The mountain areas immediately adjacent to the proposed river segment have been identified by the Alaska Department of Fish and Game, in the publication, Alaska’s Wildlife and Habitat, January 1973, as important habitat areas for Dall sheep. The river valley is also listed as a significant winter concentration area for moose.” (page 35)
- “For the novice or intermediate canoeist, especially family or youth groups, the 135-mile segment of Beaver Creek included in the proposal offers an outstanding recreation opportunity. There are no rapids or serious obstacles.” (page 40)

Beaver Creek River Log. The U.S. Bureau of Outdoor Recreation conducted a field inspection of Beaver Creek in August 1976, consisting of a flow trip down the river. The following pertinent statements on the values of the river are included in the river log (BOR 1973).

- “The thick forested area and the clear waters of Beaver Creek combine with the White Mountains to create a beautiful scene for a float trip”.
- “Grayling fishing was excellent”. “Grayling fishing continued to be excellent.”
- “Good campsites continued to be plentiful and the scenery pleasing”.
- “It [Beaver Creek] and Nome Creek offered good Class I water on the International Water Scale.”
- “Scenery at the “Big Bend”...was superb. Hiking opportunities are excellent along the river in this area.”
- Rock outcroppings rise occasionally from the rivers edge in this section of the river [Fossil Creek] adding-to the scenery”.
- “...the view from the river-continued to be excellent of the White Mountains, paralleling forested hills, and rock outcroppings at the rivers edge”.
- “Scenery was excellent until we got several miles passed Victoria Creek where it was pleasing but without the sheer rock cliffs and the close mountains were not as grand as before.”
- “It’s scenery, grayling fishery and recreational opportunities are three of its outstanding features”.
- Numerous references to wildlife sighting including black bear, Dall sheep, moose, beaver, ducks eagles, and peregrine falcons, and wolf and lynx tracks.

Alaska National Interest Lands Conservation Act (ANILCA) December 1980. Congress established the Beaver Creek WSR in ANILCA Section 603 in which the Wild and Scenic River Act was amended to add the following paragraph:

“Beaver Creek, Alaska: The segment of the main stem from the vicinity of the confluence of the Bear and Champion Creeks downstream to its exit from the northeast corner of township 12 north, range 6 east, Fairbanks meridian within the White Mountains National recreational Area, and the Yukon Flats National Wildlife Refuge, to be administered by the Secretary of the Interior.”

ANILCA designated Beaver Creek as a “wild” pursuant to the WSR Act. The values of the river were not discussed. ANILCA further directed the Secretary of the Interior to establish detailed boundaries and to prepare a management and development plan.

Beaver Creek River Management Plan. This document was prepared by the BLM and USFWS, December 1983. It determined the detailed boundaries for the river corridor and established a management and development plan. While values in the river corridor were discussed, ORVs were not determined. Pertinent statements on the values of the river in the River Management Plan include:

- “Scenic views from Beaver Creek are one of the region’s most valuable recreational opportunities.” (page 7)
- “Excellent opportunities for Arctic grayling fishing exist on Beaver Creek, primarily from river miles 20–100....” (page 7)

Findings for Beaver Creek

The following paragraphs evaluate the scenic, recreational, geologic, fish, wildlife, cultural, historic, and other values for Beaver Creek WSR. See section E.1 Overview of the Process for a description of BLM criteria used to interpret these values.

Scenic

Evaluation of Present Situation:

The Beaver Creek WSR Corridor lies within the Yukon-Tanana Uplands which has a scenic quality of “A” according to BLM’s VRM process. See Appendix D Visual Resource Inventory.

Beaver Creek winds through the heart of the White Mountains with adjacent peaks averaging 2,000 to 5,000 feet in elevation. These exposed outcroppings of white limestone and other variegated bedrock form almost a continuous backdrop for the river and contrast with the diverse vegetation types. The overall length of the designated “wild” segment of Beaver Creek can be broken down into generally five separate distinct scenic reaches. The upper section between river mile 0 and 35 is characterized by the low rolling hills to the south and the higher rolling hills to the north. The river flows gently and there are numerous gravel bars. Tall white spruce predominate the river corridor. Numerous wildland fires have scarred the hillsides through the years and offer a beautiful mosaic of vegetative color and a dynamic look at the different successional stages of the vegetation as it reestablishes.

The second section begins at approximately mile 35, an area known as “Big Bend,” where a significant limestone outcropping rises up abruptly nearly 1,200 feet in front of the river user. This massive uplift of jagged limestone is a well known landmark by local users and small plane pilots flying over the area. The distinct white exposed cliffs contrasting with the rolling hills. As implied by the name, Big Bend also marks a distinct change in direction for the river. As Beaver Creek flows around the tip of Big Bend it changes over 90 degrees from a westerly direction to a north-easterly direction. Continuing on to roughly mile 50, Beaver Creek flows primarily north through a relatively deep narrow valley with the steep ragged peaks of the White Mountains rising up on the east side. Long talus slopes with limestone outcrops and streaks of vegetation make for breathtaking vistas. Through the river remains a Class I (flatwater) float, large rocks become numerous at times and gravel bars tend to be a bit shorter.

Near river mile 50, Beaver Creek moves away from the main ridge of the White Mountains. This section to mile 80 opens up with rolling hills to the west and a more broad distant view to the White Mountains. The river speed decreases and white spruce no longer is the dominate vegetative type along the river. Cottonwood and poplar are more frequent as areas open with some groves of black spruce. The river has larger meanders with some sections breaking into multiple channels.

Between mile 80 and 110, Beaver Creek swings back to an easterly direction and the valley narrows. Tall rugged mountains rise to the north reaching 4,500 feet, and mountains encroach on the river from the south. Steep bluffs, some 200 feet high, are not uncommon. The river speed increases and there are fewer, shorter gravel bars.

In the last section, between mile 110 and 127, the river quickly begins to transition out into the Yukon Flats. After Victoria Mountain and Lime Peak, the broad, flat, horizon predominates. Although the terrain seems to flatten, the river maintains a good gradient with active gravel bars and quick turns.

Finding:

The change in elevation and topography of this river and the surrounding environment result in a highly diverse scenic and visual attraction. The back-and-forth transition from broad valleys with rolling hills and mountains to narrow valleys with steep rugged mountains; the transition between heavily forested and vegetated areas to areas where talus slopes and rocky outcroppings predominate; and the notable white limestone offer an ever changing visual quality. The small number of cabins found along the river blend with the landscape and are mostly hidden from view adding some variety and points of interest to the area. The variety of vegetation types and the seasonal colors are an exemplary example for the interior. The scenic value of Beaver Creek is found to be outstandingly remarkable.

Recreational

Evaluation of the Present Situation:

Beaver Creek offers outstanding recreational opportunities for non-motorized float-boat use for the novice or intermediate river floaters. Group sizes are generally small, two to four persons, and are comprised of persons originating from local, out-of-state, and international. Beaver Creek is one of the very few clearwater rivers in Alaska with some level of road access on an otherwise undisturbed river segment. Although the put-in is easily road accessible, the majority of users arrange a pickup from a small plane on a primitive, unmaintained, gravel bar airstrip near Victoria Creek. For those users who choose to float out to the next and only road accessible point, the Yukon River bridge, this may offer the longest road to road float opportunity in the nation, a distance of approximately 365 miles. Floaters experience solitude, closeness with nature and wildlife, escape from personal pressures, everyday demands of life and crowds, and exploration of new areas. Almost every book or website with information about floating Alaskan rivers includes information about floating Beaver Creek.

Beaver Creek is recognized for providing recreational users the opportunity for a truly wilderness type experience in a scenically diverse river setting. Along with the high scenic qualities, Beaver Creek offers outstanding sight-seeing, photographic, fishing and wildlife viewing opportunities. A healthy and voracious population of Arctic grayling inhabits the river and few groups of users float the river without at least one meal of fish. Moose, bear, and Dall sheep sightings along the river are common. Wolf sightings occur occasionally. Moose hunting season brings the greatest concentration of users to the river. From the last week of August through mid-September, an estimated 15-20 groups of hunters take to the river. In contrast to non-hunting river users, hunters tend to lengthen their time on the river by spending multiple nights at the same campsite or spending time looking over particular areas. Hunters on Beaver Creek also tend to use a greater variety of gravel bars to fly out of and return from their trip.

Finding:

Beaver Creek is recognized regionally, nationally and internationally as truly wilderness type experience on an easy Class I river. The rivers setting within the heart of the White Mountains presents outstanding scenic and geological opportunities which are unique within the region. The

presence of diverse wildlife and the possibility of seeing them in a natural setting enhance the experience. The recreational value of Beaver Creek is found to be outstandingly remarkable.

Geologic

Evaluation of the Present Situation:

In its upper reaches, Beaver Creek WSR flows around a prominent ridge of Early Silurian white Tolovana Limestone, for which the White Mountains were named. The Tolovana Limestone along the river weathers into distinctive crags and cliffs that are home to numerous rare plant species. The Tolovana Limestone includes karst (limestone dissolution) features such as caves, natural arches, sinkholes, cold springs, and underground streams that, in Alaska, have been widely documented only in the Southeast. Development of karst features in high-latitude locations is thought to be impeded by seasonal freezing of near-surface groundwater or by destruction during periods of glaciation (Jennings 1983). The White Mountains represent one of the few recorded locations of such features in northern or western Alaska (ADF&G 2006). The Ordovician Fossil Creek Volcanics underlying the limestone are a productive source of fossils.

The Serpentine Slide Research Natural Area, located partly within the river corridor, contains a notable outcrop of serpentine, an unusual iron- and magnesium-rich rock thought to originate at seafloor spreading centers.

Beaver Creek's usually clear water is characteristic of certain Interior rivers that, unlike most rivers in the state, drain terrain that did not experience extensive continental and/or alpine glaciation. Active rockfalls, a large landslide (Serpentine Slide), and thawing permafrost along the river provide opportunities to observe dynamic and ongoing geologic processes typical of an Interior river.

Finding:

Beaver Creek's limestone outcrops and associated karst features, as well as Serpentine Slide, represent geologic features that are rare and unusual in the geographic region. The geologic value of Beaver Creek is found to be outstandingly remarkable.

Fish Populations and Habitat

Evaluation of the Present Situation:

Beaver Creek is a highly productive river system known to support up to 10 species of fish including populations of Chinook, summer chum, and coho salmon.

Chinook: Beaver Creek Chinook salmon were designated a BLM-Alaska sensitive species in 2004 due to a downward trend of this small population of Chinook salmon. The BLM monitored Beaver Creek Chinook salmon escapement from 1996-2000 and the data revealed a declining trend similar to the overall decline of Yukon River Chinook salmon. Various environmental factors make it difficult at best to gather population data for Beaver Creek Chinook salmon and therefore the relative health of Beaver Creek Chinook salmon may be assessed to some extent by the health of Yukon River Chinook salmon which are still experiencing below average returns (Volk et al., 2009). Beaver Creek and a few of its tributaries including Victoria, Ophir, and Nome Creek are known to provide critical spawning and rearing habitat for Chinook salmon. Beaver Creek Chinook were reclassified from a BLM-Alaska sensitive species to a BLM-Alaska Watch List species in 2010.

Other salmon species: Beaver Creek also supports small but viable populations of summer chum and coho salmon.

Resident species: The river is known for its healthy populations of Arctic grayling and northern pike which provide excellent sport fishing opportunities for recreational anglers floating Beaver Creek. Beaver Creek also supports populations of round whitefish, sheefish, least cisco, burbot, slimy sculpin, and blackfish.

Habitat: The river provides exceptionally high quality habitat for fish species indigenous to the region. This high quality habitat includes, but is not limited to, crucial spawning and rearing areas for 3 species of salmon.

A lack of major land-disturbing activities (some tributaries previously placer mined) in the watershed contribute to the near natural habitat conditions found in Beaver Creek. This pristine habitat supports one of the most diverse fisheries for both anadromous and resident species in the region.

Finding:

Beaver Creek contains a BLM-Alaska watch list species (Chinook salmon) and fisheries diversity is one of highest in the region. Unique concentrations of Arctic grayling are highly important for recreational fishing. The near pristine aquatic habitat in Beaver Creek provides crucial spawning and rearing habitat for the survival and recovery of Chinook salmon. The populations of regionally significant fish species and the river's pristine habitat combine to a finding that fisheries is an outstanding remarkable value for Beaver Creek.

Wildlife Populations and Habitat

Evaluation of the Present Situation:

Dall sheep are uncommon inhabitants of Interior Alaska outside of the major Alaska Range and Brooks Range mountains, occurring only in small, scattered populations in the Yukon-Tanana Uplands and along the border with Canada in the Ogilvie Mountains. Beaver Creek lies at the westward limit of Dall sheep in central Interior Alaska; the White Mountains Dall sheep population centers on and occurs primarily within the Beaver Creek Drainage. In this region of generally rounded terrain, Dall sheep inhabit small scattered areas of rugged topography which provides escape terrain. The limestone outcroppings near Beaver Creek provide a unique, low-elevation habitat—extensive rocky terrain below elevational treeline. The river has exposed mineral deposits used as licks by Dall sheep in four locations along Beaver Creek and created bluff or cliff habitats used by sheep while visiting the licks. A high proportion of two nearby sheep sub-populations travel through areas with little or no escape terrain (such as tussock tundra) to visit these licks.

A full complement of Interior Alaska wildlife species occur along Beaver Creek in natural levels of abundance and in a natural setting. Abundant grayling in Beaver Creek support numerous river otters. BLM-sensitive species harlequin ducks and trumpeter swans occur on the river. Bald eagles nest in balsam poplar trees and peregrine falcons (a BLM-Alaska sensitive species and federally endangered at the time of river designation) nest on river bluffs or limestone outcroppings, along with a diversity of other raptors. The riparian areas are important moose habitat (especially in late winter or deep snow conditions) and the river receives its greatest use during moose hunting season. Grizzly bears use the river more heavily during salmon runs and

black bears are common along the lower river. The White Mountains caribou herd uses the river corridor (as did the Fortymile herd historically) and caribou are sometimes observed crossing Beaver Creek. River habitats in Alaska are typically highly diverse; the presence within the Beaver Creek WSR Corridor of a range of habitats from broad river floodplain wetlands to steep alpine tundra and barren ridges increases that diversity.

Finding:

The wildlife value of Beaver Creek can be considered an ORV of at least regional significance. It provides important and unique habitat for an atypical Dall sheep population. This wildlife population, in combination with others, provides a highly diverse assemblage of wildlife in a state of natural abundance.

Cultural

Evaluation of the Present Situation:

There are no known cultural or prehistoric sites in the river corridor.

An evaluation of other rivers in the region of comparison with similar topographic settings and riverine resources indicates that prehistoric sites that are likely to be found include late prehistoric short-term campsites and overlook hunting sites, neither of which would be considered rare in the region. Examples of such prehistoric sites that may be considered rare in the region, and thus may contribute to any future re-evaluation of Beaver Creek cultural or prehistoric outstanding remarkable values, would be caribou drive line and butchery sites, permanent or winter village sites, and fisheries (e.g., salmon) extraction and processing sites.

Finding:

At present, cultural or prehistoric archaeology is not an ORV.

Historic

Evaluation of the Present Situation:

There are about 14 historic-era sites known within or immediately adjacent to the corridor. Of these, four cabin sites have since eroded away with no or very little remaining evidence of their existence, and one other was burnt over by a wildland fire likely in the 1990s and cannot be relocated. One other is a stilt cache site apparently without an accompanying permanent cabin, which unfortunately had no datable refuse in the vicinity. A 1920s-era site has a separate large, collapsing log cabin some 22 meters away that was built with the aid of a chainsaw and appears to date within the last 50 years. The remaining eight historic sites are spruce log cabin sites, only one of which is accompanied by a cache. All but one of these eight are collapsing, the sole exception being a refurbished cabin still being occupied today that was likely originally constructed pre-World War II, based upon degree of weathering of the wall logs. The artifacts accompanying these eight sites all date to the 1920s to 1940s. Most of the sites, even those that have since eroded or burned away, are smaller cabins with features and artifacts that indicate a trapping enterprise. Only a few of the sites are, or were, larger cabins with gable roofs, more typical of those found associated with miners elsewhere in the region of comparison. These larger cabins might also represent home base trapping cabins from which forays were made to smaller, temporary trapping line cabins.

Of the eight sites that have components older than 50 years and that have not eroded away, none have been evaluated for eligibility to the National Register of Historic Places. Field notes indicate, however, that most of these sites have undisturbed cultural deposits, which along with other variables, may make them eligible to the Register.

As most historic-era sites leave at least some type of surface presence, it is likely that most cabin ruins or above-ground structure ruins have been identified inside the corridor. Any undiscovered ruin sites will most likely represent more examples of the type already found; that is, 1920s-1940s-era trapping cabins. It is also known that a portion of the historic Fairbanks-Beaver sled trail passed along a portion of Beaver Creek that is inside the WSR corridor being considered here. The trail was built and maintained by the Alaska Road Commission in the early-mid 20th century. Traces of this historic trail, as evinced by a thin cut swath through the boreal forest, are seen today, as the trail intersects the corridor in the vicinity of Big Bend, and paralleling along the creek as it proceeds downstream, before crossing over the divide into upper Victoria Creek. This trail has not been evaluated for eligibility to the National Register. Historic maps indicate two Alaska Road Commission shelter cabins along this stretch of the trail. Neither of these two cabin ruins, if they still exist, has been identified on the ground. Regardless, dozens of similar shelter cabins exist elsewhere within the region of comparison.

With further intensive archaeological survey, other historic site types that can probably be found along Beaver Creek, but have not been discovered, are those that leave more ephemeral traces, such as graves, mining prospect and other types of sub-surface pits, and short-term camps that did not include permanent buildings. Examples of rare historic sites that may be present in the corridor, and that would likely contribute to history being an ORV in any future re-evaluation of Beaver Creek, include (1) definitive pre-Klondike era historic mining/prospecting sites, and (2) any early historic or protohistoric Alaska Native sites typifying traditional land use or subsistence practices.

Finding:

The historic traces found inside the Beaver Creek WSR Corridor (i.e., trapping, Alaska Road Commission sled trail) are typical of this and many other river settings in the region. None of the known historic sites are particularly unusual or rare within the region of comparison. The known historic sites inside the corridor are typical of their site types, of which there are many more known scattered throughout the region of comparison, both on BLM and non-BLM lands. The historic sites found inside the Beaver Creek corridor do not constitute an ORV.

Conclusion:

The scenic, recreation, geologic, fish, and wildlife values of Beaver Creek WSR are determined to be outstandingly remarkable.

E.2.3. Outstandingly Remarkable Values for the Fortymile River

The Fortymile WSR consists of the main stem of the Fortymile River and its major tributaries. River segments are classified as either “wild,” “scenic” or “recreational.” Classification is a determination based on existing characteristics of a river area resulting from human-caused change or levels of development. Congress mandated that those segments be managed according to the following objectives:

- Wild rivers will “be free of impoundments and generally inaccessible except by trail with watersheds or shorelines primitive, and waters unpolluted. These represent the vestiges of primitive America.”
- Scenic rivers will be managed to be “free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.”
- Recreational rivers will be managed to be “readily accessible by road or railroad” and “may have some development along their shorelines, and...may have undergone some impoundment or diversion in the past.”

The Fortymile River WSR segments, start and end points, and classification are presented below.

Class	Segment	Start Upstream	End Downstream	Miles
“wild”	Champion Creek	FM, T. 4S., R. 30E., Sec. 1	Confluence with North Fork	28
“wild”	Joseph Creek	FM, T. 5S., R. 21E., Sec. 33, headwaters	Confluence with Middle Fork	22
“wild”	Middle Fork	Confluence with Joseph Creek	Confluence with North Fork	42
“wild”	Mosquito Fork	Confluence with Kechumstuk Creek	Confluence with Ingle Creek	30
“wild”	North Fork	Confluence with Slate and Independence Creeks	Confluence with Main Stem and South Fork	57
“scenic”	Mosquito Fork	Confluence with Ingle Creek	Confluence with Dennison and South Forks	8
“scenic”	Dennison Fork	Confluence with West Fork of Dennison Fork	Confluence with South and Mosquito Forks	19
“scenic”	Dennison Fork (West Fork)	Confluence with Logging Cabin Creek	Confluence with Dennison Fork	13
“scenic”	Fortymile River (Main Stem)	Confluence with North and South Forks	Alaska-Yukon Territory border	39
“scenic”	Franklin Creek	CRM, T. 28N., R. 17E., Sec. 31; CRM, T. 28N., R. 18E., Sec. 36, headwaters	Confluence with South Fork	6
“scenic”	Hutchinson Creek	FM, T. 7S., R. 28E., Sec. 31, headwaters	Confluence with North Fork	19
“scenic”	Logging Cabin Creek	CRM, T. 22N., R. 16E., Sec. 11, headwaters	Confluence with West Fork of Dennison Creek	17
“scenic”	Napoleon Creek	CRM, T. 27N., R. 19E., Sec. 1, headwaters	Confluence with South Fork	7
“scenic”	O’Brien Creek	Confluence with King Solomon Creek and Liberty Fork	Confluence with Main Stem	27
“scenic”	South Fork	Confluence with Mosquito and Dennison Forks	Confluence with North Fork and Main Stem	27
“scenic”	Uhler Creek	FM, T. 8S., R. 31W., Sec. 24, headwaters	Confluence with South Fork	9
“scenic”	Walker Fork	Downstream of Liberty Creek	Confluence with South Fork	12
“recreational”	Wade Creek	Confluence of Grace and Warner Creek, CRM, T. 28N., R. 20E., Sec. 26	Confluence with Walker Fork	10

Historical Review Fortymile River

Fortymile River Trip Log. In 1967, BLM and ADF&G staff floated the Fortymile River from the Mosquito Fork down to the Yukon River (BLM 1967). The trip log does not note any specific values for the Fortymile River.

The Fortymile National Wild and Scenic River Final Environmental Statement. This document was prepared by the Alaska Planning Group of the U.S. Department of the Interior in 1973 (DOI 1973b). It proposed and evaluated adding 392 miles of the more than 1,000 miles of the Fortymile River and its principal tributaries together with 320,000 acres of land comprising the immediate environment of the rivers to the NWSR. Specific values of the river were discussed in the section “Description of the Environment,” however no formal determination of ORVs was completed.

Pertinent statements on the values of the Fortymile River in the Environmental Statement include:

- “The Fortymile River basin is the location of several events and items having historical and cultural importance. These include the site of the first gold discovered in Interior Alaska; cabins, settlements, and equipment associated with past and present gold mining; the abandoned Eagle to Valdez military telegraph line which is today part of the Washington-Alaska Military Cable and Telegraph System. Two segments of this system in the Fortymile River basin, Joseph Creek to Kechumstuk and Eagle to Kechumstuk, are being considered for nomination by the State to the National Register of Historic Places in accordance with provisions of the National Historic Preservation Act of 1966 (80 Stat. 915).” (page 33)
- “Glistening vertical rock strata in an otherwise forested valley form especially scenic vistas in the vicinity of the confluence of the Middle Fork with the North Fork. The lower portion of the North Fork is deeply entrenched with bluffs up to 400 feet high rising from the river’s edge.” (page 48)
- In reference to the South Fork and Fortymile River: “The steep, bare outcrops of bedrock flanking the riverbed are noteworthy—a shining, glacier-like exposure of white marble downstream from the confluence of the North and South Forks; and colorful banded strata near O’Brien Creek.” (page 50)
- In reference to the South Fork and Fortymile River: “A distinctive feature of the river area in that segment is the presence of past and present gold mining activities and contains several sites which may be of historic significance.” (page 50)
- “Grayling appear to constitute the majority of the sports catch. Fishing in the Fortymile drainage is considered fair to excellent.” (page 68)
- “Because the upper Yukon River is a northward extension of the Great Plains and is also on the fringe of coastal areas, there is a mixture of bird life in the Fortymile River basin not typical of Interior Alaska.” (page 69)

A Proposal for Protection of Eleven Alaskan Rivers, Final Environmental Statement (DOI, Heritage Conservation and Recreation Service 1980). This statement evaluates the impact of protecting the natural environment within a four-mile corridor along eleven rivers in Alaska, including the Fortymile River and major tributaries. No specific values were noted for the proposed Fortymile River segments.

Fortymile Management Framework Plan (BLM 1980). This plan addresses the management of a large area, including the Fortymile WSR Corridor. No specific values were noted for the proposed Fortymile River segments.

Alaska National Interest Lands Conservation Act (ANILCA) December 1980. Congress established the Fortymile Wild and Scenic River in Section 603 of ANILCA in which the WSR Act was amended to add the following paragraph: “(48) FORTYMILE, ALASKA.—The main stem within the State of Alaska; O'Brien Creek; South Fork; Napoleon Creek. Franklin Creek, Uhler Creek, Walker Fork downstream from the confluence of Liberty Creek; Wade

Creek; Mosquito Fork downstream from the vicinity of Kechumstuk; West Fork Dennison Fork downstream from the confluence of Logging Cabin Creek; Dennison Fork downstream from the confluence of West Fork Dennison Fork; Logging Cabin Creek; North Fork; Hutchison Creek; Champion Creek; the Middle Fork downstream from the confluence of Joseph Creek; and Joseph Creek; to be administered by the Secretary of the Interior.”

The values of the river were not discussed. ANILCA further directed the Secretary of the Interior to establish detailed boundaries and to prepare a management and development plan.

Fortymile River Management Plan. This document was prepared by the BLM and USFWS, December 1983. This document determined the detailed boundaries for the river corridor and established a management and development plan. While values in the river corridor were discussed, ORVs were not determined.

Pertinent statements on the values of the river in the Fortymile River Management Plan include:

- In reference to the Middle Fork below Joseph Creek: “The water quality is excellent and this section represents a truly wild river. Numerous class II rapids challenge the boater and outstanding scenic views, particularly to the south, are a feature of this section.” (page 8)
- “Glistening folded rock strata in an otherwise forested valley form especially scenic vistas in the vicinity of the two forks’ [North Fork and Middle Fork] confluence.” (page 9)
- “The Kink, located on the North Fork at mile 34.5, is a unique area in the Fortymile drainage. In 1898 a group of Danish prospectors blasted away a 100-foot rock ridge, draining a 2.8-mile long meander. The dry bed was worked for gold but proved to be poor ground, and was abandoned by 1905. While appearing an easy task to compete with today’s technology, the Kink was a major engineering feat in that time and place. It was accomplished in a relatively uncharted wilderness without benefit of any developed transportation or communication system. The area is now on the National Register of Historic Places.” (page 9)
- In reference to the lakes in the old river channel of the Kink: “These lakes are not typical of this section of the Fortymile; and, combined with the remote location, provide excellent wildlife habitat. The birdlife is particularly noticeable, with abundant waterfowl.... Peregrine falcons, and endangered species, nest in the area.” (page 9)
- “The high rock walls, rushing whitewater and somber spruce forests make the Kink a memorable stop on a float trip.... The Kink remains a significant historic, recreation and ecological resource of the Fortymile.” (page 9)
- In reference to Mosquito Fork, downstream 3 miles from the upper reaches of the designated river: “This section is quite remote, with little summer use, offering excellent opportunities for a primitive experience.” (page 10)
- In reference to Joseph Creek: “It is probably the area of the wild, scenic and recreational corridor that is most accurately a vestige of primitive America.” (page 11)

Findings for the Fortymile River

The following paragraphs evaluate the scenic, recreational, geologic, fish, wildlife, cultural, historic, and other values for the Fortymile WSR. See section E.1 Overview of the Process for a description of BLM criteria used to interpret these values.

Scenic

Evaluation of Present Situation:

The Fortymile WSR lies within the Yukon-Tanana Uplands which has a scenic quality of "A" according to BLM's VRM process. See Appendix D Visual Resource Inventory.

The Fortymile WSR uplands are characterized by appreciable topographic relief with the lowest area at approximately 1,100 feet elevation and the highest mountains between 5,000 to 6,200 feet elevation with a local relief of about 2,000 feet or greater. Terraced uplands, prominent peaks and rolling hills provide unique backdrops for many river segments.

The Mosquito Fork and the Dennison Fork flow clear water with extensive gravel and sand bars through wide river valleys with relatively low stream gradients. Relatively uniform gently rolling hills and ridges provide the backdrop to the shallow streams with small rapids and occasional pools. Ice lenses occur along the drainages providing unique opportunities to see permafrost and thermokarst formations creating contrast with the adjacent vegetated landscape, gravel bars and rock cliffs. Vegetation characteristics vary from muskeg marshes to alpine tundra. Attractive homogenous spruce forests, mixed with muskeg and mixed deciduous forests provide ever-changing stream side color and texture contrasts. These range from low mat herbaceous and shrubby plants to closed spruce-hardwood forests with black spruce and tall shrub, to more open hardwood forests with birch, aspen and associated shrub understory. Many areas show various stages of growth after wildland fires creating a stunning contrast of colors. The variety of plant communities, with different species characteristics, create a mosaic in line, color, form and texture which changes along each segment of the river system.

The headwater areas of the North Fork, Champion Creek, Joseph Creek, O'Brien Creek, Walker Fork, West Fork and Logging Cabin Creek are characterized as meandering streams that are incised in canyons with steep stream gradients. Exposed rock surfaces offer contrast with the water and surrounding vegetation from muskeg marshes to alpine tundra. Attractive spruce forests, contrast with muskeg and mixed deciduous forests provide ever-changing stream side color and texture changes. These range from low mat herbaceous and shrubby plants to forests and tall shrub. The variety of plant communities with different species characteristics create a mosaic in line, color, form and texture which changes along each segment of the river system. High rugged or terraced mountains serve as a backdrop for many of these segments.

Other segments like those along the Middle Fork, Lower North Fork, Main Stem and South Fork are characterized by deeply entrenched canyons with cut bedrock on most of their riffles interspersed in broader valleys. The average stream gradient is moderately steep but numerous small rapids formed from exposed bedrock and boulders. Larger rapids, such as the Kink, Bald Eagle, the Chute, the Falls, Claghorn and Deadman's Riffle offer challenge for float boaters and outstanding scenic views. Glistening vertical rock strata, shining white marble and colorful banded bluffs up to 400 feet high, rise from the river's edge in places contrasting with water and vegetation, from muskeg and black spruce to open hardwood forests with tall shrub. Scour holes can be seen in some areas of exposed bedrock, such as the Chute, Kink and Falls. All of these features add diversity, interest and color to the landscape.

Findings:

The Fortymile River system's presentation of diverse geological and landform values from wide valleys, stretches of bedrock outcrops, sheer cliffs, and an entrenched river system is unique

within the region. The diversity of plant communities with a variety of colors, hues and textures create contrast within itself and against adjacent landforms, geologic formations, and cultural modifications. Many of the cultural modifications blend with the landscape and add variety and points of interest to segments. The combination of geologic formations, the overall landforms and the variety of vegetation creates a mosaic of scenery that is unique on each segment and along the river system. The Middle Fork, North Fork, South Fork, Main Stem, O'Brien Creek and Walker Fork all exhibit variety, creating interest in a dramatically changing landscape as someone moves along these travel routes, resulting in an outstandingly remarkable scenic value. Though not common travel routes, Joseph Creek, Champion Creek, Mosquito Fork, West Fork, Dennison Fork, and Logging Cabin Creek also have outstandingly remarkable scenic values for the same reasons.

Recreational

Evaluation of the Present Situation:

The Fortymile WSR offers a wide range of recreation experiences in a spacious setting ranging from areas without substantial evidence of humans' activities to those areas where there may be substantial past and present activities. Ever changing vegetation and landforms offer outstanding scenery along this clear water river system.

A primitive, wildland experience is offered on a five to 10 day float trip from Joseph to the Fortymile bridge. This trip includes the Middle Fork, Lower North Fork and Main Stem. The North Fork from Slate Creek to the confluence with the Middle Fork offers a slightly different multi-day wildland, primitive experience. On either trip, floaters test their skills through a number of riffles and rapids in a remote area. Because of the system's spider web character, youthful nature and the presence of permafrost, rain induced rises in water levels can suddenly challenge floaters. A diversity of vegetative communities found along these river segments from muskeg marshes to alpine tundra provides a variety of colors and textures that enhance the overall visual quality of the recreation experience. Floaters experience solitude, a closeness with nature and a test of skills.

The West Fork float provides a shorter wildland experience with a more historical flavor for the less experienced or those seeking an easier family experience. This two to four day trip includes the West Fork, the Dennison Fork and the South Fork from the West Fork Highway bridge at Taylor Highway Mile 42 to the South Fork bridge. Past scars from wildland fires create a mosaic of color and texture from different stages of vegetative growth that adds to the experience. Floaters experience remoteness and a closeness with nature in a small group setting.

The South Fork trip offers a look into past and present mining activities on a three to five-day float or single day motorized boat trip with a few rapids for challenge. This trip includes the South Fork and the Main Stem from the South Fork bridge to the Fortymile River bridge. Floaters experience closeness with nature and a chance to explore history with family or friend groups.

The Main Stem downriver to Canada with a take-out at either Clinton Creek or Eagle via the Yukon River offers unique multi-day international float trips with many different aspects of interest. Diverse cliffs line sections of the river, past and present mining activities can be seen. Wildlife is not uncommon and a number of rapids and riffles challenge the floater. Because of the system's spider web character and the entrenched character of this segment, rain induced rises in water levels can also challenge the floater's skills. The clear water Main Stem contrasts with the glacier fed Yukon River adding a unique transition. River users experience closeness to nature, a connection to the past and a sense of isolation and independence.

Wade Creek offers an up close look at past and present mining activities. River actions over time deposited gold along ancient stream beds. These beds have been and are currently being mined. Many visitors like to try their hand at panning for gold along this segment. The main experiences for visitors are learning about the past, exploring the area, and seeing new and different things.

The historic mining district with associated dredges, cabins, tools and equipment is an attraction to many river users, including current mining activities. An interest with the past is enhanced by comparing modern operations to historic operations. Many of the historic resources blend with the surrounding landscape and provide a sense of exploration for floaters on many section of the river. Historic hunting and trapping cabins sites dot the landscape while the historic Washington-Alaska Military Cable and Telegraph System (WAMCATS) line follows Champion Creek and the section of the North Fork between Champion Creek and the Middle Fork, where the line crosses the river before heading cross-country again. Short sections of WAMCATS may be found within the corridor along Hutchinson Creek and Mosquito Fork. The Kink and old communities such as Franklin, Jack Wade, and Steele Creek, offer a chance to explore the past, enhancing the recreationists experience of gold mining and life along the river. Past or current mining activities occur along the North Fork, South Fork, Mosquito Fork, Walker Fork, Wade Creek and the Main Stem. Old dredge parts and other signs or mining activities can still be seen along these segments.

Sport fishing for grayling is fair to moderate depending on past influences to the naturalness of the river. Popular segments include the Mosquito Fork, Walker Fork, West Fork and the South Fork. The Kink also attracts anglers on a remote float trip. The Fortymile River has a variety of wildlife including moose, caribou, wolves, black and grizzly bear, lynx, fox, peregrine falcon and other raptors, all may be seen while floating the river. Some areas of Mosquito and Dennison Forks provide nesting habitat for waterfowl. While these are not ORVs, fishing and wildlife viewing enhances the overall river experience for many recreationists.

The use of the area in general and site-specific locations such as Ketchumstuk and Joseph by native peoples and more recent use by miners and trappers enhance the overall experience of exploration, learning, and contemplating the human's relationship with the land.

Pleistocene fossils may be found along some segments including the South Fork and the Main Stem. Amateur rock hounds can find a number of different metamorphic, igneous and sedimentary rocks, which are readily visible in a variety of bedrock outcrops and cliff areas. These displays of bedrock and geological features provide a diversity of backdrops, enhancing the overall river experience for many recreationists.

Finding:

The Fortymile River system is recognized regionally and nationally as an accessible, fresh-water river system with interspersed whitewater and flat water areas providing a variety of multi-day floating and camping experiences that are considered unique. The river's presentation of diverse geological values with stretches of whitewater caused by bedrock outcrops, human manipulation of the landscape, and an entrenched river system; the mix of cultural and historic values including native and non-native use; the diverse wildlife viewing opportunities and the sheer size of the system is unique within the region. The diversity of vegetation types and landform enhance the river experience. The recreational values of the Middle Fork, Lower North Fork, South Fork and Main Stem, as well as West Fork, Dennison Fork, and Wade Creek are found to be outstandingly remarkable.

Geologic

Evaluation of the Present Situation:

The Fortymile River's geomorphology distinguishes it from most rivers in the Yukon-Tanana Uplands. The upper portion of the river, particularly the Dennison, Mosquito, and Middle Forks, flow sluggishly through relatively flat, wide valleys dotted with lakes, sloughs, and marshlands. In stark contrast, the lower portion is incised in deep valleys with steep-walled canyons cut into bedrock. The canyon slopes and rapids expose intensely folded metamorphic rocks.

Signs of the regional uplifting and fluvial downcutting that produced the deep canyons can be seen numerous places on the sides of the valleys, where gravel river terraces are perched up to 750 feet above the current river level (Pinney 2001). Examples of these terraces may be seen on the South Fork from the Taylor Highway and near Steele Creek along the Main Stem and South Fork segments. Walker Fork and O'Brien Creek segments illustrate downcutting.

In many places bluffs and rapids along the river expose folded Paleozoic metamorphic rocks that have been intruded by Tertiary to Mesozoic plutons and dikes (Foster 1976). Most prominent of these are steeply tilted beds of white marble interspersed with gneiss and schist. Examples of such locations include the Chute Rapids, the Kink Rapids, the bluffs at Long Bar and upstream of the Taylor Highway bridge by O'Brien Creek, and the Canyon Rapids, located along the North Fork and Main Stem segments.

Significant amounts of placer gold have been mined from the river and at least 10 of its tributaries since the late 19th century. The history of mining in the region is discussed in more detail in the section on the river's historical resources.

The Fortymile River's usually clear water is characteristic of Interior rivers that, unlike most rivers in the state, drain terrain that did not experience extensive continental and/or alpine glaciation.

Active rockfalls and landslides, many of them related to recent wildland fire, including thawing permafrost exposed by the river, provide opportunities to observe dynamic and ongoing geologic processes typical of an Interior river.

Finding:

For the most part, the Fortymile River region is characterized by geologic features that are neither rare nor unusual in the geographic region. However, the river's geomorphology — particularly its deeply incised valleys, entrenched meanders, and high gravel terraces — is regionally distinctive and has been described as “spectacular evidence of Pleistocene and (or) Holocene downcutting” (Foster 1969). The geologic value of the Fortymile River is found to be outstandingly remarkable along the North Fork downstream from its confluence with the Middle Fork (Lower North Fork), the Main Stem, the South Fork, the Walker Fork and O'Brien Creek.

Fish Populations and Habitat

Evaluation of the Present Situation:

The Fortymile River and its tributaries have a relatively low (less than five) diversity of fish species relative to the size of the basin.

Salmon species: The ADF&G states that, dating back to the 1960s, only 16 juvenile and two adult Chinook salmon, 16 adult chum salmon and one unidentified salmon have been observed by state,

federal and private entities in the Alaskan portion of the Fortymile River (ADF&G 1999). Their conclusion is that anadromous fish runs in the Fortymile River are at the upper limit of their natural distribution and may not successfully reproduce on an annual basis partly due to marginal habitat.

Resident species: Arctic grayling are the dominant fish species in the basin but are not particularly abundant.

Habitat: The Fortymile River does not contain exceptionally high quality fish habitat. Placer mining began over one hundred years ago in the Fortymile River drainage and continues today. These activities have resulted in the reduction of available fish habitat within the drainage. Since pre-mining fisheries data are unavailable, the full extent to which mining activities have impacted fish populations in the Fortymile River basin is unknown (ADF&G 1987b). It is unlikely that mining activities adversely affected any outstanding and remarkable values for fish habitat that may have existed prior to mining.

Finding:

The Fortymile River does not contain outstanding and remarkable values for fish populations or fish habitat. At this time, there are no unique stocks or populations of State, federally listed, or candidate threatened and endangered fish species within the Fortymile River.

Wildlife Populations and Habitat

Evaluation of the Present Situation:

The Fortymile WSR supports a dense and increasing regionally important population of American peregrine falcon (*Falco peregrines anatum*). Peregrines in the Fortymile WSR nest on sheer cliff faces of up to 100 meters (109 yards), grassy bluffs broken by rock outcrops and small cliffs, and sloping, grassy bluffs that are treeless. In 2008 the distance between nest sites within the Fortymile Peregrine Falcon Monitoring Area was 3.9 river km (2.4 river miles). Densities of nests are higher in the Fortymile WSR than on the neighboring Upper Yukon and Upper Tanana rivers. The current occupancy rate of approximately 70 percent (number of Traditional Nesting Territories occupied) and the increase use of irregularly occupied territories indicates that the populations will continue to expand.

Finding:

Peregrine falcon are an outstandingly remarkable wildlife value of regional significance in the Fortymile WSR due to the high nest density and amount of available habitat providing opportunity for population increase. Even though peregrine nest throughout the river, segments with the greatest value for wildlife (peregrine falcon) are: 1) the Middle Fork, 2) the North Fork, 3) the South Fork, 4) Dennison Fork and 5) the Main Stem.

Cultural

Evaluation of the Present Situation:

There are very few known cultural, Native American, or prehistoric sites inside the river corridor (six percent of the total number of sites known). Nine of these sites are surface lithic sites associated with hunting lookout sites, one is a historic Native American burial site, and another is a buried seasonal camp site located at the confluence of Wade Creek and Walker Fork. Most of the area inside the corridor has not been surveyed intensively for prehistoric remains, and it is

likely that more sites are present and will be found in the future. An evaluation of other rivers in the region with similar topographic settings and riverine resources indicates that Native American or prehistoric sites likely to be found include additional late prehistoric short-term campsites and overlook hunting sites neither of which would be considered rare in the region. Examples of sites that may be considered rare in the region, and thus may contribute to any future re-evaluation of Fortymile River drainage cultural or prehistoric ORVs, would be caribou drive line and butchery sites, permanent or winter village sites, and fisheries (e.g., salmon) extraction or processing sites.

Finding:

At present, cultural or prehistoric archaeology is not an ORV.

Historic

Evaluation of the Present Situation:

The Fortymile River is of interest in the history of Alaska, and of eastern Interior Alaska in particular, because of its association with the first gold rush stampede in Alaska. The strike, September 1886, in the vicinity of Franklin Creek along the South Fork of the Fortymile, was the first coarse gold discovery of gold on the Yukon River or any of its tributaries. From 1886 to 1893, the Fortymile drainage in Alaska was truly the only gold producing area in the entire Yukon basin, outside of a few, much smaller camps along the Upper Yukon in Canada. Subsequent discoveries along the Yukon and its tributaries in Canada and Alaska would expand the breadth of gold mining throughout most of central Interior Alaska. Prospectors quickly fanned out in the Fortymile area following the initial discovery, locating in succession what would be the major placer gold-bearing creeks in the drainage: South Fork/Franklin Bar (1886), main stem Fortymile (1886), Franklin Creek (1886 or 1887), Walker Fork (1888), Chicken Creek (early-1890s), Canyon Creek and tributaries (early-1890s), Dome Creek (1893), Napoleon Creek (1893), Wade Creek (1895), Lost Chicken Creek (1895-96), Ingle Creek (late-1890s), Uhler Creek (early-1900s), and Buckskin Creek (early-1900s).

In response to this increased and sustained development, the Fortymile drainage in Alaska developed a series of small communities by the late-19th and early-20th centuries to meet the transportation and supply needs of the developing population at Franklin, Jack Wade, Chicken, Steele Creek, and Liberty. Much of the mining population of the Fortymile would empty back into Canada during the huge stampede following the 1896 discovery of gold up the Klondike River, only to drift back again over the next few years following the subsequent demographic saturation of that area. The Fortymile has seen near-continuous placer gold mining since its date of discovery up to the present time.

In terms of the physical remains of these activities, about 170 historic sites are present within the confines of the Fortymile WSR Corridor, the vast majority of them related to mining during the late-19th and first half of the 20th centuries. They cover all manner of site types, including historic trails, portions of the WAMCATS along with buildings and structures associated with that system, gold dredges and associated camps, miners' log cabins and adjacent worked ground, small abandoned communities, isolated boilers and other large mining equipment, trappers' log cabins, woodchoppers' cabins, airstrips, roadhouses, and several cemeteries and isolated graves.

Of particular note, the following abandoned communities are located on BLM-managed lands inside the corridor: Steele Creek, along the main stem Fortymile River; Franklin, at the mouth of Franklin Creek on the South Fork; and Jack Wade, along Wade Creek. Also, two sites inside the

corridor are currently on the National Register of Historic Places: (1) the Kink, a cultural channel blasted through a ridge of land by miners on the North Fork in the early-20th century to divert the river for placer operations, and (2) the Steele Creek Roadhouse, a log building on the main stem of the Fortymile River built to provide shelter for travelers and to supply the local mining population. Other sites have also been found eligible to be nominated to the Register through consultation with the State Historic Preservation Office, but have not been through the formal nomination process. There is also an intact portion of the WAMCATS telegraph line, built by the Army's Signal Corps between 1900-1904, found down Champion Creek to its mouth, and from there down a portion of the North Fork, including tripods that held up the wire cross-country, and several telegraph posts and stations.

Not surprisingly, the greatest numbers of sites in the corridor are located on the creeks that received the most attention from mining activities over the past 125 years. Those creeks that are part of the Fortymile Wild and Scenic River corridor that have the greatest density of such sites include the main stem Fortymile River, the South Fork, the North Fork, Napoleon Creek, Uhler Creek, and Wade Creek. Hutchinson Creek can be added to this list. Historically, Hutchinson itself did not contain large amounts of placer gold, but two of its tributaries did, Confederate and Montana creeks. As a result, Hutchinson itself has an outstanding quantity of historic mining sites along its length owing to the large amount of prospecting that occurred along it, and the fact that it was never disturbed by subsequent large-scale mining operations.

Finding:

The historic sites found inside the following portions of the Fortymile WSR Corridor have outstanding remarkable historical values: (1) the Main Stem, (2) the South Fork, (3) the North Fork, (4) Napoleon Creek, (5) Uhler Creek, (6) Wade Creek, (7) Hutchinson Creek, (8) Franklin Creek, and (9) Champion Creek.

Other Similar Values

Evaluation of the Present Situation:

The Fortymile River is the largest of the northerly flowing tributaries to the Yukon River in this area and drains about one-sixth of the Yukon-Tanana region. It is an international river with the lower 20 miles flowing easterly through the Yukon Territory, Canada, to its confluence with the Yukon River approximately midway between Dawson, Yukon Territory, and Eagle, Alaska. Water quality, chemistry and color characteristics of the Fortymile River and its tributaries are similar to those commonly found in other Interior Alaska rivers.

Finding:

Field observations by the interdisciplinary planning team and reviews of selected references support the finding that there are no ORVs associated with the hydrologic features of the Fortymile WSR Corridor.

Conclusion:

The ORVs for the Fortymile WSR are listed in the following table in alphabetical order by river segment.

Table E.4. Outstandingly Remarkable Values for the Fortymile River

Segment	Start Upstream	End Downstream	Outstandingly Remarkable Values
Champion Creek	FM, T. 4S., R. 30E., Sec. 1, headwaters	Confluence with North Fork	Scenic, Historic
Dennison Fork	Confluence with West Fork	Confluence with South and Mosquito Fork	Scenic, Recreation, Wildlife
Fortymile River (Main Stem)	Confluence with North and South Forks	Alaska-Yukon Territory Border	Scenic, Recreation, Geologic, Historic, Wildlife
Franklin Creek	CRM, T. 28N., R. 17E., Sec. 31; CRM, T. 28N., R. 18E., Sec. 36, headwaters	Confluence with West Fork	Historic
Hutchinson Creek	FM, T. 7S., R. 28E., Sec. 31, headwaters	Confluence with North Fork	Historic
Joseph Creek	FM, T. 5S., R. 21E., Sec 33, headwaters	Confluence with Middle Fork	Scenic
Logging Cabin Creek	CRM, T. 22N., R. 16E., Sec. 11, headwaters	Confluence with West Fork of Dennison Creek	Scenic
Napoleon Creek	CRM, T. 27N., R. 19E., Sec. 1, headwaters	Confluence with South Fork	Historic
Middle Fork	Confluence with Joseph Creek	Confluence with North Fork	Scenic, Recreation, Wildlife
Mosquito Fork	Confluence with Kechumstuk Creek	Confluence with Dennison Fork	Scenic
Upper North Fork	Confluence with Slate and Independence Creeks	Confluence with Middle Fork	Scenic, Historic, Wildlife
Lower North Fork	Confluence with Middle Fork	Confluence with Main Stem	Scenic, Recreation, Geologic, Historic, Wildlife
O'Brien Creek	Confluence with King Solomon Creek and Liberty Fork	Confluence with Main Stem	Scenic, Geologic
South Fork	Confluence with Mosquito and Dennison Forks	Confluence with North Fork and Main Stem	Scenic, Recreation, Geologic, Historic, Wildlife
Uhler Creek	FM, T. 8S., R. 31W., Sec. 24, headwaters	Confluence with South Fork	Historic
Wade Creek	Confluence with Grace and Warner Creeks	Confluence with Walker Fork	Recreation, Historic
Walker Fork	Downstream of Liberty Creek	Confluence with South Fork	Scenic, Geologic
West Fork	Confluence with Logging Cabin Creek	Confluence with Dennison Fork	Scenic, Recreation

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**Appendix F. Wilderness Characteristics
Inventory**

Appendix F. Wilderness Characteristics Inventory

F.1. Introduction

BLM's Land Use Planning Handbook H-1601-1 requires that the BLM identify decisions related to areas with wilderness characteristics. The Eastern Interior Field Office conducted an inventory to determine lands with wilderness characteristics in the Eastern Interior Planning Area (BLM 2011a). This appendix summarizes the methodology and results of the inventory, which is incorporated by reference into the RMP/EIS. Maps of inventory units are available in BLM's Fairbanks District Office.

F.1.1. Methodology

All BLM-managed lands addressed in the RMP/EIS were inventoried for wilderness characteristics following the policy established by BLM I.M. 2011-054. To be identified during the inventory process as having wilderness characteristics, lands must:

- Be a roadless area of sufficient size as to make practicable its preservation and use in an unimpaired condition;
- Generally appear to have been affected primarily by the forces of nature; and,
- Have outstanding opportunities for solitude, or a primitive and unconfined type of recreation.

The BLM used in-house expertise to assess whether or not specific lands possess wilderness characteristics. The BLM will also rely on public comments obtained on the Draft RMP/EIS to bring forth other sources of knowledge to potentially modify the inventory.

If the wilderness characteristics criteria listed above are met, the following facilities, activities and uses consistent with ANILCA may occur in areas having wilderness characteristics: public use cabins; administrative sites and visitor facilities; temporary facilities and equipment for hunting, fishing, and camping; airplane use and landings; and motorboat, snowmobile, and all-terrain motor vehicle use. The critical question to consider is not whether these facilities, activities or uses exist in the relevant tract, but whether they singly or in combination with other factors have altered the character of the land from one that "generally appears to have been affected primarily by the forces of nature" and precludes the land from having "outstanding opportunities for solitude and/or a primitive and unconfined type of recreation." In general, substantial active or remnant evidence of mining or oil and gas extraction facilities, above-ground pipelines or powerlines, intensive recreational developments, and similar intrusions on the land may render such lands as inappropriate for identification in the inventory stage as having wilderness characteristics.

Within each of the four planning subunits (Fortymile, Steese, Upper Black River, and White Mountains), inventory units were identified, using known areas of significant disturbance as boundaries (such as roads, mining activity). In areas containing less significant disturbance, management boundaries (such as Special Recreation Management Areas, Wild and Scenic River Corridors, and land ownership boundaries) were used.

The first step was to determine if the inventory unit meet the 5,000 acre size criteria. Units of less than 5,000 acres could be considered if they meet one of the following exceptions:

- They are contiguous with lands which have been formally determined to have wilderness or potential wilderness values, or any federal lands managed for the protection of wilderness characteristics.
- It is demonstrated that the area is of sufficient size as to make practicable its preservation and use in an unimpaired condition.

If the inventory unit did not meet the size criteria no further evaluation was done. If the unit met the size criteria, then naturalness was considered.

To meet the naturalness criterion, human disturbance must be substantially unnoticeable and the area must retain its natural character. An area may include some human impacts if they are substantially unnoticeable in the area as a whole. Apparent naturalness refers to whether or not an area looks natural to the visitor who is not familiar with the biological composition of natural ecosystems.

If the inventory unit was found not to possess naturalness, no further evaluation was done. If the inventory unit was determined to possess naturalness, then opportunities for solitude or a primitive and unconfined type of recreation were evaluated. The area does not need to possess outstanding opportunities for both elements and does not need to have outstanding opportunities on every acre.

If it was determined that an area met the criteria of size, naturalness, and had either outstanding opportunities for solitude or Primitive recreation, it was concluded that the inventory unit possesses wilderness characteristics.

Supplemental values are ecological, geological, or other features of scientific, educational, scenic, or historical value. Supplemental values are not required to be present to classify an area as lands with wilderness characteristics, but their presence was documented and taken into account where they were known to exist in units determined to have wilderness characteristics.

F.2. Results of Inventory

The following tables summarize wilderness characteristics inventory results for each planning subunit.

Table F.1. Fortymile Subunit Wilderness Characteristics Inventory Results

Unit Name and Number	Size (acres)	Meets size criteria	Is Natural	Solitude or Primitive Recreation	Special Values	Conclusion
South Fortymile, AKF020-143	855,464	Yes	Yes	Yes	Fortymile caribou calving and postcalving habitat	Has wilderness characteristics
Central Fortymile, AKF020-103	135,157	Yes	Yes	Yes	Fortymile caribou calving and postcalving habitat	Has wilderness characteristics
North Fortymile Area, AKF020-137	426,099	Yes	Yes	Yes	Fortymile caribou calving and postcalving habitat; ungulate mineral licks	Has wilderness characteristics
North Fortymile River, AKF020-138/139	129,728	Yes	Yes	Yes	Fortymile caribou calving and postcalving habitat	Has wilderness characteristics
East Fortymile, AKF020-111	69,215	Yes	Yes	Yes	None known	Has wilderness characteristics
Washington Creek, AKF020-170	43,296	Yes	Yes	Yes	None known	Has wilderness characteristics
Mosquito Fork, AKF020-134	20,296	Yes	Yes	Yes	Outstanding scenic and recreational values	Has wilderness characteristics
Dennison Fork Area, AKF020-108	17,058	Yes	Yes	Yes	Outstanding scenic and recreational values; peregrine nesting habitat	Has wilderness characteristics
Fortymile River, AKF020-120	28,049	Yes	Yes	Yes	Outstanding scenic, recreation, geologic, historic, and wildlife values	Has wilderness characteristics
South Fork Fortymile River, AKF020-143	48,857	Yes	Yes	Yes	Outstanding scenic, recreation, geologic, historic, and wildlife values	Has wilderness characteristics
Yukon-Charley Rivers Parcels, AKF020-123/172/173	6,130	Yes, contiguous with NPS	Yes	Yes	Fortymile caribou calving and postcalving habitat	Has wilderness characteristics
Fortymile Subunit Scattered Parcels ^a	255,600	Yes	Yes	Yes	Fortymile caribou calving and postcalving habitat	Has wilderness characteristics
Logging Cabin Creek (Upper and Lower), AKF020-130/132	6,300	Yes	No	N/A	N/A	No wilderness characteristics
Dome Creek (Upper and Lower), AKF020-165/131	1,684	Yes	No	N/A	N/A	No wilderness characteristics
Tetlin Area, AKF020-153	5,300	Yes	No	N/A	N/A	No wilderness characteristics
Hutchinson Creek Mining Claims, AKF020-128	394	Yes	No	N/A	N/A	No wilderness characteristics

Unit Name and Number	Size (acres)	Meets size criteria	Is Natural	Solitude or Primitive Recreation	Special Values	Conclusion
Walker Fork, AKF020-169	1,501	No	N/A	N/A	N/A	No wilderness characteristics
Wade Creek, AKF020-167	2,852	No	N/A	N/A	N/A	No wilderness characteristics
Fortymile Non-contiguous Parcels ^b	21,154	No	N/A	N/A	N/A	No wilderness characteristics
Fortymile Mining Claims ^c	1,785	No	No	N/A	N/A	No wilderness characteristics

^aIncludes the following inventory units: AKF020-100/112/124/125/127/142/171

^bIncludes the following inventory units: AKF020-101/102/105 to 107/109/110/113 to 119/126/129/133/140/141/145/224/147 to 152/154 to 163/166

^cInlcude the following inventory units: AKF020-104/121/122/136/144/164/168

Table F.2. Steese Subunit Wilderness Characteristics Inventory Results

Unit Name and Number	Size (acres)	Meets size criteria	Is Natural	Solitude or Primitive Recreation	Special Values	Conclusion
North Steese, AKF020-219	522,379	Yes	Yes	Yes	Mount Prindle RNA; ungulate mineral licks; Dall sheep habitat; Pinnell Mt. Trail	Has wilderness characteristics
Wolf Creek, AKF020-233	496,803	Yes	Yes	Yes	Fortymile caribou calving and postcalving habitat; ungulate mineral licks; Big Windy Hot Springs RNA.	Has wilderness characteristics
Birch Creek, AKF020-202	87,400	Yes	Yes	Yes	Outstanding scenic, recreational and fisheries values	Has wilderness characteristics
North Birch Creek, AKF020-217	117,034	Yes	Yes	Yes	None known	Has wilderness characteristics
Circle Area Units, AKF020-202/203/212	40,060	Yes	Yes	Yes	None known	Has wilderness characteristics
Harrison Creek, AKF020-215	6,041	Yes	Yes	Yes	None known	Has wilderness characteristics
Harrison Creek Road, AKF020-216	514	No	No	N/A	N/A	No wilderness characteristics
Clums-Volcano Mines, AKF020-210	270	No	No	N/A	N/A	No wilderness characteristics
Bachelor Creek Mines, AKF020-201	137	No	No	N/A	N/A	No wilderness characteristics
Fryingpan Creek, AKF020-214	77	No	No	N/A	N/A	No wilderness characteristics
Fourteen Mile Creek -Yukon River South, AKF020-213	1,280	No	N/A	N/A	N/A	No wilderness characteristics
Steese Scattered Parcels and Mining Claims outside of the Steese NCA ^a	4,968	No	N/A	N/A	N/A	No wilderness characteristics

^aIncludes the following inventory units: AKF020-205 to 209/211/218/225 to 232

Table F.3. Upper Black River Subunit Wilderness Characteristics Inventory Results

Unit Name and Number	Size (acres)	Meets size criteria	Is Natural	Solitude or Primitive Recreation	Special Values	Conclusion
Black River, AKF020-300	2,230,888	Yes	Yes	Yes	Nesting bald eagles in Salmon Fork	Has wilderness characteristics
Upper Kevinjik Creek, AKF020-305	49,776	Yes	Yes	Yes	None known	Has wilderness characteristics
Black River Scattered Parcels, AKF020-301/303/304/306	76,918	Yes	Yes	Yes	None known	Has wilderness characteristics
East Central-Big Creek, AKF020-302	3,840	No	N/A	N/A	N/A	No wilderness characteristics

Table F.4. White Mountains Subunit Wilderness Characteristics Inventory Results

Unit Name and Number	Size (acres)	Meets size criteria	Is Natural	Solitude or Primitive Recreation	Special Values	Conclusion
White Mountains, AKF020-418	1,014,463	Yes	Yes	Yes	Outstanding scenic, geologic, recreational, fisheries and wildlife values on Beaver Creek; Dall sheep habitat; Limestone Jags, Mount Prindle and Serpentine Slide RNAs.	Has wilderness characteristics
Nome Creek Valley, AKF020-411/412/413/414/417	1,741	No	No	N/A	N/A	No wilderness characteristics
Recreation Withdrawals, AKF020-400/415/416	538	No	N/A	N/A	N/A	No wilderness characteristics
White Mountains Scattered Parcels and Mining Claims ^a	3,495	No	N/A	N/A	N/A	No wilderness characteristics
Wickersham Trailhead, AKF020-419	45	No	N/A	N/A	N/A	No wilderness characteristics

^aInclude the following inventory units: AKF020-401 to 410

Appendix G

Land Tenure

Appendix G. Land Tenure

G.1. Land Tenure Adjustment Criteria

In accordance with the Federal Land Policy and Management Act (FLPMA) and other laws, Executive Orders, and Departmental and BLM policy, the following factors will be considered in evaluating opportunities for disposal or acquisition of lands or interests in lands. This list is not considered all inclusive, but represents the major factors to be considered.

General Land Tenure Adjustment Evaluation Factors

- Improves manageability of specific areas.
- Maintains or enhances important public values and uses.
- Consolidates federal mineral estate or reunites split surface and mineral estates.
- Facilitates development of energy and mineral potential.
- Reduces difficulty or cost of public land administration. Provides accessibility to land for public recreation and other uses.
- Amount of public investments in facilities or improvements and the potential for recovering those investments.
- Suitability of land for management by another federal agency.
- Significance of decision in stabilizing or enhancing business, social, and economic conditions, or lifestyles.
- Meets long-term public management goals.
- Facilitates National, State, and local BLM priorities or mission statement needs.
- Consistent with cooperative agreements and plans or policies of other agencies.
- Facilitates implementation of other aspects of the approved resource management plans.

Acquisition Criteria

- Secures lands adjacent to other Zone 1 lands.
- Facilitates access to public land and resources retained for long-term public use.
- Secures Threatened or Endangered or Sensitive plant and animal species habitat.
- Protects riparian areas and wetlands.
- Contributes to biodiversity.
- Protects high-quality scenery.
- Enhances the opportunity for new or emerging public land uses or values.
- Facilitates management.
- Protects significant cultural resources and sites eligible for inclusion on the National Register of Historic Places Provides land for BLM administrative sites.

Disposal Criteria

- Lands of limited public value.
- Widely scattered parcels which have no significant values and are difficult for the BLM to manage beyond custodial administration.
- Lands with high public values for proper management by other federal agencies, or state and local government.
- Land that would aid in aggregating or repositioning other public lands or public land resource values where the public values to be acquired outweigh the values to be exchanged.

G.2. Zone Definitions

Zone 1 – Retention and Acquisition

Retain lands in Zone 1 under BLM administration. Consider acquisition of inholdings in Zone 1 areas, from willing landowners, using the appropriate acquisition authority. Acquired lands would be managed the same as surrounding lands after acquisition. Lands in Zone 1 include:

- National Landscape Conservation System designated lands;
- National Recreation Areas;
- National Recreation Trails;
- Areas of critical environmental concern;
- Research natural areas;
- Developed recreation and administrative sites;
- Designated critical habitat for threatened or endangered species.

Zone 2- Suitable for Consolidation

Lands in Zone 2 will be available for acquisition and disposal, including exchange, to enhance public resource values, improve management capabilities, or reduce the potential for land use conflict. For example: Native- and State-selected lands that are not conveyed and relinquishment of lands under withdrawal by federal agencies may result in isolated parcels. Zone 2 lands consist of all lands not listed in the descriptions of Zone 1 and Zone 3 lands.

Zone 3- Suitable for Disposal

Lands in Zone 3 will be available for disposal. These lands will include but are not limited to those parcels or areas listed below, in Table G.1, “Potential Zone 3 Lands in the Planning Area, Fortymile Subunit ”

- Lands that are either not practical to manage, or are uneconomical to manage (because of their intermingled location and nonsuitability for management by another federal agency).
- Federal mining claims, that are outside of Zone 1 lands and outside of large blocks of BLM-managed lands, that become null and void.
- Survey hiatuses (gap or space unintentionally left, when describing adjoining parcels of land).
- Encroachments (trespass or intrusion onto another’s property).
- Lands subject to PLO 1613 (Alaska highway right-of-way adjustments).
- Reserved federal interests in split-estate lands may be considered for conveyance out of federal ownership.

G.3. Zone 3 Lands

The table below describes currently know Zone 3 lands. Zone 3 lands include but are not limited to the parcels described in the table. Many of these parcels are State- or Native-selected. If they are not conveyed, they would be available for disposal.

Table G.1. Potential Zone 3 Lands in the Planning Area, Fortymile Subunit

Legal Location	Selection Status	Other Comments
Copper River Meridian		
T. 14 N., R. 20 E., Secs. 1, 2, 11, 12, and 13 (3,200 acres ^a)	State selection	Low priority selection

Legal Location	Selection Status	Other Comments
T. 18 N., R. 12 E., Sec. 25, S ½ SW and SWSE; Sec. 36 NWNE (40 acres)	Village selection, F-14943-B and State selection F-024798	No selection priority indicated
T. 18 N., R. 13 E., Sec. 31, W ½ W ½, (40 acres)	State selection F-27600	Low priority selection
T. 20 N., R. 10 E., Secs. 14, 22, 27, and 34 (2,560 acres)	Village selection, F-14943-B with state topfiling	Lake Mansfield has been conveyed under Interim Conveyance 1508.
T. 21 N., R. 8 E., Sec. 35 (640 acres)	Regional corporation selection F-22481 with state topfiling	
T. 21 N., R. 8 E., Sec. 6 (640 acres)	Village selection, F-14852-B	
T. 23 N., R. 7 E., Sec. 35 (640 acres)	Regional corporation selection F14852-B with state topfiling	
T. 24 N., R. 5 E., Sec. 31 (744 acres)	Regional corporation selection F14852-B with state topfiling	
T. 18 N., R. 11 E., Portions of Sections 3, 4, 8, 9, and 10 (3,400 acres)	State topfiled, low priority	U.S. Survey 2631, known as Tanacross Airfield
T. 18 N., R. 11 E., Lot 5 of USS 2631 (100 acres)	State topfiled, low priority	PLO 1768, Tanacross Fire Control Station administrative site
T. 18 N., R. 11 E., Sec. 12, Lot 5 (90 acres)	State topfiled, low priority	Known as the Tank Farm, under General Services Administration, PLO 1887 (Department of Army)
T. 15 N., R. 12 E., Sections 28-33 with portions of 27 and 34 within Tract A (12,500 acres)	State topfiled on all of Tract A, low priority	Withdrawn for ANCSA Sec. 14 (h) selection
T. 15 N., R. 8 E., Sections 1-27 and 31-34 (19,000 acres)	State topfiled	Withdrawn for ANCSA Sec. 14 (h) selection; Township on the south is interim conveyed.
Fairbanks Meridian		
T. 1 S., R. 16 E., Sec. 24 NW (160 acres)	Withdrawn for Village/Regional Corporation selection by PLO 5563	Known as Salcha East Hot Springs
T. 9 S., R. 10 E., Sec. 3 SW (160 acres)		Withdrawn under PLO 5190 for a Utility Corridor
T. 10 S., R. 10 E., Sec. 2 SWNW, SENW, W ½ SW and S ½ SWSW (80 acres)	State selection	Withdrawn under PLO 5190
T. 10 S., R. 10 E., Sec. 3 Lots 13, 14 (PLO 5190) and 10, 11, 12, 15, 50, 53 and 55 (50 acres)	State selection	
T. 10 S., R. 10 E., Sec. 11 NESE, S ½ SWSW (60 acres)	State selection	
T. 10 S., R. 10 E., Sec. 23 USS 3293: Blocks 1, 8, 15, 16, 17, 18, and 19 (100 acres)	State selection	Federal, school or park reserves surveyed for Big Delta townsite platting
Abbreviations: NE (northeast quarter); NW (northwest quarter); SE (southeast quarter); SW (southwest quarter).		

^aall acres are approximate

Appendix H
Recreation
Management Zones

Appendix H. Recreation Management Zones

Chapter 2 of the RMP delineates Recreation Management Zones (RMZs) within each Special Recreation Management Area. The tables in this appendix provide additional information on how each RMZ would be managed.

Each RMZ would have the following characteristics:

1. Serve a different recreation niche within the primary recreation market;
2. Produce a different set of recreation opportunities and facilitate the attainment of different experience and benefit outcomes (to individuals, households and communities, economies, and the environment);
3. Require a different set of recreation provider actions to meet strategically-targeted primary recreation market demand; and,
4. Has distinctive recreation setting character as described in the Recreation Opportunity Spectrum (ROS) (Table 2.4, "Recreation Setting Decision Matrix for the Eastern Interior Planning Area").

For each RMZ, the following implementation decisions would be made:

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1. Identify the corresponding recreation niche to be served;
2. Write explicit recreation management objectives for the specific recreation opportunities to be produced and the outcomes to be attained (activities, experiences, and benefits);
3. Prescribe recreation setting character conditions required to produce recreation opportunities and facilitate the attainment of both recreation experiences and beneficial outcomes, as targeted above (the Recreation Opportunity Spectrum is one of the existing tools for both describing existing setting character and prescribing desired setting character); and,
4. Briefly describe an activity planning framework that addresses the recreation management, marketing, monitoring, and administrative support actions (e.g., visitor services, permits and fees, recreation concessions, and appropriate use restrictions) necessary to achieve the recreation management objectives and setting prescriptions.

The following sections include tables that depict the four recreation decisions that would be made for each RMZ. Those RMZs that have management common to more than one alternative are only discussed under the first alternative in which they occur.

H.1. Fortymile Special Recreation Management Area

The Fortymile Special Recreation Management Area (SRMA) includes up to ten RMZs. The number and boundaries of RMZs vary by alternative, as does the management. Specific management for each RMZ, by alternative, is described in the following sections.

H.1.1. Fortymile Alternative B

The following tables outline management decisions and objectives for each RMZ in Alternative B. The Fortymile SRMA includes lands outside the Fortymile WSR Corridor and is divided into the following RMZs, displayed on Map 41.

- RMZ 2, North Fork Fortymile
- RMZ 3, Mosquito Fork Fortymile

- RMZ 4, Fortymile
- RMZ 5, West Fork Fortymile
- RMZ 8, Wade Creek
- RMZ 9, Chicken
- RMZ 10, Eagle

4.1.1. Fortymile Special Recreation Management Area

The Fortymile Special Recreation Management Area (SRMA) includes the following RMZs: RMZ 4, RMZ 5, RMZ 8, RMZ 9, and RMZ 10. The purpose of this SRMA is to provide for the management, protection, and enhancement of the recreational resources within the area.

4.1.1.1. Fortymile Alternative B

The following table outlines the management decisions and objectives for each RMZ in Alternative B. The Fortymile SRMA includes the following RMZs: RMZ 4, RMZ 5, RMZ 8, RMZ 9, and RMZ 10.

RMZ	Management Decision	Objective
RMZ 4
RMZ 5
RMZ 8
RMZ 9
RMZ 10

Table H.1. Alternative B, North Fork Fortymile, Recreation Management Zone 2

Fortymile SRMA - RMZ 2 -North Fork Fortymile		
Primary Market Strategy		Undeveloped
Primary Market		Alaska Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Semi-Primitive Interior Alaska river setting, on one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a "moderate" realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Float boating, river camping</p> <p>Secondary: Trapping, snowmobiling, hunting</p>	<p>Primary: Escaping crowds, experiencing solitude, enjoying the sights, sounds and smells of nature, experiencing adventure</p> <p>Secondary: Testing your abilities</p>	<p>Personal: Enhanced sense of personal freedom, enhanced sense of competence, greater sense of adventure</p> <p>Community/Social: Heightened awareness of the natural world</p> <p>Environmental: Reduced negative human impacts such as litter, vegetative trampling, and unplanned trail construction</p>
SETTING CHARACTER DECISION - SEMI-PRIMITIVE		
IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage these waterways for non-motorized float boating and dispersed river camping opportunities. Emphasis would be placed on providing Semi-Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to Alaska float boaters seeking a Semi-Primitive river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts to the river environment by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities, experiences and outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a) . Airboat, hovercraft, and personal watercraft use would not be allowed on "wild" non-navigable segments of the river. <u>General:</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purpose of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.2. Alternative B, Mosquito Fork Fortymile, Recreation Management Zone 3

Fortymile SRMA - RMZ 3 -Mosquito Fork Fortymile		
Primary Market Strategy		Undeveloped
Primary Market		Local Trappers
NICHE DECISION		
The recreation niche for this zone would be to provide trapping opportunities for users who desire an experience characterized by self-reliance and challenge in a Semi-Primitive Interior Alaska river setting, with access to one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche design listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a "moderate" realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Trapping Secondary: Snowmobiling, Hunting	Primary: Escaping crowds, experiencing solitude, experiencing adventure Secondary: Testing your ability	Personal: Enhanced sense of personal freedom, better understanding of wildlife's contribution to my own quality of life, greater sense of adventure Community/Social: Enlarged sense of community dependency on public lands Economic: More positive contributions to local/regional economy
SETTING CHARACTER DECISION - SEMI-PRIMITIVE		
IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage this zone for local trapping opportunities. Emphasis would be placed on providing Semi-Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to local trappers seeking a Semi-Primitive experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Tread Lightly and Leave No Trace programs.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities, experiences and outcomes. <u>OHV Designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Airboat, hovercraft, and personal watercraft use would not be allowed on "wild" non-navigable segments of the river. <u>General:</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.3. Alternative B, Fortymile, Recreation Management Zone 4

Fortymile SRMA - RMZ 4 - Fortymile		
Primary Market Strategy		Undeveloped
Primary Market		Alaska Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge, and risk in a Backcountry Interior Alaska river setting, on one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Float boating; river camping Secondary: Fishing; hunting; trapping; snowmobiling; OHV Use	Primary: Escaping crowds; experiencing solitude; enjoying the sights, sounds and smells of nature; experiencing adventure Secondary: Having time to reflect	Personal: Greater connection with nature; Improved outlook on life; Increased self-confidence Community/Social: Greater awareness of minimal impact recreation Environmental: Increased awareness and protection of natural landscapes Economic: More positive contributions to local/regional economy
SETTING CHARACTER DECISION - BACKCOUNTRY IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Backcountry classification. The primary focus would be to manage these waterways for float boating and river camping opportunities. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, providing some facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to Alaska float boaters seeking a Backcountry river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts to the river environment by promoting the principles of the Tread Lightly and Leave No Trace programs.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes. OHV designation = <u>LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only (Map 51). A permit or Plan of Operations would be required for all other OHV use. Aircraft, motorboats, airboats, hovercraft and personal watercraft use would be generally unrestricted. <u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.4. Alternative B, West Fork Fortymile, Recreation Management Zone 5

Fortymile SRMA - RMZ 5 -West Fork Fortymile		
Primary Market Strategy	Undeveloped	
Primary Market	Alaska Float Boaters	
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge, and risk in a Backcountry Interior Alaska river setting, on one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Float boating; river camping</p> <p>Secondary: Fishing; Hunting; Trapping; Snowmobiling; OHV use</p>	<p>Primary: Escaping crowds; Experiencing solitude; Enjoying the sights, sounds and smells of nature; Experiencing adventure</p> <p>Secondary: Having time to reflect</p>	<p>Personal: Greater connection with nature; Improved outlook on life; Increased self-confidence</p> <p>Community/Social: Greater awareness of minimal impact recreation</p> <p>Environmental: Increased awareness and protection of natural landscapes</p> <p>Economic: More positive contributions to local/regional economy</p>
SETTING CHARACTER DECISION - BACKCOUNTRY		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Backcountry classification. The primary focus would be to manage for float boating and dispersed river camping opportunities. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, providing some facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to Alaska float boaters seeking a Backcountry river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Tread Lightly and Leave No Trace programs.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only (Map 51). A permit or Plan of Operations would be required for all other OHV use. Aircraft, motorboats, airboats, hovercraft and personal watercraft use would be generally unrestricted. . General Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.5. Alternative B Wade Creek, Recreation Management Zone 8

Fortymile SRMA - RMZ 8-Wade Creek		
Primary Market Strategy	Community	
Primary Market	International, National, Regional, State and Local Users	
NICHE DECISION		
The recreation niche for this zone would be to provide high quality scenic driving and cultural and historical appreciation opportunities for a variety of users in a partially modified Frontcountry setting, in an area well known for its high concentrations of mineral deposits, such as gold.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Scenic Driving Secondary: Developed camping; Hiking/walking; Gold panning (hobby mineral collecting); Snowmobiling; OHV use	Primary: Connecting with history; Experiencing new and different things; Spending time with family and friends; Getting away from the usual demands of life Secondary: Having time to reflect; Relieving stress	Personal: Improved outdoor knowledge; Greater connection with nature; Enhanced sense of personal freedom Community/Social: Heightened awareness of the natural world Environmental: Increased awareness and protection of natural landscapes Economic: More positive contributions to local/regional economy
SETTING CHARACTER DECISION - FRONTCOUNTRY		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for scenic driving and cultural and historical appreciation opportunities. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, providing improved yet modest facility development and visitor services, routine social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Frontcountry experience. Establish a relationship with stakeholders to maintain positive contributions to the local and regional economy.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities, and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only (Map 51). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.6. Alternative B, Chicken, Recreation Management Zone 9

Fortymile SRMA - RMZ 9-Chicken		
Primary Market Strategy		Undeveloped
Primary Market		International, National, Regional, and State Scenic Drivers
NICHE DECISION		
The recreation niche for this zone would be to provide scenic driving and historic and cultural appreciation opportunities for users who desire a Middlecountry recreation experience characterized by increased modifications to the landscape with access to a historic mining region located in east Alaska's Interior, in an area well known for its unique tourism opportunities.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Scenic driving, Cultural/historic appreciation</p> <p>Secondary: Developed camping, float boating, Snowmobiling, OHV Use</p>	<p>Primary: Enjoying the scenery and natural landscapes</p> <p>Secondary: Spending time with family and friends; experiencing new and different things</p>	<p>Personal: Improved outlook on life</p> <p>Community/Social: Greater protection of cultural history sites; improved family bonding</p> <p>Environmental: Sustainability of communities historical and cultural heritage</p> <p>Economic: More positive contributions to local/regional economy; Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</p>
SETTING CHARACTER DECISION - MIDDLECOUNTRY		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage this zone for scenic driving opportunities related to cultural and historic appreciation. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet generally naturally-appearing landscape, and by providing moderate levels of facility development, visitor services and social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Middlecountry experience. Establish a relationship with stakeholders to maintain the sustainability of the community's historic and cultural heritage.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only (Map 51). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted.</p> <p><u>General Fire pans and portable toilets</u> would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.7. Alternative B, Eagle, Recreation Management Zone 10

Fortymile SRMA - RMZ 10-Eagle		
Primary Market Strategy	Community	
Primary Market	International, National, Regional, State and Local Users	
NICHE DECISION		
The recreation niche for this zone would be to provide high quality cultural and historical appreciation opportunities for a variety of users in a developed setting at Fort Egbert, one of east Alaska's only National Historic Sites.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Cultural/historic appreciation</p> <p>Secondary: Developed camping; Hiking/walking; photography; Snowmobiling; OHV use</p>	<p>Primary: Experiencing cultural history</p> <p>Secondary: Spending time with family and friends; Enjoying the sights, sounds, and smells of nature</p>	<p>Personal: Improved outdoor knowledge; Improved mental health; Greater connection with nature</p> <p>Community/Social: Greater protection of cultural history sites</p> <p>Environmental: Greater protection of area historic structures and sites</p> <p>Economic: Increased local tourism revenue</p>
SETTING CHARACTER DECISION - RURAL		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Rural classification. The primary focus would be to manage this zone for cultural and historic appreciation opportunities. Emphasis would be placed on providing Rural recreation experiences by maintaining the substantially modified landscape, providing significant facility development and visitor services, a significant level of social encounters, restricted mechanized/motorized use, and significant administrative presence.	
Marketing	Provide outreach to international, national, regional, state and local users seeking a Rural setting. Establish a relationship with stakeholders to achieve greater protection of cultural history sites.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Rural recreation opportunities, and targeted outcomes.</p> <p>OHV designation = <u>LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only (Map 51). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. .</p> <p>General Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

H.1.2. Fortymile Alternative C

The following tables outline management decisions and objectives for each RMZ in the Fortymile SRMA under Alternative C. Under this alternative, the SRMA only includes lands within the Fortymile WSR Corridor. The SRMA is divided into nine RMZs under this alternative, thus the numbering of the RMZs is not consecutive. Alternative C includes the following RMZ (Map 42):

- RMZ 1, Middle Fork Fortymile
- RMZ 3, Mosquito Fork (Same as Alternative B, Table H.2, “Alternative B, Mosquito Fork Fortymile, Recreation Management Zone 3”)
- RMZ 4, Fortymile
- RMZ 5, West Fork Fortymile
- RMZ 6, Logging Cabin Creek
- RMZ 7, O'Brien Creek
- RMZ 8, Wade Creek
- RMZ 9, Chicken
- RMZ 10, Eagle

Table H.8. Alternatives C and D, Middle Fork Fortymile, Recreation Management Zone 1

Fortymile SRMA - RMZ 1 -Middle Fork Fortymile		
Primary Market Strategy		Undeveloped
Primary Market		Alaska Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge, and risk in a Semi-Primitive Interior Alaska river setting, on one of America’s nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a ‘moderate’ realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary:Float boating, river camping, trapping</p> <p>Secondary: Snowmobiling, hunting</p>	<p>Primary:Escaping crowds; experiencing solitude; experiencing adventure; enjoying the sights, sounds, and smells of nature</p> <p>Secondary: Testing your abilities</p>	<p>Personal: Enhanced sense of personal freedom; enhanced sense of competence; greater sense of adventure</p> <p>Community/Social: Heightened awareness of natural world</p> <p>Environmental: Reduced negative human impacts such as litter, vegetative trampling, and unplanned trail construction</p>
RECREATION SETTING DECISION - SEMI-PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage this zone for non-motorized boating, trapping, and dispersed river camping opportunities. Emphasis would be placed on providing Semi-Primitive. recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use (see administrative section below), and minimal administrative presence.	
Marketing	Provide outreach to Alaska float boaters seeking a Semi-Primitive river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts to the river environment by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities, experiences and outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a) . Airboat, hovercraft, and personal watercraft use would not be allowed on “wild” non-navigable segments of the river. <u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.9. Alternative C, Fortymile, Recreation Management Zone 4

Fortymile SRMA - RMZ 4 -Fortymile		
Primary Market Strategy		Undeveloped
Primary Market		Alaska Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge, and risk in a Backcountry Interior Alaska river setting, on one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Float boating, River camping</p> <p>Secondary: Fishing, Hunting, Trapping, Snowmobiling, OHV Use</p>	<p>Primary: Escaping crowds; Experiencing solitude; Enjoying the sights, sounds, and smells of nature; Experiencing adventure</p> <p>Secondary: Having time to reflect</p>	<p>Personal: Greater connection with nature; Improved outlook on life; Increased self-confidence</p> <p>Community/Social: Greater awareness of minimal impact recreation</p> <p>Environmental: Increased awareness and protection of natural landscapes</p> <p>Economic: More positive contributions to local/regional economy</p>
RECREATION SETTING DECISION - BACKCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Backcountry classification. The primary focus would be to manage these waterways for float boating and river camping opportunities. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, providing some facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to Alaska float boaters seeking a Backcountry river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts to the river environment by promoting the principles of the Tread Lightly and Leave No Trace programs.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 51). A permit or Plan of Operations would be required for all other OHV use. Aircraft, motorboats, airboats, hovercraft and personal watercraft use would be generally unrestricted.</p> <p><u>General Fire pans and portable toilets</u> would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.10. Alternative C, West Fork Fortymile, Recreation Management Zone 5

Fortymile SRMA - RMZ 5 -West Fork Fortymile		
Primary Market Strategy	Undeveloped	
Primary Market	Alaska Float Boaters	
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge, and risk in a Backcountry Interior Alaska river setting, on one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Float boating, River camping</p> <p>Secondary: Fishing, Hunting, Trapping, Snowmobiling, OHV Use</p>	<p>Primary: Escaping crowds, Experiencing solitude, Enjoying the sights, sounds, and smells of nature, Experiencing adventure</p> <p>Secondary: Having time to reflect</p>	<p>Personal: Greater connection with nature; Improved outlook on life; Increased self-confidence</p> <p>Community/Social: Greater awareness of minimal impact recreation</p> <p>Environmental: Increased awareness and protection of natural landscapes</p> <p>Economic: More positive contributions to local/regional economy</p>
RECREATION SETTING DECISION - BACKCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Backcountry classification. The primary focus would be to manage for float boating and dispersed river camping opportunities. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, providing some facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to Alaska float boaters seeking a Backcountry river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Tread Lightly and Leave No Trace programs.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 51). A permit or Plan of Operations would be required for all other OHV use. Aircraft, motorboats, airboats, hovercraft and personal watercraft use would be generally unrestricted.</p> <p><u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.11. Alternative C, Logging Cabin Creek, Recreation Management Zone 6

Fortymile SRMA - RMZ 6 -Logging Cabin Creek		
Primary Market Strategy		Community
Primary Market		International, National, Regional; State and Local Road Tourists
NICHE DECISION		
The recreation niche for this zone would be to provide high quality scenic driving opportunities for users who desire a Middlecountry recreation experience characterized by easy access to historical and cultural features in a Middlecountry Interior Alaska setting, with access to one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Scenic driving Secondary: Developed camping; Hunting; Snowmobiling; OHV Use	Primary: Enjoying scenery and natural landscape Secondary: Spending time with family and friends; Experiencing new and different things	Personal: Greater connection with nature; Improved outlook on life Community/Social: Greater protection of cultural history sites; Improved family bonding Environmental: Economic: Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for scenic driving opportunities. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet generally naturally-appearing landscape, and by providing moderate levels of facility development, visitor services and social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Middlecountry recreation experience. Establish a relationship with stakeholders to maintain protection of cultural history sites.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 52). A permit or Plan of Operations would be required for all other OHV use. Aircraft use would be generally unrestricted. <u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.12. Alternative C, O'Brien Creek, Recreation Management Zone 7

Fortymile SRMA - RMZ 7 -O'Brien Creek		
Primary Market Strategy		Community
Primary Market		International, National, Regional, State and Local Road Tourists
NICHE DECISION		
The recreation niche for this zone would be to provide high quality scenic driving opportunities for users who desire a recreation experience characterized by easy access to historical and cultural features in a Middlecountry Interior Alaska setting, with access to one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Scenic driving Secondary: Trapping; Hunting; Snowmobiling; OHV Use	Primary: Enjoying scenery and natural landscape Secondary: Spending time with family and friends; Experiencing new and different things	Personal: Greater connection with nature Community/Social: Improved family bonding Environmental: Economic: Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for scenic driving opportunities. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet generally naturally-appearing landscape, and by providing moderate levels of facility development, visitor services and social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Middlecountry recreation experience. Establish a relationship with stakeholders to ensure the ability for visitors to find areas that produce desired recreation opportunities, experiences and benefits.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 52). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Fire</u> pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.13. Alternative C, Wade Creek, Recreation Management Zone 8

Fortymile SRMA - RMZ 8 -Wade Creek		
Primary Market Strategy		Community
Primary Market		International, National, Regional, State and Local Users
NICHE DECISION		
The recreation niche for this zone would be to provide high quality scenic driving and cultural and historical appreciation opportunities for a variety of users in a partially modified Frontcountry setting, in an area well known for its high concentrations of mineral deposits, such as gold.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Scenic driving Secondary: Developed camping, Hiking/walking, Gold panning (hobby mineral collecting), Snowmobiling, OHV Use	Primary: Connecting with history; Experiencing new and different things; Spending time with family and friends; Getting away from the usual demands of life Secondary: Having time to reflect; Relieving stress	Personal: Improved outdoor knowledge; Greater connection with nature; Enhanced sense of personal freedom Community/Social: Heightened awareness of the natural world Environmental: Increased awareness and protection of natural landscapes Economic: More positive contributions to local/regional economy
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for scenic driving and cultural and historical appreciation opportunities. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, providing improved yet modest facility development and visitor services, routine social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Frontcountry experience. Establish a relationship with stakeholders to maintain positive contributions to the local and regional economy.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities, and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 52). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.14. Alternative C, Chicken, Recreation Management Zone 9

Fortymile SRMA - RMZ 9 -RMZ Chicken		
Primary Market Strategy		Undeveloped
Primary Market		International, National, Regional, and State Scenic Drivers
NICHE DECISION		
The recreation niche for this zone would be to provide scenic driving and historic and cultural appreciation opportunities for users who desire a Frontcountry recreation experience characterized by increased modifications to the landscape with access to a historic mining region located in east Alaska's Interior, in an area well known for its unique tourism opportunities.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Scenic driving; Cultural/historic appreciation</p> <p>Secondary: Developed camping; Float boating; Snowmobiling; OHV Use</p>	<p>Primary: Enjoying the scenery and natural landscape</p> <p>Secondary: Spending time with family and friends; Experiencing new and different things</p>	<p>Personal: Improved outlook on life</p> <p>Community/Social: Greater protection of cultural history sites; Improved family bonding</p> <p>Environmental: Sustainability of communities historical and cultural heritage</p> <p>Economic: More positive contributions to local/regional economy; Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</p>
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage this zone for scenic driving opportunities related to cultural and historic appreciation. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, providing improved yet modest facility development and visitor services, routine social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Frontcountry experience. Establish a relationship with stakeholders to maintain the sustainability of the community's historic and cultural heritage.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED:</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 52). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted.</p> <p><u>General:</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.15. Alternative C, Eagle, Recreation Management Zone 10

Fortymile SRMA - RMZ 10 -Eagle		
Primary Market Strategy		Community
Primary Market		International, National, Regional, State and Local Users
NICHE DECISION		
The recreation niche for this zone would be to provide high quality cultural and historical appreciation opportunities for a variety of users in a developed setting at Fort Egbert, one of east Alaska's only National Historic Sites.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Cultural/historic appreciation</p> <p>Secondary: Developed camping; hiking/walking; Photography; Snowmobiling/ OHV Use</p>	<p>Primary: Experiencing cultural history</p> <p>Secondary: Spending time with family and friends; Enjoying the sights, sounds, and smells of nature</p>	<p>Personal: Improved outdoor knowledge; Improved mental health; Greater connection with nature</p> <p>Community/Social: Greater protection of cultural history sites</p> <p>Environmental: Greater protection of area historic structures and sites</p> <p>Economic: Increased local tourism revenue</p>
RECREATION SETTING DECISION - RURAL (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Rural classification. The primary focus would be to manage this zone for cultural and historic appreciation opportunities. Emphasis would be placed on providing Rural recreation experiences by maintaining the substantially modified landscape, providing significant facility development and visitor services, a significant level of social encounters, restricted mechanized/motorized use, and significant administrative presence.	
Marketing	Provide outreach to international, national, regional, state and local users seeking a Rural setting. Establish a relationship with stakeholders to achieve greater protection of cultural history sites.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Rural recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 52). A permit or Plan of Operations would be required for all other OHV use. Aircraft use and motorboat would be generally unrestricted.</p> <p><u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

H.1.3. Fortymile Alternative D

The following tables outline management decisions and objectives for each RMZ in the Fortymile SRMA under Alternative D. Under this alternative, the SRMA only includes lands within the Fortymile WSR Corridor. The SRMA is divided into ten RMZs under this alternative which are displayed on Map 43. Alternative D includes the following RMZ:

- RMZ 1, Middle Fork Fortymile (Same as Alternative C, Table H.8, “Alternatives C and D, Middle Fork Fortymile, Recreation Management Zone 1”)
- RMZ 2, North Fork Fortymile
- RMZ 3, Mosquito Fork
- RMZ 4, Fortymile
- RMZ 5, West Fork Fortymile
- RMZ 61, Logging Cabin Creek
- RMZ 7, O'Brien Creek
- RMZ 8, Wade Creek
- RMZ 9, Chicken
- RMZ 10, Eagle

Table H.16. Alternative D, North Fork Fortymile, Recreation Management Zone 2

Fortymile SRMA - RMZ 2 -North Fork Fortymile		
Primary Market Strategy		Undeveloped
Primary Market		Alaska Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day recreational float boat opportunities for users who desire a recreation experience characterized by solitude, self-reliance, challenge, and risk in a Backcountry Interior Alaska river setting, on one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Float boating; River camping Secondary: Trapping; Snowmobiling; Hunting; OHV Use	Primary: Escaping crowds; Experiencing solitude; Enjoying the sights, sounds, and smells of nature; Experiencing adventure Secondary: Testing your abilities	Personal: Enhanced sense of personal freedom; Enhanced sense of competence; Greater sense of adventure Community/Social: Heightened awareness of natural world Environmental: Reduced negative human impacts such as litter, vegetative trampling, and unplanned trail construction
RECREATION SETTING DECISION - BACKCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Backcountry classification. The primary focus would be to manage these waterways for non-motorized boating, trapping, and dispersed river camping opportunities. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, providing some facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to Alaska float boaters seeking a Backcountry river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Tread Lightly and Leave No Trace programs.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Airboat, hovercraft, and personal watercraft would not be allowed on river segments above the Kink. <u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.17. Alternative D, Mosquito Fork, Recreation Management Zone 3

Fortymile SRMA - RMZ 3 -Mosquito Fork		
Primary Market Strategy	Undeveloped	
Primary Market	Local Trappers	
NICHE DECISION		
The recreation niche for this zone would be to provide trapping opportunities for users who desire an experience characterized by self-reliance and challenge in a Backcountry Interior Alaska river setting, with access to one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Trapping Secondary: Snowmobiling; Hunting; OHV Use	Primary: Escaping crowds; Experiencing solitude; Experiencing adventure Secondary: Testing your abilities	Personal: Enhanced sense of personal freedom; Better understanding of wildlife's contribution to my own quality of life; Greater sense of adventure Community/Social: Enlarged sense of community dependency on public lands Economic: More positive contributions to local/regional economy
RECREATION SETTING DECISION - BACKCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Backcountry classification. The primary focus would be to manage this zone for local trapping opportunities. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, providing some facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to local trappers seeking a Backcountry experience. Establish a relationship with stakeholders to reduce negative environmental impacts to the river environment by promoting the principles of the Tread Lightly and Leave No Trace programs.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Airboat, hovercraft, and personal watercraft would not be allowed on river segments above the Mosquito Fork confluence with Ingle Creek. General Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.18. Alternative D, Fortymile, Recreation Management Zone 4

Fortymile SRMA - RMZ 4 -Fortymile		
Primary Market Strategy		Undeveloped
Primary Market		Alaska Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, recreational float boat and dispersed camping opportunities for users who desire a Middlecountry recreation experience characterized by increased modifications to the landscape with access to a historic mining region in east Alaska's Interior, on one of America's nationally designated Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Float boating; River camping</p> <p>Secondary: Fishing; Hunting; Trapping; Snowmobiling; OHV Use</p>	<p>Primary: Escaping crowds; Experiencing solitude; Enjoying the sights, sounds, and smells of nature; Experiencing adventure</p> <p>Secondary: Having time to reflect</p>	<p>Personal: Greater connection with nature; Improved outlook on life; Increased self-confidence</p> <p>Community/Social: Greater awareness of minimal impact recreation</p> <p>Environmental: Increased awareness and protection of natural landscapes</p> <p>Economic: More positive contributions to local/regional economy</p>
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for float boating and river camping opportunities. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet generally naturally-appearing landscape, and by providing moderate levels of facility development, visitor services and social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to Alaska float boaters seeking a Middlecountry river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Tread Lightly and Leave No Trace programs.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.19. Alternative D, West Fork Fortymile, Recreation Management Zone 5

Fortymile SRMA - RMZ 5 -West Fork Fortymile		
Primary Market Strategy		Undeveloped
Primary Market		Alaska Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day recreational float boat opportunities for users who desire a recreation experience characterized by self-reliance, challenge, and risk in a Middlecountry Interior Alaska river setting, on one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Float boating; River camping</p> <p>Secondary: Fishing; Hunting; Trapping; Snowmobiling; OHV Use</p>	<p>Primary: Escaping crowds; Experiencing solitude; Enjoying the sights, sounds, and smells of nature; Experiencing adventure</p> <p>Secondary: Having time to reflect</p>	<p>Personal: Greater Connection with Nature; Improved outlook on life; Increased self-confidence</p> <p>Community/Social: Greater awareness of minimal impact recreation</p> <p>Environmental: Increased awareness and protection of natural landscapes</p> <p>Economic: More positive contributions to local/regional economy</p>
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for float boating and river camping opportunities. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet naturally-appearing landscape, providing moderate facility development and visitor services, periodic social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to Alaska float boaters seeking a Middlecountry river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Tread Lightly and Leave No Trace programs.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted.</p> <p><u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.20. Alternative D, Logging Cabin Creek, Recreation Management Zone 6

Fortymile SRMA - RMZ 6 -Logging Cabin Creek		
Primary Market Strategy		Community
Primary Market		International, National, Regional, State and Local Road Tourists
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, scenic driving opportunities for users who desire a recreation experience characterized by easy access to historical and cultural features in a Frontcountry Interior Alaska setting, on one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Scenic driving Secondary: Developed camping; Hunting; Snowmobiling; OHV Use	Primary: Enjoying scenery and natural landscape Secondary: Spending time with family and friends; Experiencing new and different things	Personal: Greater connection with nature; Improved outlook on life; Community/Social: Greater protection of cultural history sites; Improved family bonding Economic: Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for scenic driving opportunities. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, providing improved yet modest facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to maintain protection of cultural history sites.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities, and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Fire</u> pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.21. Alternative D, O'Brien Creek, Recreation Management Zone 7

Fortymile SRMA - RMZ 7 - O'Brien Creek		
Primary Market Strategy		Community
Primary Market		International, National, Regional, State and Local Road Tourists
NICHE DECISION		
The recreation niche for this zone would be to provide high quality scenic driving opportunities for users who desire a recreation experience characterized by easy access to historical and cultural features in a Frontcountry east-Interior Alaska setting, with access to one of America's nationally designated Wild and Scenic Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Scenic driving</p> <p>Secondary: Developed camping; Hunting; Snowmobiling; OHV Use</p>	<p>Primary: Enjoying scenery and natural landscape</p> <p>Secondary: Spending time with family and friends; Experiencing new and different things</p>	<p>Personal: Greater connection with nature; Improved outlook on life</p> <p>Community/Social: Greater protection of cultural history sites; Improved family bonding</p> <p>Economic: Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</p>
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for scenic driving opportunities. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest levels of facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to ensure the ability for visitors to find areas that produce desired recreation opportunities, experiences and benefits.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted.</p> <p><u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.22. Alternative D, Wade Creek, Recreation Management Zone 8

Fortymile SRMA - RMZ 8 -Wade Creek		
Primary Market Strategy		Community
Primary Market		International, National, Regional, State and Local Users
NICHE DECISION		
The recreation niche for this zone would be to provide high quality scenic driving and cultural and historical appreciation opportunities for a variety of users in a partially modified Frontcountry setting, in an area well known for its high concentrations of mineral deposits, such as gold.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Scenic driving</p> <p>Secondary: Developed camping; Hiking/walking; Gold panning (hobby mineral collecting); Snowmobiling; OHV use</p>	<p>Primary: Connecting with history; Experiencing new and different things; Spending time with family and friends; Getting away from the usual demands of life</p> <p>Secondary: Having time to reflect; Relieving stress</p>	<p>Personal: Improved outdoor knowledge; Greater connection with nature; Enhanced sense of personal freedom</p> <p>Community/Social: Heightened awareness of the natural world</p> <p>Environmental: Increased awareness and protection of natural landscapes</p> <p>Economic: More positive contributions to local/regional economy</p>
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for scenic driving and cultural and historical appreciation opportunities. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, providing improved yet modest facility development and visitor services, routine social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Frontcountry experience. Establish a relationship with stakeholders to maintain positive contributions to the local and regional economy.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted.</p> <p><u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.23. Alternative D, Chicken, Recreation Management Zone 9

Fortymile SRMA - RMZ 9 - Chicken		
Primary Market Strategy		Undeveloped
Primary Market		International, National, Regional, and State Scenic Drivers
NICHE DECISION		
The recreation niche for this zone would be to provide scenic driving and historic and cultural appreciation opportunities for users who desire a Rural recreation experience characterized by increased modifications to the landscape with access to a historic mining region located in east Alaska's Interior, in an area well known for its unique tourism opportunities.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Scenic driving; Cultural/historic appreciation</p> <p>Secondary: Developed camping; Float boating; Snowmobiling; OHV use</p>	<p>Primary: Enjoying the scenery and natural landscape</p> <p>Secondary: Spending time with family and friends; Experiencing new and different things</p>	<p>Personal: Improved outlook on life</p> <p>Community/Social: Greater protection of cultural history sites; Improved family bonding</p> <p>Environmental: Sustainability of communities historical and cultural heritage</p> <p>Economic: More positive contributions to local/regional economy; Enhanced ability for visitors to find areas providing wanted recreation experiences and benefits</p>
RECREATION SETTING DECISION - RURAL (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Rural classification. The primary focus would be to manage this zone for scenic driving opportunities related to cultural and historic appreciation. Emphasis would be placed on providing Rural recreation experiences by maintaining the substantially modified landscape, providing significant facility development and visitor services, a significant level of social encounters, restricted mechanized/motorized use, and significant administrative presence.	
Marketing	Provide outreach to scenic drivers seeking a Rural experience. Establish a relationship with stakeholders to maintain the sustainability of the community's historic and cultural heritage.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Rural recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. .</p> <p><u>General</u> Fire pans and portable toilets would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.24. Alternative D, Eagle, Recreation Management Zone 10

Fortymile SRMA - RMZ 10 -Eagle		
Primary Market Strategy	Community	
Primary Market	International, National, Regional, State and Local Users	
NICHE DECISION		
The recreation niche for this zone would be to provide high quality cultural and historical appreciation opportunities for a variety of users in a developed setting at Fort Egbert, one of east Alaska's only National Historic Sites.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Cultural/historic appreciation Secondary: Developed Camping; Hiking/walking; Photography; Snowmobiling; OHV use	Primary: Experiencing cultural history Secondary: Spending time with family and friends; Enjoying the sights, sounds, and smells of nature	Personal: Improved outdoor knowledge; Improved mental health; Greater connection with nature Community/Social: Greater protection of cultural history sites Environmental: Greater protection of area historic structures and sites Economic: Increased local tourism revenue
RECREATION SETTING DECISION - RURAL (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Rural classification. The primary focus would be to manage this zone for cultural and historic appreciation opportunities. Emphasis would be placed on providing Rural recreation experiences by maintaining the substantially modified landscape, providing significant facility development and visitor services, a significant level of social encounters, restricted mechanized/motorized use, and significant administrative presence.	
Marketing	Provide outreach to international, national, regional, state and local users seeking a Rural setting. Establish a relationship with stakeholders to achieve greater protection of cultural history sites.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Rural recreation opportunities, and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,500 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Fire pans and portable toilets</u> would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

H.2. Steese Special Recreation Management Area

The Steese Special Recreation Management Area (SRMA) includes up to ten RMZs. The number and boundaries of RMZs vary by alternative, as does the management. Specific management for each RMZ is described in the tables in the following sections.

H.2.1. Steese Alternative B

The following tables outline management decisions and objectives for each RMZ in the Steese SRMA under Alternative B. The SRMA is divided into seven RMZs, which are listed below and are displayed on Map 45.

- RMZ 1, Birch Creek
- RMZ 2, Pinnell Mountain Trail
- RMZ 3, Mt. Prindle Research Natural Area
- RMZ 4, Big Windy Research Natural Area
- RMZ 5, Preacher Creek
- RMZ 6, Harrison Creek
- RMZ 7, Wolf Creek

Table H.25. Alternative B Birch Creek Recreation Management Zone 1

Steese SRMA - RMZ 1 - Birch Creek		
Primary Market Strategy		Destination
Primary Market		National, State, and Local Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day road accessible recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge, and risk in a Semi-Primitive Interior Alaska setting, on one of America's nationally designated "Wild" Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Float boating; Camping	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature; Exploring new and different things Secondary: Testing your abilities	Personal: More exercise-oriented lifestyle; Greater connection with nature; Greater sense of adventure; Enhanced sense of competence Community/Social: Greater awareness of minimal impact recreation; Greater opportunities for youth Environmental: Heightened awareness of the natural world; Greater protection of fish and wildlife habitat Economic: Increased local tourism revenue
RECREATION SETTING DECISION - SEMI-PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage this zone for non-motorized float-boating and river camping opportunities. Emphasis would be placed on providing Semi-Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to national, state and local float-boaters seeking a Semi-Primitive river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities, targeted outcomes and setting character. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Airboats, hovercraft, and personal watercraft would not be allowed on wild river segments above the confluence of Birch Creek and an unnamed creek in FM T. 6N, R, 17E, Section 8. <u>General Fire pans</u> would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.26. Alternative B, Pinnell Mountain, Recreation Management Zone 2

Steese SRMA - RMZ 2 -Pinnell Mountain		
Primary Market Strategy	Destination	
Primary Market	National, State, and Local Backpackers and Hikers	
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, backpacking (multi-day) and hiking (day use) opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Primitive Interior Alaska setting, on one of America's National Recreation Trails.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Backpacking; Hiking/walking	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature; Exploring new and different things; Exercise/physical fitness	Personal: Improved outlook on life; Improved physical fitness; Improved mental health; Greater connection with nature; Enhanced sense of competence Community/Social: Greater awareness of minimal impact recreation; Greater opportunities for youth Environmental: Heightened awareness of the natural world Economic: Increased local tourism revenue
RECREATION SETTING DECISION - PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Primitive classification. The primary focus would be to manage for non-motorized backpacking and hiking opportunities. Emphasis would be placed on providing Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, rare social encounters, restricted mechanized/motorized use, and rare administrative presence.	
Marketing	Provide outreach to national, state and local backpackers and hikers seeking a Primitive recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Primitive recreation opportunities, targeted outcomes and setting character. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). The Pinnell Mountain National Recreation Trail would be designated as non-motorized. General Stoves would be required for permitted commercial activities. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.27. Alternative B Mt. Prindle Research Natural Area, Recreation Management Zone 3

Steese SRMA - RMZ 3 - Mt. Prindle Research Natural Area		
Primary Market Strategy		Destination
Primary Market		National, State and Local Climbers, Hunters and Researches
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, climbing, hunting and research opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Primitive Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Climbing; Hunting; Nature study (research)	Primary: Competence testing; Escaping crowds; Experiencing nature	Personal: Improved outlook on life; Improved physical fitness; Greater connection with nature; Enhanced sense of personal freedom Community/Social: Positive economic contributions to communities Environmental: Heightened awareness of the natural world; Greater protection of distinctive natural landscapes Economic: Increased local tourism revenue
RECREATION SETTING DECISION - PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Primitive classification. The primary focus would be to manage for non-motorized climbing, hunting and research opportunities. Emphasis would be placed on providing Primitive recreation experiences by maintaining the naturally-appearing landscape, providing minimal facility development and visitor services, providing infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to climbers, hunters and researches seeking a Primitive recreation experience. Establish a relationship with stakeholders to maintain positive economic contributions to local communities.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Primitive recreation opportunities, targeted outcomes and setting character. OHV designation = CLOSED All forms of non-motorized use would be generally allowed. A permit or Plan of Operations would be required for all OHV use. Closed to camping. Trails may be developed outside the RNA. General Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.28. Alternative B Big Windy Research Natural Area, Recreation Management Zone 4

Steese SRMA - RMZ 4 -Big Windy Research Natural Area		
Primary Market Strategy	Destination	
Primary Market	National, State, and Local Researchers	
NICHE DECISION		
The recreation niche for this zone would be to provide high quality research opportunities for users who desire an experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Primitive Interior Alaska setting containing an undeveloped hot springs system, uncommon and isolated plant species, and delicate geologic structures.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Nature study (research)	Primary: Competence testing; Escaping crowds; Experiencing nature	<p>Personal: Greater connection with nature; Enhanced sense of personal freedom</p> <p>Community/Social: Greater community involvement in land use planning process</p> <p>Environmental: Greater protection of distinctive natural landscapes</p>
RECREATION SETTING DECISION - PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Primitive classification. The primary focus would be to manage for non-motorized research opportunities. Emphasis would be placed on providing Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, rare social encounters, restricted mechanized/motorized use, and rare administrative presence.	
Marketing	Provide outreach to researchers seeking a unique and scientific Primitive experience. Establish a relationship with stakeholders to increase community involvement with BLM's planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Primitive recreation opportunities, targeted outcomes and setting character. <u>OHV designation = CLOSED</u> All forms of non-motorized use would be generally allowed. A permit or Plan of Operations would be required for all OHV use. Closed to camping. Trails may be developed outside the RNA. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.29. Alternative B, Preacher Creek, Recreation Management Zone 5

Steese SRMA - RMZ 5 - Preacher Creek		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Backpackers, Hikers and Recreational Gold Panners
NICHE DECISION		
The recreation niche for this zone would be to provide high quality backpacking (multi-day), hiking and gold panning (day use) opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Primitive Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Backpacking; Hiking/walking; Recreational Gold Panning	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature; Exploring new and different things; Exploration of the area	<p>Personal: Improved outlook on life; Improved physical fitness; Greater connection with nature; Enhanced sense of personal freedom</p> <p>Community/Social: Positive economic contributions to communities</p> <p>Environmental: Heightened awareness of the natural world</p> <p>Economic: Increased local tourism revenue</p>
RECREATION SETTING DECISION - PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Primitive classification. The primary focus would be to manage for non-motorized backpacking, hiking, and gold panning opportunities. Emphasis would be placed on providing Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, rare social encounters, restricted mechanized/motorized use, and rare administrative presence.	
Marketing	Provide outreach to state and local backpackers, hikers and gold panners seeking a Primitive recreation experience. Establish a relationship with stakeholders to maintain positive economic contributions to local communities.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Primitive recreation opportunities, targeted outcomes and setting character. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Airboats, hovercraft, and personal watercraft would not be allowed. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.30. Alternative B, Harrison Creek, Recreation Management Zone 6

Steese SRMA - RMZ 6 - Harrison Creek		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Hunters, Photographers, and Wildlife Viewers
NICHE DECISION		
The recreation niche for this zone would be to provide hunting, photography and wildlife viewing opportunities for users who desire a recreation experience characterized by solitude, self-reliance, challenge, and risk in a Backcountry Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hunting, Photography, Wildlife viewing	Primary: Escaping crowds; Escaping personal pressures; Experiencing nature	Personal: Greater connection with nature; Enhanced sense of personal freedom Community/Social: Greater community involvement in the land use planning process Environmental: Heightened awareness of the natural world Economic: Increased local tourism revenue
RECREATION SETTING DECISION - BACKCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Backcountry classification. The primary focus would be to manage for hunting, photography and wildlife viewing opportunities. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, and by providing some additional facility development and visitor services, periodic social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to state and local hunters, photographers and wildlife viewers seeking a Backcountry recreation experience. Establish a relationship with stakeholders to provide a greater level of involvement with BLM's planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Airboats, hovercraft, and personal watercraft would not be allowed. General Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.31. Alternative B, Wolf Creek, Recreation Management Zone 7

Steese SRMA - RMZ 7 - Wolf Creek		
Primary Market Strategy	Undeveloped	
Primary Market	National, State and Local Hunters, Photographers and Wildlife Viewers	
NICHE DECISION		
The recreation niche for this zone would be to provide hunting, photography and wildlife viewing opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Primitive Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hunting; Photography; Wildlife; Viewing	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature	<p>Personal: Greater connection with nature; Enhanced sense of competence</p> <p>Community/Social: Greater community involvement in the land use planning process</p> <p>Environmental: Heightened awareness of the natural world</p> <p>Economic: Increased local tourism revenue</p>
RECREATION SETTING DECISION - PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Primitive classification. The primary focus would be to manage for non-motorized hunting, photography and wildlife viewing opportunities. Emphasis would be placed on providing Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, rare social encounters, restricted mechanized/motorized use, and rare administrative presence.	
Marketing	Provide outreach to national, state and local hunters, photographers and wildlife viewers seeking a Primitive recreation experience. Establish a relationship with stakeholders to increase community involvement in BLM's planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Primitive recreation opportunities, targeted outcomes and setting character. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Airboats, hovercraft, and personal watercraft would not be allowed. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

H.2.2. Steese Alternative C

The following tables outline management decisions and objectives for each RMZ in the Steese SRMA under Alternative C. The SRMA is divided into 10 RMZs, which are listed below and displayed on Map 46.

- RMZ 1, Birch Creek
- RMZ 2, Pinnell Mountain Trail
- RMZ 3, Mt. Prindle Research Natural Area
- RMZ 4, Big Windy Research Natural Area
- RMZ 5, Preacher Creek
- RMZ 6, Harrison Creek
- RMZ 7, Wolf Creek
- RMZ 8, Rock Creek
- RMZ 9, Clums
- RMZ 10, Rocky Mountain Uplands

Table H.32. Alternatives C and D, Birch Creek Recreation Management Zone 1

Steese SRMA - RMZ 1 -Birch Creek		
Primary Market Strategy		Destination
Primary Market		National, State, and Local Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day road accessible recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge, and risk in a Semi-Primitive Interior Alaska setting, on one of America’s nationally designated “Wild” Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a ‘moderate’ realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Float boating; Camping	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature; Exploring new and different things Secondary: Testing your abilities	Personal: More exercise-oriented lifestyle; Greater connection with nature; Greater sense of adventure; Enhanced sense of competence Community/Social: Greater awareness of minimal impact recreation; Greater opportunities for youth Environmental: Heightened awareness of the natural world; Greater protection of fish and wildlife habitat Economic: Increased local tourism revenue
RECREATION SETTING DECISION - SEMI-PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage this zone for non-motorized float-boating and river camping opportunities. Emphasis would be placed on providing Semi-Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to national, state and local float-boaters seeking a Semi-Primitive river recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities, targeted outcomes and setting character. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Airboats, hovercraft, and personal watercraft would not be allowed on wild river segments above the confluence of Birch Creek and an unnamed creek in FM T. 6N, R, 17E, Section 8. General Fire pans would be required for permitted commercial river use. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.33. Alternatives C and D, Pinnell Mountain Trail, Recreation Management Zone 2

Steese SRMA - RMZ 2 - Pinnell Mountain Trail		
Primary Market Strategy		Destination
Primary Market		National, State and Local Backpackers and Hikers
NICHE DECISION		
The recreation niche for this zone would be to provide high quality backpacking (multi-day) and hiking (day use) opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Semi-Primitive Interior Alaska setting, on one of America's formally designated National Recreation Trails.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Backpacking; Hiking/walking	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature; Exploring new and different things; Exercise/physical fitness	Personal: Improved outlook on life; Improved physical fitness; Improved mental health; Greater connection with nature; Enhanced sense of competence Community/Social: Greater awareness of minimal impact recreation; Greater opportunities for youth Environmental: Heightened awareness of the natural world Economic: Increased local tourism revenue
RECREATION SETTING DECISION - SEMI-PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage for non-motorized backpacking and hiking opportunities. Emphasis would be placed on providing Semi-Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to national, state and local backpackers and hikers seeking a Semi-Primitive recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities, targeted outcomes and setting character. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Airboats, hovercraft, and personal watercraft would not be allowed. The Pinnell Mountain National Recreation Trail would be designated non-motorized. General Stoves would be required for permitted commercial activities. Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.34. Alternatives C and D, Mt. Prindle Research Natural Area, Recreation Management Zone 3

Steese SRMA - RMZ 3 - Mt. Prindle Research Natural Area		
Primary Market Strategy		Destination
Primary Market		National, State and Local Climbers, Hunters and Researches
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, climbing, hunting and research opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Primitive Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Climbing; Hunting; Nature study (research)	Primary: Competence testing; Escaping crowds; Experiencing nature	Personal: Improved outlook on life; Improved physical fitness; Greater connection with nature; Enhanced sense of personal freedom Community/Social: Positive economic contributions to communities Environmental: Heightened awareness of the natural world; Greater protection of distinctive natural landscapes Economic: Increased local tourism revenue
RECREATION SETTING DECISION - PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Primitive classification. The primary focus would be to manage for non-motorized climbing, hunting and research opportunities. Emphasis would be placed on providing Primitive recreation experiences by maintaining the naturally-appearing landscape, providing minimal facility development and visitor services, providing infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to climbers, hunters and researches seeking a Primitive recreation experience. Establish a relationship with stakeholders to maintain positive economic contributions to local communities.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Primitive recreation opportunities, targeted outcomes and setting character. OHV designation = CLOSED All forms of non-motorized use would be generally allowed. A permit or Plan of Operations would be required for all OHV use. Primitive camping and hiking trails would be allowed. General Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.35. Alternatives C and D, Big Windy Research Natural Area, Recreation Management Zone 4

Steese SRMA - RMZ 4 -Big Windy Research Natural Area		
Primary Market Strategy		Destination
Primary Market		National, State, and Local Researchers
NICHE DECISION		
The recreation niche for this zone would be to provide high quality research opportunities for users who desire an experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Primitive Interior Alaska setting containing an undeveloped hot springs system, uncommon and isolated plant species, and delicate geologic structures.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Nature study (research)	Primary: Competence testing; Escaping crowds; Experiencing nature	<p>Personal: Greater connection with nature; Enhanced sense of personal freedom</p> <p>Community/Social: Greater community involvement in land use planning process</p> <p>Environmental: Greater protection of distinctive natural landscapes</p>
RECREATION SETTING DECISION - PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Primitive classification. The primary focus would be to manage for non-motorized research opportunities. Emphasis would be placed on providing Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, rare social encounters, restricted mechanized/motorized use, and rare administrative presence.	
Marketing	Provide outreach to researchers seeking a unique and scientific Primitive experience. Establish a relationship with stakeholders to increase community involvement with BLM's planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Primitive recreation opportunities, targeted outcomes and setting character. <u>OHV designation = CLOSED</u> All forms of non-motorized use would be generally allowed. A permit or Plan of Operations would be required for all OHV use. Primitive camping and hiking trails would be allowed. <u>General</u> Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.36. Alternative C, Preacher Creek, Recreation Management Zone 5

Steese SRMA - RMZ 5 -Preacher Creek		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Backpackers, Hikers, Recreational Gold Panners and OHV Users
NICHE DECISION		
The recreation niche for this zone would be to provide backpacking, hiking, gold panning, and OHV use opportunities for users who desire a recreation experience characterized by self-reliance, challenge and a moderate level of risk in a Middlecountry Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Backpacking; Hiking/walking; Recreational Gold Panning; OHV use	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature; Exploring new and different things; Exploration of the area	Personal: Improved outlook on life; Improved physical fitness; Greater connection with nature; Enhanced sense of personal freedom Community/Social: Positive economic contributions to communities Environmental: Heightened awareness of the natural world Economic: Increased local tourism revenue
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for backpacking, hiking, gold panning, and OHV opportunities. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to state and local backpackers, hikers, gold panners and OHV users seeking a Middlecountry recreation experience. Establish a relationship with stakeholders to maintain positive economic contributions to local communities.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, targeted outcomes and setting character. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,000 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 55). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.37. Alternative C, Harrison Creek, Recreation Management Zone 6

Steese SRMA - RMZ 6 - Harrison Creek		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Hunters, Photographers, and Wildlife Viewers
NICHE DECISION		
The recreation niche for this zone would be to provide hunting, photography, wildlife viewing, and OHV use opportunities for users who desire a recreation experience characterized by self-reliance, challenge, and a relatively low degree of risk in a Frontcountry Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hunting; Photography; Wildlife viewing; OHV use	Primary: Escaping crowds; Escaping personal pressures; Experiencing nature	Personal: Greater connection with nature; Enhanced sense of personal freedom Community/Social: Greater community involvement in the land use planning process Environmental: Heightened awareness of the natural world Economic: Increased local tourism revenue
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for hunting, photography, wildlife viewing, and OHV opportunities. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest levels of facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to state and local hunters, photographers, wildlife viewers and OHV users seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to provide increased community involvement in the land use planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities, and targeted outcomes. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,000 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 55). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. General Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.38. Alternative C, Wolf Creek, Recreation Management Zone 7

Steese SRMA - RMZ 7 - Wolf Creek		
Primary Market Strategy		Undeveloped
Primary Market		National, State and Local Hunters, Photographers and Wildlife Viewers
NICHE DECISION		
The recreation niche for this zone would be to provide hunting, photography and wildlife viewing opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Semi-Primitive Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hunting; Photography; Wildlife; Viewing	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature	Personal: Greater connection with nature; Enhanced sense of competence Community/Social: Greater community involvement in the land use planning process Environmental: Heightened awareness of the natural world Economic: Increased local tourism revenue
RECREATION SETTING DECISION - SEMI-PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage for non-motorized hunting, photography and wildlife viewing opportunities. Emphasis would be placed on providing Semi-Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to national, state and local hunters, photographers and wildlife viewers seeking a Semi-Primitive recreation experience. Establish a relationship with stakeholders to increase community involvement in BLM's planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities, targeted outcomes and setting character. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.39. Alternative C, Rock Creek, Recreation Management Zone 8

Steese SRMA - RMZ 8 - Rock Creek		
Primary Market Strategy	Undeveloped	
Primary Market	State and Local Non-Motorized Backpackers, Hunters, Photographers, and Wildlife Viewers	
NICHE DECISION		
The recreation niche for this zone would be to high quality backpacking, hunting, photography, and wildlife viewing opportunities for users who desire an experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Semi-Primitive Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Backpacking; Hunting; Photography; Wildlife viewing	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature; Exploring new and different things	Personal: Improved outlook on life; Improved physical fitness; Greater connection with nature; Enhanced sense of personal freedom Community/Social: Positive economic contribution to communities Environmental: Heightened awareness of the natural world Economic: Increased local tourism revenue
RECREATION SETTING DECISION - SEMI-PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage for non-motorized backpacking, hunting photography, and wildlife viewing opportunities. Emphasis would be placed on providing Semi-Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to state and local backpackers, hunters, photographers, and wildlife viewers seeking a Semi-Primitive recreation experience.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities, targeted outcomes and setting character. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. <u>New restrictions and/or facilities</u> could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.40. Alternative C, Clums, Recreation Management Zone 9

Steese SRMA - RMZ 9 - Clums		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Hunters, Photographers, OHV Users, and Wildlife Viewers
NICHE DECISION		
The recreation niche for this zone would be to provide hunting, photography, wildlife viewing, and OHV use opportunities for users who desire a recreation experience characterized by self-reliance, challenge, and a lower degree of risk in a Middlecountry Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hunting; Photography; Wildlife viewing; OHV use	Primary: Escaping crowds; Escaping personal pressures; Experiencing nature	<p>Personal: Enhanced sense of personal freedom; Greater connection with nature</p> <p>Community/Social: Greater community involvement in the land use planning process</p> <p>Environmental: Heightened awareness of the natural world</p> <p>Economic: Increased local tourism revenue</p>
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for both non-motorized (hunting, photography and wildlife viewing) and motorized (OHV use) opportunities. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet generally naturally-appearing landscape, and by providing moderate levels of facility development, visitor services and social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to state and local users seeking a Middlecountry recreation experience. Establish a relationship with stakeholders to provide a greater level of involvement with BLM's planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of OHVs 1,000 pounds curb weight and less would be allowed May 1 to October 14 on existing routes only, except for game retrieval (Map 55). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. <u>New restrictions and/or facilities</u> could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.41. Alternatives C and D, Rocky Mountain Uplands, Recreation Management Zone 10

Steese SRMA - RMZ 10 - Rocky Mountain Uplands		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Hunters, Climbers and Snowmobilers
NICHE DECISION		
The recreation niche for this zone would be to provide hunting, climbing and snowmobiling opportunities for users who desire a recreation experience characterized by solitude, self-reliance, challenge, and risk in a Backcountry Interior Alaska river setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hunting; Climbing; Snowmobiling	Primary: Escaping crowds; Escaping personal pressures; Experiencing nature; Experiencing new and different things	<p>Personal: Greater connection with nature; Improved outlook on life; Improved physical fitness; Enhanced sense of personal freedom</p> <p>Community/Social: Positive economic contributions to communities</p> <p>Environmental: Heightened awareness of the natural world</p> <p>Economic: Increased local tourism revenue</p>
RECREATION SETTING DECISION - BACKCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Backcountry classification. The primary focus would be to manage for hunting, climbing and snowmobiling opportunities. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, and by providing some additional facility development and visitor services, periodic social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to state and local hunters, climbers and snowmobilers seeking a Backcountry recreation experience. Establish a relationship with stakeholders to provide positive economic contributions to local communities.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

H.2.3. Steese Alternative D

The following tables outline management decisions and objectives for the RMZ in the Steese SRMA under Alternative D. The SRMA is divided into nine RMZs under this alternative, which are listed below and displayed on Map 56. Tables for RMZs where management is the same as an earlier alternative are not displayed in this section (e.g., RMZs one to four, and 10).

- RMZ 1, Birch Creek (Same as Alternative C, Table H.32, “Alternatives C and D, Birch Creek Recreation Management Zone 1”)
- RMZ 2, Pinnell Mountain Trail (Same as Alternative C, Table H.33, “Alternatives C and D, Pinnell Mountain Trail, Recreation Management Zone 2”)
- RMZ 3, Mt. Prindle Research Natural Area (Same as Alternative C, Table H.34, “Alternatives C and D, Mt. Prindle Research Natural Area, Recreation Management Zone 3”)
- RMZ 4, Big Windy Research Natural Area (Same as Alternative C, Table H.35, “Alternatives C and D, Big Windy Research Natural Area, Recreation Management Zone 4”)
- RMZ 5, Preacher Creek
- RMZ 6, Harrison Creek
- RMZ 7, Wolf Creek
- RMZ 9, Clums
- RMZ 10, Rocky Mountain Uplands (Same as Alternative C, Table H.41, “Alternatives C and D, Rocky Mountain Uplands, Recreation Management Zone 10”)

Table H.42. Alternative D, Preacher Creek, Recreation Management Zone 5

Steese SRMA - RMZ 5 - Preacher Creek		
Primary Market Strategy	Undeveloped	
Primary Market	State and Local Backpackers, Hikers, Recreational Gold Panners and OHV Users	
NICHE DECISION		
The recreation niche for this zone would be to provide backpacking, hiking, gold panning, and OHV use opportunities for users who desire a recreation experience characterized by self-reliance, challenge and a moderate level of risk in a Frontcountry Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Backpacking; Hiking/walking; Recreational Gold Panning; OHV use	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature; Exploring new and different things; Exploration of the area	Personal: Improved outlook on life; Improved physical fitness; Greater connection with nature; Enhanced sense of personal freedom Community/Social: Positive economic contributions to communities Environmental: Heightened awareness of the natural world Economic: Increased local tourism revenue
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for backpacking, hiking, gold panning, and OHV opportunities. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to state and local backpackers, hikers, gold panners and OHV users seeking a Middlecountry recreation experience. Establish a relationship with stakeholders to maintain positive economic contributions to local communities.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, targeted outcomes and setting character. OHV designation = <u>LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use (May 1 to October 14) of OHVs weighing 1,000 pounds curb weight and less would be allowed. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.43. Alternative D, Harrison Creek, Recreation Management Zone 6

Steese SRMA - RMZ 6 - Harrison Creek		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Hunters, Photographers, and Wildlife Viewers
NICHE DECISION		
The recreation niche for this zone would be to provide hunting, photography, wildlife viewing, and OHV use opportunities for users who desire a recreation experience characterized by self-reliance, challenge, and a relatively low degree of risk in a Frontcountry Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hunting; Photography; Wildlife viewing; OHV use	Primary: Escaping crowds; Escaping personal pressures; Experiencing nature	<p>Personal: Greater connection with nature; Enhanced sense of personal freedom</p> <p>Community/Social: Greater community involvement in the land use planning process</p> <p>Environmental: Heightened awareness of the natural world</p> <p>Economic: Increased local tourism revenue</p>
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for hunting, photography, wildlife viewing, and OHV opportunities. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest levels of facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to state and local hunters, photographers, wildlife viewers and OHV users seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to provide increased community involvement in the land use planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities, and targeted outcomes. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,000 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. General Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.44. Alternative D, Wolf Creek, Recreation Management Zone 7

Steese SRMA - RMZ 7 - Wolf Creek		
Primary Market Strategy		Undeveloped
Primary Market		National, State and Local Hunters, Photographers, Wildlife Viewers, and Snowmobilers
NICHE DECISION		
The recreation niche for this zone would be to provide hunting, photography, wildlife viewing, and OHV opportunities for users who desire a recreation experience characterized by solitude, self-reliance, challenge and risk in a Backcountry Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hunting; Photography; Wildlife Viewing; Snowmobiling	Primary: Escaping personal pressures; Escaping crowds; Experiencing nature	<p>Personal: Greater connection with nature; Enhanced sense of competence</p> <p>Community/Social: Greater community involvement in the land use planning process</p> <p>Environmental: Heightened awareness of the natural world</p> <p>Economic: Increased local tourism revenue</p>
RECREATION SETTING DECISION - BACKCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Backcountry classification. The primary focus would be to manage for hunting, photography, wildlife viewing, and snowmobiling opportunities. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, and by providing some additional facility development and visitor services, periodic social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to national, state and local hunters, photographers, wildlife viewers, and snowmobilers seeking a Backcountry recreation experience. Establish a relationship with stakeholders to increase community involvement in BLM's planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General</u> Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.45. Alternative D, Clums, Recreation Management Zone 9

Steese SRMA - RMZ 9 - Clums		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Hunters, Photographers, OHV Users, and Wildlife Viewers
NICHE DECISION		
The recreation niche for this zone would be to provide hunting, photography, wildlife viewing, and OHV use opportunities for users who desire a recreation experience characterized by self-reliance, challenge, and a lower degree of risk in a Middlecountry Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hunting; Photography; Wildlife viewing; OHV use	Primary: Escaping crowds; Escaping personal pressures; Experiencing nature	<p>Personal: Enhanced sense of personal freedom; Greater connection with nature</p> <p>Community/Social: Greater community involvement in the land use planning process</p> <p>Environmental: Heightened awareness of the natural world</p> <p>Economic: Increased local tourism revenue</p>
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for both non-motorized (hunting, photography and wildlife viewing) and motorized (OHV use) opportunities. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet generally naturally-appearing landscape, and by providing moderate levels of facility development, visitor services and social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to state and local users seeking a Middlecountry recreation experience. Establish a relationship with stakeholders to provide a greater level of involvement with BLM's planning process.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes, and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Cross-country summer use of OHVs 1,000 pounds curb weight and less would be allowed May 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted.</p> <p><u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

H.3. White Mountains Special Recreation Management Area

The White Mountains Special Recreation Management Area (SRMA) includes up to seven RMZs. The number and boundaries of RMZs vary by alternative, as does the management. Specific management for each RMZ is described in the tables in the following sections.

H.3.1. White Mountains Alternative B

The following tables outline management decisions and objectives for each RMZ in the White Mountains SRMA under Alternative B. The SRMA is divided into seven RMZs, which are listed below and displayed on Map 56.

- RMZ 1, Research Natural Areas and White Mountains Spine
- RMZ 2, White Mountains Highlands
- RMZ 3, Beaver Creek Corridor (management is the same under all alternatives)
- RMZ 4, Cache Mountain (management is the same under all alternatives)
- RMZ 5, White Mountains Foothills
- RMZ 6, Nome Creek
- RMZ 7, Wickersham/Blixt Cabin

Table H.46. Alternative B, Research Natural Areas and White Mountains Spine, Recreation Management Zone 1

White Mountains SRMA - RMZ 1 - Research Natural Areas and White Mountains Spine		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Hikers, Backpackers and Hunters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, hiking, backpacking and hunting opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk, in a rugged, remote and Primitive Interior Alaska setting with amazing geologic and topographic features, which are not common in the region.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hiking; Backpacking; Hunting Secondary: Dispersed camping	Primary: Escaping crowds; Enjoying scenery and natural landscape; Experiencing adventure Secondary: Competence testing	Personal: Enhanced sense of personal freedom; Enhanced sense of competence Community/Social: Heightened awareness of natural world Environmental: Increased awareness and protection of natural landscapes
RECREATION SETTING DECISION - PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Primitive classification. The primary focus would be to manage for non-motorized hiking, backpacking and hunting opportunities. Emphasis would be placed on providing Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, rare social encounters, restricted mechanized/motorized use, and rare administrative presence.	
Marketing	Provide outreach to state and local hikers, backpackers and hunters seeking a Primitive recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts to the environment by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Primitive recreation opportunities, targeted outcomes and setting character. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less outside of the Serpentine Slide, Limestone Jag, and Mount Prindle RNA's would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. RNAs are closed to camping. Aircraft landings would be allowed within the Primitive Zone, with the following provisions: No clearing of vegetation would be allowed without a permit. General Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.47. Alternatives B and C, White Mountains Highlands, Recreation Management Zone 2

White Mountains SRMA - RMZ 2 - White Mountains Highlands		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Backpackers and Hunters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality backpacking and hunting opportunities for users who desire a recreation experience characterized by solitude, self-reliance, challenge and risk in a rugged, remote and Semi-Primitive Interior Alaska setting.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Backpacking; Hunting Secondary: Dispersed camping; Trapping; Snowmobiling	Primary: Escaping crowds; Enjoying scenery and natural landscape; Experiencing adventure Secondary: Competence testing	Personal: Enhanced sense of personal freedom; Enhanced sense of competence Community/Social: Heightened awareness of natural world Environmental: Increased awareness and protection of natural landscapes
RECREATION SETTING DECISION - SEMI-PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage for backpacking and hunting opportunities. Emphasis would be placed on providing Semi-Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to state and local backpackers and hunters seeking a Semi-Primitive recreation experience. Establish a relationship with stakeholders to reduce negative impacts to the environment by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities, targeted outcomes and setting character. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. General Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.48. Alternatives B, C, and D, Beaver Creek, Recreation Management Zone 3

White Mountains SRMA - RMZ 3 - Beaver Creek		
Primary Market Strategy		Destination
Primary Market		State and Local Float Boaters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, multi-day road accessible recreational float boat opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk in a Semi-Primitive Interior Alaska setting, on one of America's nationally designated "Wild" Rivers.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Float boating; Camping</p> <p>Secondary: Fishing; Hunting; Snowmobiling; Dog sledding; Skiing</p>	<p>Primary: Escaping crowds; Enjoying scenery and natural landscape; Experiencing adventure</p> <p>Secondary: Escaping personal social pressures</p>	<p>Personal: Enhanced sense of personal freedom; Enhanced sense of competence</p> <p>Community/Social: Heightened awareness of natural world</p> <p>Environmental: Reduced negative human impacts such as litter, vegetative trampling, and unplanned trail construction</p> <p>Economic: Increased local tourism revenue</p>
RECREATION SETTING DECISION - SEMI-PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	The rivers and creeks within this zone would be managed to protect and enhance the qualities and characteristics that are found within a Semi-Primitive classification. The primary focus would be to manage for float boating and camping opportunities. Emphasis would be placed on providing Semi-Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, infrequent social encounters, restricted mechanized/motorized use, and minimal administrative presence.	
Marketing	Provide outreach to state and local float boaters seeking a Semi-Primitive river recreation experience. Establish a relationship with stakeholders to reduce negative impacts to the environment by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Semi-Primitive recreation opportunities and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be permissible through ANILCA 1110(a). Beaver Creek is classified as wild. Motorized boats launched at Nome Creek would be restricted to 15 horsepower or less. Hovercraft, airboats, and personal watercraft would be prohibited.</p> <p><u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.49. Alternatives B, C, and D, Cache Mountain, Recreation Management Zone 4

White Mountains SRMA - RMZ 4 - Cache Mountain		
Primary Market Strategy		Community
Primary Market		Local Winter Trail and Cabin Users
NICHE DECISION		
The recreation niche for this zone would be to provide high quality snowmobiling, dogmushing and skiing opportunities for users who desire a recreation experience characterized by solitude, self-reliance, challenge, and risk with a unique opportunity to experience the rugged Alaskan Interior, with the added convenience of a maintained trail system and public use cabins.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Snowmobiling; Dogmushing; Skiing; Staying at cabins</p> <p>Secondary: Camping; Hiking; Hunting</p>	<p>Primary: Escaping personal social pressures; Escaping crowds; Enjoying scenery and natural landscape</p> <p>Secondary: Experiencing adventure</p>	<p>Personal: Greater connection with nature; Improved mental health</p> <p>Community/Social: Greater community ownership and stewardship of park, recreation, and natural resources.</p> <p>Environmental: Heightened awareness of natural world</p> <p>Economic: Increased desirability as a place to live/retire</p>
RECREATION SETTING DECISION - BACKCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a backcountry classification. The primary focus would be to manage for snowmobiling, dogmushing and skiing opportunities in conjunction with a well maintained trails and cabins system. Emphasis would be placed on providing Backcountry recreation experiences by maintaining the naturally-appearing landscape, and by providing some additional facility development and visitor services, periodic social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to local snowmobilers, dogmushers and skiers seeking a Backcountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Backcountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.50. Alternative B, White Mountains Foothills, Recreation Management Zone 5

White Mountains SRMA - RMZ 5 - White Mountains Foothills		
Primary Market Strategy		Community
Primary Market		Local Winter Trail and Cabin Users
NICHE DECISION		
The recreation niche for this zone would be to provide high quality snowmobiling, dogmushing and skiing opportunities for users who desire a recreation experience characterized by solitude, self-reliance and a moderate degree of challenge and risk with a unique opportunity to experience the rugged Alaskan Interior, with the added convenience of a well maintained trail system and public use cabins located closer to major access points.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Snowmobiling; Dogmushing; Skiing; Staying at cabins Secondary: Camping; Hiking; Hunting; OHV use	Primary: Escaping personal social pressures; Escaping crowds; Enjoying scenery and natural landscape Secondary: Experiencing adventure	Personal: Greater connection with nature; Improved mental health Community/Social: Greater community ownership and stewardship of park, recreation, and natural resources. Environmental: Heightened awareness of natural world Economic: Increased desirability as a place to live/retire
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for snowmobiling, dogmushing and skiing opportunities in conjunction with a well maintained trails and cabins system in closer proximity to major access points. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet generally naturally-appearing landscape, and by providing moderate levels of facility development, visitor services and social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to local snowmobilers, dogmushers and skiers seeking a Middlecountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 curb weight and less would be allowed October 15 to April 30. Summer use of ATVs would be allowed May 1 to October 14 to vehicles 50" and less, weighing 1,000 pounds curb weight and less, on designated roads and trails only (except for the Wickersham Creek Trail, from the Elliott Highway to the intersection with the 23.5 mile trail, which is open from June 1 to October 14) (Appendix B, <i>Travel Management Plan: White Mountains</i> Map 57). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.51. Alternative B, Nome Creek, Recreation Management Zone 6

White Mountains SRMA - RMZ 6 - Nome Creek		
Primary Market Strategy		Community
Primary Market		Local Families and Small Groups Seeking Developed Recreation Sites
NICHE DECISION		
The recreation niche for this zone would be to provide opportunities for Frontcountry recreation experiences that are characterized by the opportunity to affiliate with other users in an area that is generally natural in appearance, yet contains developed recreation sites and is easily accessible for local families and groups via an improved road system.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Camping; Sightseeing; Berry picking; Hiking; Hunting; OHV use; Fishing</p> <p>Secondary: Gold panning; Snowmobiling; Dogmushing</p>	<p>Primary: Enjoying having easy access to natural landscapes; Enjoying the closeness of friends and family; Relishing group affiliation and togetherness</p> <p>Secondary: Escaping crowds; Experiencing adventure</p>	<p>Personal: Greater connection with nature; improved mental health</p> <p>Community/Social: Heightened awareness of natural world</p> <p>Environmental: Greater community ownership and stewardship of park, recreation, and natural resources</p> <p>Economic: Increased desirability as a place to live and retire</p>
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for developed camping, sightseeing, berry picking, hiking, hunting, OHV use, and fishing. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest levels of facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to local campers, sightseers, berry pickers, hikers, hunters, OHV users and fishermen/women seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of ATVs would be allowed May 1 to October 14 to vehicles 50" and less, weighing 1,000 pounds curb weight and less, on designated roads and trails only (Appendix B, <i>Travel Management Plan: White Mountains</i> and Map 57). A permit or Plan of Operations would be required for all other OHV use. Aircraft use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.52. Alternative B, Wickersham Dome-Blixt Cabin, Recreation Management Zone 7

White Mountains SRMA - RMZ 7 - Wickersham Dome/Blixt Cabin		
Primary Market Strategy		Community
Primary Market		Local Day Users Seeking Easy Access
NICHE DECISION		
The recreation niche for this zone would be to provide opportunities for Frontcountry recreation experiences that are characterized by uncomplicated recreation opportunities in an area that contains both developed and undeveloped recreation sites, but is easily accessible for users via an improved road system.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hiking; Skiing; Berry picking Secondary: Camping; OHV use; Dogmushing	Primary: Enjoying having easy access to natural landscapes; Enjoying the closeness of friends and family; Exercising - achieving personal fitness	Personal: Greater connection with nature; improved mental health Community/Social: Heightened awareness of natural world Environmental: Greater community ownership and stewardship of park, recreation, and natural resources Economic: Increased desirability as a place to live and retire
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for hiking, skiing and berry picking. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest levels of facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to local hikers, skiers and berry pickers seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of ATVs would be allowed May 1 to October 14 to vehicles 50" and less, weighing 1,000 pounds curb weight and less, on designated roads and trails only (except for the Wickersham Creek Trail, from Mile 28 Elliott Highway to the intersection with the 23.5 mile trail, which is open from June 1 to October 14) (Appendix B, <i>Travel Management Plan: White Mountains</i> and Map 57). A permit or Plan of Operations would be required for all other OHV use. Aircraft use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

H.3.2. White Mountains Alternative C

The following tables outline management decisions and objectives for each RMZ in the White Mountains SRMA under Alternative C. The SRMA is divided into seven RMZs under this alternative, which are listed below and displayed on Map 49. Tables for RMZs where management is the same as an earlier alternative are not displayed in this section (e.g., RMZs two to four).

- RMZ 1, Research Natural Areas and White Mountains Spine
- RMZ 2, White Mountains Highlands (Same as Alternative B, Table H.47, “Alternatives B and C, White Mountains Highlands, Recreation Management Zone 2”)
- RMZ 3, Beaver Creek Corridor (Same as Alternative B, Table H.48, “Alternatives B, C, and D, Beaver Creek, Recreation Management Zone 3”)
- RMZ 4, Cache Mountain (Same as Alternative B, Table H.49, “Alternatives B, C, and D, Cache Mountain, Recreation Management Zone 4”)
- RMZ 5, White Mountains Foothills
- RMZ 6, Nome Creek
- RMZ 7, Wickersham/Blixt Cabin

Table H.53. Alternatives C and D, Research Natural Areas and White Mountains Spine, Recreation Management Zone 1

White Mountains SRMA - RMZ 1 - Research Natural Areas and White Mountains Spine		
Primary Market Strategy		Undeveloped
Primary Market		State and Local Hikers, Backpackers and Hunters
NICHE DECISION		
The recreation niche for this zone would be to provide high quality, hiking, backpacking and hunting opportunities for users who desire a recreation experience characterized by solitude, tranquility, self-reliance, challenge and risk, in a rugged, remote and Primitive Interior Alaska setting with amazing geologic and topographic features, which are not common in the region.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Hiking; Backpacking; Hunting Secondary: Dispersed camping	Primary: Escaping crowds; Enjoying scenery and natural landscape; Experiencing adventure Secondary: Competence testing	Personal: Enhanced sense of personal freedom; Enhanced sense of competence Community/Social: Heightened awareness of natural world Environmental: Increased awareness and protection of natural landscapes
RECREATION SETTING DECISION - PRIMITIVE (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Primitive classification. The primary focus would be to manage for non-motorized hiking, backpacking and hunting opportunities. Emphasis would be placed on providing Primitive recreation experiences by maintaining the naturally-appearing landscape, and by providing minimal facility development and visitor services, rare social encounters, restricted mechanized/motorized use, and rare administrative presence.	
Marketing	Provide outreach to state and local hikers, backpackers and hunters seeking a Primitive recreation experience. Establish a relationship with stakeholders to reduce negative environmental impacts to the environment by promoting the principles of the Leave No Trace program.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions, based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Primitive recreation opportunities, targeted outcomes and setting character. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less outside of the Serpentine Slide, Limestone Jag, and Mount Prindle RNA's would be allowed October 15 to April 30. A permit or Plan of Operations would be required for all other OHV use. Aircraft landings would be allowed within the Primitive Zone, with the following provisions: No clearing of vegetation would be allowed without a permit. Primitive camping and hiking trails would be allowed in the RNAs. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.54. Alternative C, White Mountains Foothills, Recreation Management Zone 5

White Mountains SRMA - RMZ 5 - White Mountains Foothills		
Primary Market Strategy		Community
Primary Market		Local Winter Trail and Cabin Users
NICHE DECISION		
The recreation niche for this zone would be to provide high quality snowmobiling, dogmushing and skiing opportunities for users who desire a recreation experience characterized by solitude, self-reliance and a moderate degree of challenge and risk with a unique opportunity to experience the rugged Alaskan Interior, with the added convenience of a well maintained trail system and public use cabins located closer to major access points.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Snowmobiling; Dogmushing; Skiing; Staying at cabins</p> <p>Secondary: Camping; Hiking; Hunting; OHV use</p>	<p>Primary: Escaping personal social pressures; Escaping crowds; Enjoying scenery and natural landscape</p> <p>Secondary: Experiencing adventure</p>	<p>Personal: Greater connection with nature; Improved mental health</p> <p>Community/Social: Greater community ownership and stewardship of park, recreation, and natural resources.</p> <p>Environmental: Heightened awareness of natural world</p> <p>Economic: Increased desirability as a place to live/retire</p>
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for snowmobiling, dogmushing and skiing opportunities in conjunction with a well maintained trails and cabins system in closer proximity to major access points. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet generally naturally-appearing landscape, and by providing moderate levels of facility development, visitor services and social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to local snowmobilers, dogmushers and skiers seeking a Middlecountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of ATVs would be allowed May 1 to October 14 to vehicles 50" and less, weighing 1,000 pounds curb weight and less, on designated roads and trails only, except for game retrieval . The Wickersham Creek Trail, from Mile 28 Elliott Highway to the intersection with the 23.5 mile trail, is open for summer use of OHVs 1,500 pounds curb weight and less from June 1 to October 14. UTVs would be allowed on Quartz Creek, Wickersham Creek, and 23.5 mile trails only (Appendix B and Map 58). A permit or Plan of Operations would be required for all other OHV use. Aircraft and motorboat use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. <u>New restrictions and/or facilities</u> could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.55. Alternative C, Nome Creek, Recreation Management Zone 6

White Mountains SRMA - RMZ 6 - Nome Creek		
Primary Market Strategy		Community
Primary Market		Local Families and Small Groups Seeking Developed Recreation Sites
NICHE DECISION		
The recreation niche for this zone would be to provide opportunities for Frontcountry recreation experiences that are characterized by the opportunity to affiliate with other users in an area that is generally natural in appearance, yet contains developed recreation sites and is easily accessible for local families and groups via an improved road system.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Camping; Sightseeing; Berry picking; Hiking; Hunting; OHV use; Fishing Secondary: Gold panning; Snowmobiling; Dogmushing	Primary: Enjoying having easy access to natural landscapes; Enjoying the closeness of friends and family; Relishing group affiliation and togetherness Secondary: Escaping crowds; Experiencing adventure	Personal: Greater connection with nature; improved mental health Community/Social: Heightened awareness of natural world Environmental: Greater community ownership and stewardship of park, recreation, and natural resources Economic: Increased desirability as a place to live and retire
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for developed camping, sightseeing, berry picking, hiking, hunting, OHV use, and fishing. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest levels of facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to local campers, sightseers, berry pickers, hikers, hunters, OHV users and fishermen/women seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities and targeted outcomes. <u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 curb weight and less would be allowed October 15 to April 30. Summer use of ATVs would be allowed May 1 to October 14 to vehicles 50" and less, weighing 1,000 pounds curb weight and less, on designated roads and trails only, except for game retrieval and in tailings area (Appendix B, <i>Travel Management Plan: White Mountains</i> and Map 58). UTVs would be allowed on the Quartz Creek Trail. A permit or Plan of Operations would be required for all other OHV use. Aircraft use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.56. Alternative C, Wickersham-Blixt Cabin, Recreation Management Zone 7

White Mountains SRMA - RMZ 7 - Wickersham and Blixt Cabin		
Primary Market Strategy		Community
Primary Market		Local Day Users Seeking Easy Access
NICHE DECISION		
The recreation niche for this zone would be to provide opportunities for Frontcountry recreation experiences that are characterized by uncomplicated recreation opportunities in an area that contains both developed and undeveloped recreation sites, but is easily accessible for users via an improved road system.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Hiking; Skiing; Berry picking</p> <p>Secondary: Camping; OHV use; Dogmushing</p>	<p>Primary: Enjoying having easy access to natural landscapes; Enjoying the closeness of friends and family; Exercising - achieving personal fitness</p>	<p>Personal: Greater connection with nature; improved mental health</p> <p>Community/Social: Heightened awareness of natural world</p> <p>Environmental: Greater community ownership and stewardship of park, recreation, and natural resources</p> <p>Economic: Increased desirability as a place to live and retire</p>
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for hiking, skiing and berry picking. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest levels of facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to local hikers, skiers and berry pickers seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions to create and maintain Frontcountry recreation opportunities and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of ATVs would be allowed May 1 to October 14 to vehicles 50" and less, weighing 1,000 pounds curb weight and less, on designated roads and trails only, except for retrieval of legally harvested game. The Wickersham Creek Trail, from Mile 28 Elliott Highway to the intersection with the 23.5 mile trail, is open for summer use of OHVs 1,500 pounds curb weight and less from June 1 to October 14. UTVs would be allowed on Wickersham Creek, and 23.5 mile trails only (Appendix B, <i>Travel Management Plan: White Mountains</i> and Map 58). A permit or Plan of Operations would be required for all other OHV use. Aircraft use would be generally unrestricted. <u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. <u>New restrictions and/or facilities</u> could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

H.3.3. White Mountains Alternative D

The following tables outline management decisions and objectives for each RMZ in the White Mountains SRMA under Alternative D. The SRMA is divided into six RMZs, which are listed below and displayed on Map 50. Tables for RMZs where management is the same as an earlier alternative are not displayed in this section (e.g., RMZs one, three, and four).

- RMZ 1, Research Natural Areas (Same as Alternative C, Table H.53, “Alternatives C and D, Research Natural Areas and White Mountains Spine, Recreation Management Zone 1”)
- RMZ 3, Beaver Creek Corridor (Same as Alternative B, Table H.48, “Alternatives B, C, and D, Beaver Creek, Recreation Management Zone 3”)
- RMZ 4, Cache Mountain (Same as Alternative B, Table H.49, “Alternatives B, C, and D, Cache Mountain, Recreation Management Zone 4”)
- RMZ 5, White Mountains Foothills
- RMZ 6, Nome Creek
- RMZ 7, Wickersham/Blixt Cabin

Table H.57. Alternative D, White Mountains Foothills, Recreation Management Zone 5

White Mountains SRMA - RMZ 5 - White Mountains Foothills		
Primary Market Strategy		Community
Primary Market		Local Winter Trail and Cabin Users
NICHE DECISION		
The recreation niche for this zone would be to provide high quality snowmobiling, dogmushing and skiing opportunities for users who desire a recreation experience characterized by solitude, self-reliance and a moderate degree of challenge and risk with a unique opportunity to experience the rugged Alaskan Interior, with the added convenience of a well maintained trail system and public use cabins located closer to major access points.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Snowmobiling; Dogmushing; Skiing; Staying at cabins</p> <p>Secondary: Camping; Hiking; Hunting; OHV use</p>	<p>Primary: Escaping personal social pressures; Escaping crowds; Enjoying scenery and natural landscape</p> <p>Secondary: Experiencing adventure</p>	<p>Personal: Greater connection with nature; Improved mental health</p> <p>Community/Social: Greater community ownership and stewardship of park, recreation, and natural resources.</p> <p>Environmental: Heightened awareness of natural world</p> <p>Economic: Increased desirability as a place to live/retire</p>
RECREATION SETTING DECISION - MIDDLECOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Middlecountry classification. The primary focus would be to manage for snowmobiling, dogmushing and skiing opportunities in conjunction with a well maintained trails and cabins system in closer proximity to major access points. Emphasis would be placed on providing Middlecountry recreation experiences by maintaining the partially modified yet generally naturally-appearing landscape, and by providing moderate levels of facility development, visitor services and social encounters, restricted mechanized/motorized use, and periodic administrative presence.	
Marketing	Provide outreach to local snowmobilers, dogmushers and skiers seeking a Middlecountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Middlecountry recreation opportunities, and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of ATVs would be allowed May 1 to October 14 to vehicles 50" and less, weighing 1,000 pounds curb weight and less except on the Summit and Ski Loop trails and within the Wickersham Creek Closed Area. UTVs would be allowed on designated trails only (Appendix B and Map 59). The Wickersham Creek Trail, from Mile 28 Elliott Highway to the intersection with the 23.5 mile trail, is open for summer use of OHVs 1,500 pounds curb weight and less from June 1 to October 14. A permit or Plan of Operations would be required for all other OHV use. Aircraft use would be generally unrestricted.</p> <p><u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

Table H.58. Alternative D, Nome Creek, Recreation Management Zone 6

White Mountains SRMA - RMZ 6 - Nome Creek		
Primary Market Strategy		Community
Primary Market		Local Families and Small Groups Seeking Developed Recreation Sites
NICHE DECISION		
The recreation niche for this zone would be to provide opportunities for Frontcountry recreation experiences that are characterized by the opportunity to affiliate with other users in an area that is generally natural in appearance, yet contains developed recreation sites and is easily accessible for local families and groups via an improved road system.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
Primary: Camping; Sightseeing; Berry picking; Hiking; Hunting; OHV use; Fishing Secondary: Gold panning; Snowmobiling; Dogmushing	Primary: Enjoying having easy access to natural landscapes; Enjoying the closeness of friends and family; Relishing group affiliation and togetherness Secondary: Escaping crowds; Experiencing adventure	Personal: Greater connection with nature; improved mental health Community/Social: Heightened awareness of natural world Environmental: Greater community ownership and stewardship of park, recreation, and natural resources Economic: Increased desirability as a place to live and retire
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for developed camping, sightseeing, berry picking, hiking, hunting, OHV use, and fishing. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest levels of facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to local campers, sightseers, berry pickers, hikers, hunters, OHV users and fishermen/women seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities and targeted outcomes. OHV designation = LIMITED All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of ATVs would be allowed May 1 to October 14 to vehicles 50" and less, weighing 1,000 pounds curb weight and less, on designated roads and trails only, except for game retrieval and in tailings area. UTVs would be allowed on designated trails only (Appendix B and Map 59). A permit or Plan of Operations would be required for all other OHV use. Aircraft use would be generally unrestricted. General Special Recreation Permits could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.	

Table H.59. Alternative D, Wickersham Dome-Blixt Cabin, Recreation Management Zone 7

White Mountains SRMA - RMZ 7 - Wickersham Dome/Blixt Cabin		
Primary Market Strategy		Community
Primary Market		Local Day Users Seeking Easy Access
NICHE DECISION		
The recreation niche for this zone would be to provide opportunities for Frontcountry recreation experiences that are characterized by uncomplicated recreation opportunities in an area that contains both developed and undeveloped recreation sites, but is easily accessible for users via an improved road system.		
MANAGEMENT OBJECTIVE DECISION		
By the year 2016, manage this zone for the niche decision listed above and the activities, experiences, benefits, and setting character listed below, providing no less than 75 percent of responding visitors and affected community residents at least a 'moderate' realization of these outcomes.		
PRIMARY TARGETED OUTCOMES		
Activities	Experiences	Benefits
<p>Primary: Hiking; Skiing; Berry picking</p> <p>Secondary: Camping; OHV use; Dogmushing</p>	<p>Primary: Enjoying having easy access to natural landscapes; Enjoying the closeness of friends and family; Exercising - achieving personal fitness</p>	<p>Personal: Greater connection with nature; improved mental health</p> <p>Community/Social: Heightened awareness of natural world</p> <p>Environmental: Greater community ownership and stewardship of park, recreation, and natural resources</p> <p>Economic: Increased desirability as a place to live and retire</p>
RECREATION SETTING DECISION - FRONTCOUNTRY (Table 2.4)		
IMPLEMENTATION FRAMEWORK DECISION		
Management	This zone would be managed to protect and enhance the qualities and characteristics that are found within a Frontcountry classification. The primary focus would be to manage for hiking, skiing and berry picking. Emphasis would be placed on providing Frontcountry recreation experiences by maintaining the partially modified landscape, and by providing improved yet modest levels of facility development and visitor services, a routine level of social encounters, restricted mechanized/motorized use, and routine administrative presence.	
Marketing	Provide outreach to local hikers, skiers and berry pickers seeking a Frontcountry recreation experience. Establish a relationship with stakeholders to increase community ownership and stewardship of park, recreation and natural resources.	
Monitoring	Monitor and evaluate visitor satisfaction including niche decisions, targeted outcomes and setting character decisions based on Recreation Management Zone objectives and prescriptions.	
Administrative	<p>Apply administrative actions as needed to create and maintain Frontcountry recreation opportunities and targeted outcomes.</p> <p><u>OHV designation = LIMITED</u> All forms of non-motorized use would be generally allowed. Cross-country winter use of snowmobiles 1,000 pounds curb weight and less would be allowed October 15 to April 30. Summer use of ATVs would be allowed May 1 to October 14 to vehicles 50" and less, weighing 1,000 pounds curb weight and less (except for the Wickersham Creek Trail, from Mile 28 Elliott Highway to the intersection with the 23.5 mile Trail, which is open June 1 to October 14). UTVs would be allowed on designated trails only and would abide by the same dates (Appendix B and Map 59). A permit or Plan of Operations would be required for all other OHV use. Aircraft use would be generally unrestricted.</p> <p><u>General Special Recreation Permits</u> could be issued in conformance with BLM guidance. New restrictions and/or facilities could be developed for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.</p>	

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Appendix I
Fisheries and
Aquatic Resources

Appendix I. Fisheries and Aquatic Resources

I.1. Watershed Classification

Watersheds within the Eastern Interior Planning Area were categorized as either conservation or restoration watersheds. Within these two categories, BLM-Alaska evaluated and prioritized watersheds based on ten factors developed by the fisheries program staff and based on fisheries science, BLM policy, and law. One of the key policy considerations is outlined in BLM Instruction Memorandum (IM) 2009-141, which outlines BLM's commitment to the National Fish Habitat Action Plan that established four goals:

1. Protect and maintain intact and healthy aquatic systems.
2. Prevent further degradation of fish habitats that have been adversely affected.
3. Reverse declines in the quality and quantity of aquatic habitats to improve the overall health of fish and other aquatic organisms.
4. Increase the quality and quantity of fish habitats that support a broad natural diversity of fish and other aquatic species.

This programmatic approach is consistent with the National Fish Habitat Action Plan goals and provides managers and the public with a clear understanding of fisheries resource values and their spatial arrangement within the planning area. Management emphasis remains long-term, recognizing that short-term impacts may be acceptable as long as they will have discountable or negligible effects on the condition indicators, and will not preclude the long-term improvement of fisheries habitat conditions. If watershed processes are to be restored over time, it is critical that management actions do not individually or cumulatively impact progress toward indicator attainment.

I.1.1. Watershed Categories

Within the planning area, approximately 1,178 sixth level Hydrologic Unit Code (HUC) Watersheds exist. Of these, approximately 520 contain BLM land. The watersheds were categorized into two primary categories; Conservation and Restoration. Approximately 157 watersheds contained only minor amounts of BLM land or no fisheries habitat, therefore these watersheds were excluded from consideration as Conservation or Restoration Watersheds. The remaining 363 watersheds were categorized based on the following:

Conservation Watersheds

These watersheds have processes and functions that occur in a relatively undisturbed and natural landscape setting. Hydrologic function, such as sediment amounts and stream flow regimes resulting from disturbance, are within a natural range of frequency, duration, and intensity. Waters are meeting designated or existing beneficial uses. Land uses and human activities do not strongly influence aquatic and hydrologic functions, as indicated by low road density and few stream crossings. Based on these criteria, 347 watersheds were placed in this category.

Management strategies will emphasize natural disturbance regimes, recognizing that active management may be required to conserve physical and biological processes and patterns. For example, road and trail maintenance to minimize erosion and the resulting sediment additions to nearby streams and waterbodies is essential within Conservation Watersheds.

Restoration Watersheds

These watersheds are those where biological and physical processes and functions do not reflect natural conditions because of past and long-term human caused land disturbances. The common effects of these disturbances are a long-term (decades) increase of sediment deposition in streams, loss of large woody debris recruitment to stream channels, and abnormal hydrologic patterns (water flows). Additive impacts from human disturbances and periodic natural events, such as large wildland fires, landslides, and floods, exacerbate abnormal watershed and biological conditions. Based on these criteria, 16 watersheds were placed in this category.

Active management will generally be required to restore the physical and biological function to their natural range of frequency, duration, and intensity. Identifying and assessing the impacts on habitat will allow managers to focus restoration efforts in the most effective manner to achieve hydrologic and biological recovery.

I.1.2. Priority Ranking Factors For Conservation And Restoration Watersheds

To identify the highest resource value aquatic habitats for conservation and restoration a priority ranking system was developed. Priority ranking for each Conservation or Restoration Watershed was based on a variety of factors. Primary issues considered in ranking status were priority fish species presence (diversity), resource uses (subsistence and recreation), habitat conditions, and productivity. These ranking criteria and associated point system are outlined below.

Value	Definition	Score
Endangered Species Act Aquatic Resources	Federally listed aquatic species are present.	3 Points
Subsistence Fisheries Use Areas	Using the best available information, determine if areas within the watershed include fish subsistence harvest areas.	2 Points
BLM Aquatic Special Status Species (BLM SSS)	Using the best available information, determine if Aquatic (riparian obligate) BLM species of management concern, BLM-Alaska sensitive species, or BLM-Alaska watch species occur in the watershed.	2 Points
Essential Fish Habitat (EFH) Present or Directly Affected	Using the ADF&G Anadromous Catalog, GIS data, and/or professional knowledge, determine if anadromous species occur in the watershed.	2 Points* *1 point if stream mouth in close proximity to EFH
Fish Species Diversity	Based on reports and/or professional knowledge, determine the number of fish species occurring in the watershed.	1 Species = 1 Point 2-4 Species = 2 Points >5 Species = 3 Points
Watershed Productivity	Fish population or the level of spawning activity is comparatively low or high based on stream size.	1(low)-3(high) Points
Anadromous Species Present	Using the ADF&G Anadromous Catalog GIS data and/or professional knowledge, determine if anadromous species occur in the watershed.	1 Point
Important Recreational Fisheries	Using the best available information, determine if areas within the watershed include important recreational fisheries.	1 Point
Intact/Reference Watershed	Is the watershed unaffected by historic or current land use practices?	1 Point
High Value Habitat Type (spawning/overwintering)	Based on reports and/or professional knowledge, determine if high-value habitats occur in the watershed.	1 Point

Following the evaluation of the 363 sixth level HUC watersheds, the numeric scores were totaled. The highest scoring watersheds were reviewed by fisheries staff and recommended for consideration as either Riparian Conservation Areas or High Priority Restoration Watersheds.

Riparian Conservation Areas

Riparian Conservation Areas or RCAs are specific Conservation Watersheds that contain the highest fisheries and riparian resource values within the planning area. In these watersheds, riparian-dependent resources receive primary emphasis and management activities are subject to specific required operating procedures (Appendix A). These areas are designed to be managed using a variety of techniques, including active habitat management approaches, which may be essential to achieving or maintaining desired riparian and aquatic conditions.

Based on the themes of the alternatives and analysis of the dataset, watershed scores were identified that would dictate the number of proposed RCAs in each alternative. Alternative B would have the highest number of RCAs, including all Conservation Watersheds scoring five or more total points. Alternative C would have a moderate number of RCAs, including all watersheds scoring eight or more total points. Alternative D would have the least number of RCAs, including only those watersheds that scored 11 or more total points. Conservation Watersheds scoring five or more points are listed in the table below.

HUC No.	Watershed Name	Score	Category
1400000101
1400000102
1400000103
1400000104
1400000105
1400000106
1400000107
1400000108
1400000109
1400000110
1400000111
1400000112
1400000113
1400000114
1400000115
1400000116
1400000117
1400000118
1400000119
1400000120
1400000121
1400000122
1400000123
1400000124
1400000125
1400000126
1400000127
1400000128
1400000129
1400000130
1400000131
1400000132
1400000133
1400000134
1400000135
1400000136
1400000137
1400000138
1400000139
1400000140
1400000141
1400000142
1400000143
1400000144
1400000145
1400000146
1400000147
1400000148
1400000149
1400000150

HUC No.	Name of 12th level HUC	Ranking Factors										Sum
		Anadro-mous	BLM SSS	Subsis-tence	Recre-ation	In-tact	Wtrshd Product	EFH	ESA	High Value	Diver-sity	
FORTY MILE SUBUNIT												
190401040306	Buck Creek-North Fork Fortymile River	0	0	0	1	1	1	0	0	0	3	6
190401040308	North Fork Fortymile River	0	0	0	1	1	1	0	0	0	3	6
190401040701	Middle Fork North Fork Fortymile River	0	0	0	1	1	1	0	0	0	3	6
190401040803	The Kink-North Fork Fortymile River	0	0	0	1	1	1	0	0	0	3	6
190401040806	Hilda Creek-North Fork Fortymile River	0	0	0	1	1	1	0	0	0	3	6
190401041305	Moose Creek-Mosquito Fork	0	0	0	1	1	2	0	0	0	2	6
190401041308	Outlet Mosquito Fork	0	0	0	1	1	1	0	0	0	3	6
190401042006	South Fork Fortymile River	0	0	0	1	1	1	0	0	0	2	5
190401042201	Fortymile River	0	0	0	1	1	2	0	0	0	3	7
190404010105	Seward Creek-Mission Creek	1	0	0	0	1	0	2	0	1	2	7
190405030602	Tower Bluffs Rapids	1	0	0	0	1	3	2	0	3	3	13
STEESE SUBUNIT												
190404020207	Birch Creek	1	0	0	1	1	3	2	0	1	3	12
190404020212	Birch Creek	1	0	0	1	1	3	2	0	1	3	12
190404020401	McLean Creek-Birch Creek	1	0	0	1	1	3	2	0	1	3	12
190404020403	Thomas Creek-Birch Creek	1	0	0	1	1	3	2	0	1	3	12
190404020407	Sheep Creek	1	0	0	0	1	0	2	0	1	2	7
190404020408	Pitkas Bar	1	0	0	1	1	3	2	0	1	3	12
190404020506	Puzzle Gulch	1	0	0	0	1	0	1	0	0	2	5
190404020601	Birch Creek	1	0	0	1	1	3	2	0	1	3	12
190404020606	Birch Creek	1	0	0	1	1	3	2	0	1	3	12
190404020903	George Creek-Birch Creek	1	0	0	1	1	3	2	0	1	3	12
190404021005	Preacher Creek	1	0	0	0	1	2	2	0	1	3	10
190404021009	Ninetyeight Pup-Preacher Creek	1	0	0	0	1	2	2	0	1	3	10
190404021102	Headwaters North Fork Preacher Creek	1	0	0	0	1	1	2	0	1	2	8
190404021103	Upper North Fork Preacher Creek	1	0	0	0	1	1	2	0	1	2	8
190404021104	Middle North Fork Preacher Creek	1	0	0	0	1	2	2	0	1	3	10

HUC No.	Name of 12th level HUC	Ranking Factors										Sum
		Anadro-mous	BLM SSS	Subsis-tence	Recre-ation	In-tact	Wtrshd Product	EFH	ESA	High Value	Diver-sity	
190404021105	Lower North Fork Preacher Creek	1	0	0	0	1	2	2	0	1	3	10
190404021201	Loper Creek	0	0	0	0	1	2	1	0	0	2	6
190404021202	Middle Preacher Creek	1	0	0	0	1	2	2	0	1	3	10
STEESE AND UPPER BLACK RIVER SUBUNITS												
190404011903	Yukon River	1	0	2	0	1	0	2	0	1	3	10
190404011904	Yukon River	1	0	1	0	1	0	2	0	1	3	9
190404011906	Fourteenmile Creek-Yukon River	1	0	2	0	1	0	2	0	1	3	10
UPPER BLACK RIVER SUBUNIT												
190402040404	Bear Mountain Creek	0	0	0	0	1	1	0	0	0	3	5
190402040502	Grayling Fork Black River	0	0	0	0	1	1	0	0	0	3	5
190402040504	Grayling Fork Black River	0	0	0	0	1	1	0	0	0	3	5
190402040701	Grayling Fork Black River	0	0	0	0	1	1	0	0	0	3	5
190402040702	unnamed Tributary-Upper Black River	0	0	0	0	1	1	0	0	0	3	5
190402040703	unnamed Tributary-Upper Black River	0	0	0	0	1	1	0	0	0	3	5
190402040704	unnamed Tributary-Upper Black River	0	0	0	0	1	1	0	0	0	3	5
190402040705	Grayling Fork Black River	0	0	0	0	1	1	0	0	0	3	5
190402040802	Black River	0	0	0	0	1	2	0	0	0	3	6
190402040804	Big Duck Lake-Black River	0	0	0	0	1	1	0	0	0	3	5
190402041005	Outlet Runt Creek	1	0	2	0	1	0	1	0	0	2	7
190402041105	Salmon Fork Black	1	0	0	0	1	3	2	0	1	3	11
190402041107	Salmon Fork Black	1	0	2	0	1	3	2	0	1	3	13
190402041207	Tetthajik Creek	1	0	0	0	1	2	2	0	0	2	8
190402041309	Lower Kevinjik Creek	1	0	0	0	1	1	2	0	1	2	8
190402041403	Salmon Fork Black River	1	0	2	0	1	3	2	0	1	3	13
190402060105	Headwaters Little Black River	0	0	0	0	1	1	0	0	0	3	5
190402060106	Little Black River	0	0	0	0	1	1	0	0	0	3	5
190402060109	Little Black River	0	0	0	0	1	1	0	0	0	3	5
190402060404	Little Black River	0	0	0	0	1	1	0	0	0	3	5
190404010901	unnamed Tributary-Kandik	1	0	0	0	1	1	2	0	1	2	8
190404010902	Headwaters Kandik River	1	0	0	0	1	3	2	0	1	3	11
190404010903	Big Sitdown Creek	1	0	0	0	1	1	2	0	1	2	8

HUC No.	Name of 12th level HUC	Ranking Factors										Sum
		Anadro-mous	BLM SSS	Subsis-tence	Recre-ation	In-tact	Wtrshd Product	EFH	ESA	High Value	Diver-sity	
190404010906	Indian Grave Creek	1	0	0	0	1	1	2	0	1	2	8
190404010908	Kandik River	1	0	0	0	1	3	2	0	1	3	11
WHITE MOUNTAINS SUBUNIT												
190404021803	Bear Creek	0	0	0	0	1	1	1	0	0	2	5
190404022003	Ophir Creek	1	0	0	0	1	1	2	0	1	2	8
190404022004	Sumner Creek-Nome Creek	1	0	0	1	0	2	2	0	1	2	9
190404022104	Beaver Creek	1	2	0	1	1	3	2	0	1	3	14
190404022109	Beaver Creek	1	2	0	1	1	3	2	0	1	3	14
190404022202	South Beaver Creek	1	2	0	1	1	3	2	0	1	3	14
190404022206	Montana Creek-South Beaver Creek	1	2	0	1	1	3	2	0	1	3	14
190404022207	South Beaver Creek	1	2	0	1	1	3	2	0	1	3	14
190404022208	Beaver Creek	1	2	0	1	1	3	2	0	1	3	14
190404022301	Headwaters Victoria Creek	1	0	0	0	1	2	2	0	1	3	10
190404022303	Victoria Creek	1	0	0	0	1	2	2	0	1	3	10
190404022304	Deadwood Creek-Victoria Creek	1	0	0	0	1	2	2	0	1	3	10
190404022305	Outlet Victoria Creek	1	0	0	0	1	2	2	0	1	3	10
190404022406	Victoria Mountain-Beaver Creek	1	2	0	1	1	3	2	0	3	3	16
190404022408	Yellow Creek-Beaver Creek	1	2	0	1	1	3	2	0	3	3	16

High Priority Restoration Watersheds

To determine the High Priority Restoration Watersheds, the same process utilized for identification of RCAs was employed. Based on the limited number of Restoration Watersheds and the resource values, it was determined that watersheds scoring greater than five points would be considered High Priority Restoration Watersheds across all alternatives. The High Priority Restoration Watersheds are priority areas for active restoration practices. In these areas, management activities will be designed to accelerate the development of self-sustaining, ecologically healthy riparian and aquatic ecosystems. Restoration Watersheds scoring five or more points are listed in the table below.

Monitoring is an essential component of natural resource management systems. It provides information on the relative success of management strategies. The success of management strategies will be measured to ensure that management actions follow prescribed management objectives (supplemental or alternative) meet desired objectives, effectiveness, and efficiency (validating monitoring). Monitoring will be coordinated with other appropriate agencies and organizations to ensure efficiency and usefulness of the results across a variety of administrative boundaries. Data will be built on past and present monitoring work. In addition, specific monitoring objectives, monitoring goals, and reporting formats will be developed.

1.2.2. Adaptive Management

Adaptive management requires knowledge of the system, cyclical patterns of variability of riparian sites and watersheds, current management and effects of the management on the system, and management changes that may be made to move the system to a desired condition. Single indicators of conditions are used to identify and address management needs. Information on the condition and trend of the vegetation, stream channel, stream resources, and knowledge of current management practices can help identify management relationships that are important to water quality. Adaptive management requires the refinement and development of site-specific, locally-derived management plans, goals, mandates, or criteria.

Monitoring is an integral component of adaptive management approaches. Adaptive management and systems management require monitoring to detect relevant ecological changes. In addition, the success of adaptive management depends on the accuracy and consistency of monitoring data. Adaptive management and monitoring. Close coordination and interaction between monitoring and adaptive management is important for the adaptive management process to succeed. The ability to conduct statistically valid monitoring can be used by scientists to develop and evaluate management priority issues. Conversely, the results obtained through monitoring can be used to refine the protocols and strategies used to monitor and evaluate the effectiveness of management.

Monitoring results will provide managers with the information to determine if management objectives have been met, and whether to continue or modify the management direction. Adaptive management through monitoring, together with research and other new information, will allow for adaptive management changes to the plan. The monitoring process will be used to evaluate the effectiveness of management and to adjust the plan to improve the effectiveness of management.

Huc No.	12th Level HUC Name	Ranking Factors										Score
		Anadro-mous	BLM SSS	Sub-sis-tence	Recre-ation	Intact	Wtr-shd Prod-uct	EFH	ESA	High Value	Diver-sity	
FORTYMILE SUBUNIT												
190401042207	Sam Patch Creek-Fortymile River	0	0	0	1	0	1	0	0	0	3	5
STEESE SUBUNIT												
190404020206	North Fork Birch Creek	1	0	0	1	0	0	2	0	0	3	6
190404020406	Harrison Creek	1	0	0	0	0	0	2	0	0	3	5
190404020205	Twelve-mile Creek	1	0	0		0	0	2	0	0	3	6

I.2. Monitoring and Adaptive Management

I.2.1. Monitoring and Evaluation of the RMP

BLM planning regulations require the monitoring and evaluation of Resource Management Plans (RMPs) at appropriate intervals. After approval of the RMP and signing of the Record of Decision, an implementation schedule will be completed and will incorporate monitoring plans. Monitoring data will be used to assess resource conditions, identify resource issues and conflicts, determine if resource objectives are being met, determine trends for achievement of desired conditions, and periodically refine and update desired conditions and management strategy.

Monitoring is an essential component of natural resource management because it provides information on the relative success of management strategies. The implementation of the RMP will be monitored to ensure that management actions follow prescribed management direction (implementation monitoring), meet desired objectives (effectiveness monitoring) and are based on accurate assumptions (validation monitoring).

Monitoring will be coordinated with other appropriate agencies and organizations to enhance the efficiency and usefulness of the results across a variety of administrative units. The approach will build on past and present monitoring work. In addition, specific monitoring protocols, criteria, goals, and reporting formats will be developed.

I.2.2. Adaptive Management

Adaptive management requires knowledge of the current conditions; potential or capability of riparian sites and streams; current management and effects of the management on the resources; and management changes that may be made to move the current condition toward the desired condition. Single indicators of conditions or trend are usually not adequate to make informed decisions. Information on the condition and trend of the vegetation, stream banks, aquatic resources, and knowledge of current management practices can help establish “cause-and-effect” relationships that are important to make appropriate decisions. Such information allows refinement and development of more realistic, locally-derived project or activity design, standards, or criteria.

Monitoring is an integral component of many management approaches, such as adaptive management and ecosystem management. Adaptive management is based on monitoring that is sufficiently sensitive to detect relevant ecological changes. In addition, the success of adaptive management depends on the accuracy and credibility of information obtained through inventories and monitoring. Close coordination and interaction between monitoring and research are important for the adaptive management process to succeed. Data obtained through systematic and statistically valid monitoring can be used by scientists to develop research hypotheses related to priority issues. Conversely, the results obtained through research can be used to further refine the protocols and strategies used to monitor and evaluate the effectiveness of RMP implementation.

Monitoring results will provide managers with the information to determine whether an objective has been met, and whether to continue or modify the management direction. Findings obtained through monitoring, together with research and other new information will provide a basis for adaptive management changes to the plan. The monitoring process and adaptive management share the goal of improving effectiveness and permitting response to increased knowledge and a

changing landscape. The monitoring program will not remain static. The monitoring plan will be periodically evaluated to ascertain that the monitoring questions and standards are still relevant, and will be adjusted as appropriate. Some monitoring items may be discontinued and others may be added as knowledge and issues change.

I.2.3. Implementation and Effectiveness Monitoring

The basics of RMP level monitoring will (1) determine if the plan, project, or activities are being implemented correctly and is achieving desired results, (2) provide a mechanism for accountability and oversight, (3) evaluate the effectiveness of recovery and restoration efforts, and (4) provide a feedback loop (adaptive management) so that management direction may be evaluated and modified. Management considerations for monitoring include the following:

- Focus monitoring on key questions that inform decision-making and allow adjustments to management.
- Monitoring emphasis and intensity should be commensurate with the importance of the question being asked. For example, if adaptive decision-making is being used, it will be important to monitor the key parameters to the degree necessary to support the current course of action or to trigger an alternate approach.
- Plan level monitoring should make use of, and not duplicate, broad-scale monitoring programs. To the extent practicable, monitoring done at the plan scale should be compatible with, and complementary to, broader and finer scale monitoring.
- Monitoring should be coordinated with, and where possible consolidated with, similar efforts of other agencies.
- Outcome-based management approaches rely on monitoring for their success. These approaches typically require a different level and type of monitoring than prescriptive approaches.
- Monitoring commitments in plans should be feasible and achievable.

Monitoring is a process of gathering information through observation and measurement to ensure that project design criteria and mitigation are implemented and to determine if goals and objectives are achieved. The two types of monitoring identified are implementation and effectiveness. Specifics of these types of monitoring are:

- Implementation monitoring is used to determine if management practices are implemented as identified in an activity plan, environmental assessment, environmental impact statement, Biological Assessment, or Biological Opinion.
- Effectiveness monitoring is used to determine if management practices, as designed and executed, are effective in meeting project goals and objectives as defined in an activity plan, environmental assessment, EIS, Biological Assessment, or Biological Opinion.

The results of monitoring will be summarized and shared, as requested, with state and federal agencies, Native groups, and other members of the public.

The design criteria and mitigation would be monitored on a specific action or sub-sample of activity or project. Agency representatives overseeing the actions would do the monitoring, as well as an interdisciplinary or multiparty team, through a combination of any of the following methods:

- Review environmental assessment, Biological Assessment, and Biological Opinion identified project specifications and terms and conditions to ensure that monitoring is provided for in contract or plans of operation (project design and mitigation criteria).

- Review project designs and plans of operation; review contract administration reports (daily diaries).
- Review activities on the ground before, during, and after implementation.

Where appropriate, photograph conditions before the project begins, during implementation, and after completion.

The Eastern Interior Field Office implementation and effectiveness monitoring strategy will include the use of databases and reporting mechanisms. Monitoring protocols will be in accord with appropriate BLM Technical Bulletins or other acceptable monitoring methods which would address the Desired Conditions and Habitat Metrics included in the Matrix of Pathways. Acceptable monitoring methods would be adaptive and include protocols that have been generally approved and accepted by state, federal, and other groups to document existing desired conditions.

I.3. Watershed Conditions Matrix and Effects Checklist

I.3.1. Watershed Condition Matrix

This watershed assessment matrix is adapted from the National Marine Fisheries Service (NMFS 1996) and is linked to the desired future condition for aquatic habitats. This matrix should be used during watershed assessments to determine existing watershed Condition Ratings. The three Condition Rating classes are 1) High, 2) Moderate, and 3) Low. The order of the pathways begins with the overall watershed scale indicators at the top and then focuses down through the channel conditions, and finally specific habitat elements.

The purpose of the watershed assessment matrix is to provide a rating for baseline conditions, these may be modified with new information or science which is applicable to conditions occurring in the planning area. This matrix may be updated, modified, or replaced with another watershed assessment tool if new science or new area/watershed resource data indicates changes are needed. The matrix depicting the range of desired conditions is shown in Table I.1, "Watershed Assessment Matrix".

Table I.1. Watershed Assessment Matrix

Pathway	Metric	High Condition	Moderate Condition	Low Condition	
Watershed	Watershed Road/Track Density	<1 mile per square mile	1-3 mile per square mile	>3 miles per square mile	
	Streamside Road/Track Density	<1 mile per square mile	1-2 mile per square mile	>2 mile per square mile	
	Riparian Vegetation Condition	Percent of riparian vegetation in the greenline dominated by late seral community types or anchored rocks/logs is >80% . The riparian vegetation provides adequate shade, large wood debris recruitment, and connectivity.	Percent of riparian vegetation in the greenline dominated by late seral community types or anchored rocks/logs is 50-79%. The riparian vegetation provides adequate shade, large wood debris recruitment, and connectivity.	Percent of riparian vegetation in the greenline dominated by late seral community types or anchored rocks/logs is <50%. The riparian vegetation provides adequate shade, large wood debris recruitment, and connectivity.	
Habitat Elements	Spawning Gravel	Surficial fine sediment (< 0.06 mm) is less than 5%.	Surficial fine sediment (< 0.06 mm) is 5-10%.	Surficial fine sediment (< 0.06 mm) is greater than 10%.	
	Large Woody Debris (LWD)	Near-natural levels of acting and potential large wood debris	Acting levels of large wood debris are near-natural, potential levels are below near-natural, or vice versa.	Both acting and potential levels of large wood debris are below near-natural levels.	
	Pool Frequency	Meets pool frequency occurrence	Meets pool frequency standards but large woody debris recruitment or other pool-creating factors are inadequate to maintain pools over time.	Does not meet pool frequency standards.	
	Channel Width (ft)				# pools/mile
	<=5				184
	>5<=10				96
	>10<=15				70
	<15>=20				56
<20>=25	47				
<25>=50	26				
<50>=75	23				
>75	18				
Pool Quality (based on 2008 BLM MIM ^a methodology or equivalent)	Pool quality rating >80	Pool quality rating 60-80	Pool quality rating <60		
Refugium	Adequate habitat refugia exist within watershed (number, size, condition, species requirements, and connectivity).	Limited habitat refugia exist within watershed (number, size, condition, species requirements, and connectivity).	Inadequate habitat refugia exist within watershed (number, size, condition, species requirements, and connectivity).		
Percent Surface Fines (< 6 mm)	A and B Rosgen Channel Types (RCTs) <=10% C and E RCTs <= 20%	A and B RCTs = 11-20% C and E CT's = 21-30%	A and B RCTs >= 21% C and E RCTs >= 31%		

Pathway	Metric	High Condition	Moderate Condition	Low Condition
Channel Condition and Dynamics	Width to Depth (W/D) Ratio	A RCTs <10 B RCTs <20 C RCTs <40 E RCTs <7 F RCTs <35 G RCTs <9	A RCTs <10-12 B RCTs <20-35 C RCTs <40-60 E RCTs <7-9 F RCTs <35-70 G RCTs <9-11	A RCTs >12 B RCTs >35 C RCTs >60 E RCTs >9 F RCTs >70 G RCTs >11
	Streambank Stability	A and B RCTs >95% C RCTs >90% E RCTs = 100%	A and B RCTs 90-95% C RCTs 80-90% E RCTs 95-100%	A and B RCTs <90% C RCTs <80% E RCTs <95%
	Floodplain Connectivity	Off-channel areas are seasonally hydrologically linked to main channel; overbank flows occur in the frequency and magnitude expected for the valley bottom or channel type setting.	Reduced linkage of wetland, floodplains and riparian areas to main channel; overbank flows are reduced or increased relative to historic frequency, as evidenced by moderated aggradation or degradation.	Severe reduction of increase in overbank flows occur relative to the frequency and magnitude expected for the valley bottom or channel type setting; wetland area drastically reduced and riparian vegetation/succession altered significantly.
Water Quality	State Standards (Turbidity, Temperature, etc.,)			
Habitat Access	Physical barriers – adults	Any human-made barriers present in watershed allow full upstream and downstream fish passage at all flow (no barrier).	Any human-made barriers present in watershed are a partial barrier to upstream or downstream fish passage.	Any human-made barriers present in watershed are a full barrier to upstream or downstream fish passage at all flows.
	Physical barriers- juveniles	Any human-made barriers present in watershed allow full upstream and downstream fish passage at all flow (no barrier).	Any human-made barriers present in watershed are a partial barrier to upstream or downstream fish passage.	Any human-made barriers present in watershed are a full barrier to upstream or downstream fish passage at all flows.

^aMultiple Indicator Monitoring

I.3.2. Environmental Baseline and Effects Checklist

In concert with the results of the baseline habitat assessment for a given watershed, the following checklist (Table I.2, "Checklist for Documenting Environmental Baseline and Effects of Action(s) on Relevant Indicators") should be used to determine the effects of site-specific actions on aquatic habitats. These indicators are a suite of metrics that collectively influence aquatic habitat quality and the health of cold-water fish populations. These indicators should not be used individually to determine if a given action should or should not be authorized. This checklist is a decision support tool to aid biologists with impact analysis and the associated identification of appropriate mitigation measures. For some metrics data may not be available, for other metrics extensive information may exist. A summary rationale associated with each indicator baseline rating and the effect determination should be attached to the completed checklist.

The Environmental baseline consists of ratings of High, Moderate, or Low condition.

For the purposes of this checklist, the following definitions apply:

- "Restore" means to change the function of the indicator for the better, or that the restoration rate is increased.
- "Maintain" means that the function of an indicator will not be degraded and the natural rate of restoration for this indicator will not be impaired.
- "Degrade" means to change the function of the indicator for the worse, or that the natural rate of restoration will be impaired.

Table I.2. Checklist for Documenting Environmental Baseline and Effects of Action(s) on Relevant Indicators

Pathways Indicator	Environmental Baseline			Effects of the Action(s)		
	High Condition	Moderate Condition	Low Condition	Restore	Maintain	Degrade
Watershed Conditions						
Watershed Road/Track Density						
Streamside Road/Track Density						
Riparian Vegetation Condition						
Channel Conditions						
Width to Depth (W/D) Ratio						
Stream bank Stability						
Floodplain Connectivity						
Water Quality						
Temperature						
Turbidity						
Habitat Access						
Physical barriers – adults						
Physical barriers- juveniles						
Habitat Elements						
Cobble Embeddedness						
Large Woody Debris (LWD)						
Pool Frequency						
Pool Quality						
Refugium						
Percent Surface Fines						

I.4. Future Watershed Adjustments

Future identification of aquatic species as Special Status (e.g., federally listed under the Endangered Species Act, BLM Sensitive) in the planning area would result in an evaluation of specific watersheds utilized by the species or considered necessary for recovery to determine if additional RCAs are appropriate. Currently, no watersheds within the planning area are considered to be necessary for the recovery of special status aquatic species. Therefore no RCAs were identified based on the presence of Special Status Aquatic Species.

The intent of this approach to adding future RCAs is to provide high quality habitat for rare species and support expansion and recolonization of these species to adjacent watersheds. These areas should conserve key processes likely to influence the persistence of populations or metapopulations. Additions to, deletions from, or modifications of, Special Status Aquatic Species RCA watersheds would be based on new information, revisions to the BLM-Alaska Sensitive Species List, or as species are listed under the Endangered Species Act. In general, these additions would be accomplished through the development of activity plans, such as Fisheries Habitat Management Plans, which would outline management goals and objectives. As with other RCAs, management activities would emphasize achieving or maintaining the riparian and aquatic values, including key processes, for which they are being managed.

I.5. Watershed Assessment Process

The purpose of a watershed assessment is to develop and document an understanding of the ecological structures, functions, processes, and interactions occurring at the watershed scale (5th-6th HUC unit). This process is designed to describe past and current conditions, and develop restoration or management recommendations. The ultimate goal is to provide guidance for management actions that would sustain or improve the health and productivity of natural resources.

Objectives of Watershed Analysis

1. Evaluate cumulative watershed effects – watershed analysis enhances the ability to estimate direct, indirect, and cumulative effects of management activities.
2. Define watershed restoration needs, goals and objectives (if needed) – provide guidance on the general type, location, and sequence of appropriate activities within a watershed.
3. Monitor the effectiveness of watershed protection measures – process for adaptive management feedback loop.
4. Provide sufficient watershed context for understanding and carrying out land use activities with a geomorphic context – important tool used in meeting ecosystem management objectives.

Appropriate Methodology

The Federal Guide for Watershed Analysis—Ecosystem Analysis at the Watershed Scale Version 2.3 (Forest Service 1996) was used as a general guide to develop a framework for conducting watershed assessments; however, other processes can be utilized or developed to satisfy the objectives outlined above. For example, a more rapid watershed assessment process emphasizing remote sensing data analysis coupled with stream survey data (e.g., riparian condition, stream habitat, water quality, fish species diversity) may optimize assessment efficiency and identify areas requiring more field intensive inventories.

The following six-step process is not issue-driven but focuses on analysis topics, along with specific watershed problems and concerns. This analysis is not a decision making process but will help identify opportunities for future management actions, including planning, project development, and regulatory compliance. Below is a summary the six steps taken to develop an ecosystem analysis at the watershed scale.

Step 1 Characterization of the Watershed: Identify the dominant physical, biological, and human processes or features of the watershed that affect ecosystem functions or conditions, including the relationship between these ecosystem elements and those occurring in the river basin and/or watersheds. When characterizing the watershed, team members identify the most important land allocations, plan objectives, and regulatory constraints that influence resource management in the watershed.

Step 2 Identification of Issues and Key Questions: Focus the analysis on the key elements of the ecosystem that are most relevant to the management questions and objectives, human values, or resource conditions within the area.

Step 3 Description of Current Conditions: Develop more detailed information relevant to the issues and key questions identified in Step 2. Step 3 is where the current range, distribution, and condition of the relevant ecosystem elements are documented.

Step 4 Description of Reference Conditions: Explain how ecological conditions have changed over time as a result of human influence and natural disturbances. A reference is developed for later comparison with current conditions over the period that the system evolved and with key management plan objectives.

Step 5 Synthesis and Interpretation of Information: Compare existing and reference conditions of specific ecosystem elements and to explain significant differences, similarities, or trends and their causes. The capability of the system to achieve key management plan objectives is also evaluated.

Step 6 Recommendations: Identify management recommendations that address resource problems noted in this analysis and then to change the current watershed conditions toward the desired future condition for this area. Recommendations, monitoring needs, and data gaps are identified and described. These are recommendations based on the data currently available. This is an ongoing process and alternative or additional recommendations may be made in the future.

I.6. Recommended Conservation Measures for Essential Fish Habitat

The following are recommended conservation measures for Essential Fish Habitat (EFH). These are based on *The Final Environmental Impact Statement for Essential Fish Habitat Identification and Conservation in Alaska, Appendix G - Non-fishing Impacts to Essential Fish Habitat and Recommended Conservation Measures* (NMFS 2005).

Roads and Road Maintenance

The following conservation measures for road building and maintenance should be viewed as options to avoid and minimize adverse impacts and promote the conservation, enhancement, and proper functioning of EFH.

1. To the extent practicable, avoid locating roads near fish-bearing streams. Roads should be sited to avoid sensitive areas such as streams, wetlands, and steep slopes.
2. Incorporate appropriate erosion control and stabilization measures into road construction plans to reduce erosion potential.
3. Build bridges when possible. If culverts are used, they should be sized, constructed, and maintained to match the gradient and width of the stream, to accommodate design flood flows, and they should be large enough to provide for migratory passage of adult and juvenile fishes. If appropriate, consider using the culvert guidelines contained in the Alaska Department of Fish and Game and the Alaska Department of Transportation and Public Facilities Fish Pass Memorandum of Agreement, August 2001 online at http://www.sf.adg.state.ak.us/SARR/fishpassage/pdfs/dot_adfg_fishpass080301.pdf.
4. Locate stream crossings in stable stream reaches.
5. Design bridge abutments to minimize disturbances to stream banks and place abutments outside of the floodplain whenever possible.
6. To the extent practicable, avoid road construction across alluvial floodplains, mass wastage areas, or braided stream bottom lands unless site-specific protection can be implemented to ensure protection of soils, water, and associated resources.
7. Avoid side-casting of road construction and maintenance materials on native surfaces and into streams.
8. To the extent practicable, use native vegetation in stabilization

Mineral Mining

The following measures are adapted from recommendations in Spence et al., (1996), NMFS (2004), and Washington Department of Fish and Wildlife (1998). They should be viewed as options to avoid and minimize impacts and promote the conservation, enhancement, and proper functioning of EFH.

1. To the extent practicable, avoid mineral mining in waters, riparian areas, and floodplains containing EFH.
2. Schedule necessary in-water activities when the fewest species and least vulnerable life stages of federally managed species will be present.
3. Use an integrated environmental assessment, management, and monitoring package in accordance with state and federal law and regulations. Allow for adaptive operations to minimize adverse effects on EFH.
4. Minimize spillage of dirt, fuel, oil, toxic materials, and other contaminants into EFH. Prepare a spill prevention plan if appropriate.
5. Treat wastewater (acid neutralization, sulfide precipitation, reverse osmosis, electrochemical, or biological treatments) and recycle on site to minimize discharge to streams. Test wastewater before discharge for compliance with federal and state clean water standards.
6. Minimize opportunities for sediments to enter or affect EFH. Use methods such as contouring, mulching, and construction of settling ponds to control sediment transport. Monitor turbidity during operations, and cease operations if turbidity exceeds predetermined threshold levels. Use methods such as turbidity/sediment curtains to limit the spread of suspended sediments and minimize the area affected.
7. If possible, reclaim rather than bury, mine wastes that contains heavy metals, acid materials, or other toxic compounds, if leachate can enter EFH through groundwater.
8. Restore natural contours and plant native vegetation on-site after use to restore habitat function to the extent practicable. Monitor the site for an appropriate time to evaluate performance and implement corrective measures if necessary.

9. Minimize the aerial extent of ground disturbance (e.g., through phasing of operations), and stabilize disturbed lands to reduce erosion.

Sand and Gravel Mining

Individual gravel extraction operations should be judged in the context of their spatial, temporal, and cumulative impacts. Potential impacts to habitat should be viewed from a watershed management perspective. The following recommended conservation measures for sand and gravel mining are adapted from NMFS (2004) and Oregon Water Resource Research Institute (1995). They should be viewed as options to avoid and minimize impacts and promote the conservation, enhancement, and proper functioning of EFH.

1. To the extent practicable, avoid sand and gravel mining in waters containing EFH. Many factors influence site selection for a gravel or sand mining site. Because of the need to incorporate technical, economic, and environmental factors, siting decisions should be considered on a case-by-case basis (U.S. Fish and Wildlife Service 1980).
2. Identify upland or off-channel (where the channel will not be captured) gravel extraction sites as alternatives to gravel mining in or adjacent to EFH, if possible.
3. Design, manage, and monitor sand and gravel mining operations to minimize potential direct and indirect impacts to EFH, if operations in EFH cannot be avoided. This includes, but is not limited to, migratory corridors, foraging and spawning areas, stream/river banks, and intertidal areas.
4. Minimize the areal extent and depth of extraction.
5. Include restoration, mitigation, and monitoring plans, as appropriate in sand/gravel extraction plans.

Oil/Gas Exploration/Development/Production

As part of pre-project planning, identify all species of concern regulated under federal or state fishery management plans that inhabit, spawn, or migrate through areas slated for exploration, development, or production. Pay particular attention to critical life stages, and develop options that avoid and minimize adverse effects from any associated activities. Modify the project design, timing, or location and use adaptive management.

1. Avoid the discharge of produced waters into marine waters and estuaries. Reinject produced waters into the oil formation whenever possible.
2. Avoid discharge of muds and cuttings into the marine and estuarine environment. Use methods to grind and reinject such wastes down an approved injection well or use onshore disposal wherever possible. When not possible, provide for a monitoring plan to ensure that the discharge meets EPA effluent limitations and related requirements.
3. To the extent practicable, avoid the placement of fill to support construction of causeways or structures in the nearshore marine environment.
4. As required by federal and state regulatory agencies, encourage the use of geographic response strategies that identify EFH and environmentally sensitive areas. Identify appropriate cleanup methods and response equipment.
5. To the extent practicable, use methods to transport oil and gas that limit the need for handling in environmentally sensitive areas, including EFH.
6. Ensure that appropriate safeguards have been considered before drilling the first development well into the targeted hydrocarbon formations whenever critical life history stages of federally managed species are present.

7. Ensure that appropriate safeguards have been considered before drilling exploration wells into untested formations whenever critical life stages of federally managed species are present. If possible, avoid such work entirely during those time frames.
8. Oil and gas transportation and production facilities should be designed, constructed, and operated in accordance with applicable regulatory and engineering standards.
9. Evaluate impacts to EFH during the decommissioning phase of oil and gas facilities, including possible impacts during the demolition phase. Minimize such impacts to the extent practicable

Habitat Restoration/Enhancement

The following recommended conservation measures should be viewed as options to avoid and minimize adverse impacts and promote the conservation, enhancement, and proper functioning of EFH.

1. Use best management practices (BMPs) to minimize and avoid potential impacts to EFH during restoration activities. BMPs should include, but are not limited to, the following:
 - a. Use turbidity curtains, haybales, and erosion mats to protect the water column.
 - b. Plan staging areas in advance, and keep them to a minimum size.
 - c. Establish buffer areas around sensitive resources; flag and avoid rare plants, archaeological sites, etc.
 - d. Remove invasive plant and animal species from the proposed action area before starting work. Plant only native plant species. Identify and implement measures to ensure native vegetation or revegetation success.
 - e. Establish temporary access pathways before restoration activities to minimize adverse impacts from project implementation.
3. Avoid restoration work during critical life stages for fish such as spawning, nursery, and migration. Determine these periods before project implementation to reduce or avoid any potential impacts.
4. Provide adequate training and education for volunteers and project contractors to ensure minimal impact to the restoration site. Train volunteers in the use of low-impact techniques for planting, equipment handling, and any other activities associated with the restoration.
5. Conduct monitoring before, during, and after project implementation to ensure compliance with project design and restoration criteria. If immediate post-construction monitoring reveals that unavoidable impacts to EFH have occurred, ensure that appropriate coordination with NMFS occurs to determine appropriate response measures, possibly including mitigation.
6. To the extent practicable, mitigate any unavoidable damage to EFH within a reasonable time after the impacts occur.
7. Remove and, if necessary, restore any temporary access pathways and staging areas used in the restoration effort.
8. Determine benthic productivity by sampling before any construction activity in the case of subtidal enhancement (e.g., artificial reefs). Avoid areas of high productivity to the maximum extent possible. Develop a sampling design with input from state and federal resource agencies. Before construction, evaluate of the impact resulting from the change in habitat (sand bottom to rocky reef). During post-construction monitoring, examine the effectiveness of the structures for increasing habitat productivity

Appendix J
ANILCA Section 810
Analysis

Appendix J. ANILCA Section 810 Analysis

On February 29, 2008, the BLM issued a Notice of Intent to prepare a Resource Management Plan (RMP) and an associated Environmental Impact Statement (EIS) for public lands within the planning area (Map 1). As defined by the Federal Land Policy and Management Act (FLPMA), “public lands” are those federally managed lands and interests in lands (such as federal mineral estate) that are administered by the Secretary of the Interior through the BLM. In this case, public lands also include lands selected, but not yet conveyed, to the State of Alaska and Native corporations and villages.

Current management of these lands is guided by the Steese RMP (1986a), Birch Creek River Management Plan (1983b), White Mountains RMP (1986b), Beaver Creek River Management Plan (1983c), Fortymile Management Framework Plan (BLM 1980) and Fortymile River Management Plan (BLM 1983a). Since approval of these plans, new regulations and policies have created additional considerations that affect the management of public lands and new issues and concerns have arisen. Some of the decisions in the RMPs and MFP are no longer valid or have been superseded by requirements that did not exist when those plans were prepared.

BLM lands in the Upper Black River Subunit are not covered by an existing plan. Through the completion of the Eastern Interior RMP/EIS the BLM proposes to develop a comprehensive land use plan that will guide the management of the public lands and interests administered by the Fairbanks District Office through the next 20 years.

J.1. Subsistence Evaluation Factors

Section 810(a) of the Alaska National Interest Lands Conservation Act (ANILCA) requires that an evaluation of subsistence uses and needs be completed for any federal determination to “withdraw, reserve, lease, or otherwise permit the use, occupancy or disposition of public lands.” As such, an evaluation of potential impacts to subsistence under ANILCA Section 810(a) must be completed for the Eastern Interior RMP/EIS. ANILCA requires that this evaluation include findings on three specific issues: 1) The effect of use, occupancy, or disposition on subsistence uses and needs; 2) The availability of other lands for the purpose sought to be achieved; and 3) Other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes (16 USC Section 3120).

The evaluation and findings required by the ANILCA Sec. 810 are developed by planning subunit for each of the four alternatives considered in the Eastern Interior RMP/EIS.

A finding that the proposed action may significantly restrict subsistence uses imposes additional requirements. These include provisions for notices to the State of Alaska and appropriate regional and local subsistence councils, a hearing in the vicinity of the area involved, and the making of the following determinations, as Section 810(a)(3) requires that: 1) Such a significant restriction of subsistence uses is necessary and consistent with sound management principles for utilization of the public lands; 2) The proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of use, occupancy, or other disposition; and, 3) Reasonable steps will be taken to minimize adverse effects upon subsistence uses and resources resulting from such actions.

To determine if a significant restriction of subsistence uses and needs may result from any one of the alternatives discussed in the Resource Management Plans, including their cumulative effects,

the following three factors are considered: 1) The reduction in the availability of subsistence resources caused by a decline in the population or amount of harvestable resources; 2) reductions in the availability of resources used for subsistence purposes caused by alteration of their normal location and distribution patterns; and, 3) limitations on access to subsistence resources, including from increased competition for the resources.

A significant restriction to subsistence may occur in at least two instances: 1) When an action substantially reduces populations or their availability to subsistence users; and, 2) when an action substantially limits access by subsistence users to resources. Chapter 3: Affected Environment of this Resource Management Plan provides information on areas and resources important for subsistence use, and the degree of dependence of affected villages or communities on different subsistence populations. Chapter 4 (Environmental Consequences) provides much of the data on potential impacts and limitations by subunit under each alternative, which was used to determine whether the action would cause a significant restriction to subsistence. The information contained in this Resource Management Plan is the primary data used in this analysis.

A subsistence evaluation and findings under ANILCA Section 810 must also include a Cumulative Impacts analysis. The following section begins with evaluations and findings by subunit for each of the four alternatives discussed in this Resource Management Plan. The cumulative case, as discussed in Chapter 4 (Environmental Consequences) of this RMP, is evaluated. This approach helps the reader separate the subsistence restrictions that potentially would result from activities proposed under the four alternatives, from those that would potentially be caused by past, present, and future activities that could occur, or have already occurred, in the surrounding area.

When analyzing the effects of the four alternatives, particular attention is paid to those communities, primarily local communities, which potentially may be most directly impacted by the proposed actions. These communities are within or adjacent to the planning area. The cumulative case expands the analysis to include nearby lands outside the planning area and assesses any impacts to subsistence that may result from negative effects to migratory subsistence species.

In addition to ANILCA, Environmental Justice, as defined in Executive Order 12898, also calls for an analysis of the effects of federal actions on minority populations with regard to subsistence. Specifically, Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and Tribal programs and policies. Section 4-4 of Executive Order 12898, regarding the Subsistence Consumption of Fish and Wildlife, requires federal agencies to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. The Order also requires these agencies to communicate to the public any risks associated with the consumption patterns from activities that they are proposing. To this end, the description of subsistence use as presented in Chapter 3 (Existing Environment), as well as the subsistence analyses of the alternatives located in Chapter 4 (Environmental Consequences) of this Resource Management Plan, were reviewed and found to comply with the Environmental Justice requirements of EO 12898.

J.2. ANILCA 810(a) Evaluations and Findings by Subunit

The following evaluations are based on information relating to the environmental and subsistence consequences by planning subunit (Map 1) of Alternatives A through D, and the cumulative impacts analysis as presented in Chapter 4 (Environmental Consequences) of the RMP/EIS. The Required Operating Procedures (ROPs) and Fluid Mineral Leasing Stipulations (leasing stipulations) discussed in Appendix A of the RMP/EIS are also considered for the alternatives to which they apply. The evaluations and findings focus on potential impacts to the subsistence resources, access to resources, and economic and cultural issues that relate to subsistence use.

The action alternatives, and the leasing stipulations and ROPs accompanying them, take into consideration all comments and concerns generated during the scoping process for the plan.

J.2.1. Evaluation and Finding for Fortymile Subunit

J.2.1.1. Fortymile Alternative A

Selection of Alternative A would result in continued management of the Fortymile Subunit as specified in the 1980 Fortymile Management Framework Plan (MFP) and Fortymile River Management Plan (BLM 1983a). Valid decisions contained in the Fortymile MFP and River Management Plan would be implemented if not already completed. Direction contained in existing laws, regulation and policy would also continue to be implemented, sometimes superseding provisions in the plans. The current levels, methods and mix of multiple use management of public land in the planning area would continue, and resource values would receive attention at present levels. In general, most activities would be analyzed at the project level and few uses would be limited or excluded as long as they were consistent with state and federal laws. Alaska Native Claims Settlement Act (ANCSA) 17(d)(1) withdrawals would remain in place, prohibiting new mineral entry or mineral leasing on all BLM-managed lands. Wildland fire would be managed consistent with the Alaska Land Use Plan Amendment for Wildland Fire and Fuels Management (BLM 2004b, 2005c).

Evaluation of the Effects of Use, Occupancy, or Disposition

Under Alternative A, the primary impacts to subsistence would be associated with proposed land use. This includes existing placer mining on existing valid claims and long-term camping associated with state suction dredge operations, and continuation of the current management of Recreation and Off Highway Vehicle (OHV) use as described in the MFP. The term OHV refers to "any motorized vehicle capable of, or designated for, travel on or immediately over land, water, or other natural terrain," as defined in the National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands (BLM 2001a).

Management of resources (including water, cultural and paleontological; fish, wildlife, and vegetation; and of resource uses, including mining and lands activities) requires inventory and monitoring of conditions and populations and field site visits for compliance examinations. Activities that support data collection may displace subsistence resources from traditional harvest areas. Disturbance from the use of aircraft and OHV during management surveys will be temporary and localized and will not affect any fish, wildlife or vegetative resources at the population level. Inventory and monitoring efforts will benefit subsistence resources by providing valuable data on distribution and population parameters.

Of the four alternatives, Alternative A supports the least amount of mineral entry and leasing, as the entire area is withdrawn under ANCSA 17(d)(1). As mining is limited to existing claims, impacts of mining on subsistence resources are minimal. Effects are mostly localized as placer mining is concentrated along the road and river-accessible portions of the Fortymile WSR. Suction dredging is conducted through state claims in navigable sections of the Fortymile WSR and is outside the jurisdiction of BLM management. BLM authorized long-term camping in support of state suction dredge claims would not impact subsistence resources or uses.

Under Alternative A, the greatest impact to subsistence would result from continuing current management standards for OHV and recreational use in the Fortymile Subunit. Commercial recreational use is minimal and amounts to one or two permits for non-motorized boating. OHV use in the WSR corridor is limited to cross-country use of vehicles 1,500 pounds curb weight and under without a permit or approved Plan of Operations. Travel is not restricted outside the WSR corridor on BLM lands.

Recreation and OHV use is predicted to continue to increase with population growth in the state and as OHV technology continues to advance. With few restrictions on OHV use and no established limits on visitor use, impacts to subsistence resources could increase. Cross-country access would likely increase competition for harvest of wildlife resources by all users. Social trail proliferation often occurs when use is not limited to designated trails, which increases the opportunity for introduction and spread of non-native invasive plant (NIP) species. NIP species alter vegetative communities and fish and wildlife habitats, usually to the detriment of native species. Crossing rivers and streams is inevitable and leads to multiple impacts to fishery resources as the result of stream bank erosion, sedimentation and pollutants (solvents and fuels), which can result in direct mortality of fish and diminished water quality. Fish habitat would be impacted by these as well as OHV trampling of stream side vegetation. Non-native invasive species, such as aquatic plants and invertebrates harmful to fish, can be introduced in waterways when OHV harboring them cross rivers and streams.

While fish and aquatic habitat resources are not high value within the Fortymile WSR, they would benefit from any use restriction, such as withdrawal from mineral entry, applied within the designations (Chapter 4 Impacts Specific to the Fortymile Subunit Fish and Aquatic Species).

During scoping for the plan, residents of the subunit expressed concern over the large number of hunters from outside the local area competing with local subsistence hunters for moose and caribou. Concerns centered mostly on access and careful designation of trails. Although BLM-managed lands important to harvest of subsistence resources are open to cross-country access by OHV under this alternative, most of the harvest of moose and caribou occurs on nearby state and private lands where mitigation of the competition for these resources is outside the scope of the RMP.

Moose harvest by local residents from regulatory year (RY) 1998-99 to 2006 -07 averaged 30.4 moose and ranged from 20 – 47 moose (Gross 2008). Local residents, for the purpose of this data set, are residents of Unit 12, Unit 20(E) and eastern Unit 20(D) (Eagle, Chicken, Boundary, Northway, Tetlin, Tok, Tanacross, Slana, and Dot Lake). This differs from the customary and traditional use determinations (C&T) for federally qualified subsistence users in that residents of Delta, Healy Lake, Circle, Central, and Mentasta Lake also qualify, but residents of Slana do not.

Harvest from the Fortymile caribou herd (FCH) by federally qualified subsistence users occurs in Unit 20(E) but also the portion of Unit 25(C) in the Steese Subunit. Harvest of FCH by local residents from both subunits from RY 2002-03 through RY 2006-07 averaged 134 animals and

ranged from 114 – 184 animals (Gross 2007). Local residents for this data set are residents of Units 12, 20(E) and eastern 20(D), and Circle and Central. The C&T determination for FCH in Unit 20(E) includes local residents of Delta and Healy Lake. The C&T determination for FCH in Unit 25(C) is all rural residents, as defined by the Federal Subsistence Management Regulations for the Harvest of Wildlife on Federal Public Lands in Alaska. Table 3.35, “Harvest by Village for Fortymile Caribou” in Chapter 3 (Affected Environment) displays harvest of FCH by local communities from 2004 to 2008.

Impacts to subsistence resources and uses from other potential industries, such as mineral materials (gravel pits), and forest products (timber sales) are expected to be minor given the anticipated levels of these activities. Effects from these uses would be similar for all alternatives and are not discussed further.

Evaluation of the Availability of Other Lands

The purpose sought to be achieved under Alternative A would be to continue the current management of BLM-managed lands in the subunit under the 1980 Fortymile Management Framework Plan. Other federal public lands in the subunit are managed under National Park Service (Yukon-Charley Rivers National Preserve) or U.S. Fish and Wildlife Service (Tetlin NWR) planning documents. Other BLM lands in the state either already have land use planning documents in place, or are being addressed by separate planning processes. State and Native corporation lands cannot be considered in a BLM plan and BLM-managed lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

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

J.2.1.2. Fortymile Alternative B

Alternative B emphasizes active measures to protect and enhance resource values. Production of minerals and services would be more constrained than in Alternatives C or D and in some areas, uses would be excluded to protect sensitive resources. The Fortymile Area of Critical Environmental Concern (ACEC) and Special Recreation Management Areas (SRMA) are

identified, and specific measures are proposed to protect or enhance values within these areas. Two eligible rivers, Dome Creek (recreational) and Gold Run (wild) are recommended as suitable for designation under the Wild and Scenic River Act. Limited areas are proposed for off-highway vehicles (OHV) to protect habitat, soil and vegetation resources. In all action alternatives in this subunit, where access is closed to OHV or other motorized transport, subject to reasonable regulations and with a free permit, federally qualified subsistence users may be permitted to use some forms of motorized vehicles for subsistence purposes, such as OHV of a certain size or personal watercraft, for subsistence. Approximately 1,012,000 acres would be closed to locatable mineral entry in order to protect or maintain resource values.

Evaluation of the Effects of Use, Occupancy, or Disposition

The analysis of effects from Alternative B concludes that impact as a result of management actions or designations within the planning area will not result in significant reductions in subsistence resources or uses. Many of the proposed actions serve to positively impact subsistence in that management would emphasize habitat and resource protection. While some development activity could occur under this alternative, areas of important habitat would be protected by special designation, and by the stipulations and ROPs as presented in Appendix A. The creation of new SRMAs, ACECs, and/or the designation of rivers as WSRs, do not limit or impose any restriction on subsistence use as defined in ANILCA Title VIII.

The Fortymile ACEC (732,000 acres, Map 70) would be created to protect Fortymile caribou calving and postcalving habitat and Dall sheep habitat. The area would remain closed to entry, location, and leasing of minerals, subject to valid existing rights, and would be generally free of summer motorized use. The rest of the Fortymile WSR Corridor, the SRMA, suitable rivers, and other withdrawn areas would also remain closed to leasable and locatable minerals. Some exploration on other lands for leasable minerals may occur over the life of the plan but is expected to be minimal because limited potential and interest exist.

OHV designations would be put into place for the entire subunit. Summer OHV use outside the Semi-Primitive Recreation Management Zones (RMZs) would be on existing trails only. Recreation in the area will largely be managed for Semi-Primitive or Backcountry values (Table 2.4, "Recreation Setting Decision Matrix for the Eastern Interior Planning Area"). These prescriptions will limit impacts to subsistence resources and uses. In areas designated as Closed to motorized vehicle travel (Primitive RMZs), subject to reasonable regulations, a free permit may be issued for access via snowmobiles, motorboats and airplanes for traditional activities and for travel to and from villages and homesites (ANILCA Sec. 1110). Similarly, federally qualified subsistence users, subject to reasonable regulation and with a free permit, may be permitted to use snowmobiles, motorized boats, aircraft or other means of surface transportation traditionally employed for subsistence purposes (ANILCA Sec. 811).

Eleven watersheds in the Fortymile Subunit have been identified to be managed as Riparian Conservation Areas (RCA). RCAs are watersheds that contain the highest fisheries and riparian resource values. Emphasis is on protection of riparian-dependent resources and management of activities subject to specific ROPs, such as collection of stream-specific baseline data and expediting reclamation (Chapter 2 Fish and Aquatic Species).

Areas important to fish and wildlife subsistence resources are largely protected because they are within the Fortymile WSR Corridor, ACEC, RCAs and SRMA.

Evaluation of the Availability of Other Lands

Alternative B would manage BLM public lands in the Fortymile Subunit in order to optimize conservation. Lands managed by other federal agencies in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents, and are considered conservation system units. Other BLM lands in the state either already have land use planning documents in place that specify the amounts and types of activities that can or cannot occur, or are currently being evaluated by separate planning processes. State of Alaska and Native corporation lands cannot be considered in a BLM plan and BLM lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the no action and three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative B would not significantly restrict subsistence use of or access to fish, wildlife and vegetative resources by residents in the subunit. Most impacts to subsistence resources would be beneficial, and any impacts from the limited amount of development allowed to occur under this alternative would be minimized by leasing stipulations and ROPs (Chapter 2 and Appendix A).

J.2.1.3. Fortymile Alternative C

Alternative C emphasizes a moderate level of protection, use, and enhancement of resources and services. Constraints to protect resources would be implemented, but would be less restrictive than under Alternative B. This alternative would designate a smaller ACEC and SRMA with nine Recreation Management Zones (RMZs). No rivers would be recommended as suitable for designation under the WSRA. This alternative would open approximately 70 percent of the area to leasable and locatable minerals. Only a portion of the ACEC and the Fortymile WSR Corridor would be closed to mineral entry.

Evaluation of the Effects of Use, Occupancy, or Disposition

Impacts to subsistence resources and uses from the increased level of development allowed by this alternative would be similar to those for Alternative B except more acres are available for authorized mineral exploration and development and use of OHV 1,500 pounds curb weight and under would be allowed without a permit or approved Plan of Operation.

Under Alternative C, a smaller Fortymile ACEC (547,000 acres) would be created to protect Fortymile caribou calving and postcalving habitat and Dall sheep habitat. Only portions of the area would remain closed to entry, location and leasing of minerals, subject to valid existing rights (Maps 27 and 28). Areas of concentrated calving and postcalving mostly remain closed to mineral

location and entry (Chapter 4, Impacts Specific to the Fortymile Subunit, Wildlife). The Fortymile WSR Corridor and SRMA would remain closed to fluid leasable and locatable minerals. There would be one RCA. Some exploration for leasable minerals on other BLM-managed lands may occur over the life of the plan, but is expected to be minimal. Development of locatable minerals is predicted to be small but may require new access, which could facilitate travel for hunting by all users and increase competition for subsistence resources.

Fish and aquatic habitat resources are not high value within the WSR and ACEC, but would benefit from any use restriction applied within these designations (Chapter 4 Impacts Specific to the Fortymile Subunit Fish and Aquatic Species).

The area where summer motorized use would be allowed would be larger and include most of the ACEC and much of the Fortymile WSR Corridor. OHV would be restricted to existing trails, although off-route travel for game retrieval would be allowed. Off-route game retrieval could increase participation by non-local hunters over Alternative B but participation would be similar to that for the No Action Alternative. The Semi-Primitive RMZs would be the Middle Fork (including the North Fork and Champion Creek) and most of the Mosquito Fork and would remain closed to summer OHV use.

The increase in impacts to subsistence resources from this alternative would be small, because existing trail routes in the area are limited. Only a small portion of this area is accessible by existing trails. New trails or access that would be created for recreation or resource development would be analyzed and mitigation attached to minimize impacts to subsistence resources and uses.

Evaluation of the Availability of Other Lands

Alternative C would manage BLM lands in the subunit following the BLM mission of multiple use, while at the same time protecting priority habitat and enhancing natural resource values. Other lands in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents, and are conservation system units. Other BLM-managed lands in Alaska either already have land use planning documents in place that specify the amounts and types of activities that can or cannot occur, or are currently being evaluated by separate planning processes. State and Native corporation lands cannot be considered in a BLM plan and BLM lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands for subsistence include the no action and three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative C would not significantly restrict subsistence use by communities in the planning area. Most impacts to subsistence resources and uses would be negligible, and any impacts from the limited amount of development expected to occur would be minimized by the locatable and leasing permit stipulations and ROPs discussed in Chapter 2 and Appendix A. The impacts to

subsistence species are expected to be localized and temporary, and are not expected to impact resources at the population level. No impacts to access by subsistence users are expected to occur.

Competition for subsistence resources, particularly for caribou and moose, occurs due to the large number of non-local hunters. As opportunities to harvest wildlife become more restrictive in other parts of the state, participation in the FCH seasons has increased. Most harvest occurs on lands not managed by the BLM. Conflicts due to competition are issues outside the scope of the Eastern Interior RMP/EIS. Efforts to reduce these conflicts would be accomplished through limits in regulations on hunting seasons, harvest limits, and methods and means, which are the responsibility of the Federal Subsistence Board and the Alaska Board of Game.

J.2.1.4. Fortymile Alternative D

Alternative D emphasizes active management to facilitate resource development on BLM lands in the subunit. Approximately 7.5 percent of BLM-managed lands would remain closed to mineral leasing and location. Travel and trail restrictions would be minimized. A smaller ACEC, focused on habitat protection management, and SRMA, focused on management of recreational use, would be identified. In other areas recreation management would focus on dispersed recreation and management of permits.

Evaluation of the Effects of Use, Occupancy, or Disposition

Impacts to subsistence resources and uses from the increased level of development and use allowed by this alternative would be similar in nature to the other action alternatives, but greater in scope. Higher percentages of land would be available for leasable and locatable minerals and limits on OHV and recreation would be less than other alternatives.

Under Alternative D, the Fortymile ACEC would be 546,000 acres and continue to allow some protection to Fortymile caribou calving and postcalving habitat and Dall sheep habitat. Most of the area would be open to location, entry and leasing of minerals. The potential impacts to caribou calving and postcalving would be the greatest in this alternative (section 4.4.1.7 Wildlife Fortymile Subunit). Mineral licks used by Dall sheep and “wild” and “recreational” segments of the Fortymile WSR would be closed to leasable and locatable mineral exploration and development.

Although exploration for oil and gas may occur on BLM-managed lands in the subunit, no development would occur under this plan. Proposals for development would be analyzed with a new NEPA process.

Exploration and development of locatable minerals is predicted to be small and would likely be in more remote areas of the subunit, where new access may be required. Increased access into more remote areas could facilitate travel for hunting and trapping and increase competition for subsistence resources.

Fish and aquatic habitat resources, while not high value within the Fortymile WSR, would benefit from any use restriction, such as withdrawal to mineral entry, applied within the designations (Chapter 4.4.1.2 Fish and Aquatic Species Fortymile Subunit).

Cross-country summer use of OHV (limited to 1,500 pounds curb weight and less) would be allowed on all but about 54,000 acres of the 2,077,000 acres of BLM-managed lands in the subunit. The Middle Fork (including the North Fork and Champion Creek) and most of the Mosquito Fork, which are the Semi-Primitive Zones, would remain closed to summer OHV use.

Impacts would be similar to those for the No Action Alternative, which allows cross-country summer use on all BLM-managed lands in the Fortymile Subunit. This travel prescription is not likely to lead to increased participation by non-local hunters for caribou, because most effort occurs along the highway and Chicken Ridge trail system. Participation by non-locals for harvest of moose would not be expected to change based on current trends and because OHV prescriptions would remain much the same as current management. Participation is more likely to increase as a result of increasing population in the state and an increased demand for resources.

Evaluation of the Availability of Other Lands

Alternative D would manage BLM lands in the subunit to optimize resource use and development, with fewer restraints on commercial or recreation activity. Lands managed by other federal agencies in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents, and are considered conservation system units. BLM lands are managed by current planning documents that allow a mixture of development and conservation following BLM's multiple use mission, or are currently being evaluated through the planning process. State of Alaska and Native corporation lands cannot be considered in a BLM plan and BLM lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence use and resources include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative D would not significantly restrict subsistence use by communities in or near the planning area given the management parameters outlined in Chapter 2 of the main document and including the leasing stipulations and ROPs found in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*. Should the anticipated amount of potential locatable mineral development or other land uses expand this finding may need to be revised to take into account impacts to the FCH, moose and other subsistence resources and uses that cannot be mitigated.

J.2.1.5. Fortymile Cumulative Case

The goal of the cumulative analysis is to evaluate the incremental impact of the current action in conjunction with all past, present, and reasonably foreseeable future actions in or near the planning area. The cumulative analysis considers in greatest detail activities that are more certain to happen, and activities that were identified as being of great concern during scoping. Actions considered in the cumulative analysis include, but are not limited to, the following activities (section 4.2.4 Cumulative Impacts).

Development of minerals will occur on state and private lands in the subunit. Effects will be similar to those described for activities on BLM lands, except that the level of activity is expected to be higher due to higher mineral potential.

Pogo mine is an active gold mine located on state land in the Fortymile Subunit. Production began in 2006 and life of the mine is estimated at 10 years. Access is from the Richardson Highway via a 49 mile all season road. The mine site proper (425 acres) is adjacent to postcalving range and within summer, fall migratory and winter range of the FCH.

The Little White Man Prospect, located 35 miles northwest of Chicken (on high priority Native-selected lands), could be developed into a large-scale lode mine over the next 20 years. The site is within the calving area of the FCH. Access to the mine would likely be from the Taylor Highway and depending on stipulations attached to the right-of-way permit, could create access to resources important to subsistence and other users.

Commercial development of forest products will occur on state and private lands in the subunit. Roads created for other purposes may be utilized for access to forest products. The State of Alaska Upper Yukon Area Plan recognized the potential for forest product sales in the remote North Fork region, which is an area of core calving for the FCH. The Pogo mine road extended the forest road farther to the east, furthering potential access to timber.

The Upper Yukon Area Plan (ADNR 2003) identified several areas along the Taylor Highway as appropriate for settlements and commercial enterprises. Areas designated for possible disposal in the Jack Wade Junction area and between Taylor Mountain and Chicken may impact FCH migration patterns and create conflicts over hunter access. The FCH migrate along the ridge system and funnel through Jack Wade Junction.

Military aircraft use is allowed in Military Operation Areas (MOAs) over much of the Fortymile Subunit and is likely to increase. Impacts to wildlife resources important to subsistence could potentially occur. Current practices by the military of avoiding exercises during caribou calving and implementing minimum ceilings have reduced, but not eliminated impacts to caribou.

Research, monitoring and other land management activities will continue on all lands in the subunit and include access to remote areas by fixed and rotary wing aircraft, snowmobiles and other OHVs. Disturbance from these activities is localized and temporary.

Climate change will benefit some subsistence resources and negatively affect others. Changes in species distribution and vegetation communities in subarctic areas are predicted to occur by 2040. Frequency and severity of natural wildland fire in Interior Alaska are predicted to increase and result in shifts to deciduous and shrub-dominated landscapes, which may benefit moose and some furbearers, but not caribou. Predicted increases in water temperatures would alter chemical and biotic conditions to the detriment of subsistence fish diversity and abundance. Increases in soil temperatures would result in drying of lakes and ponds.

BLM has received a proposal for a gas line which would traverse some BLM-managed lands as well as adjacent lands. Options for a gas line include routing along the Trans-Alaska Pipeline to Delta Junction and then south toward Glennallen or along the Alaska Highway to Alberta, Canada. Although these routes would take the gas line through the subunit, co-locating with the Trans-Alaska Pipeline and along existing transportation corridors would create negligible impacts on subsistence resources.

The population of Fairbanks and the surrounding area is predicted to increase by about 10 percent from the 2000 census to the 2020 census. Development of a gas line or other projects may boost the population beyond the estimate. Demands for recreation and subsistence resources are predicted to increase between 10 and 15 percent over the next 20 years.

Conveyance of remaining selected lands to the state and Native corporations is ongoing. Planning area wide, about 1.1 million acres are in selection by Native corporations (ANCSA 1971) and 1.4 million acres are in selection by the State of Alaska. Once conveyed, fish and wildlife management of harvest would be predicated on state regulations. Based on joint state/federal harvest management of moose and caribou in the subunit, no impacts would be expected to occur.

Alternative B would best protect subsistence resources in concert with actions occurring adjacent to BLM-managed lands in the Fortymile Subunit. Alternative C would somewhat increase impacts to subsistence resources and uses collectively with actions by other land managers adjacent to BLM-managed lands. Alternative D would potentially have the greatest impacts on subsistence resources and uses when added to decisions by adjacent land managers.

Evaluation of the Effects of Use, Occupancy, or Disposition

According to the fish and wildlife analysis in Chapter 4 of the Eastern Interior Draft RMP/EIS, the combination of ongoing locatable mineral development occurring on state, federal and private lands in the subunit and future development projected for the subunit, would have cumulative impacts on Fortymile caribou. The privatization of State of Alaska or Native corporation lands could lead to additional development. Depending on the location of development, these impacts could include: short or long-term disturbance to caribou calving habitat, insect relief habitat, and migratory routes; disruption of caribou movements; stress and disturbance impacts to caribou during all seasons of the year; and possible reductions in herd productivity. If significant activity occurred within the calving grounds or crucial insect relief habitat, these impacts could be significant.

Development of access roads and trails within the planning area would have the potential to negatively affect wildlife, and thus affect subsistence. These impacts would include habitat fragmentation, increased access into wildlife habitats, increased disturbance impacts, increased potential for mortality and possible alteration of behavior or movement patterns of wildlife. This may also result in an increase in recreational use of the area, resulting in additional competition with subsistence users for resources.

Evaluation of the Availability of Other Lands

The Cumulative Case, as presented in the planning document, contains information on reasonably foreseeable activities that could have an effect on the management decisions being analyzed as part of the RMP/EIS. The purpose of the Cumulative Case is to present known ongoing activity by all entities on all lands near or within the planning area, as well as those activities that have been proposed for the future and are likely to occur. The Cumulative Case is not an alternative, but instead is a discussion of impacts that could be additive to and affect the management decisions contained within Alternatives A through D. As such, no other lands are evaluated under the Cumulative Case.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan, as well as Alternative A. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative D when combined with the cumulative case, as presented in this analysis, may result in a reasonably foreseeable and significant restriction of subsistence use for rural communities within the planning area if significant activity occurs within the calving grounds or other crucial habitat of the FCH. Currently, the FCH is a primary subsistence resource for numerous communities in rural Alaska (Gross 2007). Alternatives A and B when combined with the cumulative case would not result in significant restrictions. No reasonably foreseeable significant restrictions have been identified for C when combined with the cumulative case because most habitat important to subsistence resources is within the ACEC or afforded protection by other management prescriptions.

J.2.2. Evaluation and Finding for Steese Subunit

J.2.2.1. Steese Alternative A

Selection of Alternative A would result in continued management of the Steese Subunit as specified in the 1986 Steese National Conservation Area Resource Management Plan (Plan). Valid decisions contained in the Plan would be implemented if not already completed. Direction contained in existing laws, regulation and policy would also continue to be implemented, sometimes superseding provisions in the Plan. The current levels, methods and mix of multiple use management of public land in the planning area would continue, and resource values would receive attention at present levels. In general, most activities would be analyzed at the project level and few uses would be limited or excluded as long as they were consistent with state and federal laws. ANCSA 17(d)(1) withdrawals would remain in place, prohibiting new mineral entry or mineral leasing on all BLM-managed lands. Wildland fire would be managed consistent with the Alaska Land Use Plan Amendment for Wildland Fire and Fuels Management (BLM 2004b, 2005c).

Evaluation of the Effects of Use, Occupancy, or Disposition

Under Alternative A, the primary impacts to subsistence would be associated with proposed land use, including placer mining on existing valid claims, and continuation of the current management of Recreation and Off Highway Vehicle (OHV) use as described in the Plan.

Management of resources, including water, cultural and paleontological, fish, wildlife, and vegetation, and of resource uses, including mining and lands activities, requires inventory and monitoring of conditions and populations and field site visits for compliance examinations. Activities that support data collection may displace subsistence resources from traditional

harvest areas. Disturbance from the use of aircraft and OHV during management surveys will be temporary and localized and will not affect any fish, wildlife or vegetative resources at the population level. Inventory and monitoring efforts will benefit subsistence resources by providing valuable data on distribution and population parameters.

Under Alternative A, BLM-managed lands in the subunit are withdrawn from mineral leasing and entry under ANCSA 17(d)(1). Mining is limited to valid existing claims. Alternative A would result in the greatest protection to fisheries, aquatic and riparian habitats.

Fish, wildlife and vegetative resources in the Steese Subunit have been and continue to be impacted by placer mining. Although the subunit is closed to mineral location and entry under Alternative A, valid existing claims continue to be worked within BLM and adjacent state-managed lands. Currently, 106 miles of stream and 7,200 acres of riparian area have been mined or could be mined. Under Alternative A it is estimated that 6 miles of stream and 370 acres of riparian land presently undisturbed would be impacted by mining. Indirect impacts above and below operations are estimated to double that projection. Impacts include degraded pool and spawning habitat quality due to catchment erosion and downstream sedimentation.

Properly functioning streams, and therefore watersheds, require well vegetated stream channels. Placer mining has been conducted within the state using methods that denude and relocate streams, resulting in turbidity, sedimentation, loss of habitat for fish, aquatic species and riparian dependent wildlife, increased aufeis and scouring, susceptibility to erosion and many indirect impacts. Primary production is reduced and low levels of nutrients are available in mining disturbed systems. High levels of minerals released from substrates during mining can be high enough to kill fish and other aquatic organisms. Arsenic and mercury, commonly associated with placer mining, are hazardous to fish, particularly salmonids (such as coho salmon and Arctic grayling). Rates of vegetation return are very slow in the subarctic setting of the Eastern Interior, requiring 50 or more years for adequate vegetation, land forms and large woody debris to recover to beginning levels of function. Where stream substrates are embedded with sediments and siltation from mining, recovery can take even longer, particularly below mined sites and at lower gradients (Weber and Post 1985). Reclamation projects in Eastern Interior designed to help systems recover to proper functioning conditions have largely failed (Impacts Common to All Subunits, section 4.3.1.4 Fish and Aquatic Species).

Stream buffers greatly reduce the effect of surface-disturbing activities in riparian systems on fish and aquatic habitats. Stream buffers within one-half mile of the banks of the Birch Creek WSR are withdrawn from locatable minerals under ANILCA (for all alternatives). Preserving riparian and stream bank vegetation through buffers largely mitigates impacts to aquatic systems from placer mining and is recommended as a means for maintaining properfunctioningg condition on all streams (USDA and DOI 2000).

Under Alternative A, the greatest impact to subsistence resources and uses would result from continuing current management standards of OHV and recreational use in the Steese Subunit. Cross-country summer travel by OHV 1,500 pounds curb weight and under is generally allowed in the Steese National Conservation Area (NCA) and on other BLM-managed lands in the subunit. The Birch Creek WSR Corridor and RNAs are closed to OHV use. Cross-country summer use has resulted in a network of trails. Unmanaged trail proliferation would continue under Alternative A.

With fewer restrictions on OHV use and no established limits on visitor use, impacts to subsistence resources could occur at increasing levels. Recreation and OHV use is predicted to continue increasing with population growth in the state and as OHV technology continues to

advance. Cross-country access increases competition for harvest of wildlife resources by all users and can lead to direct and indirect impacts to fish, wildlife and habitat.

Social trail proliferation often occurs when use is not limited to designated trails, which increases the opportunity for introduction and spread of non-native invasive plant (NIP) species. NIP species alter vegetative communities and fish and wildlife habitats, usually to the detriment of native species. Stream crossings by OHV can result in multiple impacts to fishery resources through stream bank erosion, sedimentation and pollutants (solvents and fuels), which can result in direct mortality of fish and diminished water quality. Fish habitat would be impacted by these as well as OHV trampling of stream side vegetation. Non-native invasive species, such as aquatic plants and invertebrates harmful to fish, can be introduced in waterways when OHV harboring them cross rivers and streams. (If it is appropriate to address mitigation in the 810, here is where we would say mitigation of impacts would largely be through outreach and education.)

During scoping for the plan no concerns specific to subsistence resources or uses in the Steese Subunit were raised, although general comments are common to all subunits.

The Fortymile caribou herd is an important subsistence resource for local residents. Registration permit requests and returns document that the major local participation in the subunit is by residents of the Central area (Chapter 3 Affected Environment).

Evaluation of the Availability of Other Lands

The purpose sought to be achieved under Alternative A would be to continue the current management of BLM-managed lands in the subunit under the 1986 Steese RMP. Other federal public lands in the subunit are managed under National Park Service (Yukon-Charley Rivers National Preserve) or U.S. Fish and Wildlife Service (Yukon Flats NWR) planning documents. Other BLM lands in the state either already have land use planning documents in place, or are being addressed by separate planning processes. State and Native corporation lands cannot be considered in a BLM plan, and BLM lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

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

J.2.2.2. Steese Alternative B

Alternative B emphasizes active measures to protect and enhance resource values. Production of minerals and services would be more constrained than in Alternatives C or D and in some areas, uses would be excluded to protect sensitive resources. The Steese Area of Critical Environmental Concern (ACEC) and Special Recreation Management Areas (SRMA) are identified, and specific measures are proposed to protect or enhance values within these areas. One eligible river, Big Windy Creek (wild) has been recommended as being suitable for designation under the Wild and Scenic River Act. Limited areas are proposed for Off Highway Vehicles (OHV) to protect habitat, soil and vegetation resources. Approximately 96 percent of BLM lands in the subunit, including the Steese NCA, would be closed to mineral entry and leasing to protect or maintain resource values.

Evaluation of the Effects of Use, Occupancy, or Disposition

The analysis of effects from Alternative B concludes that impacts as a result of management actions or designations within the planning area will not result in significant reductions in subsistence resources or uses. Many of the proposed actions serve to positively impact subsistence in that management would emphasize habitat and resource protection. While some development activity could occur under this alternative, areas of priority habitat would be protected by special designation and by the stipulations and ROPs as presented in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*. Actions such as the creation of new SRMAs, ACECs, and/or the designation of river segments as WSRs, do not limit or impose any restriction on subsistence use as per ANILCA Title VIII.

The Steese NCA and Birch Creek WSR Corridor would be designated as a special recreation management area (SRMA). The Steese ACEC (927,000 acres), which is within the SRMA, would be created to protect current and historic calving and postcalving habitat for Fortymile caribou and habitat for Dall sheep. The entire SRMA would remain closed to entry, location and leasing of minerals, subject to valid existing rights. The SRMA would be generally free of summer motorized use. Winter use of snowmobiles would be allowed, except within the Research Natural Areas (3,000 acres). Established trails may be designated or future trail development allowed if compatible with the purpose of ACEC. The ACEC would be a right-of-way avoidance area. The two Research Natural Areas are within Primitive Management Zones and would be managed as with the Primitive filter: right-of-way avoidance areas, closed to all mineral development, closed to aircraft and to OHV. Some exploration on other lands for leasable minerals, particularly those around Circle, may occur over the life of the plan but is expected to be minimal because limited potential and interest exist.

Travel outside the Primitive RMZ would allow cross-country winter use of snowmobiles 1,500 pounds curb weight and less. Permits would be required for all other motorized vehicle use. Recreation in the area will largely be managed for Semi-Primitive or Backcountry values (Appendix H, Section H.2, "Steese Special Recreation Management Area"). These prescriptions will limit impacts to subsistence resources and uses.

Twenty-one watersheds in the Steese subunit have been identified to be managed as Riparian Conservation Areas (RCA). RCAs are watersheds that contain the highest fisheries and riparian resources. Emphasis is on protection of riparian-dependent resources and management of activities subject to specific required operation procedures (Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*).

Under Alternative B, it is estimated that 7 miles of stream and 500 acres of riparian land presently undisturbed would be impacted by mining of locatable minerals. Indirect impacts above and below operations are estimated to double that projection. Impacts to fish and aquatic resources would be low because only 9 percent of total stream miles managed by BLM are open to locatable minerals.

Areas important to fish and wildlife subsistence resources are largely protected because they are within the NCA, Birch Creek WSR Corridor, ACEC, RCAs, and SRMA.

Evaluation of the Availability of Other Lands

Alternative B would manage BLM public lands in the Steese Subunit in order to optimize conservation. Lands managed by other federal agencies in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents, and are considered conservation system units. Other BLM lands in the state either already have land use planning documents in place that specify the amounts and types of activities that can or cannot occur, or are currently being evaluated by separate planning processes. State and Native corporation lands cannot be considered in a BLM plan and BLM lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the No Action and the action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Analysis of effects from Alternative B concludes that impact as a result of management actions or designations within the planning area will not result in significant reductions in subsistence resources or uses by residents in the subunit. Most impacts to subsistence resources would be beneficial, and any impacts by way of the limited amount of development allowed to occur under this alternative would be minimized by leasing stipulations and ROPs (Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations* and Chapter 2).

J.2.2.3. Steese Alternative C

Alternative C emphasizes a moderate level of protection, use, and enhancement of resources and services. Constraints to protect resources would be implemented, but would be less restrictive than under Alternative B. This alternative would designate a smaller ACEC; however the Special Recreation Management Area would remain the same (the entire Steese NCA and Birch Creek WSR Corridor). The ten Recreation Management Zones (RMZs) would change in area with a shift away from Primitive RMZs and the introduction of Middlecountry and Frontcountry RMZs. No rivers would be recommended as suitable for designation under the WSRA. Approximately 78 percent of the area managed by BLM would remaining closed to mineral entry and leasing. Most of the ACEC and a portion of the caribou migration corridor would be closed to mineral entry.

Evaluation of the Effects of Use, Occupancy, or Disposition

Impacts to subsistence resources and uses from the increased level of development allowed by this alternative would be similar in nature to those of Alternative B except under Alternative C more acres are available for authorized mineral exploration and development and expanded use of OHV 1,500 pounds GVWR without a permit would be allowed. Reduced protection for caribou migration corridors may result in habitat fragmentation.

Under Alternative C, a smaller Steese ACEC (460,000 acres) would be created to protect caribou calving and postcalving habitat and Dall sheep habitat. The proposed ACEC would remain closed to entry, location and leasing of minerals (except salable mineral disposal could be authorized), subject to valid existing rights. All Dall Sheep and most of the current and historic calving and postcalving habitat would remain closed to mineral location and entry (section 4.5.1.7 Wildlife Steese Subunit). Seasonal restrictions within one mile of ungulate mineral licks would apply to all permitted uses.

The Birch Creek WSR Corridor would remain closed to fluid leasable and locatable minerals. In areas where allowed, oil and gas leasing would be subject to constraints to protect caribou and Dall sheep habitat and subsistence uses.

Some exploration on other lands for leasable minerals may occur over the life of the plan, but is expected to be minimal. Development of locatable minerals is predicted to be small but may require new access, which could facilitate travel for hunting and increase competition for subsistence resources.

Placer mining activity under Alternative C is estimated to double the number of operations expected under Alternative A and B. Twenty-three miles (five percent) of the approximately 492 miles of stream open to locatable minerals are in RCAs and would be subject to more rigorous reclamation standards than those outside the RCAs. Standard ROPs and stipulations would apply to the remaining areas. Much of this area is moderate to high mineral potential. High value fishery resources supported by the Birch Creek drainage include three species of salmon and several species of resident fish. Adverse impacts to fish and aquatic resources would potentially result in downward trends in fish populations at the watershed scale, which could have far reaching impacts on subsistence resources and uses. Impacts from mining are further discussed in section J.2.1 and are common to all alternatives for qualitative impacts from mining, but differ quantitatively by alternative.

The Pinnell Mountain Trail is closed to summer motorized travel. Primitive areas (RNAs) would be closed to all motorized use except by permit or approved Plan of Operations. The Semi-Primitive and Backcountry Zones would remain closed except for cross-country winter use of snowmobiles 1,500 GVWR and under or by permit. The southern ACEC in the Semi-Primitive RMZ would be generally closed to summer motorized use. Undesignated recreation lands, Middlecountry and Frontcountry RMZs would be open to winter cross-country use and to summer use on existing trails, except that off-trail retrieval of down game would be allowed. The northern ACEC is within a Middlecountry RMZ. Vehicles of 10,000 pounds curb weight and under would be allowed on existing roads only. Permits or an approved Plan of Operations would be required for any other OHV use.

Numerous existing trails occur throughout the Middlecountry and Frontcountry RMZs, mostly developed for mining. Established trails may be designated or future trail development allowed if compatible with the purpose of ACEC and subsistence uses. Off-route game retrieval could

increase participation by non-local hunters. The potential increase in impacts to subsistence resources and uses from travel management prescriptions in this alternative would be minor, particularly compared with the No Action Alternative (current situation) and Alternative D.

Evaluation of the Availability of Other Lands

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

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative C would not significantly restrict subsistence use by communities in the planning area. Most impacts to subsistence resources and uses would be minor, and any impacts from the development allowed to occur would be minimized by the leasing stipulations and ROPs discussed in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*. With the exception of locatable minerals, impacts to subsistence resources are expected to be localized and temporary, and are not expected to impact resources at the population level. ROPs and leasing stipulations to protect riparian and aquatic habitats would be necessary to mitigate impacts from placer mining. No impacts to access by subsistence users are expected to occur.

Competition for subsistence resources, particularly for caribou and moose, occurs due to the large number of nonlocal hunters. As opportunities to harvest wildlife become more restrictive in other parts of the state, participation in the FCH seasons has increased. Conflicts due to competition are largely issues outside the scope of the Eastern Interior RMP/EIS. Efforts to reduce these conflicts would be accomplished through limits within regulations on hunting seasons, bag limits and methods and means, which are the responsibility of the Federal Subsistence Board and Alaska Board of Game.

J.2.2.4. Steese Alternative D

Alternative D emphasizes active management to facilitate resource development on BLM lands in the subunit. Approximately 54 percent of BLM-managed lands in the subunit would be open to

mineral leasing and location. Travel and trail restrictions would be minimized. A smaller ACEC, focused on managing for habitat protection, would be identified.

Evaluation of the Effects of Use, Occupancy, or Disposition

Impacts to subsistence resources and uses from the increased level of development and use allowed by this alternative would be similar in nature but greater in extent, relative to the other action alternatives. Higher percentages of land would be available for leasable and locatable minerals and limits on OHV and recreation would be less.

Under Alternative D the Steese ACEC would be 193,000 acres and remain closed to locatable and leasable mineral entry, subject to valid existing rights. Areas important to wildlife that would be open to mineral location and entry include portions of the current White Mountains caribou calving and postcalving habitat, historic Fortymile calving, postcalving, and migration habitat, and a movement corridor to the Preacher Creek Dall sheep mineral lick. Impacts from development of locatable minerals include direct disturbance to wildlife on priority habitats, fragmentation of habitat through important movement corridors, and long-term impacts to streams and riparian habitats from placer mining (section 4.5.1.2 and 4.5.1.7 Fish and Aquatic Species, Wildlife Steese Subunit respectively). Wildlife habitat areas open to locatable minerals are also open to summer cross-country OHV use. Most impacts would continue beyond the life of the plan.

Approximately six percent of the 975 miles of stream open to locatable minerals under Alternative D would be within RCAs, which require higher standards for reclamation. Forty-five stream miles in the Preacher Creek drainage classified as anadromous would be open to locatable mineral entry under Alternative D. (Under Alternative B and C the area is closed to locatables). The Preacher Creek drainage is also important as production area for grayling. Over the life of the plan, projections are that approximately 15 miles of stream would be mined, affecting at least 30 miles of stream. Further discussion of impacts from mining is developed in Section J.2.1 of this evaluation and finding.

Although open to oil and gas leasing, no activity, except for geophysical exploration, would occur on BLM-managed lands in the subunit under this plan. Proposals for development would be analyzed with a new NEPA process. Any exploration that might occur is expected to be on BLM-managed lands around Circle. Seismic exploration would occur during the winter with specified frost and snow depth. Exploration activity is expected to be minimal and standard stipulations and ROPs, including seasonal closures in priority habitat areas, would apply (Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*). Testimony by community members on the North Slope has indicated that seismic exploration can interfere with cross-country snowmobile use in that the deep ruts left in the snow by seismic vehicles are difficult to traverse, adding to “wear-and-tear” on snowmobiles and sleds (SAP Minutes, June 6, 2002 meeting; Harry Brower, personal communication). However, seismic exploration, which would be expected to be minimal, does not create a substantial barrier and presents only temporary displacement of subsistence resources.

Any permitted use around designated ungulate mineral licks would be restricted within one-half mile during May 10 through September 1 and closed to development of facilities that would be used during that time.

The southern portion of the proposed Steese ACEC will remain generally free of summer motorized vehicle use. Where summer use is allowed, it will be restricted to designated trails.

RNAs carry the only Primitive designations and are closed to OHV use without a permit or Plan of Operations. Limited area around the Pinnell Mountain Trail and the Birch Creek WSR Corridor are designated as Semi-Primitive. Wolf Creek and Rocky Mountain Uplands are designated as Backcountry. Semi-Primitive and Backcountry are open to cross-country winter use by snowmobiles (weight limits apply) and all other OHV use with a permit or Plan of Operations. The Pinnell Mountain Trail is closed to all motorized use.

The undesignated recreation lands, which include those around Circle, the Middlecountry and the Frontcountry RMZs would be open to locatable and leasable minerals. Middlecountry and Frontcountry are designated within the Steese NCA and include the Preacher Creek drainage, Clums Fork and Harrison Creek. Cross-country winter and summer use of OHV 1,500 GVWR and under would be allowed in these three designations. Vehicles 10,000 pounds curb weight and under would be allowed only on existing roads and all other would be by permit or approved Plan of Operations.

Use of OHV under this alternative would have similar intensity and scope of impact on subsistence resources and uses as Alternative A, where cross-country summer and winter use are generally allowed throughout the entire subunit. (The RMZs closed to summer cross-country use are largely inaccessible by OHV.) Competition for resources, particularly during Fortymile caribou seasons, would continue at the same level or rate of increase as for Alternative A. Impacts to subsistence fisheries would be similar to Alternative A from unmanaged proliferation of trails crossing streams and causing erosion and sedimentation.

Evaluation of the Availability of Other Lands

Alternative D would manage BLM lands in the subunit to optimize resource use and development, with the fewest restraints of all alternatives on commercial activity (minerals and forest products) and the fewest limitations on travel management and recreation activity of the action alternatives. Lands managed by other federal agencies in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents, and wide-scale development of these lands is limited or disallowed by the mission and goals of these federal lands as conservation system units. BLM lands are managed by current planning documents that allow a mixture of development and conservation following the BLM multiple-use mission, or are currently being evaluated through the planning process. State of Alaska and Native corporation lands cannot be considered in a BLM plan and BLM-managed lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence use and resources include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative D would not significantly restrict subsistence use by communities in or near the planning area given the management parameters outlined in Chapter 2 of the main document and including the leasing stipulations and ROPs found in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*. Should the amount of oil and gas exploration, anticipated area of potential locatable mineral development, or other land uses expand beyond the reasonable development scenarios in this plan, the finding may need to be revised to take into account impacts to the White Mountains caribou herd (WMCH), FCH and other subsistence resources and uses that cannot be mitigated.

J.2.2.5. Steese Cumulative Case

The goal of the cumulative analysis is to evaluate the incremental impact of the current action in conjunction with all past, present, and reasonably foreseeable future actions in or near the planning area. The cumulative analysis considers in greatest detail activities that are more certain to happen, and activities that were identified as being of great concern during scoping. Actions considered in the cumulative analysis include, but are not limited to, the following (refer to Chapter 4 Cumulative Impacts).

The Fortymile caribou herd (FCH), which presently ranges from north of the Yukon River in Yukon Territory, Canada and into the Preacher Creek Drainage of the north Steese NCA, will be impacted by activities across its range. Section J.2.1.5 of this appendix discusses the cumulative impacts of the following activities on subsistence resources in the Fortymile Subunit and would also apply in the Steese Subunit due to the migratory nature of the FCH, proximity of Pogo Mine and Little White Man Prospect, commercial development of the Tanana Valley State Forest, and overflights in Military Operation Areas (MOA) airspace.

State land sales adjacent to the south Steese National Recreation Area have recently been opened as recreation parcels. Sales could result in increasing habitation and recreation use within the migration corridor of the FCH.

Development of minerals will occur on state and private lands in the subunit. Effects will be similar to those described for activities on BLM lands, except that the level of activity is expected to be higher due to higher mineral potential, particularly on state lands between the north and south portions of the Steese NCA. This area is important to FCH as a migration corridor and winter range.

Military aircraft use is allowed in MOAs over much of the Steese Subunit and is likely to increase. Impacts to wildlife resources important to subsistence could potentially occur. Current practices by the military to avoid exercises during caribou calving and implementing minimum ceilings have reduced but not eliminated impacts to caribou.

Research, monitoring and other land management activities will continue on all lands in the subunit and include access to remote areas by fixed and rotary wing aircraft, snowmobiles and other OHVs. Disturbance from these activities is localized and temporary.

Climate change will benefit some subsistence resources and negatively affect others. Changes in species distribution and vegetation communities in subarctic areas are predicted to occur by 2040. Frequency and severity of natural wildland fire in Interior Alaska are predicted to increase and result in shifts to deciduous and shrub-dominated landscapes; which may benefit moose and

some furbearers but not caribou. Predicted increases in water temperatures would alter chemical and biotic conditions to the detriment of subsistence fish diversity and abundance. Increases in soil temperatures would result in drying of lakes and ponds.

The population of Fairbanks and the surrounding area is predicted to increase by about 10 percent from the 2000 census to the 2020 census. Development of a gas line or other projects may boost the population beyond the estimate. Demands for recreation and subsistence resources are predicted to increase between 10 and 15 percent over the next 20 years.

Conveyance of remaining selected lands to the State and Native corporations is ongoing. Planning area wide, about 1.1 million acres are in selection by Native corporations (ANCSA 1971) and 1.4 million acres are in selection by the State of Alaska. Fish and wildlife management of harvest would be predicated on state regulations. Based on joint state/federal harvest management of caribou in the subunit, no impacts to subsistence uses would be expected to occur. Impacts to use of fish and other wildlife may occur if state regulations are more restrictive than federal regulations on those lands.

Alternative B would best protect subsistence resources in concert with actions occurring adjacent to BLM-managed lands in the Steese Subunit. Alternative C would somewhat increase impacts to subsistence resources and uses collectively with actions by other land managers adjacent to BLM-managed lands. Alternative D would potentially have the greatest impacts on subsistence resources and uses when added to decisions by adjacent land managers. Alternative A would have the greatest impacts from management prescriptions except for leasable and locatable minerals, for which impacts would be the least.

Evaluation of the Effects of Use, Occupancy, or Disposition

According to the fish and wildlife analysis in Chapter 4 of the Eastern Interior Draft RMP/EIS, the combination of ongoing locatable mineral development occurring on state, federal, and private lands in the subunit and future development projected for the subunit would have cumulative impacts on Fortymile caribou, in concert with activities in the Fortymile Subunit, and potentially for White Mountains caribou. The privatization of State of Alaska or Native corporation lands could lead to additional development. Depending on the location of development, these impacts could include: short or long-term disturbance to caribou calving habitat, insect relief habitat, and migratory routes; disruption of caribou movements; stress and disturbance impacts to caribou during all seasons of the year; and possible reductions in herd productivity. If significant activity occurred within the calving grounds or crucial insect relief habitat, these impacts could result in significant restrictions. Development of access roads and trails within the planning area would have the potential to negatively affect fish and wildlife, and thus affect subsistence use. These impacts would include: habitat fragmentation; increased access into wildlife habitats; introduction of NIS, increased disturbance impacts; increased potential for mortality and possible alteration of behavior or movement patterns of wildlife; stream bank erosion; sedimentation and pollutants (vehicle and OHV solvents and fuels), which can result in direct mortality of fish and diminished water quality; and OHV trampling of stream side vegetation. This may also result in an increase in recreational use of the area, resulting in additional competition with subsistence users for resources.

Evaluation of the Availability of Other Lands

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

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan, as well as Alternative A. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative D when combined with the cumulative case, as presented in this analysis, may result in a reasonably foreseeable and significant restriction of subsistence use for rural communities within the planning area, if significant activity occurs within migration corridors or other crucial habitat of the fish and wildlife. The level of impacts on subsistence use depend on the response to increased opportunity for development of locatable minerals and cross-country use of OHV under Alternative D. Currently, the FCH is a primary subsistence source for numerous communities in rural Alaska (Gross 2007) and the herd could be impacted by activities on and adjacent to BLM-managed lands in the Steese and Fortymile subunits.

Management parameters outlined in Chapter 2 of the main document and the leasing stipulations and ROPs found in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations* would help mitigate the impacts. High locatable mineral potential occurs on BLM-managed lands in the Clums Fork and Harrison Creek portion of the south Steese NCA, most of which would be open to locatable minerals under Alternative D and are likely to be developed. Locatable mineral potential in the north Steese NCA is mostly low in the open areas, however gold prices and relative accessibility of the area may lead to increased mining activity.

Alternatives A and B when combined with the cumulative case would not result in significant restrictions. No reasonably foreseeable significant restrictions have been identified for Alternative C when combined with the cumulative case. Under Alternative C most habitat important to subsistence resources would be within the ACEC or afforded protection by other management prescriptions, including RCAs, and restrictions on off-trail OHV use.

J.2.3. Evaluation and Finding for Upper Black River Subunit

J.2.3.1. Upper Black River Alternative A

Alternative A would result in continuing to manage the Upper Black River Unit as is currently being done. No land use plan has been developed for the area and current management complies with direction contained in existing laws, regulation and policy. The current levels, methods and mix of multiple use management of public land in the planning area would continue, and resource values would receive attention at present levels. In general, most activities would be analyzed at the project level and few uses would be limited or excluded as long as they were consistent with state and federal laws. Wildland Fire would be managed consistent with the Alaska Land Use Plan Amendment for Wildland Fire and Fuels Management (BLM 2004b, 2005c).

The subunit is extremely remote and ongoing uses of BLM-managed lands consist primarily of subsistence or casual recreational use. Use of fish, wildlife and other subsistence resources are the most prevalent uses in the subunit, relied upon by nearly all residents, and protection of these resources was the highest concern during scoping meetings. Scattered BLM lands around the community of Circle are more accessible, but generally receive little use other than from local residents.

Due to lack of access and limited mineral potential few surface-disturbing activities are expected in this subunit under any alternative.

Evaluation of the Effects of Use, Occupancy, or Disposition

Under Alternative A, the primary impacts to subsistence would be associated with recreational use.

Management of resources, including water, cultural and paleontological, fish, wildlife, and vegetation, and of resource uses requires inventory and monitoring of conditions and populations and field site visits for compliance examinations. Activities that support data collection may displace subsistence resources from traditional harvest areas. Most data collection in the area would be accomplished using fixed- or rotary-winged aircraft. Disturbance from aircraft during management surveys will be temporary and localized and will not affect any fish, wildlife or vegetative resources at the population level. Inventory and monitoring efforts will benefit subsistence resources by providing valuable data on distribution and population parameters.

BLM-managed lands in the subunit are withdrawn from mineral location and leasing through ANCSA 17(d)(1) and there are no existing mining claims, therefore no impacts from mineral exploration or development to subsistence resources or uses will occur. Use of OHV, non-motorized vehicles, motorized watercraft, and aircraft is unrestricted. Due to the remoteness of the area most use of motorized vehicles (snowmobile and boat) is by local residents for subsistence purposes. Some use of aircraft occurs by other users. Recreation is generally managed to reduce user conflicts and prevent resource damage. No impacts from management of recreation or travel are anticipated.

Under Alternative A, no special designations exist. Special designations, such as areas of critical environmental concern, generally convey a higher level of protection to resource values.

The Black and Porcupine River areas are critically important to residents of the subunit for subsistence uses. During scoping for the plan, residents of the subunit stated that the Upper Black

River area is vital for subsistence uses and resources, particularly for moose. Participants spoke of the importance of the area as a moose calving ground and corridor for moose moving between Canada and the Yukon Flats. With moose populations being at low numbers in the Yukon Flats area, subsistence users in the subunit depend on the Upper Black River area for harvest of moose. Most hunting for moose in the Upper Black River is typically in the fall. However, people travel into the area for moose in the winter when needed. Other participants stressed the importance of fish in the Black River to the communities, specifically whitefish, and the importance of salmon spawning areas, which benefits the whole Yukon drainage. In interviews with residents of the subunit, Caulfield (1983) documented use of the Upper Black for trapping, harvest of fish, vegetation, small mammals, moose, firewood and structural materials, bear and caribou. Whitefish were identified as a stable food source for the area residents.

Residents of Circle extensively use areas in the subunit, primarily up and down the Yukon River into Yukon Flats NWR and Yukon-Charley Rivers National Preserve, but also have a long history of use into the Little Black River east of the community. Trapping in particular has been documented on BLM-managed lands in the subunit accessible from the community (Caulfield 1979). Most access is by snowmobile.

Evaluation of the Availability of Other Lands

The purpose sought to be achieved under Alternative A would be to continue the current management of BLM-managed lands in the subunit. Other federal public lands in the subunit are managed under National Park Service (Yukon-Charley Rivers National Preserve) or U.S. Fish and Wildlife Service (Yukon Flats NWR) planning documents. Other BLM lands in the state either already have land use planning documents in place, or are being addressed by separate planning processes. State and Native corporation lands cannot be considered in a BLM plan and BLM-managed lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

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

J.2.3.2. Upper Black River Alternative B

Alternative B emphasizes active measures to protect and enhance resource values. Production of minerals and services would be more constrained than in Alternatives C or D and in some areas, uses would be excluded to protect sensitive resources. The Salmon Fork ACEC would be created to protect or enhance values within these areas. Values include maintaining water quality for salmon habitat and protection of Porcupine caribou herd wintering grounds. The Salmon Fork of the Black River has been recommended as suitable for designation as wild under the Wild and Scenic River Act. Limited areas are proposed for Off Highway Vehicles (OHV) to protect habitat, soil and vegetation resources. The area will remain closed to mineral entry and leasing in order to protect or maintain resource values. This alternative considers lands selected by the state and by Native or village corporations as if they were to be retained in long-term federal ownership.

Evaluation of the Effects of Use, Occupancy, or Disposition

The analysis of effects from Alternative B concludes that impact as a result of management actions or designations within the planning area will not result in significant reductions in subsistence resources or uses. Many of the proposed actions serve to positively impact subsistence in that management would emphasize habitat and resource protection. While some development activity could occur under this alternative, habitat important to subsistence resources would be protected by special designation, and by the stipulations and ROPs as presented in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*. Actions such as the creation of ACECs and/or the designation of rivers as WSRs do not limit or impose any restriction on subsistence use as per ANILCA Title VIII.

The Salmon Fork ACEC (621,000 acres, Map 77) would be created to protect many values. Those most important to subsistence protected by the designation are aquatic habitat for all fish species in the watershed, including three species of salmon and whitefish, and caribou winter habitat. The area would remain closed to entry, location and leasing of minerals and would be closed to summer OHV use.

Evaluation of the Availability of Other Lands

Alternative B would manage BLM public lands in the Upper Black River Subunit in order to optimize conservation. Lands managed by other federal agencies in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents, and are conservation system units. Other BLM lands in the state either already have land use planning documents in place that specify the amounts and types of activities that can or cannot occur, or are currently being evaluated by separate planning processes. State and Native corporation lands cannot be considered in a BLM plan and BLM lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the no action and the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM lands, along with management

actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative B would not significantly restrict subsistence use of or access to fish, wildlife and vegetative resources by residents in the subunit. Most impacts to subsistence resources would be beneficial, and any impacts by way of the limited amount of development allowed and expected to occur under this alternative would be minimized by stipulations and ROPs (see Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations* and Chapter 2).

J.2.3.3. Upper Black River Alternative C

Alternative C emphasizes a moderate level of protection, use, and enhancement of resources and services. Constraints to protect resources would be implemented, but would be less restrictive than under Alternative B. This alternative would designate an ACEC of the same area as Alternative B however it would be open to locatable minerals and no season limits on OHV use. No rivers would be recommended as suitable for designation under the WSRA.

Evaluation of the Effects of Use, Occupancy, or Disposition

Impacts to subsistence resources and uses would potentially increase from decisions in this alternative. The remoteness of the area and low mineral potential render it likely that little or no development or increase in use will occur and impacts are expected to be the same as for Alternative B.

Under Alternative C, the Salmon Fork ACEC would be the same acreage as Alternative B. The ACEC would be closed to leasable minerals, but the rest of the subunit would be open. The entire subunit, including the ACEC, would be open to locatable and salable minerals and to the year-round use of OHVs. Emphasis on improving riparian and aquatic habitat through reclamation would be afforded through RCAs within the Kandik and Salmon Forks. Some geophysical exploration on lands around Circle for fluid leasable minerals may occur over the life of the plan, but is expected to be minimal. Little or no exploration is expected in other areas of the subunit. Due to low potential and expected low level of interest, development of locatable minerals is predicted to be small. Any applications for locatable minerals may include new access, which could facilitate travel for hunting and increase competition for subsistence resources. Applications for any land use would require a project level analysis to which stipulations would be attached (Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*).

Summer cross-country use of OHV 1,500 pounds curb weight and under would be allowed throughout the area, including the ACEC. Use is not expected to increase, due to the remoteness of the location and difficulty of summer cross-country travel. Boat and winter cross-country snowmobile travel is expected to be local and mostly in support of subsistence activities. Some use by recreational aircraft would be expected, mostly during state hunting seasons.

Although reduced protection to areas most important to fish, wildlife and vegetative subsistence resources are afforded through this alternative, limited use and development are anticipated and impacts to subsistence resources and uses would be negligible.

Evaluation of the Availability of Other Lands

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

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the no action and the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plans. These alternatives were created to represent a wide-range of potential activities that could occur on BLM lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative C would not significantly restrict subsistence use by communities in the planning area. Most impacts to subsistence resources and uses would be negligible, and any impacts from the limited amount of development allowed to occur would be minimized by the leasing stipulations and ROPs discussed in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*. The impacts to subsistence species are expected to be localized and temporary, and are not expected to impact resources at the population level. No impacts to access by subsistence users are expected to occur.

J.2.3.4. Upper Black River Alternative D

Alternative D emphasizes active management to facilitate resource development on BLM lands in the subunit. Unlike the other action alternatives, large and small commercial timber sales would be allowed in the ACEC. All ANCSA 17(d)(1) withdrawals would be revoked on lands retained in long-term federal ownership. The ACEC would be open to mineral leasing and location. No rivers would be recommended as suitable for designation under the WSRA.

Evaluation of the Effects of Use, Occupancy, or Disposition

Impacts to subsistence resources and uses from the increased development and use allowed by this alternative would be similar to the other action alternatives.

Under Alternative D the Salmon Fork ACEC would be the same acreage as the other action alternatives, but would be open to mineral location and leasing, as is the entire subunit. No RCAs would be designated to confer additional protections. Small and large commercial timber harvest would be allowed in the ACEC, but is predicted to be minimal over the life of the plan.

The area would be difficult to access and remote from markets, making timber from the area essentially unmarketable.

Any geophysical exploration for oil and gas in the subunit would be expected to be minimal, same level as predicted in Alternative B and C, and would most likely occur around Circle. Development of locatable minerals is also predicted to be small. Any applications for locatable minerals may include new access, which could facilitate travel for hunting and increase competition for subsistence resources. Applications for any land use would require a project level analysis to which stipulations would be attached (Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*).

Summer cross-country use of OHV would be the same as in Alternative C. Use of OHV 1,500 pounds curb weight and under would be allowed throughout the area, including the ACEC. Use is not expected to increase, due to the remoteness of the location and difficulty of summer cross-country travel. Boat and winter cross-county snowmobile travel is expected to be local and mostly in support of subsistence activities. Some use by recreational aircraft would be expected, mostly during state hunting seasons.

Although the least protection to areas most important to fish, wildlife and vegetative subsistence resources are afforded through this alternative, limited use and development are anticipated and impacts to subsistence resources and uses would be negligible.

Evaluation of the Availability of Other Lands

Alternative D would manage BLM lands in the subunit to optimize resource use and development, with the fewest restraints on commercial or recreation activity. Lands managed by other federal agencies in the planning area are managed under National Park Service or U.S. Fish and Wildlife Service planning documents and as conservation system units. Other BLM lands in the state are managed under specific planning documents. Additional BLM lands are managed by current planning documents that allow a mixture of development and conservation following BLM's multiple-use mission, or are currently being evaluated through the planning process. State of Alaska and Native corporation lands cannot be considered in a BLM plan, and under BLM policy other BLM-managed lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence use and resources include the no action and three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative D would not significantly restrict subsistence use by communities in or near the planning area given the management parameters outlined in Chapter 2 of the main document and including the Stipulations and ROPs found in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*. Should the amount of oil and gas exploration, anticipated

area of potential locatable mineral development, or other land uses expand, this finding may need to be revised to take into account impacts to the subsistence resources and uses that are not mitigated through this plan.

J.2.3.5. Upper Black River Cumulative Case

The goal of the cumulative analysis is to evaluate the incremental impact of the current action in conjunction with all past, present, and reasonably foreseeable future actions in or near the planning area. The cumulative analysis considers in greatest detail activities that are more certain to happen, and activities that were identified as being of great concern during scoping for the RMP. Actions considered in the cumulative analysis include, but are not limited to, the following (section 4.2.4 Cumulative Impacts):

The Yukon Flats and Arctic National Wildlife Refuges (NWRs) encompass forty-three percent of the Upper Black River Subunit. The Yukon Flats NWR is managed according to ANILCA (Section 302(9)(B)) to conserve fish and wildlife resources; fulfill international treaty obligations of the United States with respect to fish and wildlife resources; and ensure water quality and quantity within the region. Activities within the refuge include hunting, fishing, recreation use, subsistence harvest, and research and management activities. Although oil and gas exploration has occurred on the refuge, no oil development has occurred. Several acres of Native allotments are scattered throughout the Yukon Flats. The communities of Chalkyitsik and Fort Yukon are within the boundaries of the refuge and both use the area for harvest of subsistence resources. The Yukon Flats NWR provides protection of subsistence resources and use opportunities. Management in the Yukon Flats NWR is expected to continue to be similar to that of the past decade.

The Arctic NWR lays north of BLM-managed lands in the subunit. It was created by Public Land Order 2214 in 1960. Several million acres to the south and west were added to the existing Arctic NWR by ANILCA (Section 303(2)) in 1980. The purpose of the Arctic NWR is the same as the Yukon Flats NWR. No communities, roads, developments or trails occur within the Upper Black River Subunit portion of the refuge. The Arctic NWR is considered to be the most Primitive and undisturbed conservation area in the Nation. Subsistence use areas for Chalkyitsik and Fort Yukon residents extend into the refuge. Management in the refuge is expected to continue similar to the past three decades.

The northern portion of the Yukon-Charley Rivers National Preserve (Preserve) borders BLM-managed and Doyon, Limited, lands in the south end of the subunit and totals 13 percent of the subunit. Established under ANILCA, the purpose of the Preserve is to protect and conserve natural and cultural resources to ensure use and enjoyment by future generations. Within the borders of the Preserve are private lands, mining claims and state managed submerged lands. The Coal Creek mining area is accessible by a right-of-way for a state road. No communities are located within the Preserve however the Preserve is within the subsistence use areas for Fort Yukon and Circle. The Preserve provides protection of subsistence resources and use opportunities. Management in the Preserve is expected to continue to be similar to that of the previous three decades.

State lands total five percent of the subunit. Private lands, including lands conveyed through ANCSA, total nine percent of the subunit. State lands are managed for multiple uses. Objectives for village and corporation lands include oil and gas exploration, mineral development, traditional uses, subsistence and conservation. Conveyance of selected lands is ongoing. Approximately two percent of lands within the subunit are ANCSA selected. Higher priority lands will be

conveyed. ANILCA Title VIII, which provides for a subsistence preference to rural residents, will not apply to conveyed lands. Harvest regulations developed by the Alaska Boards of Fish and Game will apply to these lands.

Oil and gas exploration has been conducted in the subunit, mostly on Yukon Flats NWR where development potential is high. High potential has been identified for parts of the Kandik River. Test results within the Kandik Basin were not favorable and no development has been proposed. No permits for development are in the works or expected during the life of the plan. Oil and gas development in the area remains speculative and is not considered as a potential cumulative impact over the next 30 years.

No mining is occurring on federal or state mining claims in the Upper Black River Subunit according to the Alaska Resource Data File.

Three Military Operations Areas occur within the subunit. Activity is expected to remain the same or slightly increase. Impacts to wildlife resources important to subsistence could potentially occur. Current practices by the military is to avoid exercises during calving; implementing minimum ceilings have reduced, but not eliminated, impacts to caribou. Research, monitoring and other land management activities will continue on all lands in the subunit and include access to remote areas by fixed and rotary wing aircraft, snowmobiles and other OHV. Disturbance from these activities is localized and temporary.

Climate change will benefit some subsistence resources and negatively affect others. Changes in species distribution and vegetation communities in subarctic areas are predicted to occur by 2040. Frequency and severity of natural wildland fire in Interior Alaska are predicted to increase and result in shifts to deciduous and shrub-dominated landscapes; which may benefit moose and some furbearers, but not caribou. Predicted increases in water temperatures would alter chemical and biotic conditions to the detriment of subsistence fish diversity and abundance. Increases in soil temperatures would result in drying of lakes and ponds. Non-native invasive species (NIS) can tolerate marginal and wider ranges of environmental conditions than native species. Longer frost-free seasons, drying of lakes and ponds, increases in wildland fire frequency and severity favor pioneering NIS. NIS alter fish and wildlife habitat and impact ecosystem health.

Alternative B would best protect subsistence resources in concert with actions occurring or likely to occur adjacent to BLM-managed lands within the subunit. Alternative C would slightly increase the potential for impacts to subsistence resources and uses collectively with actions by other land managers and owners. However the differences between Alternative B and C are minor. Alternative D would have the greatest potential for impacts on subsistence resources and users when added to decisions by adjacent land managers, however, differences among the three action alternatives are minor.

Evaluation of the Effects of Use, Occupancy, or Disposition

According to the fish and wildlife analysis in Chapter 4 of the Eastern Interior Draft RMP/EIS, the combination of ongoing leasable and locatable mineral development occurring on state, federal and private lands in the subunit and future development projected for the subunit, would not have cumulative impacts on fish, wildlife or vegetative resources in the subunit. The privatization of State of Alaska or Native corporation lands could lead to additional development. Depending on the location of development, these impacts could include: short or long-term disturbance to wildlife habitat and migratory routes; disruption of wildlife distribution and movements; stress

and disturbance impacts during all seasons of the year; and possible reductions in productivity. If substantial activity occurred within habitat important for subsistence species these impacts could be detectable. Based on the areas of the subunit with high potential leasable and locatable minerals no significant cumulative impacts would be expected to occur.

Evaluation of the Availability of Other Lands

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

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan, as well as Alternative A. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

The cumulative case, as presented in this analysis, is not expected to result in a reasonably foreseeable or significant restriction of subsistence resources or uses for rural communities within the planning area.

J.2.4. Evaluation and Finding for White Mountains Subunit

J.2.4.1. White Mountains Alternative A

Selection of Alternative A would result in continued management of the White Mountains Subunit as specified in the 1986 White Mountains National Recreation Area Resource Management Plan (Plan). Valid decisions contained in the Plan would be implemented if not already completed. Direction contained in existing laws, regulation and policy would also continue to be implemented, sometimes superseding provisions in the Plan. The current levels, methods and mix of multiple use management of public land in the planning area would continue, and resource values would receive attention at present levels. In general, most activities would be analyzed at the project level and few uses would be limited or excluded as long as they were consistent with state and federal laws. Wildland fire would be managed consistent with the Alaska Land Use Plan Amendment for Wildland Fire and Fuels Management (BLM 2004b, 2005c).

Evaluation of the Effects of Use, Occupancy, or Disposition

Under Alternative A, the primary impacts to subsistence would be associated with continuation of the current management of Recreation and Off Highway Vehicle (OHV) use as described in the Plan.

Management of resources, including water, cultural and paleontological, fish, wildlife, and vegetation, and of resource uses, including mining and lands activities, requires inventory and monitoring of conditions and populations and field site visits for compliance examinations. Activities that support data collection may displace subsistence resources from traditional harvest areas. Disturbance from the use of aircraft and OHV during management surveys will be temporary and localized and will not affect any fish, wildlife or vegetative resources at the population level. Inventory and monitoring efforts will benefit subsistence resources by providing valuable data on distribution and population parameters.

Under Alternative A BLM-managed lands in the subunit are withdrawn from mineral leasing and entry. Mining is limited to existing valid claims, which are primarily in the Livengood area.

Fish, wildlife and vegetative resources in the White Mountains Subunit have been impacted by past placer mining activity in the White Mountains National Recreation Area (NRA). No mining currently occurs or will occur within the NRA under any of the alternatives. Although the subunit is closed to mineral location and entry under Alternative A, 3500 acres of valid existing claims continue to be worked on BLM-managed lands around Livengood. Several claims are also actively mined on adjacent state-managed lands.

Beaver Creek contains the highest value fishery resources in the subunit, aside from the Yukon River. In addition to the White Mountains NRA being closed to locatable minerals in all alternatives and leasable minerals under Alternatives A through C, stream buffers within one-half mile of the banks of Beaver Creek WSR are withdrawn from locatable minerals under ANILCA, which applies for all alternatives (sections 2.4.2.8 and 2.8.1.2.6 Withdrawals). Given the closure to locatable minerals on BLM-managed lands in the majority of the subunit, impacts to fish and aquatic habitats are expected to be minimal under the no action and action alternatives. Preserving riparian and stream bank vegetation largely mitigates impacts from placer mining to aquatic systems and is recommended as a standard stipulation for mining operations on all streams.

Under Alternative A, the greatest impact to subsistence resources and uses would result from continuing current management standards of OHV and recreational use in the White Mountains Subunit. Cross-country summer travel by OHV 1,500 pound curb weight and under is generally allowed in about 40 percent of the White Mountains NRA and on other BLM-managed lands in the subunit. The Beaver Creek WSR Corridor and Primitive area are closed to summer OHV use and the Research Natural Areas (RNA) are closed to both summer and winter OHV use. Cross-country summer use in the Semi-Primitive motorized area has resulted in a network of trails. Unmanaged trail proliferation would continue under Alternative A.

With limited restrictions on OHV use and no established limits on visitor use, impacts to subsistence resources and uses could occur. Recreation and OHV use is predicted to continue increasing with population growth in the state and as OHV technology continues to advance. Cross-country access increases competition for harvest of wildlife resources by all users and can lead to direct and indirect impacts to fish, wildlife and habitat.

With limited restrictions on OHV use and no established limits on visitor use, impacts to subsistence resources and uses could occur. Recreation and OHV use is predicted to continue increasing with population growth in the state and as OHV technology continues to advance. Cross-country access increases competition for harvest of wildlife resources by all users and can lead to direct and indirect impacts to fish, wildlife and habitat.

During scoping for the plan no concerns specific to subsistence resources or uses in the White Mountains Subunit were raised, although general comments are common to all subunits.

A small harvest from the White Mountains caribou herd occurs annually. Harvest ticket and registration permit requests and returns documented that the major participation in harvest of caribou in the subunit is by residents from non-rural areas. Participation in other subsistence activities on BLM-managed lands in the subunit is also minimal based on harvest ticket returns and technical reports documenting use areas of communities in and adjacent to the subunit.

Evaluation of the Availability of Other Lands

The purpose sought to be achieved under Alternative A would be to continue the current management of BLM-managed lands in the subunit under the 1986 White Mountains RMP. Other federal public lands in the subunit are managed under U.S. Fish and Wildlife Service (Yukon Flats NWR) planning documents. Other BLM lands in the state either already have land use planning documents in place, or are being addressed by separate planning processes. State and Native corporation lands cannot be considered in a BLM plan and BLM lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

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

J.2.4.2. White Mountains Alternative B

Alternative B emphasizes active measures to protect and enhance resource values. As in all alternatives, the White Mountains NRA remains closed to mineral entry. Valid existing mining claims occur in the Livengood area and will continue to be mined and developed. The White Mountains Area of Critical Environmental Concern (ACEC) and Special Recreation Management Areas (SRMA) are identified, and specific measures are proposed to protect or enhance values

within these areas. One eligible river, Fossil Creek (scenic), has been recommended suitable for designation under the Wild and Scenic River Act. Limited areas are proposed for Off Highway Vehicles (OHV) to protect habitat, soil and vegetation resources.

Evaluation of the Effects of Use, Occupancy, or Disposition

The analysis of effects from Alternative B concludes that impacts as a result of management actions or designations within the planning area will not result in significant reductions in subsistence resources or uses. Many of the proposed actions serve to positively impact subsistence in that management would emphasize habitat and resource protection. While some development activity could occur under this alternative, areas of priority habitat would be protected by special designation, and by the stipulations and ROPs as presented in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*. Actions such as the creation of new SRMAs, ACECs, and/or the designation of WSR segments, do not limit or impose unreasonable restriction on subsistence use as defined by ANILCA Title VIII.

No oil and gas or locatable mineral development will be allowed in the White Mountains NRA. Development of salable minerals would be allowed in the Middlecountry and Frontcountry RMZs. Development would be concentrated near projects and highways and is not expected to impact subsistence resources or uses.

The White Mountains NRA, Beaver Creek WSR Corridor and access into the NRA would be designated as a special recreation management area (SRMA). The White Mountains ACEC (589,000 acres), which is within the SRMA, would be created to protect current and historic calving and postcalving habitat for the White Mountains caribou and Dall sheep habitat. The entire SRMA would remain closed to entry, location, and leasing of minerals.

No summer cross-country use would be allowed in the White Mountains NRA. Only a portion of the SRMA would be open to summer motorized use on designated trails. Future trail development would be compatible with the purpose of NRA.

No OHV use would be allowed in the RNAs. Winter use of snowmobiles would be allowed in the White Mountains Spine Primitive and all other RMZs and would allow cross-country winter use of snowmobiles 1,500 pounds and under curb weight. Permits would be required for all other OHV use. These prescriptions will limit impacts to subsistence resources and uses.

BLM-managed lands around Livengood would be managed as an undesignated recreation area where winter and summer cross-country use of OHV would generally be allowed. Vehicles weighing 10,000 pounds and under curb weight would be allowed but restricted to existing roads only.

The ACEC, RNA and WSR would be right-of-way avoidance areas. One transportation corridor would be retained in the Nome Creek valley. Both actions would benefit subsistence resources and uses by keeping any new roads or other rights-of-way consolidated in as few corridors as possible.

Areas important to fish and wildlife subsistence resources are largely protected because they are within the Beaver Creek WSR Corridor, ACEC, RCAs and SRMA.

Evaluation of the Availability of Other Lands

Alternative B would manage BLM public lands in the White Mountains Subunit in order to optimize conservation. Lands managed by other federal agencies in the planning area are managed under U.S. Fish and Wildlife Service planning documents and are considered conservation system units. Other BLM-managed lands in the state either already have land use planning documents in place that specify the amounts and types of activities that can or cannot occur, or are currently being evaluated by separate planning processes. State and Native corporation lands cannot be considered in a BLM plan and BLM-managed lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Analysis of effects from Alternative B concludes that impact as a result of management actions or designations within the planning area will not result in significant reductions in subsistence resources or uses by residents in or adjacent to the subunit. Most impacts to subsistence resources would be beneficial, and any impacts by way of the limited amount of development allowed to occur under this alternative would be minimized by leasing stipulations and ROPs (see Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations* and Chapter 2).

J.2.4.3. White Mountains Alternative C

Alternative C emphasizes a moderate level of protection, use, and enhancement of resources and services. Constraints to protect resources would be implemented, but would be less restrictive than under Alternative B. This alternative would designate no ACEC; however the SRMA would remain the same (the entire White Mountains NRA and Beaver Creek WSR Corridor). The seven Recreation Management Zones (RMZs) would change in area with a shift away from Semi-Primitive RMZs and more toward Backcountry and Middlecountry RMZs. The shift to a larger Middlecountry would result in more area available for summer OHV use, albeit on designated trails. Limits on travel would change to more lenient use of OHV in this RMZ to include off-trail game retrieval. No rivers would be recommended as suitable for designation under the WSRA. The SRMA would be closed to leasable and locatable minerals. All but the Beaver Creek WSR Corridor would be open to salable minerals but impacts would be minimal.

Evaluation of the Effects of Use, Occupancy, or Disposition

Impacts to subsistence resources and uses from the increased level of use allowed by this alternative would be similar in nature to Alternative B, except under Alternative C more acres are

available for salable mineral development and use of OHV 1,500 pounds curb weight and less on designated trails expands to allow off-trail retrieval of game in the Middlecountry RMZ.

Placer mining activity under Alternative C is estimated to remain the same as Alternative A with no impacts to the high-value fishery resources supported by the Beaver Creek or to wildlife and vegetative resources. Development of valid existing claims near Livengood would be expected to continue to occur with little or no impacts to subsistence.

Under Alternative C, no White Mountains ACEC would be created. Caribou calving and postcalving habitat and Dall sheep habitat, which is within the SRMA, would be protected by other prescription. Entry, location and leasing of minerals would be closed in the SRMA (except salable mineral disposal could be authorized in all but the WSR). Most of the highest value wildlife habitat is within the Backcountry and Semi-Primitive RMZs where cross-country winter use of snowmobiles 1,500 pounds curb weight and less would be allowed but no other OHV use would be allowed, except with a permit or approved Plan of Operations.

In the Livengood area cross-country summer and winter use of OHV 1,500 pounds curb weight and less would be allowed (see sections 2.8.2.1.2.6 and 2.8.2.2.2.6 Travel Management for limitations). Vehicles of 10,000 pounds curb weight and less would be allowed on existing roads only. Permits or approved Plan of Operations would be required for any other OHV use.

Further trail development could be allowed if compatible with the decisions for this alternative and subsistence uses. Off-route game retrieval could increase participation by non-local hunters. The potential increase in impacts to subsistence resources and uses from travel management prescriptions in this alternative would be minor, particularly compared with the No Action Alternative (current situation) and Alternative D.

Evaluation of the Availability of Other Lands

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

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative C would not significantly restrict subsistence use by communities in or adjacent to the planning area. Most impacts to subsistence resources and uses would be minor, and any impacts from the development allowed to occur would be minimized by the leasing stipulations and ROPs discussed in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations*. Any impacts to subsistence resources are expected to be localized and temporary, and are not expected to impact resources at the population level. ROPs and stipulations to protect riparian and aquatic habitats would be necessary to mitigate impacts from the few allowed uses, especially along streams where buffers would not apply. No impacts to access by subsistence users are expected to occur.

Little or no use of wildlife resources by rural communities has been documented by harvest reports or other documentation, such as technical reports on subsistence use by local communities. Forty-five rural residents participated in harvest of the WMCH during regulatory years 1999-2009 (total participation by all residents was 1468). Eighteen rural communities statewide are represented in that statistic. Over the 11 year period, of the 186 caribou harvested, 5 were taken by rural residents (0.45 caribou/year) (Seaton, Pers. Comm. 2009). Participation and harvest success data of rural residents for moose in the subunit are not available but would be expected to be similar.

Minimal competition for subsistence resources may occur if large numbers of nonlocal hunters are attracted to the areas where off-trail game retrieval is allowed. As opportunities to harvest wildlife become more restrictive in other parts of the state, participation by non-rural hunters in the White Mountains NRA may increase. Participation by rural residents would be expected to remain about the same over the life of the plan.

J.2.4.4. White Mountains Alternative D

Alternative D emphasizes active management to facilitate resource development on BLM lands in the subunit. All ANCSA 17(d)(1) withdrawals would be revoked on lands retained in long-term federal ownership. The SRMA would be closed to locatable minerals. Approximately 55 percent of these lands would be closed to mineral leasing. Travel and trail restrictions would be minimized. A smaller ACEC, focused on habitat protection management would be identified.

Evaluation of the Effects of Use, Occupancy, or Disposition

Impacts to subsistence resources and uses from the increased level of development and use allowed by this alternative would be similar to the other action alternatives. Higher percentages of land would be available for leasable minerals and limits on OHV and recreation would be less.

Under Alternative D the entire subunit would remain closed to locatable mineral entry, subject to valid existing rights. Areas open to leasable minerals include portions of the current White Mountains caribou calving, postcalving and winter range, moose habitat and Dall sheep movement corridors and habitat. An area of high potential oil and gas that includes most of the Yukon Flats National Wildlife Refuge dips to Victoria Creek in the northern most part of the White Mountains NRA. The rest of the area has low or no oil and gas potential. Impacts from development of leasable minerals include direct disturbance to wildlife on priority habitats, fragmentation of habitat through important movement corridors, and long-term impacts to streams and riparian habitats from placer mining (sections 4.7.1.2 and 4.7.1.7 Impacts Specific to the White Mountains

Subunit, Fish, Wildlife). Exploration may be proposed in the White Mountains Subunit but is not expected to occur. No oil and gas development would be expected over the life of the plan.

RNAs carry the only Primitive RMZ designations and are closed to OHV use without a permit. Semi-Primitive and Backcountry RMZs would be open to winter use of snowmobiles 1,500 pounds curb weight and under. All other OHV use would require a permit. Summer cross-country use would be allowed within the White Mountains Foothills Middlecountry RMZ. Middlecountry would expand to include most of Victoria Creek and the Ray Creek drainage and would allow summer cross-country travel by OHV 50" wide and less and 1,500 pounds curb weight and under. Impacts to Dall sheep, caribou, moose and other wildlife from cross-country summer use would potentially occur in these areas. Travel in the Nome Creek Frontcountry RMZ would continue to be limited to designated trails except that off trail retrieval of legally harvested game would be allowed. The Wickersham Dome-Blixt Frontcountry RMZ generally allows cross-country summer OHV use. No impacts are expected from the Frontcountry prescriptions.

BLM-managed lands around Livengood would be managed as an undesignated recreation area where winter and summer cross-country use of OHV would generally be allowed. Vehicles weighing 10,000 pounds curb weight and less would be allowed but restricted to existing roads only.

Use of OHV under this alternative would have the greatest potential for impacts on subsistence resources and uses. In addition to areas currently open to cross-country summer OHV use under Alternative A, Victoria Creek would be open to cross-country summer OHV use. Important winter range for the WMCH and priority moose habitat occur in the Victoria Creek area. At current levels of subsistence use in the White Mountains Subunit however, impacts to subsistence resources and uses are not expected to be significant.

Evaluation of the Availability of Other Lands

Alternative D would manage BLM lands in the subunit to optimize resource use and development, with the fewest restraints of all alternatives on commercial activity (leasable minerals and forest products) and the fewest limitations on travel management and recreation activity of the action alternatives. Lands managed by other federal agencies in the subunit are managed under U.S. Fish and Wildlife Service planning documents and as conservation system units. Other BLM lands in the state are managed by current planning documents that allow a mixture of development and conservation following BLM's multiple-use mission, or are currently being evaluated through the planning process. State of Alaska and Native corporation lands cannot be considered in a BLM plan and BLM-managed lands outside of Alaska are not considered under ANILCA.

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence use and resources include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

Alternative D would not restrict subsistence use by communities in or near the planning area. Any impact from responses to potential locatable mineral development and cross-county summer use of OHV would not be significant. Management parameters outlined in Chapter 2 of the main document and the leasing stipulations and ROPs found in Appendix A, *Required Operating Procedures and Fluid Mineral Leasing Stipulations* would mitigate the impacts. Should the amount of potential locatable mineral development, or other land uses, expand beyond expected activity, this finding may need to be revised to take into account impacts to the WMCH and other subsistence resources and uses that cannot be mitigated.

J.2.4.5. White Mountains Cumulative Case

The goal of the cumulative analysis is to evaluate the incremental impact of the current action in conjunction with all past, present, and reasonably foreseeable future actions in or near the planning area. The cumulative analysis considers in greatest detail activities that are more certain to happen, and activities that were identified as being of great concern during scoping. Actions considered in the cumulative analysis include, but are not limited to the following (refer to section 4.2.4 Cumulative Effects):

Development of minerals will occur on state and private lands in the subunit. Effects will be similar to those described for activities on BLM lands, except that the level of activity is expected to be higher due to higher mineral potential, particularly on state lands adjacent to BLM-managed lands.

Military aircraft use is allowed in Military Operation Areas (MOAs) over much of the White Mountains Subunit and is likely to increase. Impacts to wildlife resources important to subsistence could potentially occur. Current practices by the military to avoid exercises during caribou calving and implementing minimum ceilings have reduced but not eliminated impacts to caribou.

Research, monitoring and other land management activities will continue on all lands in the subunit and include access to remote areas by fixed and rotary wing aircraft, snowmobiles and other OHVs. Disturbance from these activities is localized and temporary.

Climate change will benefit some subsistence resources and negatively affect others. Changes in species distribution and vegetation communities in subarctic areas are predicted to occur by 2040. Frequency and severity of natural wildland fire in Interior Alaska are predicted to increase and result in shifts to deciduous and shrub-dominated landscapes, which may benefit moose and some furbearers but not caribou. Predicted increases in water temperatures would alter chemical and biotic conditions to the detriment of subsistence fish diversity and abundance. Increases in soil temperatures would result in drying of lakes and ponds.

The population of Fairbanks and the surrounding area is predicted to increase by about 10 percent from the 2000 census to the 2020 census. Development of a gas line or other projects may boost the population beyond the estimate. Demands for recreation and subsistence resources are predicted to increase between 10 and 15 percent over the next 20 years. With the management emphasis on recreation in the White Mountains Subunit, increased use would be expected in this area.

Conveyance of remaining selected lands to the state and Native corporations is ongoing. Planning area wide, about 1.1 million acres are in selection by Native corporations (ANCSA 1971) and 1.4

million acres are in selection by the State of Alaska. Fish and wildlife management of harvest would be predicated on state regulations. Based on joint state/federal harvest management of WMCH in the subunit, no impacts to subsistence uses would be expected to occur. Impacts to use of fish and other wildlife may occur if state regulations are more restrictive than federal regulations on those lands.

Alternative B would best protect subsistence resources in concert with actions occurring adjacent to BLM-managed lands in the White Mountains Subunit. Alternative C would somewhat increase impacts to subsistence resources and uses collectively with actions by other land managers adjacent to BLM-managed lands. Alternative D would potentially have the greatest impacts on subsistence resources and uses when added to decisions by adjacent land managers. Alternative A would have slightly less impacts from management prescriptions than Alternative D.

Evaluation of the Effects of Use, Occupancy, or Disposition

According to the fish and wildlife analysis in Chapter 4 of the Eastern Interior Draft RMP/EIS, the combination of ongoing locatable mineral development occurring on state, federal and private lands in the subunit combined with future uses and development projected for the subunit would have few cumulative impacts on subsistence resources within the White Mountains Subunit. The privatization of State of Alaska or Native corporation lands could lead to additional development but is not expected to have cumulative impacts within the subunit.

Evaluation of the Availability of Other Lands

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

Evaluation of Other Alternatives

Alternatives that would reduce or eliminate the use of public lands needed for subsistence include the three action alternatives that are presented and analyzed in Chapters 2 and 4 of the main body of this Resource Management Plan, as well as Alternative A. These alternatives were created to represent a wide-range of potential activities that could occur on BLM-managed lands, along with management actions that would serve to protect specific resource values following current national guidelines. Additional alternatives considered, but not analyzed in detail, are also discussed in Chapter 2.

Findings

The cumulative case, as presented in this analysis, is not expected to result in any reasonably foreseeable or significant restriction of subsistence use for rural communities within the planning area.

J.3. Notice and Hearings

The ANILCA Sec. 810(a) provides that no “withdrawal, reservation, lease, permit, or other use, occupancy or disposition of the public lands which would significantly restrict subsistence uses shall be effected” until the federal agency gives the required notice and holds a hearing in accordance with ANILCA Sec. 810(a)(1) and (2). The BLM will provide notice in the *Federal Register* that it has made positive findings pursuant to ANILCA Sec. 810 that the following alternatives or the cumulative case presented in the Draft RMP/EIS meets the “may significantly restrict” threshold: Fortymile Subunit, Alternative D in combination with the Cumulative Case; Steese Subunit, Alternative D in combination with the Cumulative Case. As a result, public hearings will be held in the potentially affected communities. Notice of these hearings will be provided by way of the local media, including the newspaper and the local radio station, with coverage to many villages in Eastern Interior Alaska.

J.4. Subsistence Determinations Under ANILCA Section 810

The ANILCA Sec. 810(a) provides that no “withdrawal, reservation, lease, permit, or other use, occupancy or disposition of the public lands which would significantly restrict subsistence uses shall be effected” until the federal agency gives the required notice and holds a hearing in accordance with the ANILCA Sec. 810(a)(1) and (2), and makes the three determinations required by the ANILCA Sec. 810(a)(3)(A), (B), and (C). The three determinations that must be made are: 1) that such a significant restriction of subsistence use is necessary, consistent with sound management principles for the utilization of the public lands; 2) that the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other such disposition; and 3) that reasonable steps will be taken to minimize adverse impacts to subsistence uses and resources resulting from such actions [16 U.S.C. Sec. 3120(a)(3)(A), (B), and (C)].

The BLM has found in this subsistence evaluation that Alternative D and the cumulative case in the Steese Subunit and Alternative D combined with the cumulative case in the Fortymile Subunit, which are considered in this RMP/EIS, might significantly restrict subsistence uses. Therefore, the BLM will undertake the notice and hearing procedures required by the ANILCA Sec. 810 (a)(1) and (2) in conjunction with release of the Draft RMP/EIS in order to solicit public comment from the potentially affected communities and subsistence users. The BLM has not found in this subsistence evaluation that any alternatives considered in this Resource Management Plan for the Upper Black River Subunit or the White Mountains Subunit would significantly restrict subsistence uses.

The determination that the requirements of the ANILCA Sec. 810(a)(3)(A), (B), and (C) have been met will be analyzed in the Final ANILCA Sec. 810 Evaluation, which will be part of the Eastern Interior Proposed RMP and Final EIS, using input from the communities in which subsistence hearings will be held.

Appendix K

BLM-Alaska

Sensitive Species List

Appendix K. BLM-Alaska Sensitive Species List

This appendix includes the BLM-Alaska Sensitive Species List (Instruction Memorandum No. AK-2010-18, May 18, 2010). Many species on this list are not known to occur in the Eastern Interior Planning Area. A list of the species known or likely to occur in the planning area is included in Chapter 3 of this document.

Table K.1. BLM-Alaska 2010 Sensitive Species List

Category	Scientific Name	Common Name
Birds	<i>Brachyramphus brevirostris</i>	Kittlitz's Murrelet
	<i>Gavia adamsii</i>	Yellow-billed Loon
	<i>Chen canagica</i>	Emperor Goose
	<i>Calidris canutus</i>	Red Knot
	<i>Numenius tahitiensis</i>	Bristle-thighed Curlew
	<i>Brachyramphus marmoratus</i>	Marbled Murrelet
	<i>Plectrophenax hyperboreus</i>	McKay's Bunting
	<i>Branta canadensis occidentalis</i>	Dusky Canada Goose
	<i>Cygnus buccinator</i>	Trumpeter Swan
	<i>Contopus cooperi</i>	Olive-sided Flycatcher
	<i>Euphagus carolinus</i>	Rusty Blackbird
	<i>Calidris ptilocnemis tschuktschor</i>	Bering Sea Rock Sandpiper
	<i>Aquila chrysaetos</i>	Golden Eagle
	<i>Asio flammeus</i>	Short-eared Owl
	<i>Dendroica striata</i>	Blackpoll Warbler
	Fish	<i>Lampetra alaskensis</i>
<i>Salvelinus alpinus</i>		Arctic Char (Kigluaik Mtns.)
Insects	<i>Rhithrogena ingalik</i>	Alaska Endemic mayfly
	<i>Acentrella feropagus</i>	a mayfly
	<i>Alaskaperla ovibovis</i>	Alaska Sallfly
Mammals	<i>Lepus othus</i>	Alaskan hare
	<i>Spermophilus parryii osgoodi</i>	Osgood's arctic ground squirrel
	<i>Mustela americana kenaiensis</i>	Kenai marten
	<i>Sorex yukonicus</i>	Alaskan Tiny Shrew
Plants	<i>Antennaria densifolia</i>	
	<i>Arnica lonchophylla</i>	Northern Arnica
	<i>Artemisia globularia ssp. lutea</i>	
	<i>Artemisia laciniata</i>	Siberian Wormwood
	<i>Artemisia senjavinensis</i>	Arctic Sage
	<i>Aster pygmaeus (Eurybia pygmaea)</i>	Pygmy aster
	<i>Botrychium ascendens</i>	moonwort
	<i>Carex adelostoma</i>	Circumpolar sedge
	<i>Claytonia arctica</i>	Arctic Springbeauty
	<i>Claytonia ogilviensis</i>	Ogilvie Mtns. spring beauty
	<i>Cryptantha shackletteana</i>	Shacklettes' Catseye
	<i>Douglasia alaskana</i>	Alaska Rock-jasmine
	<i>Douglasia arctica</i>	Mackenzie River Douglasia
	<i>Douglasia beringensis</i>	Arctic dwarf primrose
	<i>Draba micropetala</i>	Alpine Whitlow-grass
	<i>Draba murrayi</i>	Murray's Whitlow-grass
<i>Draba ogilviensis</i>	Ogilvie Mountains Whitlow-grass	
<i>Draba pauciflora</i>	Adam's Whitlow-grass	

Category	Scientific Name	Common Name
	<i>Erigeron muirii</i>	Muir's Fleabane
	<i>Erigeron yukonensis</i>	Yukon Fleabane
	<i>Eriogonum flavum</i> var. <i>aquilinum</i>	Yukon Wild-buckwheat
	<i>Erysimum asperum</i> var. <i>angustatum</i>	a Wallflower
	<i>Gentianopsis detonsa</i> ssp. <i>detonsa</i>	Sheared Gentian
	<i>Koeleria asiatica</i>	Oriental Junegrass
	<i>Lesquerella calderi</i>	Calder's Bladder-pod
	<i>Mertensia drummondii</i>	Drummond's Bluebell
	<i>Montia bostockii</i>	Bostock's Miner's-lettuce
	<i>Oxytropis arctica</i> var. <i>barnebyana</i>	Barneby's Locoweed
	<i>Oxytropis huddelsonii</i>	
	<i>Oxytropis kobukensis</i>	Kobuk Locoweed
	<i>Papaver alboroseum</i>	Pale Poppy
	<i>Papaver gorodkovii</i>	
	<i>Papaver walpolei</i>	Walpole Poppy
	<i>Parrya nauruaq</i>	
	<i>Pedicularis hirsuta</i>	
	<i>Phacelia mollis</i>	Macbride Phacelia
	<i>Pleuropogon sabinei</i>	Sabine-grass
	<i>Poa hartzii</i> ssp. <i>alaskana</i>	
	<i>Poa porsildii</i>	
	<i>Potentilla stipularis</i>	Circumpolar Cinquefoil
	<i>Primula tschuktschorum</i>	Chukchi Primrose
	<i>Puccinellia wrightii</i>	
	<i>Ranunculus chamissonis</i>	
	<i>Ranunculus glacialis</i> var. <i>1</i>	
	<i>Ranunculus turneri</i>	Turner's Butter-cup
	<i>Rumex graminifolius</i>	
	<i>Rumex krausei</i>	Cape Krause Sorrel
	<i>Smelowskia johnsonii</i>	
	<i>Smelowskia pyriformis</i>	
	<i>Trisetum sibiricum</i> ssp. <i>litorale</i>	Siberian False-oats

Acronym List

Acronyms

µg/m³:	micrograms per cubic meter
AAC:	Alaska Administrative Code
ACEC:	Area of Critical Environmental Concern
ADCRA:	Alaska Department of Community and Regional Affairs
ADEC:	Alaska Department of Environmental Conservation
ADF&G:	Alaska Department of Fish and Game
ADLWD:	Alaska Department of Labor and Workforce Development
ADNR:	Alaska Department of Natural Resources
AFB:	Air Force Base
AKEPIC:	Alaska Exotic Plants Information Clearinghouse
ALCAN:	Alaska-Canada Highway
AML:	Abandoned mine land
ANCSA:	Alaska Native Claims Settlement Act
ANILCA:	Alaska National Interest Lands Conservation Act
AO:	Authorized Officer
AS:	Alaska Statute
ATV:	All terrain vehicle
BLM:	Bureau of Land Management
BPIF:	Boreal Partners in Flight
C&T:	Customary and Traditional
CEQ:	Council on Environmental Quality
CFR:	Code of Federal Regulations
CSU:	Conservation System Unit [as defined by ANILCA]
DOI:	U.S. Department of the Interior
EA:	Environmental Assessment
EDRR:	Early Detection and Rapid Response, used in management of non-native invasive species.
EFH:	Essential Fish Habitat

EI:	Eastern Interior
EIS:	Environmental Impact Statement
EO:	Executive Order
EPA:	Environmental Protection Agency
ESA:	Endangered Species Act
FAA:	Federal Aviation Administration
FCH:	Fortymile caribou herd
FLPMA:	Federal Land Policy and Management Act
FRCC:	Fire Regime Condition Class
GSA:	General Services Administration
GVWR:	Gross Vehicle Weight Rating
HUC:	Hydrologic Unit Code
IM:	Instruction Memorandum
LTC:	Long-term camp or Long-term camping
MFP:	Management Framework Plan
mmb:	Million barrels
MOA:	Memorandum of Agreement
NAAQS:	National Ambient Air Quality Standards
NCA:	National Conservation Area
NEPA:	National Environmental Policy Act
NIP:	non-native invasive plant
NIS:	non-native invasive species
NMFS:	National Marine Fisheries Service
NOA:	Notice of Availability
NOAA:	National Oceanic and Atmospheric Administration
NOI:	Notice of Intent
NP:	National Preserve [Yukon-Charley Rivers National Preserve]
NPS:	National Park Service
NRA:	[White Mountains] National Recreation Area

NRCS:	Natural Resources Conservation Service (U.S. Department of Agriculture)
NSO:	No Surface Occupancy
NWR:	National Wildlife Refuge
NWSR:	National Wild and Scenic Rivers System
OHV:	Off-highway Vehicle
ORV:	Off-road Vehicle [old terminology used in chapter 3]
ORV:	Outstandingly remarkable value [pertaining to wild and scenic rivers]
P.L.:	Public Law
PFC:	Proper Functioning Condition
PLO:	Public Land Order
PM2.5:	A measure of fine particles in the air
POL:	Petroleum, oils, and lubricants
R:	Range
R&PP:	Recreation and Public Purposes [Act]
RAC:	Alaska Resource Advisory Council (BLM-Alaska)
RAC:	Federal Subsistence Regional Advisory Council (Federal Subsistence Management Program)
RAMP:	Recreation Activity Management Plan
RAWS:	Remote Automated Weather Stations
RCA:	Riparian Conservation Area
RCT:	Rosgen Channel Type [type of stream channel as defined by Rosgen]
RFD:	Reasonable Foreseeable Development
RMP:	Resource Management Plan
RNA:	Research Natural Area
ROD:	Record of Decision
ROP:	Required Operating Procedure
ROW:	Right-of-way
RY:	Regulatory year
Sec.:	Section

SRMA:	Special Recreation Management Area
SRP:	Special Recreation Permit
T:	Township
T&E:	Threatened and Endangered [species]
TAPs:	Trans-Alaska Pipeline
TAS:	Tanacross Airfield Site
tcf:	Trillion cubic feet
TMP:	Travel Management Plan
UAF:	University of Alaska Fairbanks
Unit:	Game Management Unit
USC:	U.S. Code
USDA:	United States Department of Agriculture
USFWS:	U.S. Fish and Wildlife Service
USGS:	U.S. Geological Survey
UTV:	Utility Terrain Vehicle
VRI:	Visual Resource Inventory
VRM:	Visual Resource Management
WAMCATS:	Washington-Alaska Military Cable and Telegraph System
WMCH:	White Mountains caribou herd
WSR:	Wild and Scenic River [Fortymile WSR]
WSR Act:	Wild and Scenic Rivers Act

Glossary

Glossary

17(d)(1) withdrawal:

A withdrawal made under the authority of section 17(d)(1) of the Alaska Native Claims Settlement Act for study to determine the proper classification of the lands and to determine the public values of the lands which need protection.

Aircraft:

fixed-wing and rotary wing aircraft.

Alaska National Interest Lands Conservation Act (ANILCA):

A law passed in 1980 designating 104 million acres for conservation by establishing or expanding national parks, wildlife refuges, wild and scenic rivers, wilderness areas, forest monuments, conservation areas, recreation areas, and wilderness study areas to preserve them for future generations.

Alaska Native Claims Settlement Act (ANCSA):

A law passed by Congress in 1971 to settle aboriginal land claims in Alaska. Under the settlement the Natives received title to a total of over 44 million acres, to be divided among some 220 Native villages and 12 Regional Corporations established by the act. The corporations shared in a payment of \$962,500,000.

All-Terrain Vehicle (ATV):

A wheeled vehicle other than a snowmobile that is defined as having a curb weight of 1,000 pounds or less, maximum width of 50-inches or less, steered using handlebars, travels on three or more low-pressure tires, and has a seat designed to be straddled by the operator.

anadromous:

Anadromous fish are those which live most of their lives in the sea, but return to fresh water to spawn. Anadromous streams are those which support fish species that migrate between freshwater and marine waters, such as salmon.

anthropogenic:

Effects, processes, objects, or materials are those that are derived from human activities, as opposed to those occurring in natural environments without human influences.

Arctic Circle:

The invisible circle of latitude on the earth's surface at 66°33' north, marking the southern limit of the area where the sun does not rise on the winter solstice, December 21 or set on the summer solstice, June 21.

Area of Critical Environmental Concern (ACEC):

An area within the public lands where special management attention is required to protect important historic, cultural, or scenic values, fish and wildlife or natural systems or processes, or to protect life and safety from natural hazards.

artifact:

An object that was made, used, and/or transported by humans that provides information about human behavior in the past. Examples include pottery, stone tools, and bones with cut marks.

Best Management Practices (BMP):

A suite of techniques that guide, or may be applied to, management actions to aid in the achieving of desired outcomes.

Casual use (recreation):

Noncommercial or nonorganized group or individual activities on public land. Casual use does the following: complies with land use decisions and designations, does not award cash prizes, is not publicly advertised, poses minimal risk for damage to public land or related water resources, and generally requires no monitoring.

cave:

A cave is defined as any naturally occurring void, cavity, recess, or system of interconnected passages occurring beneath the surface of the Earth or within a cliff or ledge large enough to permit an individual to enter, whether or not the entrance is naturally formed or human-made (FCRPA, Sec. 3(1)).

Code of Federal Regulations (CFR):

A codification of the general and permanent rules published in the *Federal Register* by the Executive Departments and agencies of the federal government. The Code is divided into 50 titles which represent broad areas subject to federal regulation. Each volume of the Code is revised at least once each year and issued on a quarterly basis.

commercial recreational use:

Recreational use of public lands and related waters for business or financial gain. When any person, group, or organization makes or attempts to make a profit, receive money, amortize equipment, or obtain goods or services, as compensation from participants in recreational activities occurring on public lands, the use is considered commercial. An activity, service, or use is commercial if anyone collects a fee or receives other compensation that is not strictly a sharing of, or is in excess of, actual expenses incurred for the purpose of the activity, service or use (such as guides, outfitters, and air taxi operators).

Conservation System Unit (CSU):

ANILCA defines CSU as any Alaska unit of National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers Systems, National Trails System, National Wilderness Preservation System, or a National Forest Monument. Within the planning area, CSUs managed by the BLM include Birch Creek, Beaver Creek, and the Fortymile wild and scenic rivers.

Conservation Watershed:

A watershed in which processes and functions occur in a relatively undisturbed and natural landscape setting.

continental-subarctic:

North of the humid continental climate, from about 50 to 70 degrees North, in a broad swath extending from Alaska to Newfoundland in North America and from northern Scandinavia to Siberia in Eurasia, lie the continental subarctic climates. These are regions dominated by the winter season, a long, bitterly cold period with short, clear days, relatively little precipitation (mostly in the form of snow), and low humidity. Mean monthly temperatures are below freezing for six to eight months, with an average frost-free period of only 50-90 days per year, and snow remains on the ground for many months. Summers are short and mild, with long days and a prevalence of frontal precipitation associated with maritime tropical air within

traveling cyclones. Annual precipitation totals are mostly less than 50 centimeters (20 inches), with a concentration in the summer.

conveyed:

Title to land was transferred from one party to another. The United States conveys title to land to Native corporations by patent and interim conveyance (IC) and to the State of Alaska by patent and tentative approval (TA).

curb weight:

The weight of a vehicle with a full tank of fuel and all fluids full, but with no people or cargo loaded. "Curb weight" is synonymous with "wet weight" and "operating weight".

Designated Trail:

A narrow section of developed linear travel way, with an approved designation for traversing by means of human-powered, stock, or off-road vehicle forms of transportation. Travel on designated trails allows a 100 foot wide travel way (50 foot either side of center line of trail). Motor vehicle designations include parking along designated routes and at facilities associated with designated routes when it is safe to do so and when not causing damage to resources. This provision recognizes that from a practical standpoint, one vehicle width from the edge of the route surface may be necessary to park a vehicle, allow another party to pass, perform a repair, to allow dispersed camping off the trail, and to allow enough area to navigate around obstacles until a trail can be repaired.

dispersed recreation:

Recreation activities of an unstructured type which are not confined to specific locations such as recreation sites. Example of these activities may be hunting, fishing, off-road vehicle use, hiking, and sightseeing.

Dry Weight:

The total weight of the vehicle without fluids.

endangered species:

An animal or plant species designated by the U.S. Fish and Wildlife Service to receive federal protection status because the species is in danger of extinction throughout all or a significant portion of its natural range.

environmental impact statement (EIS):

A detailed statement of a given project's environmental consequences, including unavoidable adverse environmental effects, alternatives to the proposed action, the relationship between local short-term uses and long-term productivity, and any irreversible or irretrievable commitment of resources.

environmental justice:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies.

Essential Fish Habitat (EFH):

Essential Fish Habitat means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH is defined by the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265).

Executive Order:

A rule or order issued by the President and having the force of the law.

Federal Land Policy and Management Act (FLPMA):

A law passed in 1976 to establish public land policy, guidelines for its administration, and provide for the management, protection, development, and enhancement of the public lands.

Federal Register:

A daily publication that reports Presidential and federal agency documents.

fire frequency:

The reoccurrence of wildland fire in a given area over time. Also referred to as fire cycle.

fire regime:

A description of the patterns of wildland fire occurrences, frequency, size, severity, and, sometimes, vegetation and fire effects, in a given area or ecosystem. A fire regime is a generalization based on wildland fire histories at individual sites. There are five standard fire regimes:

- Fire Regime I, with a fire frequency of 0-35 years, surface fire to mixed fire type.
- Fire Regime II, with a fire frequency of 0-35 years frequency, stand replacement fire type.
- Fire Regime III, with a fire frequency of 35-100+ years, with a mixed fire type.
- Fire Regime IV, with a fire frequency of 35-100+ years, with a stand replacement fire type.
- Fire Regime V, with a fire frequency of 100+ years, with a stand replacement fire type.

Fire Regime Condition Class (FRCC):

(1) An interagency, standardized tool for determining the degree of departure from reference condition vegetation, fuels, and disturbance regimes. Assessing FRCC can help guide management objectives and set priorities for treatments.

(2) A classification of the amount of departure from the natural fire regime, based on a relative measure describing the degree of departure from the historical natural fire regime. This departure results in changes to one (or more) of the following ecological components: vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and other associated disturbances (e.g., insect and disease mortality, grazing, and drought).

- Condition Class 1: Within the natural (historical) range of variability of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.
- Condition Class 2: Moderate departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.
- Condition Class 3: High departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances.

fire return interval:

The number of years between two successive wildland fire events for a given area.

fire severity:

The degree to which a site has been altered or disrupted by wildland fire; loosely, a product of fire intensity and residence time. In Alaska, fire severity refers to the amount of organic layer removed by a wildland fire event.

Game retrieval:

Retrieval of legally harvested big game animals off of a designated trail is allowed within designated areas (Frontcountry and Middlecountry Zones only) and within the OHV limitations for the area. Individuals must have a punched harvest ticket. Up to 3 ATVs may participate in the retrieval of the legally harvested big game. Retrieval of big game may not exceed one mile from the designated trail. Legally harvested big game must be retrieved within 24 hours.

Gross vehicle weight rating (GVWR):

The total weight of the vehicle plus the maximum loaded carrying capacity of the vehicle as specified by the manufacturer (i.e., $GVWR = \text{weight of vehicle} + \text{fuel} + \text{passengers} + \text{cargo}$, as per manufacturers limitations). Pull-behind trailers are not included in the GVWR calculation for the vehicle.

High Priority Restoration Watershed:

Restoration watersheds that are priority areas for active restoration practices. Management activities in these areas are designed to accelerate the development of self-sustaining, ecologically healthy riparian and aquatic ecosystems.

invasive species:

Organisms that have been introduced into an environment where they did not evolve. Executive Order 13112 focuses on organism whose presence is likely to cause economic harm, environmental harm, or harms to human health. See also noxious weeds.

Karst:

A type of topography resulting from dissolution and collapse of limestone, dolomite, or gypsum beds, characterized by closed depressions or sinkholes, caves, and underground drainages.

land status:

The legal standing of land within BLM boundaries. Land status includes private, military, State, State-selected, Native, Native-selected, and unencumbered public lands.

leasable minerals:

Minerals subject to exploration and development under leases, permits, and licenses under various mineral leasing acts. Leasable minerals include oil, gas, and coal.

lease:

A means of allowing long-term use of public lands without transferring ownership of that land.

locatable minerals:

Minerals subject to appropriation under the mining laws and 43 CFR 3809. Locatable minerals include base metals (e.g., copper, lead, and zinc), noble metals (e.g., silver and gold), nickel, iron, platinum group elements, bentonite, gem and semiprecious gemstones, and nephrite jade. See also leasable minerals.

Loess:

Mixture of silt and very fine sand transported by wind from exposed sediment deposits of braided rivers. A wind deposited silt.

Management Framework Plan (MFP):

A planning decision document prepared before the effective date of the regulations implementing the land use planning provisions of FLPMA. The MFP establishes, for a given area of land, land-use allocations, coordination guidelines for multiple-use, and objectives to be achieved for each class of land use or protection.

Mechanized travel:

Moving by a mechanical device (e.g., bicycle) not powered by a motor.

Memorandum of Understanding (MOU), Memorandum of Agreement (MOA):

A formal, written agreement between organizations or agencies that presents the relationship between the entities for purposes of planning and management.

metalliferous:

Yielding or containing metal. metalliferous minerals include gold, silver, lead, copper, zinc, and nickel.

Motorcycle:

Motorized vehicles with two tires and with a seat designed to be straddled by the operator. A motorcycle is capable of either on- or off-highway use.

Motorized vehicles:

Vehicles that are propelled by motors or engines, such as cars, trucks, off-highway vehicles (OHV), motorcycles, and snowmobiles.

multiple-use:

Management of all the various renewable surface resources so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output. (43 U.S.C. sec. 1702(c)).

National Environmental Policy Act of 1969 (NEPA):

An act mandating an environmental analysis and public disclosure of federal actions.

National Wild and Scenic Rivers System (NWSR):

A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams: 1) recreational—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past, 2) scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible

in places by roads, and 3) wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shore-lines essentially Primitive and waters unpolluted.

Native-selected:

BLM lands that have been selected by a Native corporation under the ANCSA which gave Alaska Natives an entitlement of 44 million acres to be selected from a pool of public lands specifically defined and withdrawn by the Act for that purpose.

no action alternative:

The most likely condition expected to exist if current management practices continue unchanged. The analysis of this alternative is required for federal actions under the National Environmental Policy Act of 1969 (NEPA).

Non-motorized travel:

Moving by foot, stock or pack animal, boat, or mechanized vehicle such as a bicycle.

noxious weed:

A plant species designated by federal or state law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new, or not common to the U.S. See also invasive species.

off-highway vehicle (OHV):

Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: 1) any non-amphibious registered motorboat; 2) any military, fire, emergency, or law enforcement vehicle being used for emergency purposes; 3) any vehicle whose use is expressly authorized by the authorizing officer, or otherwise officially approved; 4) vehicles in official use; and 5) any combat or combat support vehicle when used for national defense (CFR 43 sec. 8340.05(a)). OHVs generally include dirt motorcycles, dune buggies, jeeps, four-wheel drive vehicles, snowmobiles, and ATVs. OHV is synonymous with Off-Road Vehicle (ORV), Utility Type (or Terrain) Vehicle (UTV), and All Terrain Vehicle (ATV). Aircraft are not OHVs.

OHV Area Designations:

Used by federal agencies in the management of OHVs on public lands. Refers to the land use planning decisions that permit, establish conditions, or prohibit OHV activities on specific areas of public lands. All public lands are required to have OHV designations (43 CFR 8342.1). The CFR requires all BLM-managed public lands to be designated as "open," "limited," or "closed to off-road vehicles," and provides guidelines for designation. The definitions of open, limited, and closed are provided in 43 CFR 8340.0-5 (f), (g), and (h), respectively.

- **Closed:** Motorized vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted. Areas are designated closed if closure to all vehicular use is necessary to protect resources, promote visitor safety, or reduce use conflicts.
- **Open:** Motorized vehicle travel is permitted year-long anywhere within an area designated as "open" to OHV use. Open designations are used for intensive OHV use areas where there are no special restrictions or where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel.

- **Limited:** Motorized vehicle travel within specified areas and/or on designated routes, roads, vehicle ways, or trails is subject to restrictions. The “limited” designation is used where OHV use must be restricted to meet specific resource management objectives. Examples of limitations include: number or type of vehicles; time or season of use; permitted or licensed use only; use limited to designated roads and trails; or other limitations if restrictions are necessary to meet resource management objectives, including certain competitive or intensive use areas that have special limitations.

organic layer, organic mat:

Layer on top of the soil consisting of dead and decaying leaves, branches, wood, and other plant parts.

outstandingly remarkable value (ORV):

As defined by the Wild and Scenic Rivers Act of 1968, an “outstandingly remarkable value” is the characteristic of a river segment that is judged to be a rare, unique, or exemplary feature that is significant at a regional or natural scale. Values can be recreational, scenic, geological, historical, cultural, biological, botanical, ecological, heritage, hydrological, paleontological, scientific, or research-related.

Over-Snow Vehicle:

An over-snow vehicle is defined as a motor vehicle that is designed for use over snow that runs on a track or tracks and/or a ski or skis, while in use over snow. An over-snow vehicle does not include machinery used strictly for the grooming of non-motorized trails.

paleontological:

Of or relating to past geological periods. Paleontological resources include fossils of shellfish, swamp forests, dinosaurs, and other prehistoric plants and animals, including both vertebrates and invertebrates, and direct evidence of their presence (tracks, worm burrows, etc).

particulates:

Fine liquid or solid particles such as dust, smoke, mist, fumes or smog, found in the air or emissions. PM2.5 is a measure of fine particles in the air.

permafrost:

Soil, sand, gravel, or bedrock that has remained below 32°F for two or more years. Permafrost features include: frost boils (accumulation of excess water and mud in subsurface materials during spring thaw which may break through the surface), hummock (a mound of broken ice projecting upward, formed by ice deformation), ice wedge (a build up of ice in frozen soil, that is wedge-shaped in cross-section), ice lenses (accumulation of ice in cavities and hollows in the soil), pingos (an arctic mound or conical hill, consisting of an outer layer of soil covering a core of solid ice), polygonal ground (a type of patterned ground in areas of ice wedges), and solifluction lobes (an isolated tongue-shaped feature formed by rapid solifluction (downhill movement of soil) on a slope).

permit:

A means of authorizing use of public lands in an equitable, safe, and enjoyable manner while minimizing adverse impacts and user conflicts. A permit does not transfer ownership of the land, it simply allows the permittee to use the land in a pre-determined fashion for a set amount of time.

personal watercraft:

An inboard engine vessel, usually driven by a jet-pump, that typically carries one to three persons, and is operated by a person sitting by straddling a seat, standing, or kneeling on the boat, rather than in the conventional manner of sitting below the gunwale of the boat.

pollutants:

Any substance introduced into the environment that adversely affects the usefulness of a resource or the health of humans, animals, or ecosystems.

Popcorn:

Small coral-like formations found as a coating on the cave surfaces.

prescribed fire:

A fire purposefully ignited to meet specific objectives. Prior to ignition, a written, approved fire plan must exist and legal requirements must be met.

Primitive Road:

A linear route managed for use by four-wheel drive or high clearance vehicles. Primitive roads do not normally meet any BLM road design standards.

Proper functioning condition (PFC):

Riparian habitats are at PFC when adequate vegetation, land form, or large woody debris is present to: 1) dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality, (2) filter sediment, capture bedload, and aid floodplain development, (3) improve floodwater retention and groundwater discharge, (4) develop root masses that stabilize streambanks against cutting action, (5) develop diverse ponding and channel characteristics to provide the habitat and water depth, duration, and temperature necessary for fish production, and other uses, (6) and support greater biodiversity (BLM 1998)

public land:

FLMPA (43 U.S.C. 1702) defines public land as land or interest in land owned by the U.S. and administered by the Secretary of the Interior through the BLM without regard to how the U.S. acquired ownership, except land located on the Outer Continental Shelf, and land held for the benefit of Native Americans, Aleuts, and Eskimos. ANILCA (43 U.S.C. 1618) defines public lands as land situated in Alaska which, after the date of the enactment of this Act, are federal lands, except a) land selections of the State of Alaska which have been tentatively approved or validly selected under the Statehood act, b) land selections of a Native corporation made under ANCSA which have not been conveyed, unless such selection is determined to be invalid or is relinquished and, c) lands referred to in section 19(b) of ANCSA.

Public Land Order (PLO):

Congressional or secretarial orders defining withdrawals of public lands by statute or secretarial order from operation of some or all of the public land laws.

Public Use:

This category of cultural resource use may be applied to any cultural property in the planning area found to be appropriate for use as an interpretive exhibit or for related educational and recreational uses by the public. This category may also be applied to historic features such as Fort Egbert Historic Site.

R.S. 2477:

A provision originally part of the 1866 Mining Act that states in its entirety, "The right-of-way for the construction of highways over public lands, not reserved for public uses, is hereby granted." In 1873, the provision was separated from the Mining Act and reenacted as Revised Statute (R.S.) 2477. In 1938, it was recodified as 43 U.S.C. Section 932. FLPMA repealed both the 1866 Mining Act and R.S. 2477, but all rights-of-way that existed on the date of the repeal (October 21, 1976) were preserved under 43 U.S.C. Section 1769. The State of Alaska recognizes approximately 650 R.S. 2477 routes throughout the State. The assertion of these routes has not been recognized and current BLM policy is to defer any processing of R.S. 2477 assertions except where there is a demonstrated and compelling need to make a determination.

R&PP lease:

A lease issued by the federal government under the R&PP Act for use of public lands to serve community and recreational purposes on such as parks and cemetery.

record of decision (ROD):

A public document associated with an Environmental Impact Statement (EIS) that identifies all alternatives, provides the final decision, the rationale behind that decision, and commitments to monitoring and mitigation.

recreation activity management plan (RAMP):

An activity level or step-down plan to develop more specific management guidelines for a special recreation management area.

Recreation and Public Purposes (R&PP) Act:

An act authorizing the sale or lease of public lands for recreational or public purposes to State and local governments and to qualified non-profit organizations.

Research Natural Area (RNA):

An area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: 1) a typical representation of a common plant or animal association; 2) an unusual plant or animal association; 3) a threatened or endangered plant or animal species; 4) a typical representation of common geologic, soil, or water features; or 5) outstanding or unusual geologic, soil, or water features. Uses of RNAs are defined in 43 CFR 8223.1.

Restoration Watershed:

A watershed in which biological and physical processes and functions do not reflect natural conditions because of past and long-term human caused land disturbances.

right-of-way (ROW):

The legal right to pass over another owner's land, or the area over which a right-of-way exists.

Riparian Conservation Areas (RCAs):

Conservation Watersheds that contain the highest fisheries and riparian resource values within the planning area. In these watersheds, riparian-dependent resources receive primary emphasis and management activities are subject to specific Required Operating Procedures.

Road:

A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.

Scientific use:

This category of cultural resource use may be applied to any cultural property in the planning area available for consideration as the subject of scientific or historical study at the present time, using currently available research techniques. Study includes methods that may result in the property's physical alteration.

scoping:

The process used to determine, through public involvement, the range of issues that the RMP should address.

Sensitive Species:

Those wildlife, fish, or plant species designated by the BLM-Alaska State Director, usually in cooperation with the State agency responsible for managing the species, as sensitive. They are: 1) species under status review by U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service; 2) species whose numbers are declining so rapidly that federal listing may be necessary; 3) species with typically small and widely dispersed populations; or 4) species inhabiting ecological refugia or other specialized or unique habitats.

seral:

Relating to ecological communities where all successional stages of biotic development are represented.

snowmachine, snowmobile:

A motorized vehicle that is designed for use over snow that runs on a track or tracks and uses a ski or skis for steering, has a curb weight of 1,000 pounds or less, maximum width of 50-inches or less, steered using handlebars, and has a seat designed to be straddled by the operator. A snowmobile does not include machinery used strictly for the grooming of non-motorized trails.

Special Recreation Management Area (SRMA):

Areas where the management emphasis is on recreation, though other resource uses and development are allowed.

special recreation permit:

A means of authorizing recreational uses of public lands and waters. Special recreation permits are issued for specific recreational uses as a means to manage visitor use, protect natural and cultural resources, and provide a mechanism to accommodate commercial recreational uses. There are four types of permits: commercial, competitive, organized groups/events, and individuals or groups in special areas.

Special Status Species:

Special Status Species include the following: endangered species, threatened species, proposed species, candidate species, state-listed species, and BLM-Alaska sensitive species.

State-selected:

Formerly unappropriated and unreserved public lands that were selected by the State of Alaska as part of the Alaska Statehood Act of 1958 and Alaska National Interest Lands Conservation Act (ANILCA) of 1980. Until conveyance, State-selected lands outside of National Park system lands or National Wildlife refuges will be managed by the BLM. ANILCA allowed for overselection by the State by up to 25 percent of the entitlement (sec. 906 (f)). Therefore, some State-selected lands will eventually be retained in long-term federal management.

subsistence/subsistence use:

Relying on fish, wildlife and other wild resources for food, shelter, clothing, transportation, handicrafts, and trade. An Alaskan resident living in a rural area may participate in federal subsistence harvest on certain unencumbered BLM lands.

succession:

The replacement in time of one plant community with another. The prior plant community (or successional stage) creates conditions that are favorable for the establishment of the next community.

sustained yield:

The achievement and maintenance in perpetuity of a high-level annual or regular output of the various renewable resources of the national forests without impairment of the productivity of the land. (43 U.S.C. sec. 1702(h)).

thermokarst:

Ground subsidence due to the thawing of permafrost.

threatened species:

A designation by the U.S. Fish and Wildlife Service when a plant or animal is likely to become endangered throughout all or a specific portion of its range within the foreseeable future.

Traditional use:

This category of cultural resource use may be applied to any cultural property in the planning area known to be perceived by Alaska Natives as important in maintaining their cultural identity, heritage, or well being (such as Joseph Village and Cemetery).

Trail:

Linear routes managed for human-powered, stock, or off-road vehicle forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

Travel Management Area (TMA):

Polygons or delineated areas where travel management (either motorized or non-motorized) needs particular focus. These areas may be designated as open, closed, or limited to motorized use and will typically have an identified or designated network of roads, trails, ways, and other routes that provide for public access and travel across the area. All designated travel routes within TMAs should have a clearly identified need and purpose, and clearly defined activity types, modes of travel, and seasons or times for allowable access or other limitations.

Travel Management Plan (TMP):

The document that describes the decisions related to the selection and management of the Transportation Network. This document can be an appendix to a Resource Management Plan (RMP), incorporated in activity implementation plan (such as a Recreation Implementation Plan), or a stand alone document after development of the RMP.

unencumbered/unencumbered BLM lands:

Public lands that have not been selected by the State of Alaska or Native organizations. These lands will be retained in long-term federal management.

Utility Type (or Terrain) Vehicle (UTV):

Any recreational motor vehicle other than an all-terrain vehicle, motorcycle, or snowmobile designed for and capable of travel over unpaved roads, traveling on four or more low-pressure tires, a curb weight of 1,500 pounds or less, and maximum width is 64 inches or less. Utility type vehicles do not include vehicles specially designed to carry a person with disabilities.

Visual Resource Management (VRM):

A means of managing visual resources by designating areas as one of four classes: Class I— maintaining a landscape setting that appears unaltered by humans; Class II— designing proposed alterations so as to retain the existing character of the landscape; Class III— designing proposed alterations so as to partially retain the existing character of the landscape; and, Class IV— providing for management activities which require major modifications of the existing character of the landscape.

Wild and Scenic River, Wild River:

A river that is part of the National Wild and Scenic River System. In Alaska, most Wild and Scenic Rivers (WSR) were designated through the ANILCA. There are three of these rivers in the planning area: Beaver Creek, Birch Creek, and Fortymile River. See also National Wild and Scenic Rivers System.

wilderness characteristics:

These attributes include the area's size, its apparent naturalness, and outstanding opportunities for solitude or a Primitive and unconfined type of recreation. They may also include supplemental values.

wildfire:

An unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put out the fire.

wildland fire:

Any nonstructural fire, other than prescribed fire, that occurs in an area under the fire management jurisdiction of a land management agency. This term encompasses fires previously called "wildfires."

withdrawal:

Federal land set aside and dedicated to a present, governmental use; public land set aside for some other public purpose, e.g., pending a determination of how the land is to be used; an action approved by the Secretary or a law enacted by Congress that closes land to specific uses under the public land laws (usually sale, settlement, location, and entry), or limits use to maintain public values or reserves area for particular public use or program, or that transfers jurisdiction of an area to another federal agency. Usually enacted through a public land order or legislation.

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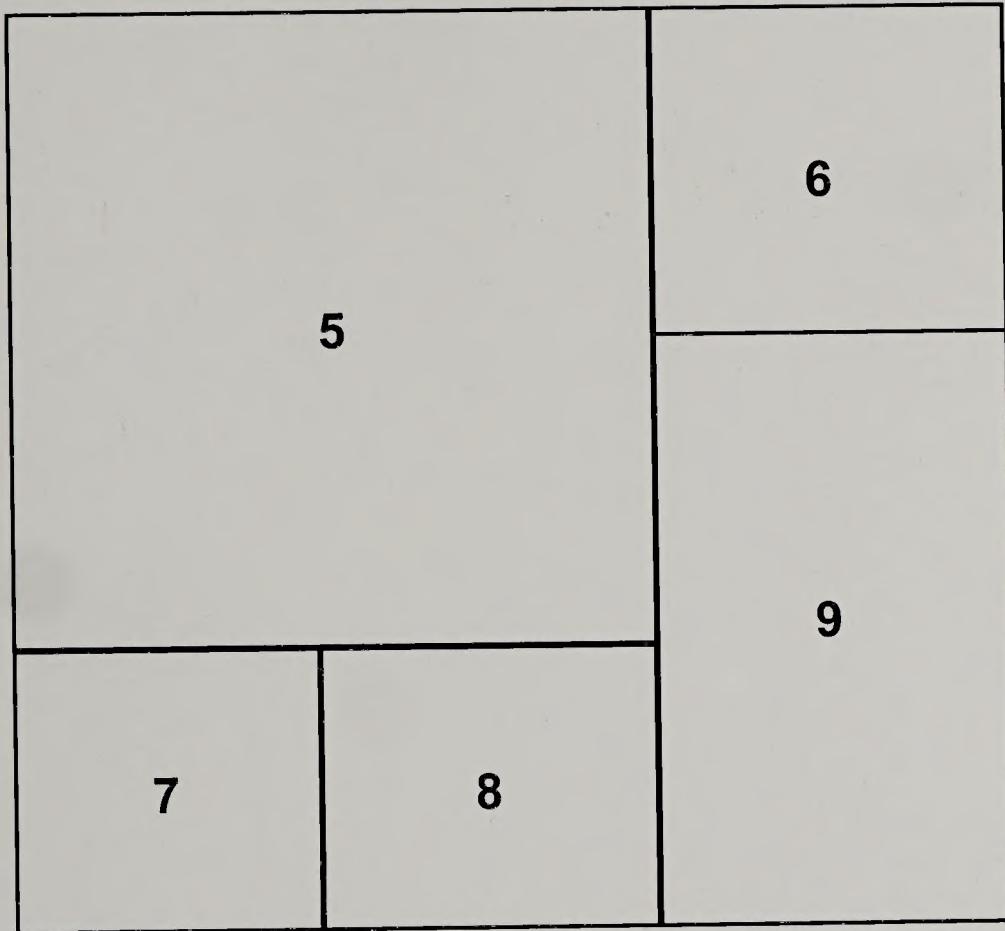
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5. Two caribou bulls running, Steese National Conservation Area, Alaska.
6. Checking a set net near the village of Fort Yukon, Alaska. Photo by Alaska Dept. of Fish & Game.
7. Arctic Grayling fish assessment, Preacher Creek, Alaska
8. OHV rider on the Quartz Creek Trail, White Mountains National Recreation Area, Alaska.
9. Sled dogs at Caribou Bluff Cabin, White Mountains National Recreation Area, Alaska.

